

# HOOSIER SURVEYOR

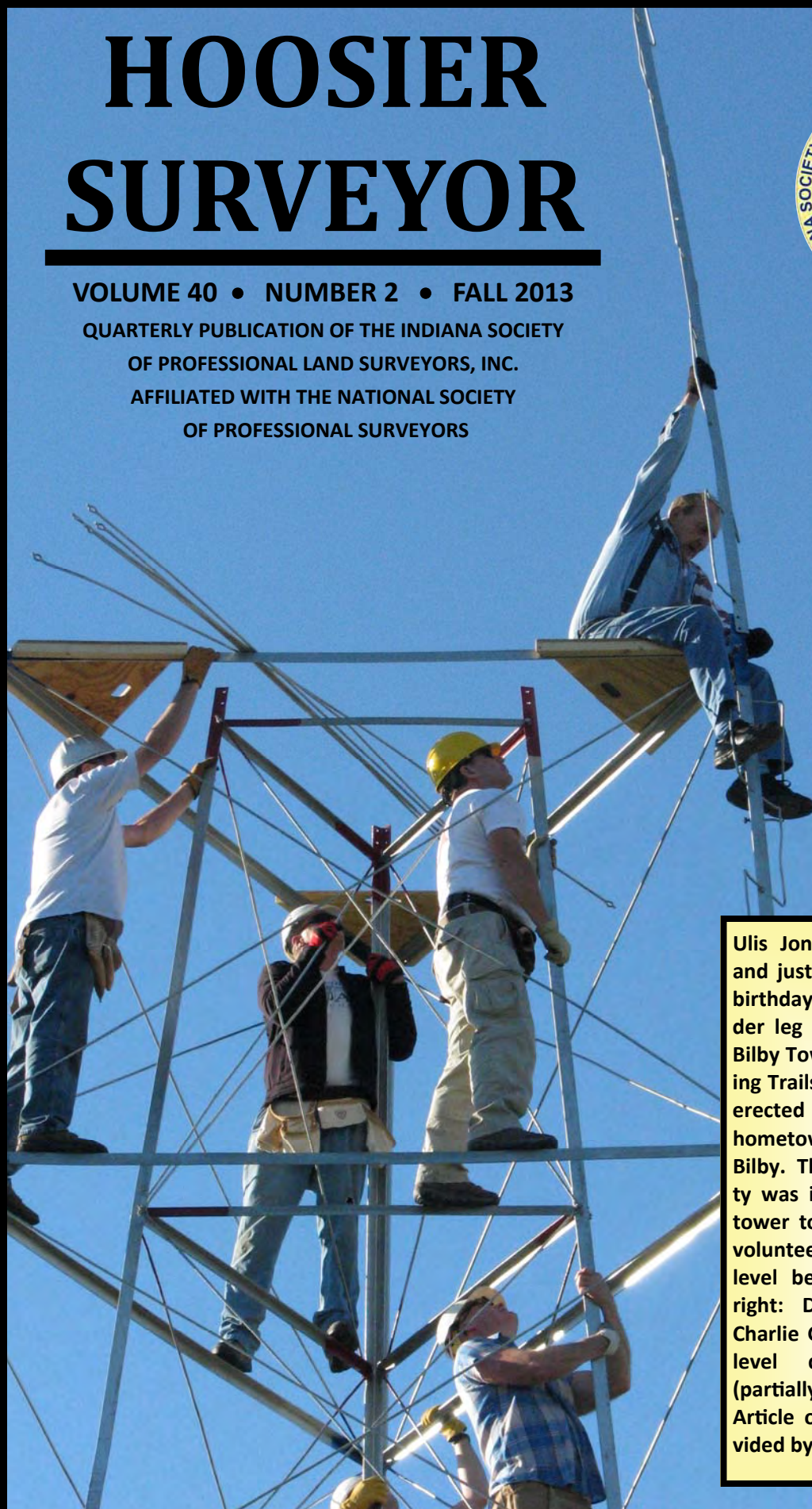
VOLUME 40 • NUMBER 2 • FALL 2013

QUARTERLY PUBLICATION OF THE INDIANA SOCIETY

OF PROFESSIONAL LAND SURVEYORS, INC.

AFFILIATED WITH THE NATIONAL SOCIETY

OF PROFESSIONAL SURVEYORS



Ulis Jones, of Santa Claus, Indiana and just a few days before his 89th birthday, erects a section of the ladder leg of the outer tower on the Bilby Tower erected in Osgood Walking Trails Park. This Bilby Tower was erected in Osgood, Indiana, hometown of its inventor, Jasper S. Bilby. The Surveyors Historical Society was instrumental in bringing the tower to Ripley County. Additional volunteers in the photo are: One level below Ulis and from left to right: Dennis Hoar, Russ Arnold, Charlie Geoghegan; and on the next level down: Kevin Geoghegan (partially shown) and Joe Lindsay. Article on pages 32-34. Photo provided by Edna Geoghegan.

## 2013 OFFICERS & DIRECTORS

**Chuck Coyle - President**  
Columbus, IN  
Office: 812-372-8441  
E-Mail: [ccoyle@forceco.com](mailto:ccoyle@forceco.com)

**Bernie Guerrettaz - Vice President**  
Bloomington, IN  
Office: 812-336-8277  
E-Mail: [bernie@brgcivil.com](mailto:bernie@brgcivil.com)

**Rich Hudson - Secretary**  
Valparaiso, IN  
Office: 219-462-1158  
E-Mail: [rickandcal@comcast.net](mailto:rickandcal@comcast.net)

**Dennis Grumpp - Treasurer**  
New Palestine, IN  
Office: 317-826-7100  
E-Mail: [dgrumpp@schneidercorp.com](mailto:dgrumpp@schneidercorp.com)

**Don West - President-Elect**  
Carmel, IN  
Office: 317-522-2485  
E-Mail: [dwest@usiconsultants.com](mailto:dwest@usiconsultants.com)

**Gary Kent - Past-President**  
Noblesville, IN  
Office: 317-826-7100  
E-Mail: [gkent@scheidercorp.com](mailto:gkent@scheidercorp.com)

### TERM EXPIRES JAN 2014

**Eric Banschbach**  
Indianapolis IN  
Office: 317-610-7251  
E-mail: [ebanschbach@indot.in.gov](mailto:ebanschbach@indot.in.gov)

**Perry Cloyd**  
Hope, IN  
Cell: 812-350-6456  
E-Mail: [pcloyd@vectren.com](mailto:pcloyd@vectren.com)

**Gary Kent - President**

**Kevin Rowland**  
Vincennes, IN  
Office: 812-886-4254  
E-Mail: [krowland@srasurveying.com](mailto:krowland@srasurveying.com)

### TERM EXPIRES JAN 2015

**Chuck Coyle - President**

**Bernie Guerrettaz - Vice President**

**Ron Wharry**  
Frankfort, IN  
Office: 765-654-5910  
E-Mail: [rewharry@yahoo.com](mailto:rewharry@yahoo.com)

**Don Williams**  
Crown Point, IN  
Office: 219-764-4700  
E-Mail: [drwilliams@dlz.com](mailto:drwilliams@dlz.com)

### TERM EXPIRES JAN 2016

**Dennis Grumpp - Treasurer**

**Rich Hudson - Secretary**

**Sean L. Suttles**  
Chandler, IN  
Office: 812-479-6200  
E-Mail: [SSuttles@blainc.com](mailto:SSuttles@blainc.com)

**Don West - President-Elect**

## COMMITTEE ASSIGNMENTS

### PROF. DEVELOPMENT

Administrator:  
Chuck Coyle, Jr.

### EDUCATION

Chair: Brad Cramer  
Robert Jason Coyle  
Carol Morman  
Bruce A. Franke  
Keith B. Van Wiene  
Randolph L. Compton  
Loralee A. Taylor  
Keith N. Hood  
Perry D. Cloyd  
William M. Stine  
William L. Clark  
Doug Herendeen  
Bryan F. Catlin  
Norman H. Hiselman  
Charles D. Graham  
Christopher Michael Siebern  
Robert Weaver  
Joseph Peters  
Aaron T. Fateley  
Clem Kuns  
James Francisco  
Keith Hood  
Chuck Coyle, Jr.  
Matthew Badger

### SCHOLARSHIPS

Chair: Kevin Rowland  
Mark A. Schepers  
Paul Lee Bender  
Edward L. Clancy  
Brian K. Rayl  
Luke A. Jahn  
Jason D. Deckard  
Phillip L. Burrress  
Frank F. Ballintyn  
Jason Main  
James Michael Cozart  
Bernard A Guerrettaz  
Robert Jason Coyle  
Chuck Coyle, Jr.

### GOVERNMENT AFFAIRS

Administrator:  
Dan Kovert

### BOARD OF REGISTRATION LIAISON

Robert Jason Coyle

### COUNTY SURVEYORS

Michael Stevenson - Liaison

### GOVERNOR GREAT LAKES COUNCIL

Don Bengel - Governor  
Tony Gregory - Alternate

### GPS-GIS MONUMENTATION

Chair: Ryan Swingley  
Perry D. Cloyd  
David Lauer  
Kevin D. Breitzke  
Keith B. Van Wiene  
Wayne Sheets  
Boudewijn H.W. Van Gelder  
Dan I. Pusey  
William M. Stine  
Skyler Alan Potts  
Paul K. Maurer  
Zachariah E. Beasley  
Robert Marucci  
Joe Mullins

### LEGISLATION

Chair: Dan Kovert  
Robert Jason Coyle  
Philip D. Beer, II  
Dave Gaston  
Kevin D. Breitzke  
Jay D. Poe  
Frank Ballintyn  
Michael P. Duffy, Jr.  
Wayne Sheets  
Bruce A. Franke  
Michael W. Stevenson  
David N. Ayala  
Robert Marucci  
Allan Frisinger  
Lawrence D. Deckard  
Brian Nelson  
Clem Kuns  
Rodney Kelly  
Aaron T. Fateley  
Richard Durham

### INTERNAL AFFAIRS

Administrator:  
Gary Kent

### BY LAWS

Chair: Don Bengel  
Richard L. Hudson  
Robert W. Gross  
Ronald E. Wharry  
William M. Stine  
Edward J. Sweetland  
Chuck Coyle, Jr.  
James R Francisco  
Clem Kuns  
Robert Jason Coyle  
Aaron T. Fateley  
Jason Main

### FINANCE & PLANNING

Dennis Grumpp - Chair  
Chuck Coyle, Jr.  
Gary Kent  
Don West  
Robert Jason Coyle

### NOMINATIONS

Mark Gardner - Chair  
Don Bengel  
Robert Gross  
Dan Pusey  
Brent Smith  
Kevin Sumner

### PAST PRESIDENT'S COUNCIL

Chair: Chuck Coyle, Jr.  
Open to Past Presidents

### YOUNG PROFESSIONALS

Chair: Zach Beasley  
Ryan Swingley  
Dan Blann  
Jonathan Isaacs  
Clem Kuns  
Harold Hart  
Ross Frank  
Kevin Sumner  
Matt Badger  
Matt Healy  
Nathan Gray  
Derek Fuller  
Calvin Cash  
Clayton T. Baylor  
Daniel S. Blann  
Aaron Carl  
Bernard Guerrettaz  
Matthew Healy  
Scott Hubert  
Luke Jahn  
Rodney Kelly  
Jason Main  
Christopher Siebern  
Rudy Vugteveen  
Donald Williams

### COMMUNICATIONS

Administrator:  
Don West

### PUBLICATIONS & MEDIA

Chair: Michael J. Davis  
Robert Jason Coyle  
Kevin Sumner  
Charles D. Graham  
Aaron Fateley  
Clem Kuns  
James Campbell

### MEMBERSHIP

Chair: Ronald Wharry  
Richard P. McPhail  
Joseph Hess  
Matthew Badger  
Andrew Robert Barkocy  
Jeffrey S. Barnes  
Josh O. Betz  
James A Butcher  
Alexander A Fabian  
Aaron T. Fateley  
Gary Fox  
James Francisco  
Jason Fuchs  
Robert Hathaway  
Joe Hess

### PUBLIC INFORMATION & MARKETING

Chair: Don West  
Mark A. Schepers  
Richard L. Hudson  
Robert Jason Coyle  
Norman H. Hiselman  
Orwic A. Johnson  
Nathan Althouse  
Chad Brown  
Rodney Kelly

### TRIG STAR

Tony Gregory - State Coordinator  
Keith VanWienen  
Eric N Banschbach  
Bernard A Guerrettaz  
Clem Kuns  
Jason Main  
Rudy Vugteveen



L to R: Sean Suttles, Chandler; Eric Banschbach, Indianapolis; Don Williams, Crown Point; Bernie Guerrettaz, Bloomington; Gary Kent, Noblesville; Rich Hudson, Valparaiso; Ryan Swingley, Fortville; Don West, Carmel; Perry Cloyd, Hope; Chuck Coyle, Columbus; Kevin Rowland, Carlisle; and Dennis Grumpp, New Palestine.

Photo provided by Henry Aldridge, Photographic Impressions



# HOOSIER SURVEYOR

VOLUME 40 • NUMBER 2 • FALL 2013

## CONTENTS

<i>Masthead</i> .....	3
<i>President's Message</i> .....	4-5
<i>Sustaining Members</i> .....	5
<i>ISPLS Board of Directors Meeting Highlights</i> .....	6-9
<i>Board of Registration for Land Surveyors Meeting Highlights</i> .....	10-12
<i>IPLS Foundation, Inc. - 2nd Annual Fundraising Raffle Announcement</i> .....	13
<i>ISPLS - NSPS Governor / Director Report</i> .....	14-15
<i>An Update: The Professional Surveyor and Indiana Dig Law</i> .....	16-18
<i>61st Annual ISPLS Convention Registration Packet</i> .....	19-30
<i>Webelos Activity Badge Day</i> .....	31
<i>Bilby Tower takes its place in Osgood Park</i> .....	32-33
<i>Bilby Towers were welcome sights to Ullis Jones</i> .....	34
<i>The Southwest Chapter's Calibration Base Line</i> .....	36-37
<i>Legal Surveys</i> .....	38-40
<i>Completed Career</i> .....	40
<i>Firm Members</i> .....	41-44

## 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.



**Michael J Davis - Editor**

4310 Broadway Street  
Indianapolis, IN 46205  
Phone: (317) 283-4630

E-Mail: [mijdavis@iupui.edu](mailto:mijdavis@iupui.edu)

### **Editorial Advertising Offices**

8325 S. Emerson Avenue, Suite B-2  
Indianapolis, IN 46237  
Phone: (317) 888-4400  
Fax: (317) 888-4412  
Web Page: [www.ispls.org](http://www.ispls.org)

# PRESIDENT'S MESSAGE

Charles M. "Chuck" Coyle, PS, 2013 ISPLS President

Greetings ISPLS Members,



Hard to believe, but ISPLS is quickly approaching the end of another calendar year. Next month at our Annual Convention I will hand the reins of our Society over to President-Elect Don West, and I do so with excitement, as I know that Don will do a great job as President next year. As such, this will be my last message as President in the Hoosier Surveyor. Just the thought of that causes me to reflect on the challenges and adventures that I have experienced as I have held this position for two of the past three years. Thank you for allowing me the privilege to serve the state society that represents our great profession!

Since my last update the Board of Directors have met 3 times: On September 7th, the Board convened at Vincennes University as a part of our Annual V.U. Review. For those of you that may be unaware, the ISPLS BOD has entered into a formal agreement with the Vincennes University Surveying Department to annually review the current program, discuss its status, and to make suggestions that may seem appropriate based on current and foreseen trends in the "real world" of the Surveying Profession.

The BOD has enjoyed the relationship that has been built, and it's always nice to visit the facility and see the new equipment that these students are able to train on. Many employers have testified to the abilities of these students to be able to come right out of school and be prepared to enter in to the business place. On October 12th, and again on December 7th the ISPLS Board of Directors met at the office in Indianapolis.

This year it seems that our main concentration has been with the legislative areas: According to our Lobbyist, Mike O'Brien, our retry at the Statute of Repose is tracking right where it needs to be at this time. We should expect to see a draft of the bill in the very near future. The Indiana811 and the "Dig" law is drawing quite a bit of attention. Our Executive Director, Jason Coyle, and Director, Perry Cloyd, have been tracking these efforts. While Land Surveyors have our issues with the current law, contractors have their own issues, and then of course the utilities are each trying to protect their own interests. We will be sure to keep you well informed on the events of this legislation.

**West Central Chapter News:** In my last update I reported on the efforts of the ISPLS BOD and several ISPLS members from the west-central Indiana area to form a new chapter. There were a couple of meeting in Terre Haute that seemed to offer some hope, but the last called organizational meeting in early December fell short of the number of participants to move the start of this new chapter along in this calendar year. We will tighten our boot straps and do some additional networking over the winter months, and try another launch in the spring.

**CST Program:** The launch of the CST Program offering through ISPLS got off to a good start. We had two individuals that prepared and took the tests at the ISPLS, and we have learned that both individuals passed. I look forward to seeing other technicians taking part, becoming certified, and further adding to the quality of Survey Technicians in Indiana. Watch for details of upcoming tests or call Jason Coyle to get further information on a testing schedule.

