

100th ANNUAL
PURDUE
ROAD SCHOOL
MARCH 11-13

2014



A great Indiana tradition

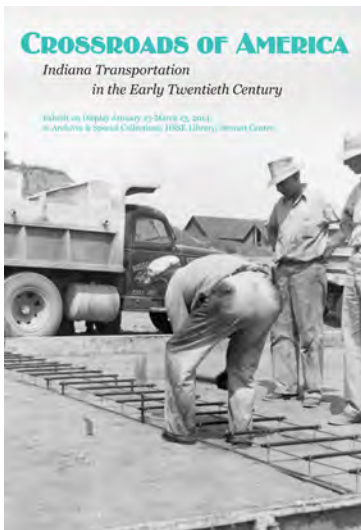
21ST PURDUE ROAD SCHOOL, 1933

Table of CONTENTS

TUESDAY EVENTS.....	4
OPENING SESSION.....	6
WEDNESDAY EVENTS.....	8
THURSDAY ASSOCIATIONS.....	10
REPORTS, PRESENTATION ARCHIVES.....	12
PDH INFORMATION.....	14
LTAP DIRECTORY INFORMATION.....	14
MAPS.....	16
ROAD SCHOLAR PROGRAM.....	20
TECHNICAL PROGRAM DESCRIPTIONS.....	22
TUESDAY PRESENTATIONS.....	24
WEDNESDAY PRESENTATIONS.....	59
EXHIBITORS.....	116

Purdue Libraries: Archives & Special Collections presents:

CROSSROADS OF AMERICA INDIANA TRANSPORTATION IN THE EARLY TWENTIETH CENTURY



STEWART CENTER; Located inside the Humanities, Social Science and Education Library, 4th Floor



WELCOME

TO THE 100TH PURDUE ROAD SCHOOL

This 100th Purdue Road School builds on 102 years of tradition dating to 1913, when Professor W. K. Hatt organized a civil engineering conference. A similar conference was held in 1914, at which a resolution was passed that called for a provision in the laws of Indiana that there be a yearly School of Good Roads. In 1915, the name of the Civil Engineering Conference was changed to the Purdue Road School.

This year's program has 160 sessions organized in 26 tracks that were developed in collaboration with colleagues throughout the industry. Behind the scenes, a substantial number of volunteers and professionals have been involved in developing the technical program, volunteering their time to prepare presentations, and coordinating the logistics. In fact, there are almost 300 individuals listed in the technical program. Those individuals who deliver the sessions are the foundation of the Purdue Road School.

We are pleased not only by the technical content that has been developed, but also by the rich history of the Purdue Road School. Many of you have helped to shape much of the signature Indiana transportation infrastructure or were personal friends of the previous Purdue Road School leaders. As you page through this outstanding technical program, please take a moment to reflect on the contributions of our predecessors in building the transportation infrastructure and defining the Purdue Road School that serves Indiana today.

Darcy M. Bullock, Ph.D., P.E.

Professor of Civil Engineering and Director of the Joint Transportation Research Program, Purdue University

John E. Haddock, Ph.D., P.E.

Associate Professor of Civil Engineering and Director of the Indiana Local Technical Assistance Program, Purdue University



BOB HARRELL

Robert "Bob" H. Harrell was a 45-year veteran of transportation, beginning his career first as a water boy for a summer job. The passion for highway engineering led him to study at Purdue University and later became a full-time engineer for the Seymour district of the Indiana state highway department. In 1957, Bob continued his work at the state headquarters and eventually became the executive director of the Indiana Highway Commission.

Many Purdue Road School participants knew Bob and his knowledge of Indiana roads. For our 100-year celebration of Purdue Road School and Indiana transportation, we would like to recognize his years of service along with the thousands of photos taken throughout his journey. Many of Bob's photos are included in the special archives collection, "Crossroads of America: Indiana Transportation in the Early Twentieth Century," located in the Purdue Libraries.

| 1934 US 50 RELOCATION, BROWNSTOWN, INDIANA
BOB HARRELL, FAR LEFT



CROSSROADS OF AMERICA: INDIANA TRANSPORTATION IN THE EARLY TWENTIETH CENTURY

STEWART CENTER; Located inside the Humanities,
Social Science and Education Library, 4th Floor



| 2001 PURDUE ROAD SCHOOL



| 2004 PURDUE ROAD SCHOOL

See Help Desk at Library Entrance located outside of Loeb for directions.

TUESDAY

SCHEDULE OF EVENTS

- Coffee with the Exhibitors
- Opening Session
- Exhibitor Luncheon
- Student Poster Exhibit
- Technical Sessions

7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	EVENING
7:00-8:45 AM COFFEE WITH THE EXHIBITORS PURDUE MEMORIAL UNION NORTH & SOUTH BALLROOMS		9:00-11:00 AM OPENING SESSION LOEB THEATER, STEWART CENTER		11:00 AM-1:50 PM EXHIBITOR LUNCHEON PURDUE MEMORIAL UNION NORTH & SOUTH BALLROOMS		1:00 PM-4:50 PM TECHNICAL SESSIONS STEWART CENTER				5:00 PM-7:00 PM WELCOME RECEPTION FOUR POINTS SHERATON	
STUDENT POSTER EXHIBIT PURDUE MEMORIAL UNION											

COFFEE WITH THE EXHIBITORS

7:00 AM–9:00 AM, PURDUE MEMORIAL UNION BALLROOMS

Please join our exhibitors for coffee prior to the opening session.

EXHIBITOR LUNCHEON

11:00 AM–1:50 PM, PURDUE MEMORIAL UNION BALLROOMS

The annual exhibitor luncheon provides an opportunity for attendees to visit with the exhibitors and enjoy a sandwich buffet lunch. Name badges are required for admission. Participating exhibitors are listed on pages 116.

STUDENT POSTER EXHIBIT

11:00 AM–1:50 PM, PURDUE MEMORIAL UNION

Adjacent to the South Ballroom (in the southwest corner of the Purdue Memorial Union), students will be exhibiting posters showing recently completed research activities. Please take this opportunity to visit with the students and learn about emerging innovations in transportation.

OPENING SESSION

9:00 AM–11:00 AM, LOEB THEATER, STEWART HALL

Page 6-7 details

TECHNICAL SESSIONS

See the Technical Session foldout brochure for sessions and their locations offered throughout Tuesday. **NEW** for Tablet/Mobile—a public Google calendar with sessions and descriptions is available at <http://tinyurl.com/100rscal> or use the adjacent QR code.