**President Elect, 2014:** ISPLS recently sent out ballots to our membership for the office of President Elect for 2014. We had three candidates this year: Ronald Wharry, Richard Hudson, and Bernie Guerrettaz. Two of these have held the office of ISPLS President in prior years... I'm please to report here that the "new guy", Bernie Guerrettaz will be our President Elect for 2014, and President in 2015. Congratulations, Bernie!

**Board of Directors, 2014:** Ballots have gone out for the three (3) seats opening up for the Directors positions. We've had a good mix of veterans and new members willing to strive for a place at the table. Our candidates include: Eric Banschbach, Todd Bauer, Bryan Catlin, Perry Cloyd, Alex Fabian, and Keith Van Wiene. Please take the time to place your votes and choices for the individuals that you believe can help to move our Society along.

**Convention Planning:** With the convention just around the corner most of the major planning items have been completed... now for bringing it all together. The IPLS Foundation will again host a raffle to help raise funds to support scholarships and other projects that help to encourage those desiring to be a part of our profession, or to help strengthen some aspect for our profession... and again the prizes are all good! The programing is arguably one of the best that ISPLS has ever had. Great subject matter, and

*(Continued on page 5)*

(Continued from page 4)

speakers that are not only knowledgeable of their topic, but also able to hold your attention. This year's speakers include the ever popular Jeff Lucas, PS, Esq.; our very own Gary Kent, PS, and Tony Gregory, PS. And this year we will be introducing Kris Kline, PS, to the ISPLS membership. I met Kris at the Ohio Conference last year... Kris wanted to come to Indiana, so here he is! You may have read some of Kris' articles in POB. Kris will also be the featured speaker during the lunch period on Friday.

As I close this note, I can again only reflect on some of the activities and business that I have been allowed to have been a part of over the past few years. As each of us strive through life I hope that all of you seek to leave things just a little better than you found them... I think we call that progress. That said, I hope that I have helped to steer both ISPLS and the Foundation to newer and greater heights, but I'm sure I've left plenty of room for those that will follow to push us even further.

Thank you for your support... It's been an honor to serve you!  
See you at the convention!

# 40 YEARS & COUNTING

SERVING YOU FOR



**Building relationships  
one monument at a time.**

**Berntsen**  
MARKING THE INFRASTRUCTURE OF THE WORLD  
1.877.265.2290 • WWW.BERNTSEN.COM

## ISPLS SUSTAINING MEMBERS

### **Berntsen International, Inc.**

P O Box 8670  
Madison, WI 53708-8670  
Ph: 608-249-8549  
<http://www.berntsen.com/>

### **Harrison Marker**

P O Box 66  
Anoka, MN 55303  
Ph: 763-421-1445  
<http://www.harrisonmarker.com/>

### **Seiler Instrument**

5454 Harrison Park Lane  
Indianapolis, IN 46216  
Ph: 800-533-2280  
<http://www.seilerinst.com/>

### **Trimble**

10368 Westmoor Dr.,  
Westminster, CO 80021  
Ph: 720-587-4487  
<http://www.trimble.com/>

### **Turning Point Systems Group**

6480 N. Industrial Road  
Milwaukee, WI 53223  
Ph.: 414-353-8774  
<http://www.turningpointssystemsgroup.com/>

# ISPLS BOARD OF DIRECTORS MEETING HIGHLIGHTS

by Robert "Jason" Coyle, PS, ISPLS Executive Director

## July 27, 2013

The ISPLS Board of Directors met on Saturday, July 27, 2013 at ISPLS Headquarters, Indianapolis, Indiana. President Chuck Coyle called the meeting to order at 9:00 am EDT. All board members were in attendance with the exception of Don Williams and Kevin Rowland. Others in attendance were Jason Coyle, Executive Director of ISPLS; Don Bengel, NSPS Governor and Director; Doug Herendeen, ISPLS Convention Coordinator; and Dave Croft, ISPLS Member.

President Coyle briefly reviewed the ISPLS Mission and Vision Statement and noted the "Rules of Order" for the meeting. There were no amendments to the agenda. A motion was made by Eric Banschbach seconded by Bernie Guerrettaz to accept the agenda as presented. The motion passed by a voice vote.

The minutes from the June 15, 2013 meeting were reviewed and accepted. A motion was made by Gary Kent and seconded by Don West to accept the Board of Directors' meeting minutes as presented. The motion passed by a voice vote.

The Treasurer's Reports were reviewed and narrated by Dennis Grumpp. Financial reports ending June 30, 2013 were presented for board review. Assets totaled \$219,339.35 as of June 30, 2013. Dennis also covered the income and expense report, investment report, budget, and the profit and loss report. It was noted there is an approximately \$8,662.47 shortfall at the end of the 2012/2013 budget period. This was due primarily to an unanticipated convention expense charged by the hotel under the contract. A motion to accept the Financial Reports was made by Gary Kent and seconded by Ron Wharry. The motion passed by a voice vote.

The Board heard and reviewed the Executive Director's report. Executive Director Coyle presented a written report and discussed highlights with the board. He discussed membership renewals; Affiniscape, which was sold to YourMembership.com; and the ISPLS Legislative Agenda. The report continued with a 2014 Convention status and seminar review. He also encouraged a Fall seminar to be held in northern Indiana. He report on the progress of the Chapters becoming incorporated. 10 of 10 Chapters have signed the Articles of Incorporation and were officially incorporated on Thursday, May 16, 2013 with Indiana Secretary of State. Model By-Laws have been sent to all chapters and 4-5 chapter have signed them. The Group Exemption Letter will follow once all the Chapters have signed the By-Laws. A letter needs to be sent to the Chapters clarifying appropriate income and expenses. Indiana811 and the Dig Law: there was Board discussion led by Jason Coyle and Perry Cloyd. There are concerns about filing a complaint vs. working with the utilities. Jason will set up a meeting with Paul Fallon and will put out a communication encouraging surveyors to call in for utility locates. The Hoosier Surveyor Summer Issue is being worked on and will go out by mid-August. After meeting with the CST board, ISPLS was approved be an exam site with a September 25th test date.

Doug Herendeen, ISPLS Convention Coordinator, gave a report concerning the speakers and programs for the 2014 Convention. There was Board discussion.

ISPLS Committee reports: Executive Director Coyle gave a verbal report concerning the Publication and Media Committee. The committee is working to complete the Summer 2013 Edition. Membership Committee: Ron Wharry, Committee Chair, made a motion to accept Michael Judt as a new Associate Member, which was seconded by Don West. The motion passed by a voice vote. Ron Wharry also made a motion that was seconded by Gary Kent to approve a Life Membership for Alan Hanft. The motion passed by a voice vote. There was discussion on the Life Membership request for William Stodghill. The request was made by the Initial Point Chapter of ISPLS. A motion was made by Gary Kent and seconded by Perry Cloyd to accept William Stodghill as an Honorary Member of ISPLS. The motion passed by a voice vote. Trig-Star Committee: Jason gave a report on the National winners. Michael Flowers (an Indiana participant) received a \$2,500 National Trig-Star Scholarship. Don West, Chair of the Public Information and Marketing Committee, gave an update on upcoming Riley Kids Telethons. "Honor Flight" was discussed as a possible event to look at in the future.

The Board of Registration Liaison, Jason Coyle, reported that last the meeting was Friday, July 19th. Jason reported on the hearings at the meeting. The next meeting is Friday, October 11th. NSPS Governor and Director, Don Bengel, presented a verbal report noting that 27 States have signed a Memorandum of Understanding with NSPS. Eric Banschbach reported on the Geodetic Control Workgroup. He reported there was slow progress because of the end of the fiscal year. Recon is done for Seymour and Vincennes

*(Continued on page 7)*

*(Continued from page 6)*

districts. Consultant will be working on Fort Wayne and LaPorte districts. The budget for 2014 is \$175,000.

There was no formal report from the education committee, but the Hoosier Hills Chapter is hosting Wendy Lathrop for a one-day seminar at Spring Mill State Park. The committee had approved the course.

Rich Hudson, By-Laws Committee Chair, noted that electronic voting and the definition of "In Good Standing" will be reviewed by the committee. Finance and Planning Committee: Dennis Grumpp discussed the Society's insurance. A motion was made by Dennis Grumpp and seconded by Ron Wharry to accept the insurance policy through Walker Insurance for the amount of \$1,001 for 2013/2014. The motion passed by a voice vote.

Eric Banschbach with the IPLS Foundation presented a written report and gave a brief overview. The "Spending Plan" presented was discussed. It was recommended that Executive Director Coyle continue to keep track of the time he spends on Foundation items.

Those directors and members in attendance gave verbal reports concern their chapters. Executive Director Coyle and Kevin Rowland will work to get a chapter started. There is an organizational meeting August 22nd in Terre Haute.

Unfinished Business: A formal employee review/evaluation was conducted and led by Gary Kent. A sample evaluation form was handed out. There was open and frank conversation between all present. It was agreed that a formal evaluation form will be created for future use by the Board for the yearly review of the Executive Director. A motion was made by Gary Kent and seconded by Perry Cloyd to renew the contract agreement with Jason Coyle as the ISPLS Executive Director. The motion passed by a voice vote. A motion was made by Gary Kent and seconded by Dennis Grumpp to increase the benefits for Jason Coyle in accordance was what was already set out in the 2013/2014 Budget effective August 1st. The motion passed by a voice vote. There was one "no" vote by Bernie Guerrettaz and one abstention by Perry Cloyd.

New Business: The next ISPLS Board Meeting will be held at Vincennes University on September 7th. The Board discussed the creation of an ad-hoc Facilities Advisory Committee to evaluate the ISPLS facilities. There was a discussion concerning the non-payment of Chapter dues by a Professional Member. President Chuck Coyle will respond to this member.

Next ISPLS Board meeting will be September 7, 2013 at 10:00 am EDT at Vincennes University. The meeting adjourned at 2:36pm EDT.

## **September 7, 2013**

The ISPLS Board of Directors met on Saturday, September 7, 2013 at Vincennes University, Vincennes, Indiana. President Chuck Coyle called the meeting to order at 10:12 am EDT. All board members were in attendance with the exception of Eric Banschbach, Ron Wharry, Don Williams and Sean Suttles. Others in attendance were Jason Coyle, Executive Director of ISPLS; Don Bengel, NSPS Governor and Director; Bill Clark and Austin Yake.

President Coyle briefly reviewed the ISPLS Mission and Vision Statement and noted the "Rules of Order" for the meeting. There were a few adjustments to the agenda. A motion was made by Gary Kent and seconded by Dennis Grumpp to accept the agenda as presented. The motion passed by a voice vote.

The minutes from the July 27, 2013 meeting were reviewed and accepted. A motion was made by Don West and seconded by Bernie Guerrettaz to accept the Board of Directors' meeting minutes as amended. The motion passed by a voice vote.

The Treasurer's Reports were reviewed and narrated by Dennis Grumpp. Financial reports ending July 31, 2013 were presented for board review. Assets totaled \$289,422.76 as of July 31, 2013. Dennis Grumpp also covered the income and expense report, investment report, budget, and the profit and loss report. Jason Coyle also made comments on individual budget items. He also noted that a payment was sent to NSPS to cover 348 ISPLS members. A motion to accept the Financial Reports was made by Gary Kent and seconded by Kevin Rowland. The motion passed by voice vote. Dennis Grumpp presented an agreement with CapinCrouse, LLP now Ensign Group for accounting services. There was board discussion. A motion was made by Dennis Grumpp and seconded by

*(Continued on page 9)*



# NOW YOU CAN HAVE A PERFECT POINT OF VIEW FROM ANYWHERE



## Trimble VISION

Trimble VISION™ is designed to make surveying more efficient wherever the job takes you. Our portfolio of solutions provides you with the ideal tool kit to get your job done right the first time.

Choose Your Vision at:  
[www.trimble.com/trimblevision](http://www.trimble.com/trimblevision)



© 2012, Trimble Navigation Limited. All rights reserved. Trimble and the Globe & Triangle logo is a trademark of Trimble Navigation Limited, registered in the United States and in other countries. All other trademarks are the property of their respective owners.

**FOR MORE  
INFORMATION CALL  
YOUR TRIMBLE DEALER**

**Seiler Instruments**  
Indianapolis, IN  
317-849-7090



(Continued from page 7)

Perry Cloyd to sign the letter of engagement for accounting services with Ensign Group for the year for the estimated amount of \$8,110. The motion passed by a voice vote.

The Board heard and reviewed the Executive Director's report. Executive Director Coyle presented a written report and discussed highlights with the board. He discussed membership renewals. He stated that the third and final notice was sent out at the second week of August. He reported that the transition from Affiniscape to YourMembership.com would not happen until after the convention. Legislative Agenda items: Statute of Repose HB 1058, proposed language was revised and sent to Mike O'Brien after a committee meeting with Representative McMillin and Representative Ober. HB 1253, Underground Utility Facility Protection, was discussed and it was suggested there be a meeting with NUCA, the supporters of the bill. The Hoosier Hills Seminar was held yesterday with 44 paid attendees. The FS and PS Seminar Review scheduled for Saturday September 21st and 28th. The ISPLS office monument sign replacement will be completed by 9/20/2013.

ISPLS Committee reports: Executive Director Coyle gave a verbal report concerning the Publication and Media Committee. The Summer Edition of the Hoosier Surveyor will be out this next week. Executive Director Coyle noted that Richard Ward had requested a Life Membership. This request will be sent to the Ron Wharry, the Membership Committee Chair.

Board of Registration Liaison, Jason Coyle, mentioned that the last meeting was Friday, July 19th. A full report will be in the next Hoosier Surveyor. President Coyle is looking for a replacement for the County Surveyors Liaison. NSPS Governor and Director, Don Bengel, presented a verbal report and noted that a written report was provided for the Hoosier Surveyor. Don is planning to attend the NSPS Fall Meetings in November.

Those directors and members in attendance gave verbal reports concerning their chapters.

New Business: President-Elect Ballot, a slate of Ron Wharry, Rich Hudson and Bernie Guerrettaz was presented. A motion was made by Don West and seconded by Kevin Rowland to accept the slate as presented. The motion passed by a voice vote.

Vincennes University Advisory Board Review: Bill Clark presented an update on the V.U. Surveying Program. Clark handed out a "2013 Graduate Report" and a "V.U. Advisory Committee Survey." Clark asked for the survey to be completed by the Board Members and returned with the official report and suggestions from the Board.

Vincennes University program review - The Program has been in existence since 1975. There are about 400 graduates and over 100 are licensed. Since 1992, roughly 50 percent have pursued licensing. Eight students in the program graduated in May 2013; 13 started. The surveying program is the most difficult curriculum in the School of Technology. The eight 2013 graduates were hired; two stayed and are working for Knox County Surveyor's Office and are working on their Bachelor's Degree. There are three individuals in the Surveying Management Bachelor's Degree Program right now. The Bachelor's Degree program is almost all on-line with the exception of the surveying courses and one management course. In 2000-2001, the surveying program had the second highest graduate salary. Now they are 11th, behind welding, drafting, all manufacturing programs, diesel mechanics, etc.

Salaries are lower and the curriculum is harder. There are nine second-year majors this year. Six will graduate out of this group in the spring. Two will take three years since they are double majors. There are 17 freshmen this year. Bill Clark stated it looks like a good group and sees none that will wash out academically. The Survey Program has the lowest enrollment in the School of Technology, which impacts their attempts to get equipment through the university.

There are a number of tech programs that have internship programs. Bill Clark has Art Haas' blessing to try to contact companies in the student's area to get summer jobs and to help pay for books or whatever. There was a lengthy discussion on this topic.

In Indiana, 60 credit hours are required for two-year degree program and 120 credit hours for 4-year degree program. The two-year surveying program has 68 hours and received a waiver to do so, but they don't know that they will receive it next year. They have to have 24 general education credits for accreditation.

The ISPLS will discuss this further and prepare a formal advisory report to the school.

Next ISPLS Board meeting will be October 12, 2013 at 9:00 am EDT at ISPLS Headquarters. The meeting adjourned at 1:40 pm EDT.

# BOARD OF REGISTRATION FOR LAND SURVEYORS

## MEETING HIGHLIGHTS - OCTOBER 28, 2013

by Robert "Jason" Coyle, PS, Executive Director

The Board of Registration for Professional Surveyors (Board) met Monday, October 28, 2013, at 1:00 pm EDT. The meeting was held at Indiana Government Center South, 402 W. Washington Street, Room W064, Indianapolis, Indiana. The meeting was officially called to order at 1:00 pm EDT with all Board members in attendance with the exception of Michael DeBoy. The meeting began with a Public Hearing concerning a proposed rule change, LSA # 13-334, Computer Based Testing, to Title 865 of the Indiana Administrative Code. The proposed rule change amends the following:

- 865 IAC 1-1-1 to add definitions necessitated by the amendment to IC 25-21.5-5;
- 865 IAC 1-2-1 to update the education and work experience required of a professional surveyor;
- 865 IAC 1-2-2 to update the education and work experience required of a surveyor intern;
- 865 IAC 1-3-2 to specify when a surveyor intern may submit an application for certification;
- 865 IAC 1-3-3 to specify when applications are to be submitted;
- 865 IAC 1-4-2 to provide that an applicant for the qualifying exam must meet educational and experience requirements at the time of application;
- 865 IAC 1-4-3 to provide for computerized testing;
- 865 IAC 1-4-4 to specify when an applicant must take the exam;
- 865 IAC 1-4-6 to specify when an applicant may retake the qualifying exam;
- 865 IAC 1-4-7 to set out when an application is deemed terminated;
- and repeals 865 IAC 1-4-8.

Effective date of the rule changes will be January 1, 2014.

There was discussion amongst the Board members concerning the proposed rule change and a few minor amendments were accepted during the discussions. Ross Holloway made a motion to adopt the proposed rule change as amended, which was seconded by John Stephens. The motion passed with a unanimous voice vote. The rule change can be viewed at on the website for the State Board of Registration for Professional Surveyors at <http://www.in.gov/pla/surveyor.htm>. The greatest takeaway from the rule change is that applicants seeking certification as Surveyor Intern will need to apply to the Board once they have taken and passed the Fundamentals of Surveying Exam.

The Board then took a 5-10 minute break to complete the review of licensure applications and the approval of continuing education providers and courses. When the meeting resumed, a motion was made by Rich Hudson and seconded by John Stephens to adopt the agenda for the meeting. The motion passed with a unanimous voice vote. Next, the Board reviewed the meeting minutes from their July 19, 2013 meeting. After much discussion, a motion was made by Doug Lechner and seconded by Rich Hudson to adopt the minutes with amendments. The motion passed with a unanimous voice vote.

The Board heard a report from Natalie Stidd, Deputy Attorney General. Natalie Stidd announced that she has a new analyst, Alan Green. Natalie Stidd 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	12	13
Complaints Currently Open as of October 28, 2013			9
Average Age of Open Complaints: 4.24 months			

*(Continued on page 11)*

(Continued from page 10)

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	11	2	5
2013	8	1	4
Complaints Currently Open as of October 28, 2013			5
Average Age of Open Complaints: 25.94 months			

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

The Board had a lengthy discussion concerning the Order issued to Kenneth Ziese with A to Z Construction Layout. Ross Holloway made a motion to have the Board hold a hearing with Kenneth Ziese and A to Z Construction Layout to review the previously issued Order in light of the recent changes to Indiana Code 25-21.5. The motion was seconded by Gary Kent and passed with a unanimous voice vote.

The Board continued with discussing continuing education courses and providers. Ross Holloway made a motion to approve seven hours / four courses provided by the Surveyors Historical Society during their 2013 Rendezvous. The motion was seconded by John Stephens and passed with a unanimous voice vote. The Board reviewed a continuing education submittal by Civil Training, LLC. A motion was made by Ross Holloway and seconded by Doug Lechner to table the review until additional information could be provided. The motion passed with a unanimous voice vote. The Board reviewed a continuing education submittal by Brent Friend for courses provided by ACEC of Indiana and the ACEC Leadership Program. A motion was made by Gary Kent and seconded by Doug Lechner to approve six elective hours of courses provided by ACEC of Indiana and 23 elective hours of courses provided through the ACEC Leadership Program. The motion passed with a unanimous voice vote. Ross Holloway made a motion to approve 103.5 hours / 64 courses provided by Lucas and Company, LLC.

The Board continued with Probationary Reports for J. Bernard Feeney, Michael Sadlon and Ronald Morrison. There was substantially nothing to report concerning these individuals since they had not prepared any surveys. The Probationary Report for Stephen Williams was continued until the January meeting. There was no report concerning Roger Woodfill and as a result Ross Holloway made a motion for an Order of Show Cause. The motion was seconded by John Stephens and passed with a unanimous voice vote.

The Board passed a motion to approve 1 application by comity and to deny 1 application by comity.

The Board heard a brief Board Director's report from Crystal Heard.

Next, the Board turned their attention to discussion items. A State Specific Exam Committee was discussed. The Board asked if ISPLS could assist with preparing questions for the state exam. Jason Coyle, Executive Director for ISPLS, stated that ISPLS would be happy to assist with preparing questions for the exam and expressed a little concern. John Stephens stated that he would work with Jason Coyle on formulating a plan for working with ISPLS.

(Continued on page 12)



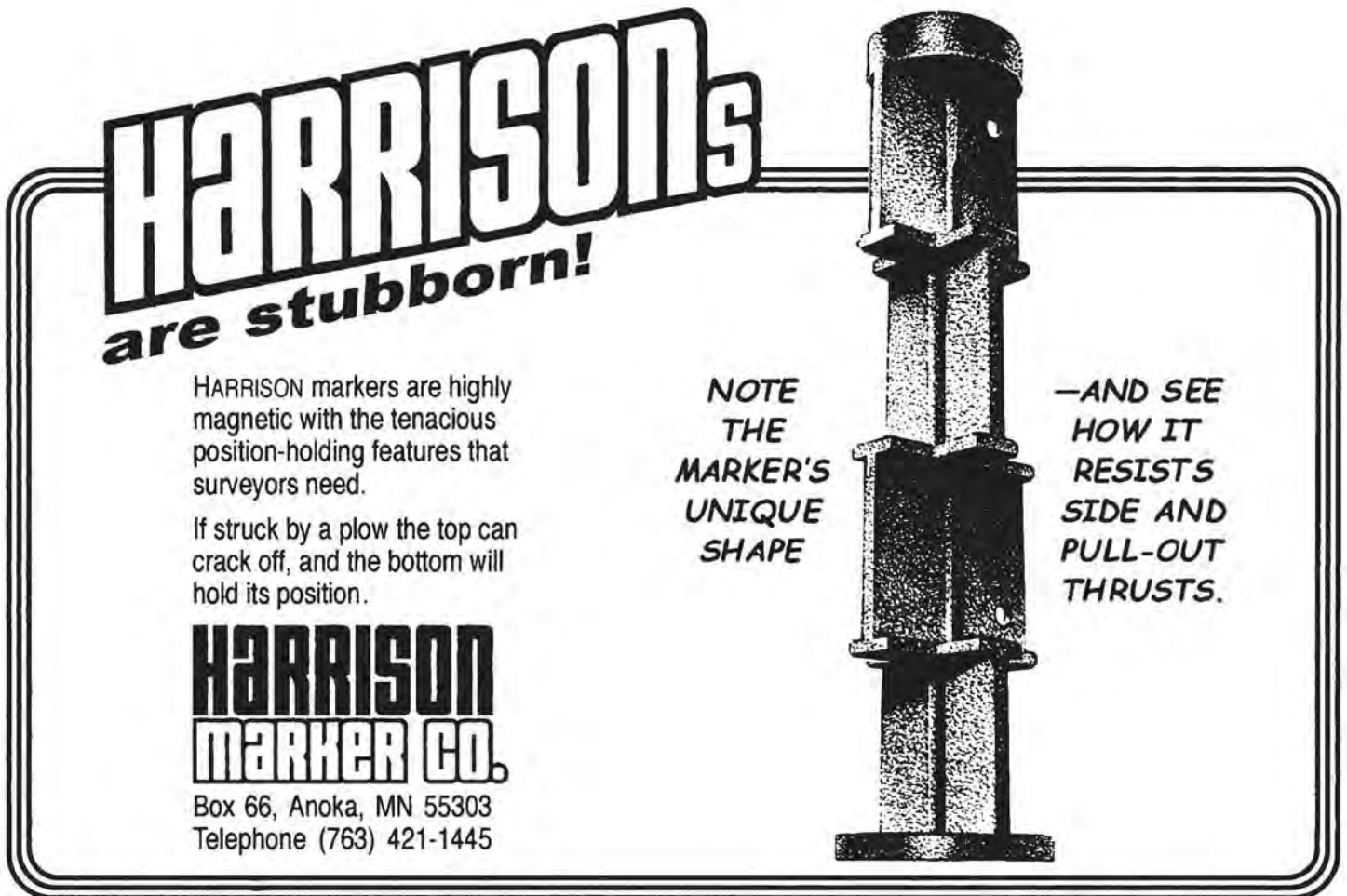
(Continued from page 11)

The Board continued with a discussion concerning Title 865 of the Indiana Administrative Code, Rule 1-9-1, publication and contents of rosters. The rule states that as soon as practicable after the completion of the biennial renewals in each even-numbered year, the board will publish a roster showing the names and addresses of land surveyors who are valid registrants until the date shown in the roster. Currently, the Board, through the Indiana Professional Licensing Agency's website, offers the name, city and state of each valid registrant. There was quite a bit of discussion amongst the Board, Jason Coyle and Chuck Bevington concerning this issue.

A draft of proposed revisions to Title 865 of the Indiana Administrative Code, Rule 1-15-8, distance learning requirements, were passed out and briefly discussed.

The Board circled back around to discussing continuing education courses and providers. Courses offered by Land Pro Seminars were discussed and tabled until Ross Holloway and John Stephens can complete one of their course offerings. Gary Kent made a motion to have Bluegrass Engineering and Surveying, Inc. appear before the Board to explain how their course offerings are meeting the rules within Title 865 of the Indiana Administrative Code 1-15. The motion was seconded by Ross Holloway and passed with a unanimous voice vote.

The meeting adjourned at 4:09 p.m. EDT. The next scheduled meeting is Friday, January 24, 2014 at 8:30 am EST at Indiana Government Center South, 402 W. Washington Street, W064, Indianapolis, Indiana 46204.



**HARRISONs**  
**are stubborn!**

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.

**HARRISON**  
**MARKER CO.**

Box 66, Anoka, MN 55303  
Telephone (763) 421-1445

**NOTE  
THE  
MARKER'S  
UNIQUE  
SHAPE**

**—AND SEE  
HOW IT  
RESISTS  
SIDE AND  
PULL-OUT  
THRUSTS.**

# IPLS FOUNDATION, INC. • 2ND ANNUAL FUNDRAISING RAFFLE

Back by popular demand. . . The **Indiana Professional Land Surveyors Foundation, Inc. (IPLSF)** will be conducting its 2nd Annual Fundraising Raffle during the 2014 ISPLS Annual Convention held January 15-17, 2014 at the Indianapolis Marriott East. This Fundraising Raffle will assist the IPLSF with its mission of promoting growth and development of the Surveying Profession in the State of Indiana by providing scholarships, grants and financial partnering.

This raffle will include five remarkable prizes with a combined total value of over \$3,000. The **First Grand Prize** is a **Henry Big Boy .44 Magnum Rifle**. The **Second Grand Prize** is a **Beretta Model A300 Outlander Shotgun**. The third place prize is a 16GB Apple iPad. A GoPro HERO3 Black Edition Camera will be awarded to the fourth and fifth place prize winners.

## \$5 FOR A CHANCE TO WIN THIS HANDSOME HENRY RIFLE, A BEAUTIFUL BERETTA SHOTGUN OR OTHER GREAT PRIZES



Raffle tickets will be sold for **\$5 each** or **5 tickets for \$20**. Tickets will be available before and during the convention from designated registered workers on behalf of the IPLS Foundation.

The drawing for the raffle will take place after the keynote speaker's address during Friday's lunch of the convention, January 17, 2014. **Everyone is welcome to participate in the fundraising raffle.** This includes, but not limited to, members of ISPLS, their family and friends, supporters and practitioners of the land surveying profession. Those participating in the raffle are not required to be present for the drawing, but it is encouraged.

Grand prize winners must be a person that can legally possess a firearm. If the grand prize winners cannot accept possession, the grand prizes will be given to the next place winners that can legally accept a firearm. The other prizes will awarded based upon the order in which the tickets were drawn.

Contact Jason Coyle, ISPLS Executive Director, at [execdir@ispls.org](mailto:execdir@ispls.org) or 317-888-4400 for more information and details on how you can participate.

**Indiana Gaming Commission License Number 132863.**



Firearms purchased from  
**Gander Mountain - Greenwood Store**  
1049 Emerson Avenue  
Greenwood, IN 46142  
Ph.: 317-865-1734  
<http://www.gandermountain.com>

# ISPLS - NSPS GOVERNOR / DIRECTOR REPORT

by Tony Gregory, Indiana NSPS Alternate Governor / Director

The NSPS Fall Meetings were held in Baltimore, Maryland at the Four Points by Sheraton BWI Airport from November 20th to November 24th. The meetings began with a Pre-Lobby Day Meeting on Wednesday, November 20th at 5:30 pm. Thursday, November 21st was Lobby Day on Capitol Hill. Topics of discussion with senators, representatives and their staffs included:

- the “Map it Once-Use It Many Times” bill (H.R. 1604, introduced by Representative Doug Lamborn, R-CO);
- concerns that recent legislative and regulative efforts to protect consumers and citizens, in the name of “privacy” have cast too wide of a net, creating unintended consequences for surveying, mapping, and geospatial firms with respect to geolocation and unmanned aerial Systems (UAS);
- the need for accurate location data on pipelines, surface and underground infrastructure, utilities and railroads, which are essential to public health, welfare, and safety, as well as to protect property rights;
- Labor Department Transparency on the Davis-Bacon Act and Survey Crews – The U.S. Department of Labor (without consultation with the community, public notice, or opportunity for public comment) issued AAM212 on March 22, 2013, an order declaring that members of survey crews are “laborers and mechanics” subject to the Davis-Bacon Act.

Representative Tim Walberg (R-MI) met with the NSPS participants at the end of Lobby Day and thanked them for their participation. He called the Labor Department’s actions an “affront” to the profession of land surveying. NSPS was represented by members from 19 states. Indiana was represented by Gary Kent and Tony Gregory.

Various NSPS committee and council meetings were held on Friday, November 22nd.

The NSPS Board of Governors met on Saturday, November 23rd. Some notable items presented during reports included:

- An overview of the NSPS Insurance plan from Lisa Isom of Assurance Risk Managers, Inc.
- A presentation of the Draft NSPS Strategic Plan by John Palatiello, NSPS Government Affairs Consultant
- From NSPS President Lamar Evers
  - 40th MOU for 100% membership with NSPS was signed prior to the Governor’s meeting
  - The need to assist state societies to recruit more members, including associate members
  - European “Surveyors Day” being aligned with the U.S. “National Surveyor’s Week”
  - An attempt to have FIG establish an “International Surveyor’s Day”
  - Motion made by NSPS Excom Committee that NSPS withdraw from SAGIS
- From NSPS Executive Curt Sumner
  - Flatdog Media is assisting NSPS with social media development (Flatdog Media is the publisher of Professional Surveyor magazine)
  - A new NSPS website is ready to be rolled out
  - NCEES has agreed to assist NSPS with promotion of NSPS programs, including Trig-Star, and a “new look” Careers Brochure
  - NSPS Spring Conference will be held in conjunction with the joint California-Nevada conference in San Diego April 13-16, 2014. Conference will be held near the San Diego Airport – more affordable
  - NSPS participated in “I Want to Be A .... (Surveyor)”. MP3 included on NSPS website
  - Applauded and urged the increase in the promotion of “young professionals” in state societies
- Trig-Star – as a part of the report from the Trig-Star Committee, Tony Gregory played the video of teachers’ testimonials on the importance of Trig-Star (from the Wabash Valley Chapter area)
- ALTA/ACSM Certified Surveyor – Motion was made and passed to recommend that a program be created to provide educational sessions for an ALTA/ACSM Surveyor certification.

*(Continued on page 15)*

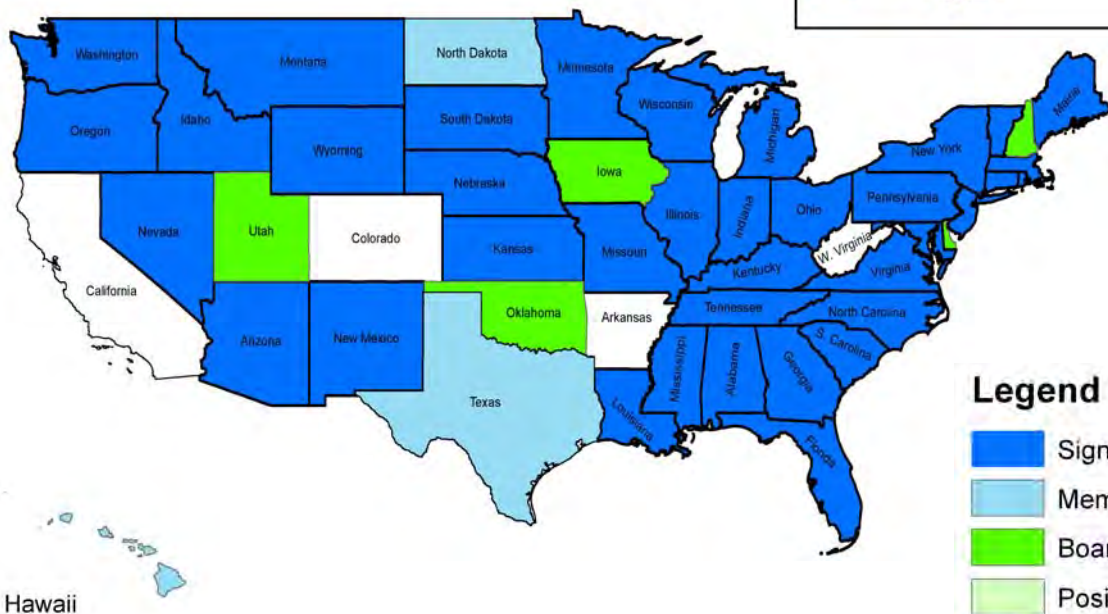
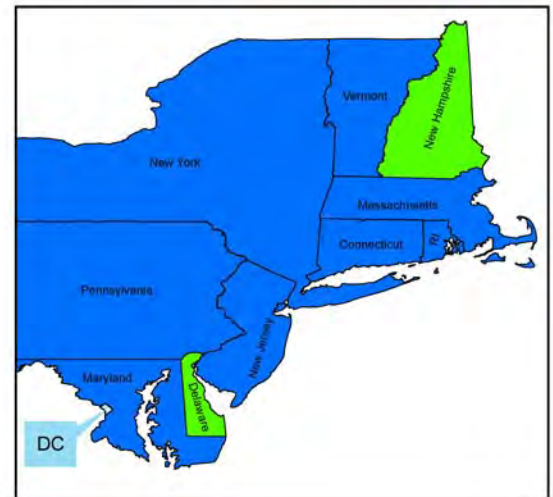


(Continued from page 14)

The NSPS Board of Directors met on Sunday morning, November 24th. "New Business Items" approved included:

- A 2014 Budget Report (by John Fenn)
- NSPS working on Bylaws amendments to create a category for Sustaining Membership
- A request from CLGE (Council of European Geodetic Surveyors) for NSPS to join the IPMS (International Property Measurement Standards) Coalition
- NSPS Appointments to CST Board
- CST Renewals to receive NSPS Associate Membership
- NSPS will begin refunding the NSPS portion of dues relative to SALIS
- Recommendations of the Nominations Committee
- ACSM Body of Knowledge (BOK) renamed to NSPS BOK
- ALTA/ACSM Certified Surveyor program
- Letter to support Arizona Continuing Education effort
- Review of Definition of Surveying in NCEES Model Law and Model Rules
- MAP 21 Act Reauthorization
- Geodetic Certification Program (added to CST)
- Letter to NGS encouraging them to ask the survey community to assist NGS with improvements to vertical component of National Spatial Reference System with GPS observations
- Conflict of Interest Policy (re: IRS Form 990)

Suggestions relative to the format of the NSPS Governance Structure are welcomed.