WELCOME RECEPTION

5:00PM –7:00 PM, FOUR POINTS BY SHERATON

All Purdue Road School attendees are invited to the welcome reception sponsored by the vendor friends of Road School. Join in the celebration of 100 years of Purdue Road School, with a prize awarded to the longest-attending attendee present. Will it be you? The reception will be held at the Four Points by Sheraton-West Lafayette, 1600 Cumberland Avenue, West Lafayette.

Opening SESSION

TUESDAY, MARCH 11, 2014
9:00 AM – 11:00 AM
LOEB THEATER, STEWART CENTER

WELCOME

Darcy Bullock

Joint Transportation Research Program Director
Purdue University

Steven Abel

Associate Vice President for Engagement
Purdue University

KEYNOTE SPEAKERS

Randy Strasser

Mayor of Delphi

Karl Browning

Indiana Department of Transportation Commissioner

US Department of Transportation Invited

Awards

2014 AWARDS RECOGNITION

Presented by Rick Marquis

Federal Highway Administration Division Administrator

The **2014 Indiana Partnership for Transportation Quality Awards** will be recognized in a slide presentation. Award recipients are asked to report to the stage for photos directly after the Opening Session has adjourned. Congratulations to all of the award recipients!

Recipients of the **Indiana Partnership for Transportation Quality Awards** at the 2013 Purdue Road School

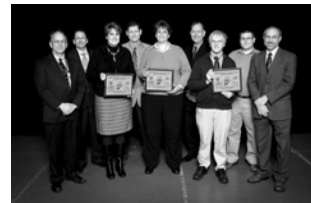
2013 MAJOR NEW CONSTRUCTION: URBAN



ACCELERATE I-465

INDOT; Walsh Construction;
E&B Paving, Inc.; R.W. Armstrong &
Associates

2013 SPECIAL PROJECT: UNDER \$2 MILLION



WINONA TRAIL BIKE AND PEDESTRIAN UNDERPASS

City of Goshen and Goshen College;
DLZ Indiana, LLC; Northern Indiana
Construction Company LLC

2013 BRIDGES: RURAL



DR. MARTIN LUTHER KING, JR. MEMORIAL BRIDGE-CLINTON STREET (US 27)

INDOT Fort Wayne District;
DLZ Indiana, LLC; R.L. McCoy, Inc.

Reminder: Award recipient photos will be taken on stage after the audience adjourns.

WEDNESDAY

SCHEDULE OF EVENTS

- **Indiana County Surveyors Association**
- **Technical Sessions**
- **Road School Luncheon**
- **Evening ITE Banquet**

8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	EVENING
8:00 AM-11:00 AM TECHNICAL SESSIONS SEE LOCATIONS			11:00 AM-1:00 PM ROAD SCHOOL LUNCHEON PURDUE MEMORIAL UNION NORTH & SOUTH BALLROOMS		1:00 PM-4:50 PM TECHNICAL SESSIONS SEE LOCATIONS			5:30 PM-8:00 PM ITE BANQUET PURDUE MEMORIAL UNION			

ROAD SCHOOL LUNCHEON

11:00 AM–1:00 PM, PURDUE MEMORIAL UNION BALLROOMS

Tickets are sold in advance. A limited number of \$25 tickets may be released at 10:00 AM the day of the luncheon. Please inquire at the Road School Registration desk in the Purdue Memorial Union.

ITE BANQUET

5:30 PM–8:00 PM, PURDUE MEMORIAL UNION, ROOM 118

The Institute of Transportation Engineers (ITE) Annual Scholarship Banquet is scheduled for Wednesday, March 12, at the Purdue Memorial Union, Room 118. Advance sale tickets are required for attendance.

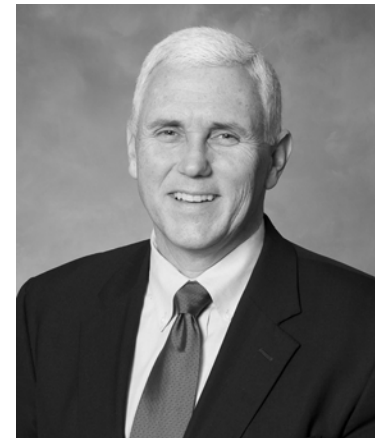
For additional information please see <http://www.indianaite.org/>



| 1998 PURDUE ROAD SCHOOL

KEYNOTE SPEAKER

Governor Mike Pence is a lifelong Hoosier with legal, small business and policy experience. He was elected the 50th Governor of the State of Indiana in 2012 and inaugurated January 14, 2013. Pence was born and raised in Columbus, Indiana, graduated from Columbus North High School, went on to graduate from Hanover College in 1981 and earned his J.D. from Indiana University School of Law in 1986.



Governor Pence

Governor Pence manages a state employee workforce of approximately 28,000 and a state budget of \$30.6 billion. He oversees the duties of the executive branch as the state's chief executive officer, recommends and reviews legislation with members of the Indiana General Assembly, and also serves as the commander-in-chief of the Indiana National Guard.

THURSDAY

SCHEDULE OF EVENTS



2013 PURDUE ROAD SCHOOL

ASSOCIATIONS' BREAKFAST AND BUSINESS MEETING

A joint association breakfast meeting will start at 7:30 AM on Thursday, March 13, in the East Faculty Lounge (FACE) in the Purdue Memorial Union for the following organizations:

- Indiana Association of County Commissioners (IACC)
- Indiana Association of County Highway Engineers and Supervisors (IACHES)
- Indiana Street Commissioners Association (ISCA)
- American Traffic Safety Services Association (ATSSA)
- American Public Works Association (APWA)
- Indiana County Surveyors Association

The agenda is as follows:

7:30 AM - Gathering and Breakfast Buffet

8:30 AM - Welcome Comments

8:45 AM - Guest Speaker, CJ McClanahan of Reachmore

10:30 AM - Association meetings

Following the joint session, associations will convene for their own meetings in assigned rooms in the Stewart Center:

County Surveyors Association: STEW 218 AB

APWA: STEW 204

ATSSA: STEW 214 B

IACC: STEW 214 A

IACHES: STEW 214 CD

ISCA: STEW 202

THANK YOU

PLANNING ROAD SCHOOL

TRACK ADVISORS

During the past six months, hundreds of volunteer hours have been invested in developing the technical program. In addition to expressing our appreciation to the speakers and moderators listed in the program, we would like to thank the following individuals for participating in the track advisor meetings and reviews that shaped this year's program.

Nick Batta

Paul Berebitshy

Ann Bishop

Nick Bonora

Brad Bowen

Laura Britton

Darcy Bullock

Mike Byers

Ed Cox

John Cox

Rich Domonkos

Kathy Eaton-McKalip

Katherine England

Kenny Franklin

Nadia Gkritza

John Haddock

Tony Hahn

Debbie Horton

Sarah Hubbard

Dan Keefer

Athar Khan

William Knopf

Opal Kuhl

Tony McClellan

Bob McCullouch

Mark Miller

Roy Nunnally

Craig Parks

Kim Pearson

Kym Pelfree

Jim Poturalski

Jennifer Pyrz

Anne Rearick

Kevin Russel

Hardik Shah

Laura Slusher

Bill Smith

Brad Steckler

Randy Strasser

Andrew Tarko

John Thomas

Doug Valmore

Ron Walker

Eric Wathen

Tim Wells

Stephanie Yager

Bob Zier



2014 PURDUE ROAD SCHOOL PLANNING

REPORTS

PURDUE E-PUBS

JTRP TECHNICAL REPORTS

Many speakers and moderators have participated in either the Joint Transportation Research Program, or its predecessor, the Joint Highway Research Program (JHRP). In partnership with the Purdue Libraries, JTRP has made over 1500 technical reports dating to 1955 available online at <http://docs.lib.purdue.edu/jtrp>. As of February 2014, those reports have been downloaded more than 726,000 times in the past six years. The photos below show David Scherer, Scholarly Repository Specialist and Prof. Chuck Scholer looking at a JTRP technical report that Prof. Scholer authored in 1964.



If you are interested in receiving updates as new implementation activities occur, please use the following URL <http://eepurl.com/vfz2T> or the adjacent QR Code to sign up.

PRESENTATIONS ARCHIVED

In 2011 we began digitally archiving Road School presentations with authors' permission in the Purdue Libraries open access repository, e-Pubs. You may access presentations from the following URL: <http://docs.lib.purdue.edu/roadschool/>. As of February 2014, these presentations have been downloaded more than 24,000 times.



2014 Road School presenters can stop by the Purdue Library exhibit area on the second floor of Stewart Center to submit their presentations either before or after their session. The archived presentations provide a valuable resource after Purdue Road School is concluded.

As an example of the impact of these archived presentations, see the tables of the top 5 downloaded presentations from 2011, 2012, and 2013 as of February 2014.



| 2013 PURDUE ROAD SCHOOL

TOP 5 DOWNLOADS Purdue Road School Presentations

2011	AUTHORS	#
Culvert Slip Lining	Scott Brown, Darin Duncan, Stephen Ritzler, Sam Martin	1,560
Concrete Pavement: Selections of Concrete Materials	Jerry Larson	1,287
Proper Design Details for PCC Pavement Performance	Mike Byers	1,072
Accelerating Bridge Construction (ABC) with Prefabricated Bridge Elements & Systems (PBES)	Keith Hoernschemeyer	699
LPA Certification Training	Dan Keefer	408

2012	AUTHORS	#
Dynamic Cone Penetrometer (DCP)	Nayyar Zia Siddiki	693
Traffic Signal Advance Pre-Emption Design within 200 Feet of Active Railroad Crossings	Gregory Richards	581
Drainage Ditches: All Shapes and Sizes	Kent Wamsley	527
Light Weight Deflectometer (LWD)	Nayyar Zia Siddiki	480
Pavement Preservation for Elected Officials: The Inside Story of Pavement Deterioration	Jim Olson	314

2013	AUTHORS	#
Best Practices in Contract Administration	Bren I. George-Nwabugwu	339
The Importance of Performing Route Surveys in the State of Indiana	Rodney Kelly, Chester Parsons, Grant Niemeyer	121
Advanced Pavement Evaluation & Design Methods	Chuck Gemayel, Mike Maurovich	109
Harnessing the Power of Media Relations and Social Media and Public Outreach	Andrea Farmer, Jim Pinkerton, Erin Pipkin, Nathan Riggs	105
Consultant Prequalification for Roundabout Design	Craig M. Parks, John Wright	95

PROFESSIONAL DEVELOPMENT HOURS

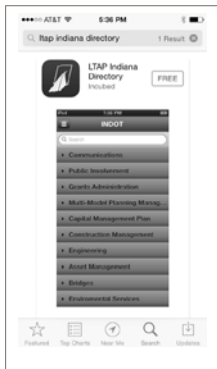
Purdue's Extended Campus Conference Division is a critical partner in the event planning logistics, registration, and production of Purdue Road School.

Professional development hours (PDH)/continuing education units (CEU) are available for many sessions. PDHs/CEUs are standardized, nationwide methods of recognition for participation in approved, noncredit educational activities. Attendance at the entire session is required for credit. Details regarding PDH/CEU eligibility are provided with the session descriptions.

In order to register for PDH/CEU credit you must have a name badge and scan the bar code on your badge as you enter each eligible session. The PDHs/CEUs that you obtain at this conference will be registered with Purdue University Extended Campus free of charge. To obtain a transcript, you may request one for a fee of \$6. PDH/CEU assistance will be available at the registration desk in the Purdue Memorial Union for those who have questions or who wish to purchase a transcript.

Please note: Recordkeeping for your PDH/CEU requirements is your responsibility. You MUST have your name badge scanned for the PDH/CEU to be registered with Purdue University. Purdue will not be able to provide verification of your attendance at a later date if you did not scan your badge for each session attended. No PDH/CEU credit will be awarded once the conference has ended.

INDIANA LTAP DIRECTORIES



Visit Indiana LTAP in Stewart, Room 311, to receive a free print copy of LTAP's 2014 Directory of Indiana State, County, City, and Town Officials. Electronic copies for the directory will also be available to download from the LTAP website (www.purdue.edu/intap).

The mobile directory app has been updated and is available at the iTunes Store for iPhones and at Google Play for Android phones.

- **SMOKE-FREE POLICY**
- **WIFI**
- **INDIANA LTAP DIRECTORIES**
- **CITYBUS**

SMOKE-FREE POLICY

Smoking is not permitted on campus except in a limited number of designated areas. Smoking can occur outside of the southwest corner of Purdue Memorial Union and the southeast corner of Stewart Center. For more information on Purdue's smoke-free policy, including a map of the designated smoking areas, see www.purdue.edu/smokefree.