### Legend

- Signed MOU
- Membership Approved
- Board Approved
- Positive Response
- Rejected
- Negative Response
- Evaluating

# AN UPDATE: THE PROFESSIONAL SURVEYOR AND INDIANA'S DIG LAW

by Robert "Jason" Coyle, PS, ISPLS Executive Director

The Indiana Society of Professional Land Surveyors, Inc. (ISPLS) first made you aware of a developing conflict between the surveying profession and Indiana811's strict interpretation of the dig law in the summer of 2012. As you may recall, a central Indiana engineering and surveying company had informed the ISPLS Board of Directors (Board) that they had been told several times that when setting wood hubs or lath that they needed to be requesting a utility locate with Indiana811. The Board requested a meeting with Indiana811 staff to clarify the professional surveyor's responsibility will regards to the dig law.

During a meeting with Indiana811 staff on June 29, 2012, Chuck Muller, Director of Member & Public Relations, read the definition of "Excavate" and gave emphasis on the words "movement" and "driving" and further commented, "[When] you drive a stake in the ground; it (the ground) moves."

## Indiana Code, Title 8: Utilities and Transportation, Article 1: Utilities Generally, Chapter 26 – Damage to Underground Facilities

**IC 8-1-26-6 Sec. 6.** As used in this chapter, "excavate" means an operation for the movement, placement, or removal of earth, rock, or other materials in or on the ground by use of tools or mechanized equipment or by discharge of explosives, including augering, backfilling, boring, digging, ditching, drilling, driving, grading, jacking, plowing in, pulling in, ripping, scraping, trenching, and tunneling.

We all agree that when you drive any object into the ground that the ground is going to be displaced or moved. However, the term "Excavate" is clearly defined as "an operation for the movement . . . of earth." Driving an object into the ground is not an operation for moving earth, but rather a result. A much different conclusion would be drawn had the definition said "an operation resulting in the movement . . . of earth." Based upon Indiana811's strict interpretation of the term "Excavate," there are hundreds, if not thousands, of violations to the dig law every day. A few examples would be: a real estate agent driving a "For Sale" sign in their client's yard; a political campaign supporter driving a candidate's campaign sign in property not owned or controlled by them; and finally, a golfer taking a divot when driving a ball down the fairway.

Yet, one might reply that there are exemptions to the dig law. Agreed, there are exemptions to the dig law, but in every case listed above, there would be no exemptions. Below is the section of the dig law that deals with exemptions:

### IC 8-1-26-1 Sec. 1

(a) Except as provided by this section, this chapter does not apply to the following:

(1) Excavation that is performed:

(A) only with a hand tool;

(B) on property owned or controlled by the person performing the excavation; and

(C) to a depth not greater than twelve (12) inches.

(2) Excavation using only animals.

(3) Tilling of soil for agricultural purposes, such as plowing, planting, and combining.

(4) Surface coal mining and reclamation operations conducted under a permit issued by the natural resources commission under IC 14-34.

(5) Railroad right-of-way maintenance or operations.

(6) Underground probing to determine the extent of gas migration.

(b) This chapter does apply to blasting, setting drainage tile, subsoiling, and other subsurface activities.

(c) Sections 16, 19, 20, and 22 of this chapter apply to the construction and installation of railroad signal facilities and drainage facilities at public grade crossings.

What is more interesting is that grave diggers are not exempt. When Indiana811 was asked how many utility locate requests they receive from grave diggers digging graves, they replied none. That seems odd. One could assume that most grave diggers are not digging with just hand tools and surely they are burying the deceased to a depth greater than twelve inches.

*(Continued on page 17)*

(Continued from page 16)

Lastly, Indiana811's strict interpretation of the term "excavate" is in direct conflict with the definition of "white lining," which is defined in IC 8-1-26-11.5 Sec. 11.5. As used in this chapter, "white lining" means the act of marking the route or boundary of a proposed excavation or demolition with white paint, flags, or stakes, or a combination of white paint, flags, and stakes. White lining is typically performed in conjunction with a utility locate request and prior to the actual utilities being marked on the ground. So, how much different is a stake driven in the ground for white lining than a surveyor's wood lath or hub driven in the ground?

Since June of 2012, ISPLS has been educating professional surveyors statewide on the importance of requesting a utility locate prior to starting a job in which they will be driving monuments/markers into the ground. The resounding response from surveyors is that utility companies and/or the utility locating contractors are not responding to their utility locate request. Surveyors are making the request – waiting the two full working days – for absolutely nothing. No marks. No paint. No flags. Not even a courtesy call or e-mail to inform the surveyor that the schedule doesn't afford them the time to mark the site.

When ISPLS asked Indiana811 about these unmarked tickets, they simply replied that it's a "business decision" on the part of the utility companies and/or the utility locating contractors. They are weighing their risk and prioritizing the requests based upon such. ISPLS has even been told that some utility companies will not compensate a utility locating contractor for a request made by a professional surveyor for surveying purposes. Their "business decision" is not only putting the safety of the public in jeopardy, but they are also costing public and private entities thousands, if not millions, of dollars in re-design cost, interruption in construction and loss of productivity.

The above issues have prompted ISPLS to propose two amendments to the Indiana Dig Law. Our primary objective here is not to discredit the dig law, rather to show where it is flawed and improve its effectiveness. The dig law is vital in protecting the safety, health, and welfare of the public; so too is a surveyor's primary obligation. Title 865 of the Indiana Administrative Code 1-10-4 states the following: "The land surveyor shall at all times recognize the primary obligation to protect the safety, health, and welfare of the public in the performance of professional duties."

(Continued on page 18)



**TURNING POINT SYSTEMS GROUP**  
Surveying & Measuring Equipment • Supplies • Rentals • Repairs

Robots Lease-To-Own \$350.00 per Month  
GPS Rover Lease-To-Own \$250.00 per Month  
Scanners from \$25,000.00

6480 N. Industrial Road  
Milwaukee, WI 53223  
Office: 414-353-8774 Fax: 414-353-4887  
[www.turningpointssystemsgroup.com](http://www.turningpointssystemsgroup.com)

**Leica** Geosystems **Carlson** **SOKKIA** **SCHONSTEDT**



(Continued from page 17)

Professional surveyors desire to have a recognized affiliation within the dig law. Currently, many in the surveying profession and utility locating profession are unclear as to what their responsibilities are. Over the last several years, the relationship between the surveying professional and the utility locators has become more distant due to the lack of response to surveyors' utility locate requests. Professional surveyors seek to renew this relationship with utility locating professionals and feel an effective way is through amending the dig law.

The two amendments to Indiana's Dig Law that ISPLS are proposing are as follows: 1) an exemption for surveying operations as defined in IC 25-21.5 except when using power equipment and when monuments/markers are driven to into the ground at a depth of greater than eight inches; and 2) provide an opportunity for surveyors, engineers and architects to request a "design" utility locate request.

An amendment to the dig law exempting some surveying operations would be very beneficial not only to surveyors, but also to the utility locating community, the utility companies and the public. First of all, it would put surveyors on notice that when driving a monument/markers into the ground at a depth of greater than eight inches that they must request a utility locate.

Secondly, it would allow the utility locating community to focus more on those higher risk notices and requests. If the surveying community were to adhere to Indiana811's strict interpretation of the dig law, the utility locating community would be flooded with requests. Presumably, less than five percent of all surveying related projects obtain a utility locate request currently. Now consider the time, effort and money that would be required by the surveyor, the utility locating contractor and the utility company to accomplish this additional ninety-five percent. The additional time, effort and cost to the surveyor would be minimal compared to what the utility companies and utility locating contractors would absorb. This additional cost would then be passed on to the consumers of these utilities and products.

An amendment requiring a surveyor to request utility locates when driving monuments/markers to a depth of eight inches or greater would certainly protect the public and reduce the number of illogical requests. If the practice of surveying was incorporated into the dig law, then it would be much clearer as to what everyone's responsibilities are.

Secondly, ISPLS is proposing additional language to the dig law that allows for a "design" utility locate request. Essentially, it would allow design professionals (engineers, architects and surveyors) to request a utility locate during the design phase of a project. The utility owners, designated representatives, or associations would be given 10 working days to provide the location and description of underground utilities within the project boundary. Alternatively, they could provide drawings or other records for all underground utilities within the project area. The Common Ground Alliance's Best Practices 10.0 manual lists the following benefits for gathering and identifying existing facilities during the design phase:

- Gathering underground facility information and including this information in the planning phase minimizes the hazards, cost, and work to produce the final project.
- Safety is enhanced.
- Unexpected conflicts with facilities are eliminated.
- Facility relocations are minimized.
- Providing complete underground facility information and including this information on design drawings reduces hazards, simplifies coordination, and minimizes the cost to produce the final project.

The Indiana Society of Professional Land Surveyors, Inc. is interested in collaborating with Indiana811, utility companies and utility locating contractors to find solutions to the above issues that will protect the safety, health, and welfare of the public and the integrity of the buried utilities.



# Challenging Land Surveyor

## I.S.P.L.S.

### 62ND ANNUAL CONVENTION

JANUARY 15-17, 2014  
MARRIOTT EAST  
INDIANAPOLIS, IN



Practices Standards What Went Wrong? Technician Business Practices Water Boundaries IPLSF  
Dig Law Survey Dig Law Omissions Perfect Issues  
What Went Wrong? Sewage Standards Times 2014 ISPLS Convention People Easements  
Issues Standards Understanding Errors Land Surveyor Easements Lead  
Indiana811 Easements Times Systems Omissions Professional Surveyor Water Boundaries Bullet-Proof Boundaries Lead  
IPLSF Technician Mock Trial Aerial Business Ethics Court Safety  
Autodesk Easements 3D World Continuing Education Omissions Errors Professional Surveyor Water Boundaries Bullet-Proof Boundaries Lead  
Challenging Easements Systems Safety Dig Law Autodesk Mock Trial Onsite Technician Informed Continuing Education Indiana811 Perfect  
Land Surveyor Perfect Surveyor Business  
Laws Water Boundaries 2014 ISPLS Convention

Mock Trial Boundaries 2014 ISPLS Convention Easements Lead Safety Aerial Technician  
Informed Better  
Bullet-Proof Boundaries 2014 ISPLS Convention Easements Lead Safety Aerial Technician  
Standards Pipeline Court Aerial  
Surveyor Errors Standards Pipeline Court Aerial  
Business Civil 3D Challenging Pipeline ISPLS Autodesk  
Perfect Challenging Ethics  
Managing Better  
Indiana811 People  
What Went Wrong? IPLSF Perfect  
Omissions 3D World Informed Standards Perfect ISPLS  
Lead



# WELCOME TO THE 62ND ANNUAL ISPLS CONVENTION

## An Invite from Chuck Coyle, ISPLS President, and R. Jason Coyle, ISPLS Executive Director

On behalf the ISPLS Board of Directors, the Wabash Valley Chapter of ISPLS, and the ISPLS Convention Committee we would like to extend to you an invitation to make plans to attend the 2014 ISPLS Annual Convention! The Marriott East in Indianapolis will once again be the site of our event. The Marriott East has proven to be a great partner in providing wonderful accommodations and a warm atmosphere.

This is the 62nd consecutive convention in the long history of ISPLS, and while it is sure to maintain some of the old tradition, we hope that you will be excited about some of the new features as well:

- First of all, this is our third year to utilize the “new” ISPLS website. This has proven to provide for easier and faster registration and signing up for the seminar sessions that you would like to attend. The site has allowed the convention organizing staff to make adjustments to class room space on-the-fly so that no one is denied access to the seminar classes they want.
- Once again, Wednesday afternoon will feature a “large group” 3-CEU “Mandatory” session titled, “Water Boundaries”, with the ever popular Jeff Lucas, PS, Esq. We hope many of you will chose to take advantage of this opportunity to earn “Mandatory” CEU’s.
- Wednesday afternoon we will introduce and welcome our “Vendors and Exhibitors”. These equipment and service providers are here to help you make choices regarding new equipment, supplies and services that we all need in our course of doing business. Please take advantage of these opportunities as well.
- Wednesday evening will feature Alumni Parties with Purdue U. and Vincennes U. If you’re an Alumnus of either of these schools, we would encourage you to stop in and show your support.
- Wednesday evening we’re back with the return of the “Las Vegas Casino Night”... Great prizes to be given away will be sure to provide additional excitement to the event. We look forward to seeing you there!
- Thursday will offer up a compliment of great educational sessions, and a very good Technicians Program. Check out those offerings!
- Thursday afternoon is the Annual ISPLS Business Meeting. We hope you will attend to hear updates of the numerous endeavors and achievements that the Society has accomplished and the substantial things that the ISPLS BOD continues to work on for the benefit of all Professional Surveyors.
- 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 to promote our profession, an of course the “changing of the guard”, when we recognize the outgoing Officers and Board Members and introduce and install the newly elected ones.
- Friday will be another day of great educational offerings... In addition to speakers such as Jeff Lucas, PS, Esq.; our very own Gary Kent, PS, and Tony Gregory, we will be introducing Kris Kline, PS, to the ISPLS membership. Kris was at the Ohio Conference last year... and wanted to visit Indiana, so here he is! You may have read some of Kris’ articles in POB. Kris will also be the featured speaker during the lunch on Friday.
- At the conclusion of the lunch period we will hold the IPLS Foundation Raffle drawing. Be sure to check out the great items included in this year’s raffle!
- And a “very special welcome” to the spouses in attendance. We hope you find the “Special” program that has been planned for you to bring a very memorable and enjoyable time.



**Charles M. “Chuck” Coyle, PS**  
**2013 ISPLS President**

As in years last, there are multiple ways to register for the convention. But the easiest way is on-line at [www.ispls.org](http://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, 2013 to avoid a late fee. Please don’t hesitate to contact your Executive Director 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!



**Robert “Jason” Coyle, PS**  
**ISPLS Executive Director**



# PROGRAM • WEDNESDAY, JANUARY 15, 2014

## **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 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.

## **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. Admission requires you to wear your name badge for entry. **The Exhibit Hall will not be open on Friday.**

## **Water Boundaries**

**Jeff Lucas, PS, Esq. • 3 CEH (Mandatory)**

**1:00pm— 4:00pm**

This seminar will cover the basic concepts behind water boundaries and how those concepts affect the private practice land surveyor. The history of water boundaries will be discussed including the "equal footing" doctrine, "navigability," "submerged lands," "mean high tide," "high water mark," "low water mark," and other issues affecting the identification and location of the boundary between the upland owner and submerged lands belonging to the sovereign. The common law and civil law rules with regard to water boundaries will be studied. The riparian and littoral rights of the upland owner and the problems facing the boundary surveyor will be studied. Necessary to any discussion of water boundaries is the commerce power and admiralty jurisdiction of the federal government. "Waters of the United States" will be discussed in light of *Rapanos v. United States*, a decision that could radically change the Army Corps of Engineers' definition of that term. Ample cases studies will be examined to flesh-out the issues.

## **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 Wednesday evening's events, not including the alumni parties. A cash bar will be available as well. Please drink responsibly. The reception will conclude with awarding door prizes from ISPLS and our vendors. Must be present to win.

## **Alumni Parties**

**6:00pm— 8:00pm**

Join alumni from your alma mater to reminisce of those glory days and support their programs. Details forthcoming.

## **Las Vegas Style Casino Party**

**7:00pm— 9:00pm**

What happens at Vegas. . .stays at Vegas! And what happens at the Las Vegas Style Casino Party. . .well. . .could find its way within the pages of the *Hoosier Surveyor*. Join us for an evening of Black Jack, Roulette, Texas Hold'em and many more casino games. Enjoying a cocktail and hors d'oeuvres while gaming and socializing with friends. One beverage ticket is included with a full attendee's registration for Wednesday evening's events, not including the alumni parties. A cash bar will be available as well. Please drink responsibly. An auction will be held with your winnings to bid on door prizes at the conclusion of the evening.