WIFI

Complimentary AT&T wireless Internet is provided by Purdue Extended Campus Conference Division.

GREATER LAFAYETTE CITYBUS

Greater Lafayette CityBus has partnered with the Purdue Road School to provide complimentary transportation on their 1B line as well as their trolley service. To receive this benefit, tell the driver you are attending the Purdue Road School.

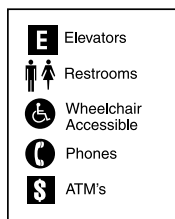
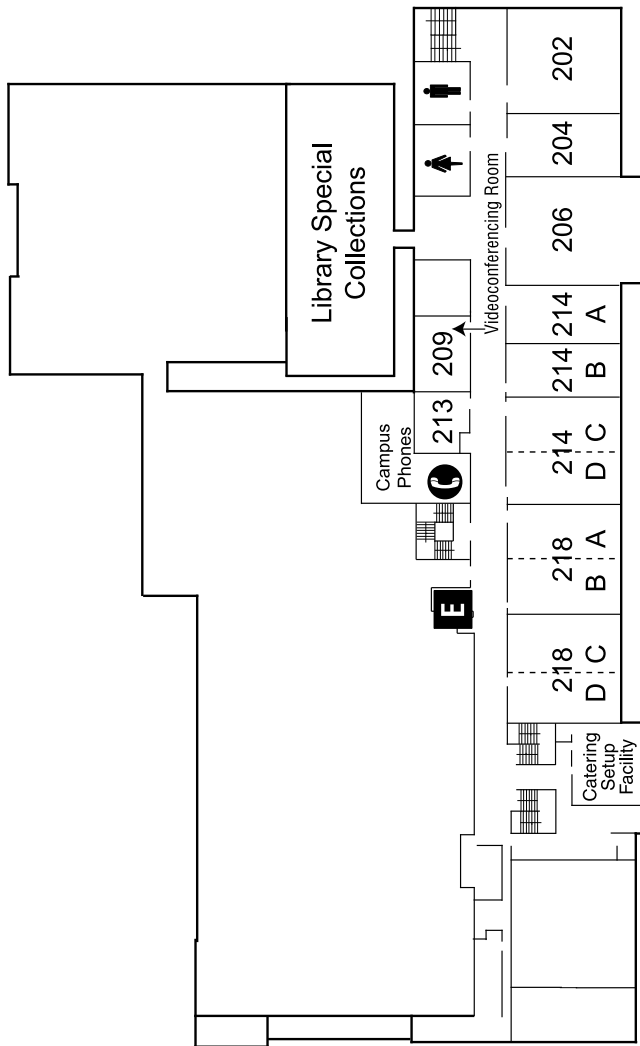
If you are staying at the Four Points by Sheraton (formerly University Inn), you can take the "1B" bus to campus. The schedule for "1B" service is available here: <http://tinyurl.com/ke3aaxj>.

If you are staying downtown (Holiday Inn-City Center or Hilton Garden), you can take the trolley service to campus. The schedule (PDF) for the trolley service is available here:

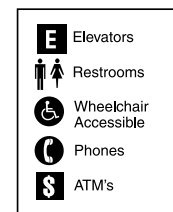
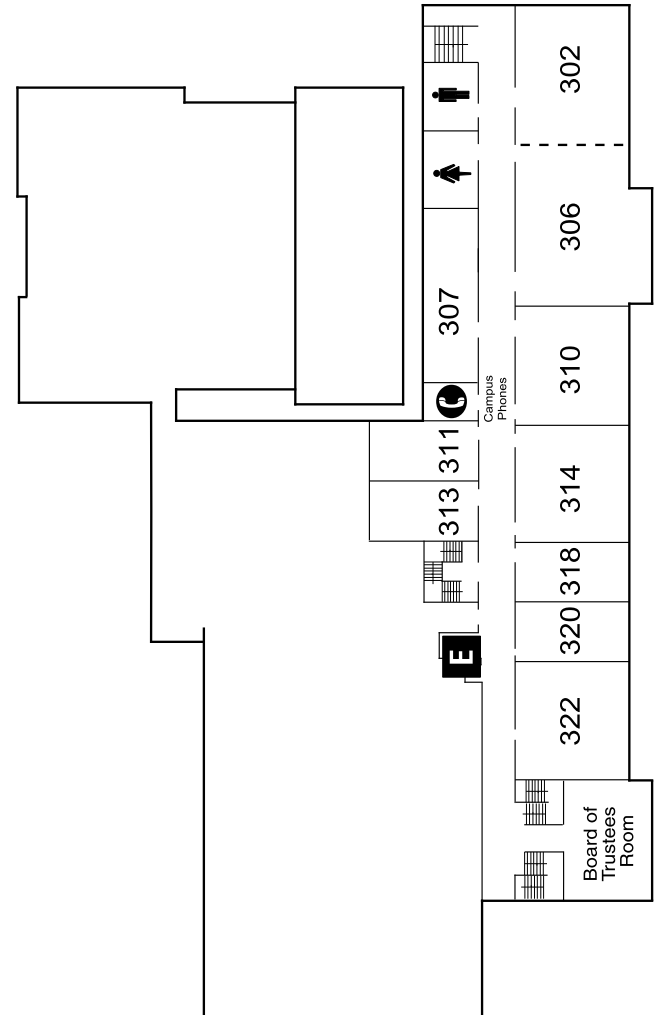
<http://tinyurl.com/jwqczt4>



SECOND FLOOR STEWART CENTER



THIRD FLOOR STEWART CENTER



ROAD SCHOLAR

PROGRAM

The Road Scholar Program was established as a core body of knowledge necessary to perform the duties of a local transportation official. Participants attend twelve core courses and elective conferences and workshops to accrue credit hours. The value of actual on-the-job work experience is recognized and is given credit at the rate of 30 credits for each year of experience (300 credit hours is the maximum allowed for work experience).

Once the twelve courses are completed and 300 credit hours have been obtained, participants are presented with the award of "Road Scholar".

"Master Road Builder" is awarded once 600 credit hours have been accrued.

Since its inception, 101 officials have been awarded Road Builder and 19 have achieved the status of Master Road Builder. These officials come from 135 different agencies statewide and represent over 3,000 years of service to Indiana street and highway departments.

Those twelve courses and their basic content are as follows:

1. **POWERS & DUTIES.** This course reviews the duties required by law as outlined in the Indiana Code as well as promotes effective working relationships and leadership and management skills.
2. **LIABILITY AND RISK MANAGEMENT.** Learn OSHA requirements and commercial driver's license (CDL) requirements as well as discuss tort liability claims and transportation liability.
3. **HIGHWAY FUNDING.** View LTAP's "bead demo" that visually captures the path federal and state funds take before they reach your agency. You'll also learn some revenue sources for street and highway departments.
4. **PURCHASING AND PUBLIC CONSTRUCTION.** Receive updates from the State Board of Accounts and learn proper protocol for emergency purchasing.
5. **ROADWAY SAFETY.** Learn low-cost safety measures that can greatly decrease crash rates on both low-volume and high-volume roads. Learn how to obtain crash data and how to put it to good use.
6. **BASICS OF A GOOD ROAD.** Learn the fundamentals of road design, how to select concrete and asphalt materials, and basic drainage laws.
7. **TEMPORARY TRAFFIC CONTROL.** Attendees learn the safety requirements for developing a temporary traffic control plan for their worksite as well as implementation and design of a work zone.
8. **MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).** This course covers MUTCD updates as well as legal aspects and tort claims. Learn sign management software and stay current on retroreflectivity regulations as well as those for work zone apparel.
9. **BRIDGE BASICS.** This course covers basic structure types and bridge terminology as well as design, maintenance, inspection, and funding.
10. **DRAINAGE.** Legal aspects and drainage laws are discussed as well as basic hydrology, structure types, and hydraulic design and sizing.
11. **ROAD AND BRIDGE PLAN READING.** Attendees will earn vocabulary and symbol definitions and specifications for bridges and roads.
12. **ESTIMATING CONSTRUCTION COST AND QUANTITIES.** A math refresher is followed by lessons in calculating area and volume, quantities, and costs.



PHOTOS PROVIDED BY BROOKS CONSTRUCTION; 1917 ASPHALT PLANT AND ROAD WORK

This year's Road Scholar track will be held in the Krannert Auditorium and includes the following course:

Course # 6: Basics of a Good Road—Concrete Pavements
Tuesday, March 11, 2:00–4:50 PM



| 2013 PURDUE ROAD SCHOOL

TECHNICAL PROGRAM

The quick reference foldout guide handed out at registration provides an at-a-glance view of the tracks, session names, and session times, as well as session ID numbers. The session IDs shown on the quick reference guide correspond to the session numbers on the following pages.

SESSION MODERATORS: In general, the program has moderators that are assigned to cover a room for an entire morning or afternoon. Moderators are responsible for keeping the session on schedule and managing questions and answers.

SESSION SPEAKERS: Many of the sessions reflect substantial team efforts. However, it is difficult to have more than two or three speakers per 50-minute module. To provide recognition of the team effort involved in preparing a session without having an excessive number of speakers in a 50-minute period, some individuals listed on the program may not present, but will serve in commentary and support roles during the Q&A portion of a session.

MARCH 10, 2014

MONDAY

ETHICS

89A. Indiana Statutes and Rules for Professional Engineers

TIME
2:00–2:50 PM

ROOM
STEW 302–306

PDH: 1

This presentation explains the statutes created by the Indiana legislature concerning the professions and the role of the State Board of Registration for Professional Engineers in administering the statutes and rules for engineers. This version of the course will focus on changes to the rules associated with the new computer-based testing for the Fundamentals of Engineering exam and with the continuing education requirements to make them more consistent with those in other states. It also will provide an overview of recent and pending changes to the NCEES Model Law and Model Rules. This course fulfills the rule requiring one hour on Indiana statutes and rules.

90A. Ethics and the Indiana Law for Professional Engineers

TIME
3:00–3:50 PM

ROOM
STEW 302–306

PDH: 1

This presentation is designed for engineers licensed in Indiana. The course explains why ethics are important, gives an overview of professional codes of ethics, describes professional conduct requirements in the Indiana statutes and rules, provides guidelines and examples for making value-laden decisions, and shows the value of professional and technical societies in maintaining ethical health fitness. This course fulfills the rule requiring one hour on ethics applicable to the practice of professional engineering.

SPEAKER
Vincent Drenevich, Purdue University

MODERATOR
Brad Bowen, Purdue University

MARCH 11, 2014

TUESDAY

ADMINISTRATION

1. Update from the FHWA Division Administrator

TIME
1:00–1:50 PM

ROOM
STEW 311

PDH: 1

This presentation will provide a current update on MAP-21 reauthorization, rulemaking developments, and performance target setting by the DOTs and MPOs. The presentation will also include a Q&A period and will give attendees the chance to get to know the new FHWA Indiana Division Administrator.

SPEAKER
Richard Marquis, FHWA

MODERATOR
Karen Bobo, FHWA

2. Tools for Improving Your Workplace

TIME
2:00–2:50 PM

ROOM
STEW 311

PDH: 1

In this fast-paced presentation, learn eight practical tools (agenda, affinity diagram, check sheet, operational definition, Pareto chart, force field analysis, multivoting, and Plus/Delta) that will help you conduct better meetings; gather, analyze and present data about your organization; and experience how a group can use these tools to quickly learn the causes of problems and to decide where to focus effort.

SPEAKER
Ray Wilson, P.E., Ray Wilson & Associates

MODERATOR
Pam Davis, FHWA

MARCH 11, 2014

TUESDAY

ADMINISTRATION

3. Who is Relying on You During an Emergency? Preparing for the Worst

TIME
3:00–3:50 PM

ROOM
STEW 311

PDH: 1

There are multiple groups of people relying on you during an emergency: your family, your agency, and the community that is using the transportation system you manage. Government employees should prepare for the safety of their families in order to strengthen their ability to participate in the government response. Individuals and agencies need to have simple plans in place should a disaster or emergency situation occur. In this presentation, attendees will learn how to start preparing for an emergency.

SPEAKER
Karen Stippich, FHWA

MODERATOR
Pam Davis, FHWA

4. County Commissioner Roundtable

TIME
4:00–4:50 PM

ROOM
STEW 311

This presentation will provide County Commissioners the opportunity to discuss lessons learned, ask questions of each other, and help one another solve common transportation issues faced by County Commissioners. Come prepared to listen, discuss, and share ideas with your fellow elected officials.

SPEAKERS

- Jeff Wolfe, Boone County Commissioners Office
- Craig Parks, American Structurepoint, Inc.