# PROGRAM • THURSDAY, JANUARY 16, 2014

## **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 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 within the Exhibit Hall from 7:00 am - 9:00 am.**

## **Exhibit Hall**

**7:00am— 5:00pm**

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. Admission requires you to wear your name badge for entry. **Exhibit Hall will not be open on Friday.**

## **FEMA & Floodplain Management**

**Jason Miller, PS, PE, CFM; Rodney Renkenberger, PS, CFM; & Anita R. Nance, CFM · 6 CEH (Elective)**

**8:00am— 11:00am (Part 1 of 2) & 12:15pm— 3:15pm (Part 2 of 2)**

This workshop will review the involvement of a Land Surveyor in floodplain management and interaction with FEMA. We will review both basic and advanced elements of problems encountered by the Land Surveyor. We will also review the differences between the national and Indiana regulations for floodplain management. Finally, we will review specific examples of properties, including completion of an Elevation Certificate, Letter of Map Amendment, and resources for use in everyday projects involving or near a floodplain.

## **Land Surveyor in Court and Mock Trial**

**Jeff Lucas, PS, Esq. · 6 CEH (Mandatory)**

**8:15am— 11:15am (Part 1 of 2) & 12:30pm— 3:30pm (Part 2 of 2)**

This seminar will explore the world of civil litigation and the land surveyor's role as an expert witness. Trial and testimony basics will be discussed in the morning, followed immediately by the mock trial. This seminar requires audience participation. Volunteers will be asked to play the roles of attorneys, landowners, lay witnesses and expert land surveyor witnesses; the seminar leader plays the judge. The remainder of the audience will be divided into jury pools, each with a foreman spokesperson. The size and number of juries will be determined by the size of the remaining audience. The trial is loosely based on a combination of several real court cases. The trial will be held and the juries will deliberate. Following deliberation, each jury will then render their verdict, and discuss their reasoning. Each jury will have to field questions from the trial participants and other juries, and defend their verdict. This seminar is designed to demystify the litigation process and explain the rules of engagement that will be used in court.

## **Bullet-Proof Boundaries**

**Gary Kent, PS · 6 CEH (Mandatory)**

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

Are you a student of your profession? Many of us are, many are not. Although Rule 12 has now been law for a quarter of a century now, even the most casual observer of the hearings and appearances at Board of Registration meetings cannot help but recognize there continue to be serious shortcomings in our state regarding the practice of boundary surveying. Most boundary surveys are not math problems yet they often get treated that way. Professional surveyors must have the resources, knowledge and education to decipher boundary issues and apply the appropriate boundary law principles for any given situation. But having done that, they have not reached the end of the project because professional surveyors also have an ethical responsibility to make sure their client understands what the results of that survey mean - and what they do not mean. If the results of a survey provoke or entice an unsophisticated or overly assertive client to take ill-advised actions because of a misinterpretation of the survey, the surveyor has failed just as assuredly as if the boundary was incorrectly surveyed. The Surveyors Report is one communication tool, but perhaps not the best for communicating with clients. In this session we will look at boundary problems - some

## PROGRAM • THURSDAY, JANUARY 16, 2014

typical and some not - and discuss how to use the appropriate resources to help us resolve them. We will also explore client expectations and the obligations that surveyors have to keep their clients out of trouble.

### ***Staggered Buffet Style Lunch***

**11:00am— 1:00pm**

### ***ISPLS Business Meeting***

**4:00pm— 5:30pm**

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

### ***ISPLS Social and Banquet***

**6:00pm— 9:00pm**

Join us at 6:00pm in Freedom Hall 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.

## TECHNICIAN'S PROGRAM • THURS. & FRI., JANUARY 16-17, 2014

*This year, we are offering a one-day technician's program on Thursday, January 16, 2014. This will provide an opportunity for technicians to meet with vendors and exhibitors. The one-day Technician's Program includes the four technician courses, handouts, access to the exhibit hall and lunch. Additionally, technicians wishing to attend Thursday and Friday may attend the four technician courses on Thursday and any of the courses offered on Friday. A licensed professional surveyor may attend any the technician courses for continuing education credits at the full or 1 day convention fee rate.*

### ***Indiana811 and the Dig Law***

***Chuck Muller & Blaine Walters · 1.5 CEH (Elective)***

**8:15am— 9:45am**

A panel discussion on the Call Before you Dig Laws in Indiana and how they affect safety on your job site.

### ***Informed Development: Pipeline Laws, Standards and Safety Issues***

***Perry Cloyd, PS · 1.5 CEH (Elective)***

**10:00am— 11:30am**

- General overview of issues and concepts
- Legislative review
- Regulatory agency review and impact on surveyors and property development
- Demonstrate existing examples of pipeline incidents as well as development and land use that impacts pipelines
- Review Pipeline and Informed Planning Alliance (PIPA) best practices

### ***Unmanned Aerial Systems***

***Fred Bulger · 1 CEH (Elective)***

**12:30pm— 1:30pm**

This session will cover the Unmanned Aerial Systems that will affect the market. We will review: a brief history of drones, followed by FAA regulations, Manufacturers, flight plans, logistics, observed data, and accuracies. The Trimble UAS will be presented and an actual flight will be shown using a simulator.

### ***Understanding Autodesk® Civil 3D® Survey Database***

***Julia Cornelius & Matt Davis · 1 CEH (Elective)***

**2:00pm— 3:00pm**

This session will review with attendees:

- How to make the most of their Autodesk® software
- How to process specific types of data in the Civil 3D®
- What expectations should be for data processing in CAD software

# PROGRAM • FRIDAY, JANUARY 17, 2014

## **Registration Desk**

**7:00am— 11:00am**

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 - 8:30 am.**

## **Managing your Business in Challenging Times**

**Gary Kent, PS · 3 CEH (Elective)**

**8:00am— 11:00am**

This program is designed to help surveyors navigate the stormy waters of today's economy so they can come out strong on the other side when the business climate improves. We look at a number of traditional topics such as financial statements and project management, but also spend considerable time on other not-so-obvious elements of management and leadership that make for a healthy workplace.

## **Easements in a 3D World: Underground Wealth, Surface Flow, and Railroads**

**Kristopher M. Kline, PS · 6 CEH (Elective)**

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

Easements can be extremely confusing even under what are laughingly called normal circumstances. Incorporeal property rights become even more difficult to deal with when considered in the context of a 3-dimensional world. This course considers three major topics: (a) Property rights associated with mining interests and other below-ground activities (b) natural easements and other issues relating to control of surface flow water (c) Railroad rights of way and easements. Specific issues considered include:

1. Rights that may be granted relating to mining interests
2. Implied rights associated with subterranean estates
3. Consideration of types of materials included by use of the term "minerals"
4. Differences between rights to surface and subsurface water
5. Limits placed on methods of extraction
6. Legal principles applicable to control of surface water: the Common Enemy Doctrine, Civil Law Rule, and Common Sense Doctrine.
7. Later modifications applied to these original principles and recent developments in case law.
8. Surface flow versus flood waters.
9. Indiana statutory law and relevant rulings regarding "legal drains"
10. Reservations, Exceptions, and their effect on property rights.
11. Creation of Railroad easements and rights of way

This course includes state-specific problems for the student to solve based on actual rulings and cites additional examples from adjoining states. Knowledge of these topics may suggest new business opportunities for surveyors and will improve their ability to aid clients and attorneys when preparing for possible litigation.

## **What Went Wrong? A Study in Surveyor Errors and Omissions**

**Jeff Lucas, PS, Esq. · 3 CEH (Elective)**

**8:00am— 11:00am**

As I continue "Traversing the Law," studying and writing about court cases involving boundary disputes and land surveyors, I have found everything from the ridiculous to the sublime. In some cases, I have to shake my head in disbelief over what I was reading leaving me with just one question: What went wrong? This seminar will investigate the answer to this question by a detailed study of several court decisions involving surveyors and surveys that went terribly wrong. The painful lessons learned by others through the school of hard knocks can be painlessly explored and appreciated without the accompanying liability and damages that attach to boundary disputes and negligence actions.



## PROGRAM • FRIDAY, JANUARY 17, 2014

### ***Onsite Sewage System Design: Gravity subsurface trenches, Flood dosed subsurface trenches, and Elevated Sand Mound Systems***

***Alice Quinn & Denise H. Wright · 6 CEH (Elective)***

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

This course provides an introduction to Onsite Sewage System technology through discussions of portions of the state rules regulating these systems, an overview of Onsite Sewage System basic technologies and components, introduction of some Technologies New to Indiana components and their function, “How To” discussion and tips on generating an Onsite System plan submittal and detailed training on Elevated Sand Mound system design. This training provides answers to everyday problems that arise for anyone involved in designing onsite sewage systems.

In addition, the course also will spotlight recent revisions to Rule 410 IAC 6-8.2 and Rule 410 IAC 6-10, the Residential Onsite Sewage Systems and Commercial Onsite Wastewater Disposal Rules, respectively.

### ***Professional Ethics and the Land Surveyor***

***Anthony M. Gregory, PS · 3 CEH (Mandatory)***

***8:00am— 11:00am & Repeated at 12:45pm— 3:30pm***

Holding a license as a Professional Land Surveyor is truly a privilege and an honor. However, such a distinction also carries with it obligations. One such obligation is to practice professionally and ethically. This seminar will cover professionalism and ethics from a general viewpoint, and from that of a land surveyor. In addition to reviewing and discussing published standards such as the Professional Conduct portion of Title 865, the seminar will include discussions of various situations involving professional ethics.

### ***Lunch with presentation from Kristopher M. Kline, PS***

***11:00am— 12:45pm***

**You don't have to be crazy to be a surveyor, but it can be an asset.** I was a dedicated rock climber for 25 years, and the skills learned from that discipline transfer easily to surveying in North Carolina. The state abounds with cliffs and weed choked gullies. In addition, plant species that are considered bushes in most states grow to the size of trees in the temperate rain-forests that cover the western part of the state. The locals call travel on this terrain “appalachian-eering.” This term refers to travel on slopes “too steep to scramble up, and too brushy and contorted to bother roping up for.” The IPLS Foundation Raffle drawing will take place immediately following the presentation.

### ***Anyone Could Lead Perfect People - If There Were Any***

***Gary Kent, PS · 3 CEH (Elective)***

***12:45pm— 3:30pm***

This presentation is designed to encourage the audience to think about the severe lack of leadership we seem to experience so often in today's society. We sometimes appear to be on a rudderless path when it comes to leadership. There is obviously a relentless deficiency of statesmanship in our politics, and we often find the same in our business 'leaders.' Why is this? And what will it take to right the direction that we feel ourselves headed in? The program will explore a variety of the symptoms, causes and cures for this societal dilemma.

### ***Better Business Practices and the Law***

***Jeff Lucas, PS, Esq. · 3 CEH (Elective)***

***12:45pm— 3:30pm***

What do better business practices have to do with the law? Plenty! Put another way, better business practices must be in harmony with the law that affects our practice as professional service providers (land surveyors, engineers, architects, etc.). The law that most affects us as professionals is property law, contracts, negligence, torts, the common law, administrative law, and statutory enactments. Ignorance of the law is no excuse for the average citizen and even more so for professional service providers. This seminar will focus on 10 Better Business Practices that you can implement immediately to bring your practice in harmony with the law. These practical steps will benefit your company whether you are a multi-state corporation with hundreds of employees, a solo practitioner, or an individual licensee wanting to improve his or her own practice.

## **SPOUSE'S PROGRAM • JANUARY 16-17, 2014**

*Greetings Spouses! Welcome to the 62nd Annual ISPLS Convention.*

Welcome to the ISPLS 2014 Spouse Program! We have some real treats planned for you this year. On Thursday we will be touring the beautiful Governor's Mansion, the Schokolad Chocolate Factory and the unique shops in Zionsville including the internationally known artist Nancy Noel's art sanctuary. While in Zionsville we may also make a complimentary Christmas ornament at one of the local shops. After we shop till we drop, we will end our day in Zionsville with a stop at the Hopwood Cellar for just a taste or a glass of wine.

On Friday we will be relaxing at the Marriott and enjoy a craft show. The show will include homemade, handmade items such as quilts, handbags, tote bags and accessories by "Sew Totally" and handmade soaps and the history of soap making by "Debbie's Handmade Soap." We will also share some homemade products and home remedies. There will plenty of items you may purchase at discounted prices!

We are asking each of you to bring something homemade/ handmade or bring a family heirloom with you to talk about or show off! This is a convention you will not want to miss! See you in January!

---

## **IPLS FOUNDATION, INC. • 2ND ANNUAL FUNDRAISING RAFFLE**



**Henry Big Boy .44 Magnum Rifle**



**Beretta Model A300 Outlander Shotgun**



**GoPro HERO3  
Black Edition Camera**

**BACK BY POPULAR DEMAND!**  
**DETAILS FORTHCOMING ON  
HOW YOU CAN GET YOUR HANDS  
ON THESE ITEMS AT THE  
2014 ISPLS CONVENTION!**



**16GB Apple iPad**

# ISPLS 2014 CONVENTION REGISTRATION FORM

## Wednesday January 15, 2014

- 8:00am - 12:00pm Board of Directors Meeting
- 12:00pm - 6:00pm Registration in the Atrium  
Exhibit Hall Opens**
- 1:00pm - 4:00pm Water Boundaries  
 Jeff Lucas (3 CEH Mandatory)
- 4:00pm - 6:00pm Exhibitor Reception
- 6:00pm - 8:00pm Vincennes Univ. & Purdue Univ.  
Alumni & Friends Reunion Party
- 7:00pm - 9:00pm Las Vegas Casino Party

## Thursday, January 16, 2014

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.

- 7:00am - 4:00pm Registration in the Atrium  
Exhibit Hall Open**
- 8:00am - 11:00am FEMA & Floodplain Management  
 Part 1 of 2  
Jason Miller et al. (6 CEH Elective)
- 8:15am - 11:15am Land Surveyor in Court and Mock Trial  
 Part 1 of 2  
Jeff Lucas (6 CEH Mandatory)
- 8:30am - 11:30am Bullet-Proof Boundaries  
 Part 1 of 2  
Gary Kent (6 CEH Mandatory)
- 11:00am - 1:00pm Staggered Buffet Style Lunch**
- 12:15pm - 3:15pm FEMA & Floodplain Management  
Part 1 of 2  
Jason Miller et al. (6 CEH Elective)
- 12:30pm - 3:30pm Land Surveyor in Court and Mock Trial  
Part 2 of 2  
Jeff Lucas (6 CEH Mandatory)
- 12:45pm - 3:45pm Bullet-Proof Boundaries  
Part 2 of 2  
Gary Kent (6 CEH Mandatory)
- 4:00pm - 5:30 pm ISPLS Business Meeting**
- 6:00pm Social & Banquet**  
 (Please indicate your attendance)

## Friday January 17, 2014

Please indicate your first choice ( v ) and alternate (A).

- 7:00am - 12:00pm Registration in the Atrium**
- 7:00am - 8:00am Past Presidents Breakfast
- 8:00am - 11:00am Managing your Business in  
Challenging Times  
 Gary Kent (3 CEH Elective)
- 8:00am - 11:00am Easements in a 3D World: Underground  
Wealth, Surface Flow, and Railroads  
Part 1 of 2  
 Kris Kline (3 CEH Elective)
- 8:00am - 11:00am What Went Wrong? A Study in  
Surveyor Errors and Omissions  
 Jeff Lucas (3 CEH Elective)
- 8:00am - 11:00am Onsite Sewage System Design  
Part 1 of 2  
 Alice Quinn & Denise Wright  
(6 CEH Elective)
- 8:00am - 11:00am Professional Ethics and the Land Surveyor  
 Tony Gregory (3 CEH Mandatory)
- 11:00am - 12:45pm Lunch w/ presentation from Kris Kline  
IPLS Foundation Raffle Drawing**
- 12:45pm - 3:30pm Anyone Could Lead Perfect People - If  
There Were Any  
 Gary Kent (3 CEH Elective)
- 12:45pm - 3:30pm Easements in a 3D World: Underground  
Wealth, Surface Flow, and Railroads  
Part 2 of 2  
Kris Kline (3 CEH Elective)
- 12:45pm - 3:30pm Better Business Practices and the Law  
 Jeff Lucas (3 CEH Elective)
- 12:45pm - 3:30pm Onsite Sewage System Design  
Part 2 of 2  
Alice Quinn & Denise Wright  
(6 CEH Elective)
- 12:45pm - 3:30pm Professional Ethics and the Land Surveyor  
 **Repeated**  
Tony Gregory (3 CEH Mandatory)

## Technician's Program - Thurs. & Fri., January 16-17, 2014

This year, we are offering a one-day technician's program on Thursday, January 16, 2014. This will provide an opportunity for technicians to meet with vendors and exhibitors. The one-day Technician's Program includes the four technician courses, handouts, access to the exhibit hall and lunch. Additionally, technicians wishing to attend Thursday and Friday may attend the four technician courses on Thursday and any of the courses offered on Friday. A licensed professional surveyor may attend any the technician courses for continuing education credits at the full or 1 day convention fee rate.

### Morning Sessions:

- 7:00am - 4:00pm Registration in the Atrium  
Exhibit Hall Open**
- 8:15am - 9:45am Indiana811 and the Dig Law  
 Chuck Muller & Blaine Walters  
(1.5 CEH Elective)
- 10:00am - 11:30am Informed Development: Pipeline  
 Laws, Standards and Safety Issues  
Perry Cloyd (1.5 CEH Elective)

### Afternoon Sessions:

- 11:30am - 12:30pm Buffet Style Lunch**
- 12:30pm - 1:30pm Unmanned Aerial Systems  
 Fred Bulger (1 CEH Elective)
- 2:00pm - 3:00pm Understanding Autodesk Civil 3D  
 Survey Database  
Julia Cornelius & Matt Davis  
(1 CEH Elective)

# ISPLS 2014 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](http://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.

8325 S. Emerson Avenue, Suite B-2, Indianapolis, IN 46237

Ph.: 317-888-4400 Fax: 317-888-4412

E-mail: [execdir@ispls.org](mailto:execdir@ispls.org)

Web: [www.ispls.org](http://www.ispls.org)

Registrations received after 12/31/2013 (including walk-in's) will include a **\$50.00 late fee**, and will be accepted based on available space, and will not be guaranteed handouts or meals. A full refund less 10% will be given to those refund requests received on or before 12/31/2013. A full refund less 50% will be given to those refund requests received between 1/1/2014 and 1/10/2014. **After 1/10/2013, no refunds will be made.**

### No further Registration will be accepted after 1/10/2014.

After 1/10/2014, 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 registration fee for **spouses** includes a like number of meals. 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, the ISPLS Board of Directors will provide in each attendee's convention packet a CD or other digital media that contains all the program material. The material will also be available on-line to an attendee upon completion of registration.

## LODGING

### Indianapolis Marriott East

7202 East 21st Street (317) 352-1231

Indianapolis, IN 46219 (800) 228-9290

Room reservations can be made at the following website:

<http://cwp.marriott.com/inddt/ispls2014convention>

Convention rates have been arranged. **Please indicate you are attending the 2014 ISPLS Convention when making reservation.** Reservations must be received by 12/31/13 in order to guarantee room and availability.

Single: \$109.00 Double: \$109.00

Triple: \$109.00 Quad: \$109.00

## REGISTER ON-LINE AT [WWW.ISPLS.ORG](http://WWW.ISPLS.ORG)

Name: \_\_\_\_\_

Name to appear on badge: \_\_\_\_\_

L.S. Number: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_ Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

Spouse's Name: \_\_\_\_\_

NSPS Membership Number: \_\_\_\_\_

	Fee
<input type="checkbox"/> Member	\$350.00
<input type="checkbox"/> Non-Member	\$550.00
<input type="checkbox"/> Spouse's Program	\$150.00
<input type="checkbox"/> Student (Full Time)	\$ 40.00
<input type="checkbox"/> 1 Day (Member)	\$250.00
<input type="checkbox"/> 1 Day (Non-Member)	\$450.00
<input type="checkbox"/> 1 Day Technician Program (Thurs. Only)	\$ 75.00
<input type="checkbox"/> 2 Day Technician Program (Thurs. & Fri.)	\$150.00
<input type="checkbox"/> Late Fee (After 12/31/12)	\$ 50.00
<input type="checkbox"/> NSPS Member (Full Convention)	\$350.00
<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	\$ 15.00

TOTAL \_\_\_\_\_

ISPLS Firm Member - Deduct 20% \_\_\_\_\_

TOTAL AMOUNT ENCLOSED \_\_\_\_\_

Please make check payable to: ISPLS, Inc. or  
Indiana Society of Professional Land Surveyors, Inc.

We accept: Visa  MasterCard  or Discover

Card Number: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Exp. Date \_\_\_\_\_ / \_\_\_\_\_ Security Code \_\_\_\_\_

Name on card: \_\_\_\_\_

Card Mailing Address if different from above:

\_\_\_\_\_

\_\_\_\_\_

(City, State, & Zip)

Cardholder's Signature: \_\_\_\_\_

# ISPLS 62ND ANNUAL CONVENTION • HOTEL MAP

Indianapolis Marriott East • January 15-17, 2014

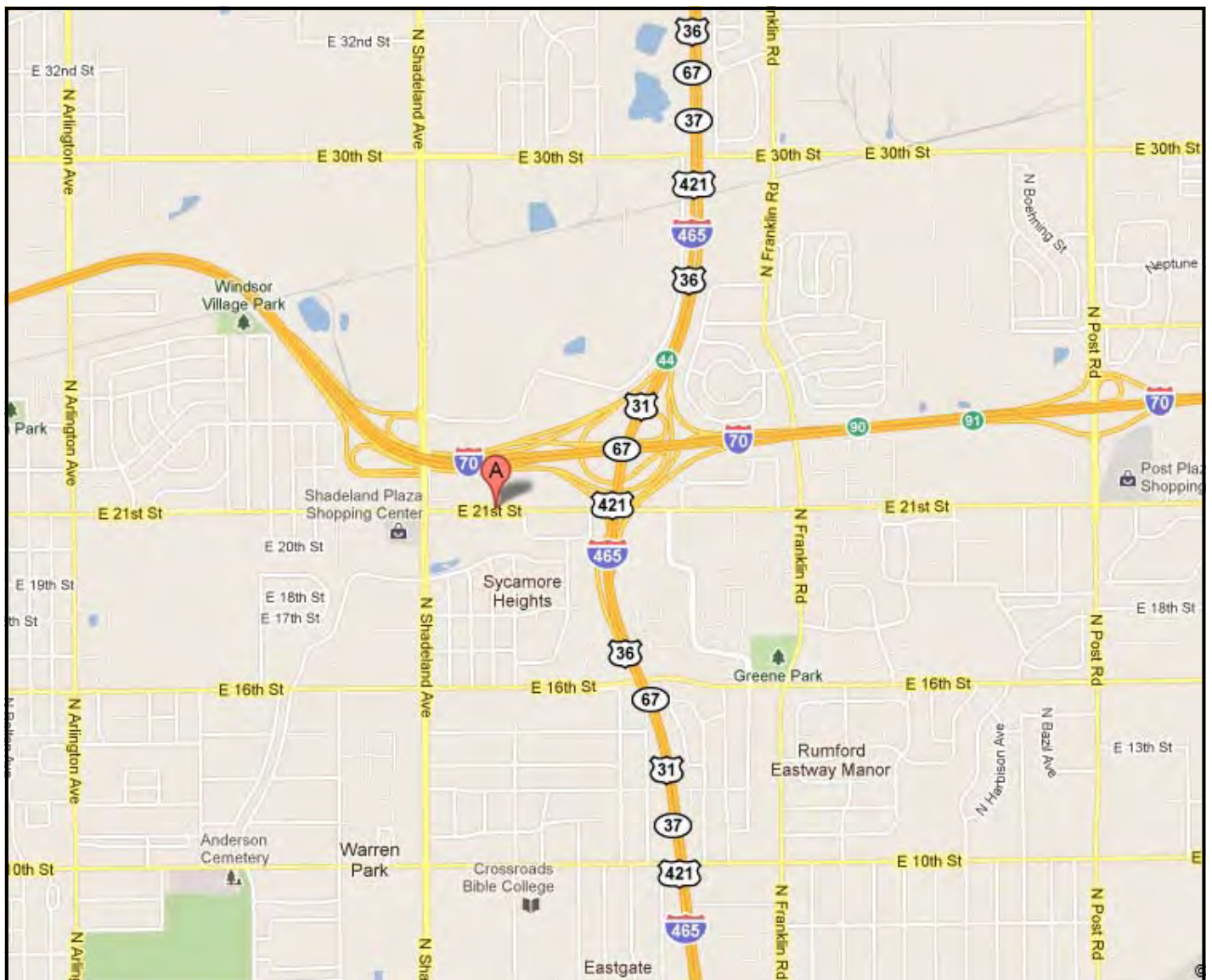
*Hosted by the Wabash Valley Chapter of ISPLS.*

## Indianapolis Marriott East

7202 East 21st Street

Indianapolis, Indiana 46219

Ph.: (800) 228-9290 or (317) 352-1231



© 2011 Google—Map Data © 2011 Google





**INDIANA SOCIETY OF  
PROFESSIONAL LAND SURVEYORS, INC.**  
8325 SOUTH EMERSON AVENUE, SUITE B-2  
INDIANAPOLIS, INDIANA 46237

**ISPLS 62ND ANNUAL CONVENTION—JANUARY 15-17, 2014  
INDIANAPOLIS MARRIOTT EAST, 7202 EAST 21ST STREET, INDIANAPOLIS, INDIANA**



# WEBELOS ACTIVITY BADGE DAY

By Brian Haggard, PS

Recently, Jacob Hoffman and I, representing Banning Engineering and the Central Indiana Chapter of the Indiana Society of Professional Land Surveyors, led the surveying portion for the Webelos Engineering Activity Badge for their 2013 Activity Badge Day at Camp Belzer. The weather was perfect for the eight groups of 9-10 year olds that visited us throughout the day.

We were tasked with giving the kids the basics of what land surveyors do and provided a small amount of history of land surveying as well. We taught them how to pace as a way of obtaining approximate measurements. We showed them how to use a surveyor's level to measure elevations. We also showed them the basics of how a robotic total station works. They were fascinated with it. Their final "test" was to use their newly learned pacing skills to guess the distance to a location 300+ feet away. We then measured the distance accurately with the total station to compare with their guesses.

It was interesting to see what really got the kids attention. Was it the history? Was it the pacing? Was it the guessing? Was it the robotic total station? No. Boring! They did enjoy looking through the surveyor's level with its 32X magnification. But the most beloved items at our station were the collapsible traffic cones. They proved to be quite the diversion to their attention. They pushed them down, pulled them up, down, up, down, up... So, the boys learned a little about land surveying and we learned to NEVER use collapsible traffic cones during a Webelos event, and I'd have to add Boy Scout events just to be safe. Also, never start the pacing station near the outhouse and drinking fountain. No explanation is needed for that one.



Photos provided by Brian Haggard, PS.

A big "Thank you" to Brain Haggard, PS; Jacob Hoffman, PS; and Banning Engineering for their efforts to education these young Scouts in the surveying profession. R. Jason Coyle on behalf of the CIC-ISPLS Leadership and Membership.



# BILBY TOWER TAKES ITS PLACE IN OSGOOD PARK

By Mike Davis

A small group of volunteers did something this fall that hadn't been done for nearly 30 years — and for some, it brought back memories of their previous careers — as they erected a Bilby Steel Tower for Triangulation in the Ripley County hometown of its inventor, Jasper S. Bilby.

The combined 64-foot inner tower and 74-foot outer tower was built Oct. 9-10 near the shore of a small lake in Osgood Walking Trails Park. It's within sight of Bilby's former farmland.

The "work party" included people from 11 states, including Indiana. Some were retired employees of the U.S. Coast and Geodetic Survey, the agency Bilby worked for from 1884 to 1937. Others were members of the Surveyors Historical Society or current or retired employees of the National Geodetic Survey, which came into being in 1970, and the National Oceanic and Atmospheric Administration (NOAA).

Bilby designed the steel towers in 1926 as a money-saving improvement over wooden signal towers that were being used in establishing a highly accurate national survey network. They were needed because in flat terrain it was difficult to see over the trees to adjacent survey marks.

Even where trees were sparse, towers at least 58 feet tall were needed at each end of a 20-mile-long survey line to account for the earth's curvature. The tallest tower on record was in Senegal and measured 156 feet high.



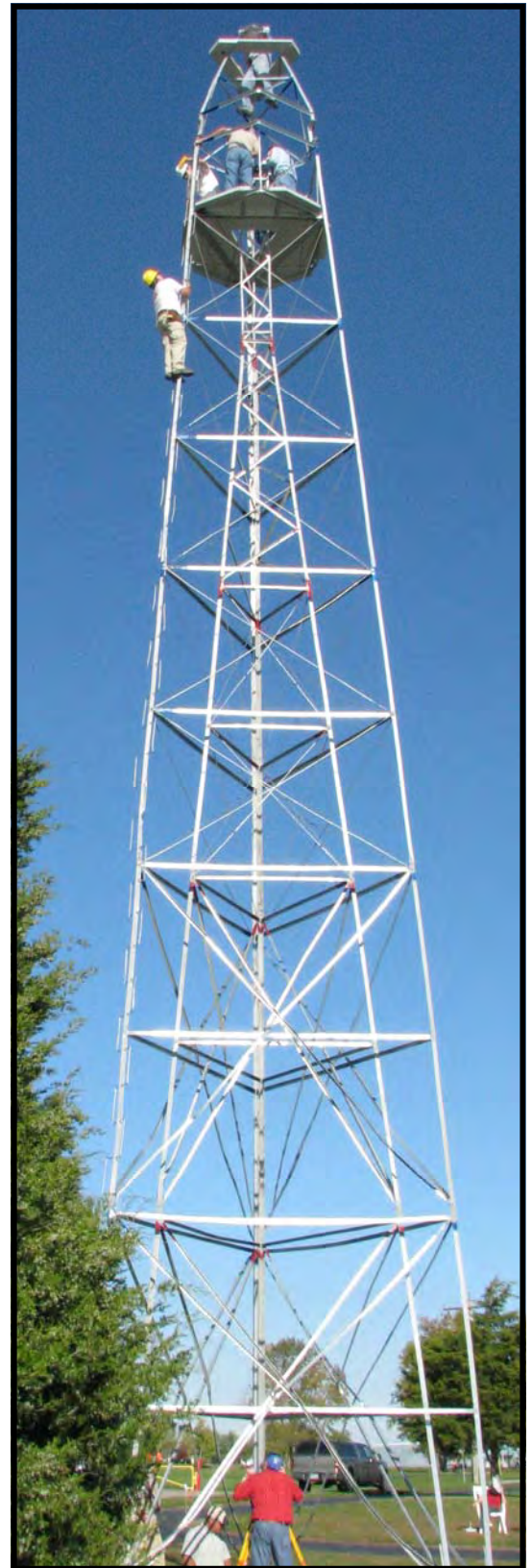
Jeff French, PS,  
Ripley County Surveyor  
Photo provided by R. Jason Coyle

This tower's previous home was on a sometime-submerged island in a wildlife preserve south of New Orleans. Its existence became known in 2010, and the group that assembled to visit the site in December of that year included Ripley County Surveyor Jeff French; his wife, Sue; and Surveyors Historical Society Administrator Roger Woodfill. The still-intact structure had been built there in 1972 and sat idle since then.

French was with those who returned in April 2012 to dismantle the free-standing structure and transport its several thousand pounds of steel to Indiana. K&S Farm and Machine Shop spent months cleaning the many legs, ties, stays, diagonals and other pieces in its shop near Greensburg — and then they were galvanized.

As more months passed and word spread of the rare tower "find," some contributed missing parts. Charles Glover, a retired National Geodetic Survey employee, donated a rare set of anchors for the tower's legs. Early into the project, much-appreciated financial support was provided by the Reynolds Foundation in Osgood.

*(Continued on page 33)*



Volunteers put the final touches on the newly erected Bilby Tower in Osgood Park.  
Photo provided by Edna Geoghegan

(Continued from page 32)

Finally, on Tuesday Oct. 8, the group began to assemble in the small, south-east Indiana town. “Wednesday, everyone went out to the site and set up 10 to 12 feet,” French said. “It was totally finished on Thursday. They worked straight through ... didn’t even stop for lunch.”

French estimated that about nine people did most of the physical work — and that group included Charles Geoghegan, Chapin, S.C., and his son, Kevin, who got a first-hand experience of a family heritage.

One of the veteran Coast and Geodetic Survey workers, Ulis O. Jones, who lives in Santa Claus, Ind., and celebrated his 89th birthday on Oct. 18, got to relive a dream on the final day by climbing all the way to one of the top legs.

The congratulations he received were well-deserved, French said. “I really believe that if it hadn’t been for the contact we had with Ulis, this would not have gotten done,” he observed.



Charlie and Kevin Geoghegan, father and son: Kevin’s first time as a builder on a tower and a third generation builder at that, as Kevin’s grandfather was a builder as well. Photos provided by Edna Geoghegan



L. to R.: Joe Lindsay, Kevin Geoghegan, Ulis Jones, Dennis Hoar, Russ Arnold  
Photos provided by Edna Geoghegan

The next gathering, which likely will draw even more people to Osgood, is planned for June 14, 2014, when the tower will be dedicated.

In the meantime, anyone who wants to see the tower can drive south of Osgood on U.S. 421 to County Road 300 North and travel west for about six-tenths of a mile. There is a Trails Park parking lot near the tower on the south side of the road.

The sturdiness of Bilby’s design and the craftsmanship of those who erected the structure in Indiana is evident. It was said to have withstood at least 18 hurricanes, including Katrina, while on the island in Louisiana — and a few weeks after being erected in Osgood, storms with 65 mile-per-hour winds didn’t faze it.

To read more about the work of the geodetic field parties, read “Life of the Party” from pages 32 to 39 in the April 1971 issue of NOAA, a National Oceanic and Atmospheric Administration publication. Among those it mentions are former Field Party G-23 co-workers Ulis Jones and John “JD” Rigney, who teamed up again in Osgood. It’s available online at:

<http://docs.lib.noaa.gov/rescue/journals/noaa/QC851U461971apr.pdf>



With the aid of a collimator, Michael “Mike” Fowler, Corydon, is signaling a helper, perched high atop the tower, to move an instrument mounting plate precisely over the triangulation mark.