MODERATOR
Pam Davis, FHWA

2006 PURDUE ROAD SCHOOL



MARCH 11, 2014
TUESDAY

ALTERNATIVE DELIVERY

5. Louisville–Southern Indiana Ohio River Bridges Project Update

TIME
1:00–1:50 PM

ROOM
UNION FACW

PDH: 1

KYTC and INDOT will provide an update on the progress of design and construction of the LSIORB Project since work began on the downtown and east end crossings in 2013. The update will include information on the organization of the owner's and contractor's teams, the design process, and how each crossing is addressing construction oversight.

SPEAKERS

- Ron Heustis, INDOT
- Andy Barber, Kentucky Transportation Cabinet

MODERATOR

Steve Schultz, Purdue University

6. Alternative Delivery 101

TIME
2:00–2:50 PM

ROOM
UNION FACW

PDH: 1

This presentation will provide basic information on the many new procurement methods used by INDOT, including design-build and public-private partnerships. Similarities and differences of each procurement method, as well as the benefits and limitations of each, will be discussed. The methodology that INDOT uses to determine alternative delivery methods to the standard design-bid-build process will also be discussed.

SPEAKER

Chris Kiefer, INDOT

MODERATOR

Steve Schultz, Purdue University



| JUNE 1928 LOOKING WEST AT NEW [MILTON-MADISON] BRIDGE LOCATION

MARCH 11, 2014
TUESDAY

ALTERNATIVE DELIVERY

7. The State of PPP and Tolling in Indiana

TIME
3:00–3:50 PM

ROOM
UNION FACW

PDH: 1

INDOT's long-term plans for using public-private partnerships as a procurement method will be discussed in this presentation, including the use of tolling.

SPEAKERS

- Jim Stark, INDOT
- Clint Murphy, INDOT

MODERATOR

Steve Schultz, Purdue University



| NOVEMBER 14, 1881 ORIGINAL MILTON-MADISON BRIDGE CONSTRUCTION



| DECEMBER 2, 1921 ORIGINAL MILTON-MADISON BRIDGE CONSTRUCTION

MARCH 11, 2014
TUESDAY

ALTERNATIVE DELIVERY

TIME
4:00–4:50 PM

ROOM
UNION FACW

PDH: 1*

*8-9
COMBINED

8. Illiana Expressway: A Project Update

The Illiana Corridor is a proposed PPP project linking I-65 in Lake County, Indiana, with I-55 in Will County, Illinois. The study corridor is currently in the Tier Two phase of NEPA documentation under the direction of both the Illinois and Indiana DOTs. This presentation will provide updates on the Illiana PPP project and its coordination and lessons learned from the process to date.

SPEAKER
Jim Earl, INDOT

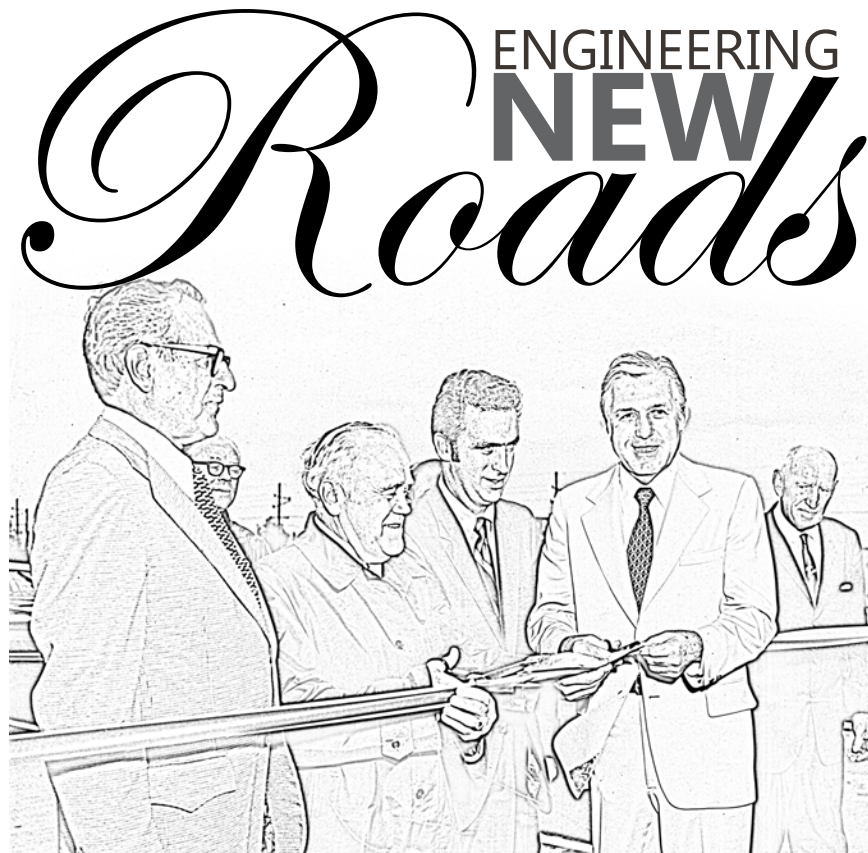
MODERATOR
Steve Schultz, Purdue University

9. I-69 Section 5: A Project Update

I-69 Section 5 is one of six sections of interstate that are being constructed to connect Evansville to Indianapolis through the southwestern portion of Indiana. This particular section is approximately 26 miles long and travels through portions of Morgan, Johnson, and Marion Counties. Four of the six sections are already constructed or underway. Like other sections, Section 5 will be procured through a PPP model, with the selected developer being responsible for development, design, construction, finance, operation, and maintenance of the freeway segment. This presentation will provide updates and lessons learned related to the I-69 Section 5 PPP project.

SPEAKER
Sandra Flum, INDOT

MODERATOR
Steve Schultz, Purdue University



| 1970 BOB HARRELL (SECOND) WITH GOVERNOR EDGAR D. WHITCOMB



| SEPTEMBER 13, 2013 US 231 RIBBON CUTTING, WEST LAFAYETTE



| OCTOBER 12, 2012 HOOSIER HEARTLAND RIBBON CUTTING

MARCH 11, 2014
TUESDAY

BICYCLES & PEDESTRIANS

TIME
1:00–4:50 PM

ROOM
STEW 204

PDH: 4

10. ADA Law, Regulations, and Practical Experience

This presentation will lay a solid foundation regarding the importance of the ADA in ensuring that equivalent access is implemented for all pedestrians, including those with disabilities. We will present a short explanation of law, regulations, and pedestrian characteristics; set forth the requirements for state and local public agencies (giving emphasis to self-evaluations and transition plans); discuss the newly issued Joint Technical Assistance by the DOJ and DOT that defines alteration and maintenance, as well as scope of work for transportation projects; an update on the acceptance of the Public Rights-of-Way Accessibility Guidelines (PROWAG) as a new standard for the pedestrian environment and explanation of what that means for you as a state or local public agency; pedestrian characteristics; and maintenance of pedestrian facilities and alternate pedestrian access routes in work zones. This presentation will feature a hands-on outdoor exercise for participants by introducing the daily obstacles faced by wheelchair and visually impaired individuals.