# BILBY TOWERS WERE WELCOME SIGHTS TO ULIS JONES

By Mike Davis

Ulis Jones had what it took to join the U.S. Coast and Geodetic Survey in 1946.

“We’re only hiring veterans,” said a supervisor, looking for crew members in Huntingburg.

Jones, who is 89 and lives in Santa Claus, Ind., met that hiring standard, having served in a U.S. Navy Seabees unit in World War II.

The next question was, “Are you afraid of heights?”

“I said no,” Jones said, “and I was put on a tower the next day.”

The towers were Bilby Steel Towers for Triangulation, and Jones became very familiar with them before he retired on the last day of December in 1979.

He figures he crossed the U.S. about four times, pulling a 37-foot trailer behind his car, as the crews built and took down the temporary steel towers used to establish a geodetic network.

Trailers provided moveable housing for the survey parties, which had no fixed base and frequently moved from place to place. Families accompanied those who were married — and the travelers included Jones and his wife, Irene, who were married in 1946.

The trailer served him well. “I bought it for \$6,185, and sold it 27 years later for \$4,000,” he said.

His travels took him through 48 states — plus Alaska, when it was a territory. He also worked in Dakar, a city in the West Africa country of Senegal, where he was on a crew that built a 116-foot tower at a U.S. Air Force station — and on the island of Guam, where the entire island was surveyed.

He said wherever he went, the tools were mostly the same: a pick, a shovel, a rope and a pulley, and a 16-foot flatbed truck that hauled the inner and outer towers’ framework.

“There were usually about 38 men on a crew,” he said, counting off the people in the reconnaissance party who did the preliminary field work, as well as those in the field parties who built and tore down the towers, made observations, and manned the signal lamps.

By 1971, when he was one of those interviewed for an article in NOAA, a publication of the National Oceanic and Atmospheric Association, he was serving as field foreman for Geodetic Field Party G-23, then based in Pompano Beach, Fla., for a five-month survey of Broward County.

Jones told the writer the hardest part of setting up a tower was digging the holes to anchor the legs — and so, when it came time to erect the tower in Osgood, he guided that process again.

He also told of using pack horses up until 1957 to work in rugged areas like the Big Horn Mountains of Wyoming — although he said by 1971, helicopters had replaced the horses.

Pickup trucks and a trailer did the job in 2013.

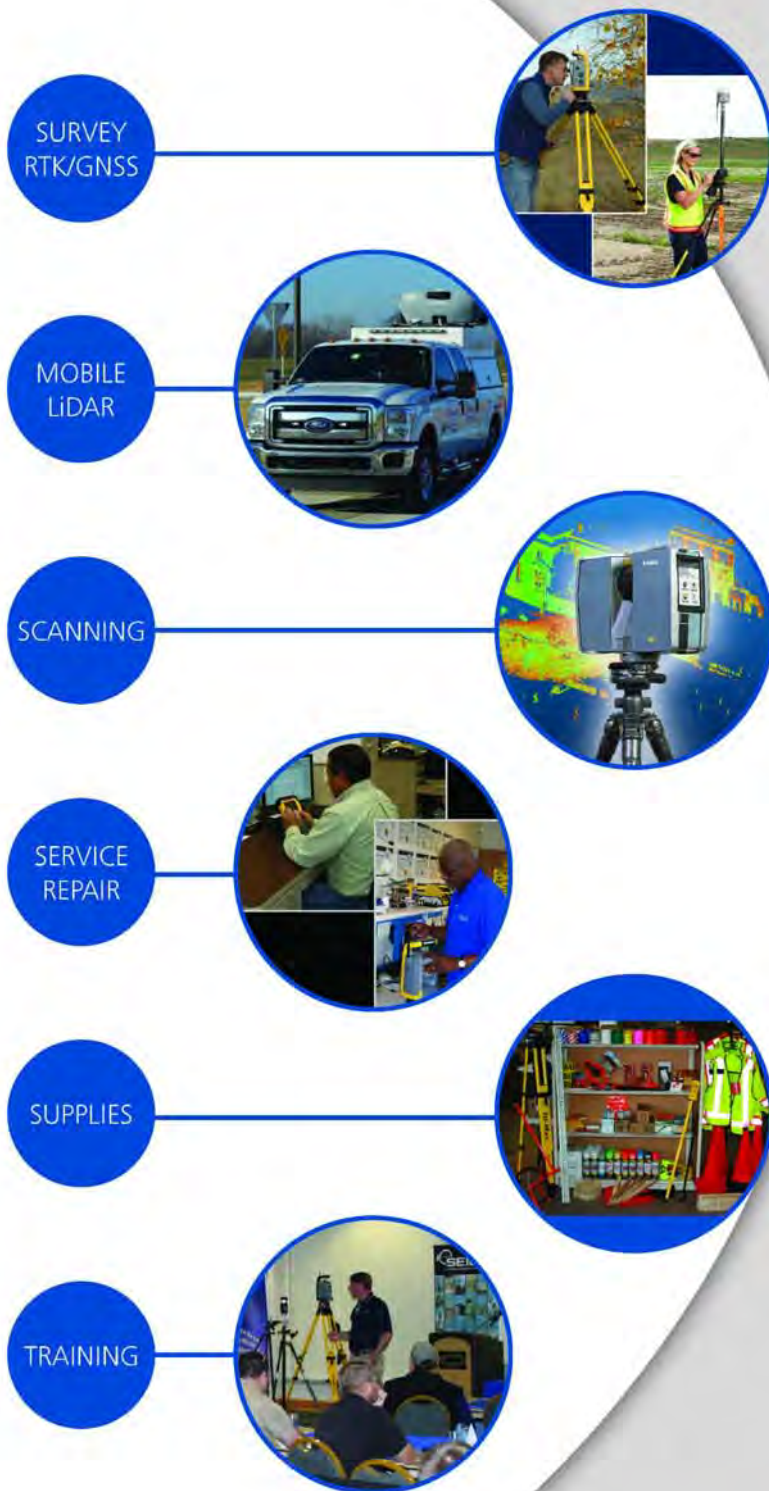
<http://docs.lib.noaa.gov/rescue/journals/noaa/QC851U461971apr.pdf>



Ulis Jones, the hardest-working man on the ground, and sometimes on the tower, during the erecting of the Bilby Tower in Osgood Park, Osgood, Indiana.

Photo taken by R. Jason Coyle

# SEILER IS YOUR SOURCE FOR...



Seiler Instrument offers a complete line of high precision instruments for survey, mapping, architectural, construction, civil, mechanical and structural engineers, along with building implementation and plant professionals.

We offer a wide variety of equipment, BIM and application software, mobile mapping and 3D scanning, field supplies for general construction, site layout, site positioning, and much more!

We work with dependable and quality driven manufacturers such as:

- Trimble®
- Spectra Precision®
- CartoPac Field Solutions®
- Laser Technology®
- AGL®
- David White®
- NiKon®
- SECO®

Our experienced field, training, service and support staff will work with you and your organization to provide the best solutions available for your productivity and project success.



**Contact Us:**

**Seiler – Indianapolis Office**  
5454 Harrison Park Lane  
Indianapolis, IN 46216  
Direct: 317-545-7090  
Toll Free: 888-263-8918  
Email: [solutions@seilerinst.com](mailto:solutions@seilerinst.com)

**SALES • RENTALS • SERVICE • TRAINING • FINANCING**  
Website: <http://solutions.seilerinst.com>



# THE SOUTHWEST CHAPTER'S CALIBRATION BASE LINE

By Matt Badger, PS

The Southwest Chapter of ISPLS is well on its way to having an approved National Geodetic Survey (NGS) Electronic Distances Measuring Instrument (EDMI) Calibration Base Line (CBL) ready for surveyors to detect the constant and scale errors in their EDMs. This article will act merely as a brief introduction as to what events have transpired to date and what the anticipated future will include. A more exhaustive article will be provided to the Hoosier Surveyor after NGS has published the results of the CBL next year.

At the Southwest Chapter's September 11, 2012 meeting at the Schnitzelbank Restaurant in Jasper, Indiana, Matt Badger gave a presentation regarding the basic outline set forth by NGS for the establishment and use of a CBL, including the number and character of monuments, their spacing, preferred terrain conditions, benefits, estimated costs, NGS cooperation and involvement, etc. That night, the vote was passed to proceed as a chapter in the pursuit of establishing a CBL.

At the 2013 ISPLS Annual Convention in Indianapolis, the Southwest Chapter held its first 2013 meeting, where this was discussed with the additional members not present at the September 2012 meeting. Members were asked to provide any suggestions for potential sites satisfying the requirements needed for a successful Base Line.

After four nearly successful site investigations, the stretch of right-of-way in Vanderburgh County where the four constructed monuments (marks at 0 m, 150 m, 430 m and 1,830 m) now reside was found to satisfy the requirements for accessibility, safety, soils condition, terrain characteristics, etc. This location is easily accessible, has a lower volume of traffic (though I-64 is just on the other side of the right-of-way fence), is not on private property and satisfies the terrain requirements for performing measurements along a CBL. Once the SW Chapter coordinated with NGS; INDOT; the Vanderburgh County Highway Engineer, Commissioners, Highway Maintenance Department and Attorney; and Subsurface Utility Companies and their field locators, etc., by providing them with CBL background information as well as laths at the approximate preliminary monument locations, it was then time to construct the monuments.



A utility locator's flag gives the all clear for digging.

*(Continued on page 37)*



L. to R.: Calvin Cash, Matt Badger and Greg Kissel pour concrete into a form for one of the marks. Photos provided by Matt Badger.



A 5" Berntsen monument lid provides access to the markers approximately 9" below grade. This was done to protect the mark from mowing maintenance and farm equipment.



(Continued from page 36)

Volunteers supplying the manpower to construct the monuments included Southwest Chapter members Greg Kissel (current Chapter President) of Kissel Land Surveying, LLC; Calvin Cash (current Chapter Vice President) of Cash Waggoner & Associates, PC; and Matt Badger (current Chapter Secretary/Treasurer) of Bernardin, Lochmueller and Associates, Inc.; along with Matt's Dad, Gale Badger. Craig Williams from the Central Indiana Chapter came on behalf of Seiler Instrument and provided geospatial support consisting of Trimble's R10 GNSS system to lay out the preliminary locations of the NGS-supplied CBL disks and a Trimble S8 High Precision (0.5" and 1 mm+1 ppm) Total Station to fine-tune their final locations to fulfill NGS' tolerances that they constitute a "straight line" and their recommendation that the final NGS-measured distances be within a "few centimeters" of the theoretical (even 10 meter increments) distances.



One of the four Geodetic Control Marks. The station was named "G BADGER" in honor of Matt's father and set at 1,830 meters along the base line. Photos provided by Matt Badger.



Matt Badger multi-tasking while making an observation with the Trimble S8 High Precision Total Station.

The Southwest Chapter is now waiting for one full freeze/thaw cycle to pass until performing the Third-Order, Double-Run Differential Levels over the monuments, after which NGS will travel over from the Corbin Training Center in Corbin, Virginia to perform their measurement observations sometime early in the Spring of 2014. Once NGS has conducted its field survey, it is estimated that the adjusted and published results will be posted on its website a few weeks later. The Southwest Chapter will then submit a more in-depth and complete write-up of this process.



L. to R.: Calvin Cash and Matt Badger prepare for an observation with the Trimble R10 GNSS. Photos provided by Matt Badger.



L. to R.: Calvin Cash, Greg Kissel, Matt Badger and Gale Badger prepare for an observation with the Trimble R10 GNSS over one of the marks.

# LEGAL SURVEYS

Bryan F. Catlin, PLS

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](http://www.in.gov/judiciary). Comments or suggestions for future columns are welcome by email to: [Bryan.Catlin@indy.gov](mailto:Bryan.Catlin@indy.gov).

**UPDATE -- Richard J. Bond vs. Knox County Drainage Board and Dick Vermillion, as Knox County Surveyor, Indiana Court of Appeals Case No. 42A01-1209-PL-422, April 25 11, 2013 - MEMORANDUM DECISION - not regarded as precedent**

This case was summarized in the last issue of the Hoosier Surveyor. Dick Vermillion has helpfully sent confirmation that the Indiana Supreme Court will not take up this case so the Appeals Court ruling will stand.

Not knowing the status of any possible appeal, along with not having access to exhibits, is one of the limitations of research such as this. While this case cannot be used as a precedent, the cases cited in it can be, and now we know the Supreme Court is not going to look at the Appeals Court's interpretation of the precedents from this case at this time.

**Twin Lakes Regional Sewer District vs. Robert W. Teumer and Paula K. Teumer, Indiana Court of Appeals Case No. 90A04-1212-PL-638, July 22, 2013**

This is a case from White County where Twin Lakes filed a Complaint for Appropriation of Easement on two parcels owned by the Teumers in January of 2011. In March of 2011 after a hearing, the court appointed three appraisers to assess what damages the Teumers were entitled to. Up to this point the process seems fairly standard for a situation where the two parties don't agree on value and a court is involved. But here is where things get odd. The May 2011 appraisers report, which evidently included the fee simple value of the easement areas sought, came in at \$5,434. On June 3, 2011 Twin Lakes paid \$5,434 to the clerk of the White Circuit Court, and as a result the court ordered that Twin Lakes could take immediate possession of the easements. That day, Twin Lakes filed an exception to the appraisers' report. Three days later, the court clerk mistakenly sent the \$5,434 to the Teumers.

In August 2012 a bench trial was held. The Teumers appeared pro se (they represented themselves) and did not introduce any evidence. Twin Lakes called two witnesses, one a licensed appraiser who valued the combined easements at \$950. On its own the court introduced the report of the court-ordered appraisal. In October 2012 the court determined the Teumers' damages as \$5,000. In November 2012, Twin Lakes filed a motion to correct error. The court ordered the court clerk to refund \$434 to Twin Lakes but otherwise denied the motion to correct error. This Appeal followed.

The Appeals Court discusses the process for eminent domain appraisals, found the court-ordered appraisals were not admissible, and even if they were, the trial court was wrong to introduce the appraisals on its own since pro se parties can be given some latitude in court but are held to the same legal standard as other parties. The Appeals Court reversed the trial court and remanded the case with instructions to enter judgment of \$950 for the Teumers. The Appeals Court also discussed why the refund to Twin Lakes should properly come from the clerk who failed to follow proper procedures for handling and paying monies in a case like this. Although the trial court had stated the Teumers would not have to return any money, the clerk can attempt to recover part of the erroneous payment.

**Rollett Family Farms, LLC vs. Area Plan Commission of Evansville-Vanderburgh County, Vanderburgh County Board of Commissioners, and Vanderburgh County Recorder, Indiana Court of Appeals Case No. 82A01-1301-PL-43, August 13, 2013**

Here is a case where portions of a farm along the Ohio River have been leased as river camps since at least 1938 and portions on the north side of a road have been similarly leased since the 1950s. Nineteen of the twenty-five camps have structures on them. Some tenants live there year-round. The farm is assessed as one parcel while the improvements are assessed separately with taxes being paid by the owners of each structure. John Rollett, a co-manager of the LLC, arranged to sell one of the camps to its current tenant in October 2008. He asked his attorney to prepare a deed and while doing research she discovered that the proposed conveyance would not meet current subdivision requirements unless it was exempt as a lot of record before Vanderburgh County adopted zoning and subdivision ordinances in 1957. Rollett filed a complaint basically arguing the camps were lots of record.

At trial it was established that the camps did not qualify for subdivision under current standards but that the use as a pre-existing private recreation facility did fit in an exemption category. Rollett argued that as a legal nonconforming use the camps should be exempt from the subdivision ordinance. However, the court ruled that the case was not about use but the act of subdividing the property and ruled in favor of the defendants.

*(Continued on page 39)*



*(Continued from page 38)*

The Appeals Court notes that the plain meaning of “of record” requires legal descriptions, a plat or something similar to have been recorded. The tax records from over the years and the depiction of structures on a 1957 quadrangle map might show use but did not establish boundaries. The trial court was upheld.

**Dianne M. Ross, William L. Ross, Martha Jane Milhouse and Paul David Milhouse vs. Bartholomew County Drainage Board and Stephen A. Hoenener, Jim Pence, Ron Speaker, Jeff Schroer, and Carl Lienhoop in their capacity as Members of the Bartholomew County Drainage Board, Indiana Court of Appeals Case No. 03A01-1210-PL-489, August 22, 2013**

In this case Bartholomew County Road 650 South has a roadside ditch. The landowners had erected an earthen berm or levee along the ditch on private property. At a low point where water from the ditch had flowed across the field, the berm now forced the water to rise until it flowed across the road, occasionally flooding the road and in cold weather creating icy conditions. The County Highway Department had trespassed on the private property and dug out spots in the berm which the landowners filled with sandbags. On May 13, 2011 the County Highway Department filed a petition with the Drainage Board alleging the appellants were obstructing a drain or surface watercourse, impeding drainage from the road, causing water to back up onto the road and causing a traffic hazard. A Drainage Board hearing was scheduled for August 8, 2011. However, when the July 18, 2011 Drainage Board meeting ended early, the board members decided to go on a site visit to understand what was happening. The Appellants filed a complaint with the Indiana Public Access Counselor on July 29, 2011 claiming a violation of the Indiana Open Door Law. The Public Access Counselor did issue an advisory opinion that the Drainage Board did violate the Open Door Law in August 2011. At the August 8 meeting the case was rescheduled for September 12, 2011 and it was announced that the board members would conduct a site visit on August 22, 2011. At the September 12 hearing the Board determined there was a natural surface watercourse and that removing the obstruction would promote better drainage of the road and would not cause unreasonable damage to the Appellants’ property. The Appellants petitioned for review of the Board decision and alleged two violations of the Open Door Law. First, that the August 22 site visit was not posted properly; and second, that an improper executive session was held at the September 12 hearing. After an evidentiary hearing was scheduled the allegation about the executive session was dropped and on October 4, 2012 the trial court upheld the Board’s decision and awarded the Appellants \$3,766 in attorney fees for the Board violation of the Open Door Law.

On Appeal, the Appellants argue the court erred upholding the Drainage Board decision and characterized the water flow as diffuse surface water which would allow blockage by the common enemy doctrine. The Board argues that the water was in a defined channel as had been found by the trial court. The Appellants also argued that their claim for mandatory attorney fees should not have been reduced although the trial court had found some of the fees were not allowed under the Open Door Law. The decision of the trial court was affirmed.

In order to shorten the length of this column, I plan to provide very brief summaries of most memorandum decisions from now on. The full opinions are always available online if one of these cases is of interest to the reader.

**Fred L. Froeschke and Judith A. Froeschke vs. City of Vincennes, Indiana Court of Appeals Case No. 42A04-1301-PL-29, July 2, 2013 - MEMORANDUM DECISION - not regarded as precedent**

This case from the Knox Circuit Court concerns a railroad relocation and overpass project. The Mayor hired Beam, Longest and Neff to perform services including various right-of-way services. A BLN representative tendered an offer to the Froeschkes for their property but the City Council did not authorize payment and the Mayor was not authorized to provide payment either so he could not delegate purchasing authority to BLN. The Froeschkes complained alleging breach of contract, unjust enrichment and promissory estoppels against the City. The court held for the City as did the Appeals Court.

**Michael Stratton, Personal Representative of the Estate of Ida C. Grow, Deceased vs. Marjorie Ann Miller, Indiana Court of Appeals Case No. 69A01-1212-CT-543, July 17, 2013 - MEMORANDUM DECISION - not regarded as precedent**

This appeal from the Ripley Circuit Court concerns the location of a fence constructed in 1956 and a 2003 retracement survey which showed the fence was built up to a foot onto the property of the neighbor who had the survey performed per the record description. The neighbor, after giving warning, tore down 215 feet of the fence. The trial court held that the fence had established the boundary by acquiescence, and awarded damages for trespass to both parties, and damages for the cost of the fence materials. The Appeals Court generally agreed with the trial court but did say some costs should be awarded to the Estate and remanded the case.

*(Continued on page 40)*

(Continued from page 39)

**Parkway Developers Construction, LLC vs. Lang, Feeney & Associates, Inc., and Terance D. Lang, Indiana Court of Appeals Case No. 71A03-1212-PL-526, July 26, 2013 - MEMORANDUM DECISION - not regarded as precedent**

This appeal from the St. Joseph Superior Court starts with an error made in calculating the volume of dirt available on a site. A 2008 Memorandum of Agreement was signed which would release Lang from liability for the survey errors by payment of cash and surveying and other services up to a set amount. Lang made payments, forgave money owed and performed certain work under the agreement. Parkway filed suit in 2009 alleging, among other things, breach of contract. At trial the court found that Lang had provided cash, services and forgiven debt over the amount of the agreement, that not performing some dirt placement and seeding outlined in the agreement was therefore not a breach of contract, and that he owed a small amount of interest on late payments. The Appeals Court agreed.

**LTC Investments Inc. vs. EGR Indiana Properties, LLC, Indiana Court of Appeals Case No. 18A02-1301-PL-15, August 13, 2013 - MEMORANDUM DECISION - not regarded as precedent**

This appeal from the Delaware Circuit Court concerns land formerly owned by King Indiana Forge (KIF) in Muncie. This somewhat strange case began in 2009 when EGR Indiana Properties agreed to buy several parcels from KIF but not all of Tract 20 which had once had an oil plant and underground storage tanks. A survey was performed, corner monuments were set and a new description of the portion of Tract 20 KIF would retain was prepared calling for the new monuments. This deed to EGR contained the legal descriptions of the parcels they were buying and also noted by the new description the newly created tract KIF was retaining. KIF later sold the parcel they retained to Troy Henson who sold to Marla Whitaker who sold to LTC, all using the new description calling for the corner monuments set in 2009. Whitaker also had a survey prepared of the original tract 20 by a second surveyor. In July of 2012, LTC began putting up fence posts approximately 35 feet east of the monumented and described boundary. There was a dispute between representatives of LTC and EGR. A surveyor from the firm which had prepared the 2009 description located the original monuments on August 1, 2012 and noted the posts to the east of the boundary. EGR filed a complaint for an injunction against LTC and this all ended in court where LTC claimed EGR wasn't properly organized in Indiana and couldn't have title, that EGR hadn't paid taxes on parcel 20, etc. The court found for EGR and the Appeals Court agreed. The opinion does note this is not a boundary dispute but rather a question of ownership as well as the difference between legal title and equitable title and noted equitable title can be created by a contract for sale even before closing.

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.

## COMPLETED CAREER

### Gerald James Byrnes, PS

Gerald James Byrnes passed away Sunday, Nov. 17, 2013. He was 59. He was the son of the late James J. and Mary F. Byrnes. He is survived by his daughter, Heather N. Reynolds; his brothers, James J. Byrnes Jr. (Margie), John L. Byrnes (Adrienne), and Francis X. Byrnes (Rosaleen); his sisters, Mary B. Tecce, and Anne Byrnes; and many nieces and nephews. He also was preceded in death by his brother, Edward P. Byrnes. A funeral Mass was held at 10:30 a.m. Thursday, Nov. 21, at Nativity of Our Lord Roman Catholic Church, 605 West Street Road, Warminster, PA. Interment was held privately. In lieu of flowers, donations may be made to ALS Association Greater Philadelphia Chapter, 321 Norristown Road, Suite 260, Ambler, PA 19002.

John J. Bryers Funeral Home, Willow Grove - [www.bryersfh.com](http://www.bryersfh.com)

## ISPLS FIRM MEMBERS

### **Banning Engineering, P.C.**

853 Columbia Rd., Suite 101  
Plainfield, IN 46168  
Ph.: 317-707-3700  
www.banning-eng.com

### **Edward J. Sweetland, PLS**

*Survey Department Manager*

8126 Castleton Road ■ Indianapolis, IN 46250  
p: 317-849-5832 ■ f: 317-841-4280 ■ c: 317-443-7812  
e: esweetland@B-L-N.com



**Beam, Longest and Neff, L.L.C.**  
Consulting Engineers & Land Surveyors

Phone 812.479.6200  
Toll Free 800.423.7411  
Fax 812.479.6262  
E-Mail mew@blainc.com

**MATTHEW E. WANNEMUEHLER, P.L.S.**  
Principal  
Administrator of Engineering/Surveying

### **BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.**

6200 Vogel Road · Evansville, Indiana 47715-4006

ENGINEERING · PLANNING · SURVEYING · ENVIRONMENTAL SERVICES



8450 Westfield Blvd., Suite 300  
Indianapolis, IN 46240-5920  
T 317.713.4615  
F 317.713.4616  
E BFS@BFSEngr.com

www.BFSEngr.com



**CASH WAGGNER  
& ASSOCIATES, PC**  
CONSULTING ENGINEERS • LAND SURVEYORS

### **CALVIN B. CASH III, PLS**

332 THIRD AVENUE  
SUITE 13  
JASPER, IN 47546  
EVANSVILLE • JASPER

PH: 812.634.5015  
FAX: 812.634.5017  
CELL: 812.631.8491  
CCASH@CASHWAGGNER.COM  
WWW.CASHWAGGNER.COM



Architects + Engineers

**Eric C. White, RLS**  
Survey Project Manager  
ewhite@cripe.biz

3939 Priority Way South Drive, Suite 400 Indianapolis, Indiana 46240  
Telephone + Facsimile 317 706 6333  
www.cripe.biz



ENGINEERS • ARCHITECTS • SCIENTISTS  
PLANNERS • SURVEYORS

**Joseph C. Zwierzynski, P.E.**  
President

2211 E. Jefferson Blvd.  
South Bend, IN 46615  
574.236.4400  
574.236.4471 (fax)  
574.514.8425 (cell)  
jzwierzynski@dlz.com  
www.dlz.com



### **DONOVAN ENGINEERING**

2020 INWOOD DRIVE  
EXECUTIVE PARK  
FORT WAYNE, IN 46815

GREG ROBERTS P.L.S.                      OFFICE 424-7418  
JOHN R. DONOVAN P.E. & P.L.S.  
FRANCIS X. MUELLER P.L.S.


## ISPLS FIRM MEMBERS



**David G. Croft, P.L.S.**  
Professional Land Surveyor

**gai consultants**

158 S. Napoleon Street, Suite 100  
Valparaiso, IN 46383  
**Direct** 219.462.1158 ext. 223  
T 219.462.1158  
F 219.462.0329  
www.gaiconsultants.com  
d.croft@gaiconsultants.com



**Ross Holloway, PE, PLS**  
President

phone: 317.831.7918  
800.831.7918  
fax: 317.831.8255

P.O. Box 234 Mooresville, IN 46158      Web: hollowayengineering.com

**L. Edward Rinehart, Jr., PLS**  
Vice President



**GRW**

801 Corporate Drive  
Lexington, KY 40503  
Tel 859.223.3999  
Fax 859.519.4507  
erinehart@grwinc.com

engineering | architecture | geospatial



**KRAMER**  
& ASSOCIATES, LLC

Bradley J. Kramer, P.S., L.S.  
Project Coordinator  
bradkramer@kramer2000.com

*Excellence In People, Service and Solutions*

101 N. Barron St.      FAX      2009 Chester Blvd.  
Eaton, OH 45320      937-456-6912      Richmond, IN 47374  
937-456-1332      www.kramer2000.com      765-935-2696



**Chris F. Marbach**  
Professional Land Surveyor  
President

chris@marbachpls.com

**Marbach**  
Marbach, Brady & Weaver, Inc.

INDOT  
3.1  
3.2  
6.1  
8.1  
11.1

**Engineering & Surveying Since 1918**

3220 Southview Drive ~ Elkhart, Indiana 46514  
Phone: (574) 266-1010 ~ Fax: (574) 262-3040  
info@marbachpls.com ~ www.marbachpls.com

**MAURER SURVEYING, INC.**  
LAND SURVEYING, LAND DEVELOPMENT & BUILDER'S SERVICES



**Paul Maurer**  
Professional Land Surveyor  
Indiana

Office - (317) 881-3898 Fax - (317) 881-4099  
Mobile - (317) 372-4633  
paul@maurersurveying.com

4800 W. Smith Valley Road Suite P Greenwood, IN 46142




Consulting Engineers  
Land Surveyors  
Architects  
Construction Managers

**Danny K. Leek, P.L.S.**

4800 Rosebud Lane      Off: 812-464-9585  
Newburgh, IN 47630      Fax: 812-464-2514  
Email: DannyL@morleyandassociates.com      Cell: 812-453-0131  
http://www.morleyandassociates.com

812-682-3927



**PAUL E. BREEZE SURVEYING**

PAUL E. BREEZE  
REGISTERED LAND SURVEYOR



800 OLD SAND ROAD  
NEW HARMONY, IN 47631



## ISPLS FIRM MEMBERS

<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 10px;">Plumb, Tuckett &amp; Associates</div> </div> <p style="margin-top: 10px;"><b>Donald L. Plumb</b> Registered Land Surveyor</p> <div style="text-align: center; border: 2px solid black; padding: 5px; transform: rotate(-45deg); color: white; font-weight: bold; font-size: 1.2em;"> <a href="http://www.plumbtuckett.com">www.plumbtuckett.com</a>  <b>SURVEYORS</b>  <b>ENGINEERS</b>  <b>SINCE 1955</b> </div> <p style="margin-top: 10px;"><b>Phone (219) 736-0555 • Fax (219) 769-0178</b>  <b>64 West 67th Place • Merrillville, IN 46410</b>  <a href="mailto:dplumb@plumbtuckett.com">dplumb@plumbtuckett.com</a></p>	<p style="text-align: center; font-weight: bold; margin-top: 5px;">RANDALL MILLER &amp; ASSOCIATES <small>INC.</small></p> <p style="text-align: center; font-size: 0.9em;">Surveyors • Engineers • Consultants</p> <p style="text-align: center; font-weight: bold; margin-top: 5px;">Jason Miller, PLS, PE, CFM, President Professional Land Surveyor Professional Engineer Certified Floodplain Manager</p> <p style="text-align: center; font-size: 0.8em;">145 E. Third Street • Marion, IN 46952  <a href="mailto:jmiller@rmasurveying.com">jmiller@rmasurveying.com</a> • Office: (765) 662-1284 • Cell: (765) 251-3717</p> <div style="background-color: #e67e22; color: white; text-align: center; padding: 5px; font-weight: bold;"> <a href="http://www.RMASurveying.com">www.RMASurveying.com</a> </div>
<p style="margin-top: 10px;"><b>Bradley A. Rayl, P.E., P.L.S.</b> <i>president</i></p> <p style="margin-top: 20px;">1940 East 53rd Street Anderson, IN 46013</p> <p style="margin-top: 10px;">Business: (765) 643-5614 • Fax: (765) 643-1874  Email: <a href="mailto:rse@netdirect.net">rse@netdirect.net</a></p>	<p style="text-align: center; font-weight: bold; font-size: 1.2em; margin-top: 20px;">SEA Group, LLC</p> <p style="text-align: center; margin-top: 5px;">494 Gradle Drive Carmel, IN 46032 Ph.: 317-844-3333 <a href="http://www.seagroupllc.com">www.seagroupllc.com</a></p>
<p style="margin-top: 10px;"><b>David Stoepfelwerth, P.E., P.L.S.</b> <i>president &amp; ceo</i></p> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> <div style="width: 45%;"> <p>ofc: 317.849.5935 dir: 317.849.5935 mbl: 317.577.3402 fax: 317.849.5942 <a href="mailto:dstoepfelwerth@stoepfelwerth.com">dstoepfelwerth@stoepfelwerth.com</a></p> </div> <div style="width: 45%;"> <p>7965 East 106th Street Fishers, IN 46038-2505 <a href="http://www.stoepfelwerth.com">www.stoepfelwerth.com</a></p> </div> </div>	<p style="margin-top: 10px; text-align: center;"><b>John C. Nagy, P.L.S.</b></p> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> <div style="width: 45%;"> <p>105 N. 10th Street Lafayette, IN 47901 <a href="http://www.tbirddesign.com">www.tbirddesign.com</a></p> </div> <div style="width: 45%;"> <p>Phone: 765-742-1900 Fax: 765-742-1905 Mobile: 765-479-8320 <a href="mailto:nagy@tbirddesign.com">nagy@tbirddesign.com</a></p> </div> </div>
<div style="text-align: center; background-color: black; color: white; padding: 2px; font-weight: bold; font-size: 0.9em;">             engineering • gis • surveying         </div> <p style="margin-top: 10px;"><b>The Schneider Corporation</b> Historic Fort Harrison 8901 Otis Avenue Indianapolis, IN 46216</p> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> <div style="width: 45%;"> <p>317.826.7132 Direct 866.973.7100 Toll-Free 317.826.7200 Fax</p> </div> <div style="width: 45%;"> <p><a href="mailto:rmiller@schneidercorp.com">rmiller@schneidercorp.com</a> E-mail  <a href="http://www.schneidercorp.com">www.schneidercorp.com</a> Web</p> </div> </div> <div style="text-align: center; background-color: black; color: white; padding: 2px; font-weight: bold; font-size: 0.8em;">             Indianapolis • Lafayette • Carmel • Avon • Merrillville         </div> <p style="margin-top: 10px;"><b>Rick Miller, P.L.S.</b> Director of Surveying</p>	<p style="margin-top: 10px;">1625 N. Post Road Indianapolis, IN 46219-1995</p> <div style="display: flex; justify-content: space-between; font-size: 0.8em;"> <div style="width: 45%;"> <p><b>Tim Coomes, P.L.S.</b> <i>Manager</i> Survey Department</p> </div> <div style="width: 45%;"> <p>Bus. (317) 895-2585 Fax (317) 895-2596 Cell (317) 443-1244 E-mail: <a href="mailto:timc@ucindy.com">timc@ucindy.com</a> <a href="http://www.ucindy.com">www.ucindy.com</a></p> </div> </div>

## ISPLS FIRM MEMBERS

 <p><b>USI</b> consultants engineers &amp; land surveyors</p> <p>8415 E. 56th Street, Suite A Indianapolis, IN 46216</p> <p>office (317) 544 4996 fax (317) 544 4997 cell (317) 965 9159</p> <p><b>Philip D. Beer II, PE, PLS</b> Vice President Business Development</p> <p>pbeer@usiconsultants.com www.usiconsultants.com</p>	 <p><b>JONES PETRIE RAFINSKI</b> your one single source</p> <p><b>Kenneth K. Jones, PLS</b> President</p> <p>kenjones@jpr1source.com m. 574.596.9068</p>
<p><b>Woolpert Inc.</b> 7635 Interactive Way, Suite 100 Indianapolis, IN 46278 Ph.: 317-299-7500 www.woolpert.com</p>	