SPEAKERS

- Patrick Gomez, FHWA
- Eryn Fletcher, FHWA
- Latosha Higgins, INDOT

MODERATOR
Ken Woodruff, FHWA



MARCH 11, 2014
TUESDAY

BRIDGES

TIME
11:00–11:50 AM

ROOM
STEW 302

11. Jeffersonville's One-of-a-Kind Big 4 Pedestrian Bridge

This presentation will discuss the unique design of the Big 4 pedestrian bridge approach ramp, which incorporates twin steel box girders with an alignment that includes an S-curve and a 90-degree turn, as well as ornamental aluminum railing, illuminated handrail lighting, and architectural enhancements to the piers. Additionally, the bridge includes a mid-ramp stair tower with an open, floating stair concept.

SPEAKERS

- Daniel Thatcher, HNTB
- Burleigh Law, HNTB

MODERATOR
Kevin Russel, Harrison County Engineer's Office



JUNE 14, 1961



JUNE 14, 1961

SIGNS REPLACED; CHARLESTOWN CHANGED TO JEFFERSONVILLE



12. Internal Curing—An Update on Lessons Learned

TIME
1:00–1:50 PM

ROOM
STEW 302

PDH: 1

Internally cured concrete has emerged as a potential method to reduce cracking in concrete and improving the durability of bridge decks. While the literature has numerous laboratory studies, full-scale field placements in New York and Indiana go one step further to show that internal curing can be used successfully in the field. This presentation will update these results to cover lessons learned in 2013 and will discuss the use of new quality control methods.

SPEAKERS

- Jason Weiss, Purdue University
- Tim Barrett, Purdue University
- Albert Miller, Purdue University
- Tony Zander, INDOT

MODERATOR

Kevin Russel, Harrison County Engineer's Office

13. Arch Bridges over Kentucky Lake and Lake Barkley: Challenges & Opportunities

TIME
2:00–2:50 PM

ROOM
STEW 302

PDH: 1

The Kentucky Transportation Cabinet is replacing the existing US 68/KY 80 bridges across Kentucky Lake and Lake Barkley near the New Madrid fault zone. Both bridges include 550 ft. main span basket handle arch structures. The Kentucky Lake crossing is currently in construction and the Lake Barkley crossing is in final design. The total bridge lengths are 3,611 LF at Kentucky Lake and 3,805 LF at Lake Barkley. The new four lane crossings include a multi-use path.

SPEAKER

James Williams, Michael Baker Jr., Inc.

MODERATOR

Kevin Russel, Harrison County Engineer's Office

14. Express Foundations: Benefits and Applications

TIME
3:00–3:50 PM

ROOM
STEW 302

PDH: 1

This presentation will cover the benefits and criteria of express foundations. An express foundation is a precast foundation system that blends the speed of precast with the economy of cast-in-place. The benefits of express foundations are the ease and speed of installation, alleviation of hazardous working conditions, trapezoidal foundation, which reduces wingwall concrete quantities, minimal reinforcement to be placed on site, and the ability to pick weights and sizes customized to the available equipment. A summary of a bridge replacement in Vigo County utilizing express foundations will be presented.

SPEAKERS

- Sam Martin, CPI Supply
- Jerry Netherlain, Vigo County Highway Department

MODERATOR

Kevin Russel, Harrison County Engineer's Office

15. Emergency Response to a Bridge Collapse: A Case Study

TIME
4:00–4:50 PM

ROOM
STEW 302

The ordinary outward appearance of the 9 Mile Road Bridge over I-75 north of Detroit, Michigan, belies the extraordinary story behind its demise and successful reconstruction. After a tanker truck carrying 13,000 gallons of fuel exploded under the bridge, the resulting heat from the explosion collapsed the steel superstructure, forcing MDOT to close I-75 and 9 Mile Road, both of which are heavily traveled corridors. MDOT quickly executed a contract to clean up the debris, temporarily patch the melted freeway pavement, and restore I-75 to traffic. MDOT then focused on reconstructing the overpass using a design-build delivery method. Just 51 days after awarding the project, the design-build team opened the new bridge to traffic.

SPEAKERS

- Lori Swanson, Michigan Department of Transportation
- Jeremy Hedden, Bergmann Associates

MODERATOR

Kevin Russel, Harrison County Engineer's Office

16. Green Noise Wall Construction and Evaluation

TIME
11:00–11:50 AM

ROOM
STEW 218 AB

PDH: 1

The University of Akron studied the feasibility in Ohio of using “green” noise barriers, which use soil and vegetation rather than manmade materials. The study included a review of available green noise barriers, a survey of national and international experts, a plant study, and construction of a prototype wall. The prototype’s cost, structural stability, and ability to retain moisture was evaluated. Findings and recommendations will be discussed in this presentation.

SPEAKER
Karel Cubick, ms Consultants, Inc.

MODERATOR
Jeff Hill, City of Fishers

17. Roundabout Prequalification Design Training

TIME
1:00–3:50 PM

ROOM
STEW 218 AB

PDH: 3

INDOT is moving toward prequalification for roundabout design. The prequalification process will require designers to demonstrate design experience on roundabouts or show that they have taken an approved roundabout design training course. An approved roundabout design training course is being offered to fulfill the prequalifications for complex and noncomplex road design.

SPEAKERS

- John Wright, INDOT
- Craig Parks, American Structurepoint, Inc.
- Jeromy Grenard, American Structurepoint, Inc.

MODERATOR
Jeff Hill, City of Fishers

18. Value Engineering for Project Performance

TIME
4:00–4:50 PM

ROOM
STEW 218 AB

PDH: 1

This presentation will cover an overview of successful value engineering (VE) processes as well as highlight some successful studies from across the nation. It is anticipated that attendees will leave with a better understanding of the VE process and how it can help to improve their project while meeting cost constraints.

SPEAKERS

- Ken Leuderalbert, FHWA
- Louis Feagans, INDOT

MODERATOR
Jeff Hill, City of Fishers



19. INDOT Hydraulics–New Policies Overview

TIME
1:00–1:50 PM

ROOM
STEW 206

PDH: 1

The new replacement-in-kind policy, which relaxes INDOT's standard backwater policy in certain circumstances, will be reviewed in this presentation. Included are the new Q500 determination policy for scour, which provides several ways to estimate the Q500 for new bridge designs; the hydraulic requirements for scour calculations on bridge rehabilitation, which provide a brief history of and requirements for the bridge rehabilitation scour calculations; and common errors in hydraulics reports, which covers mistakes and omissions frequently seen by the Hydraulics Office.

SPEAKER
Crystal Weaver, INDOT

MODERATOR
Eric Wathen, Banning Engineering

20. Erosion & Sediment Control–The ABCs of BMPs

TIME
2:00–2:50 PM

ROOM
STEW 206

PDH: 1

Erosion and sediment control issues are a component of every construction project in order to protect water quality and impacts to adjacent lands. While great strides have been made with regard to storm water management, there are still frequent issues noted on construction projects. The goal of this presentation is to explore these issues using recent case studies, to provide insights to better understand the process, and to improve SWPPPs and on-the-ground performance.

SPEAKERS

- Jeremy Kieffner, CPESC, Bernardin Lochmueller & Associates
- Ronald Boehm, CPESC, Indiana Department of Environmental Management

MODERATOR
Eric Wathen, Banning Engineering

21. Post-Installation Inspection of Drainage Pipe (PII): Tools & Technologies

TIME
3:00–3:50 PM

ROOM
STEW 206

PDH: 1

It is in the best interest of owners to know that all drainage pipe in their system has been properly installed and will provide the anticipated design life. PII provides that proof of proper installation to the owner prior to final acceptance. Utilization of modern technology is becoming the norm. This presentation will discuss the tools, interpreting the results, how different organizations are implementing this technology, and the critical issues to include in a specification.

SPEAKERS

- Al Hogan, American Concrete Pipe Association
- Woody Rigdon, American Concrete Pipe Association

MODERATOR
Eric Wathen, Banning Engineering

22. Design, Installation and Application of Precast Box Culverts

TIME
4:00–4:50 PM

ROOM
STEW 206

PDH: 1

Precast box culverts can be used to quickly solve many challenging drainage problems. This presentation will review how box culverts are specified and designed. Various examples will be used to demonstrate the proper installation techniques and multiple applications for a successful project. Topics will include standard specifications; considerations for live, dead and construction loadings; installation (site preparation, bedding, placement, joint treatment and backfill); and applications (culverts, detention, storm drainage, end treatments, and special fittings).

SPEAKERS

- John Susong, Indiana Kentucky Ohio Concrete Pipe Association
- Josh Beakley, American Concrete Pipe Association
- Steve Smart, Independent Concrete Pipe Company

MODERATOR
Eric Wathen, Banning Engineering

23. MVH Distribution Changes

TIME
11:00–11:50 AM

ROOM
STEW 214 CD

PDH: 1

Transportation funding was changed as a result of the 2013 legislative session. Changes include the removal of state police expenses and the addition of a 1 percent sales tax. This presentation will discuss these changes and their impacts, as well other elements of transportation funding, such as the MVH 1 and two accelerated funds.

SPEAKER
Dan Bastin, Office of the Auditor of State of Indiana

MODERATOR
Anthony Perkinson, FHWA

24. Federally Funded Project Authorization Fundamentals and FMIS

TIME
1:00–1:50 PM

ROOM
STEW 214 CD

PDH: 1

It is critical that local public agencies (LPAs) planning to utilize federal aid funds understand federal and state requirements prior to moving forward with project development. This presentation will review the process for ensuring local projects using federal aid are properly processed and authorized by INDOT and FHWA. It will cover how INDOT processes local federal aid projects and how FHWA authorizes and obligates the funds utilizing the FHWA's Fiscal Management Information System (FMIS).

SPEAKERS

- Mark Newland, FHWA
- Karen Hicks, INDOT

MODERATOR
Anthony Perkinson, FHWA

25. Federal Aid 101

TIME
2:00–2:50 PM

ROOM
STEW 214 CD

PDH: 1

This presentation will discuss the basics of the federal aid program. It will cover the Highway Trust Fund, how it works, how much is available, and how funds are distributed and used. There will also be a brief overview of MAP-21 and the new programs implemented as a result of this legislation.

SPEAKER
Mark Newland, FHWA

MODERATOR
Anthony Perkinson, FHWA

26. Preparing a Highway/Street Department Budget for Local Units

TIME
3:00–3:50 PM

ROOM
STEW 214 CD

PDH: 1

Budgeting topics for local agencies, including motor vehicle highway revenues, distributions to local units, uses of road monies, appropriations, budgeting, and funds, will be covered in this presentation.

SPEAKERS

- Benjamin Roeger, C.L. Coonrod & Co.
- Curtis Coonrod, C.L. Coonrod & Co.
- Stephanie Lilly, C.L. Coonrod & Co.

MODERATOR
Anthony Perkinson, FHWA

27. Indiana Highway Funding—Cost Allocation/Financial Implications

TIME
4:00–4:50 PM

ROOM
STEW 214 CD

PDH: 1

This year's presentation will follow up on last year's Fuel Tax Revenue presentation, looking out over the next decade at revenue trends brought on by forecasted changes in the level of fuel consumption. The presentation will also include a summary of the JTRP cost allocation research and overweight divisible load permit analysis completed thus far.

SPEAKERS

- Dan Brassard, INDOT
- Bill Weinmann, INDOT

MODERATOR
Anthony Perkinson, FHWA

MARCH 11, 2014
TUESDAY

PAVEMENT MANAGEMENT

TIME
2:00–2:50 PM

ROOM
STEW 313

PDH: 1

28. Full Depth Reclamation with Cement

Full depth reclamation (FDR) with cement slurry is a dust-free process of recycling existing worn-out asphalt, mixing it with cement slurry and re-compacting it in place for use as new stabilized base. After the curing period, the road is ready for a new surface. FDR with cement slurry corrects and treats failures in roads from the source. In this presentation, you will learn about FDR with cement slurry, its uses, and its many benefits.

SPEAKER
Scott Hall, Sagamore Ready Mix

MODERATOR
Bill Tompkins, INDOT

29. Practical Pavement Management for Local Agencies

TIME
3:00–3:50 PM

ROOM
STEW 313

PDH: 1

During this presentation, attendees will learn about best practices for pavement managers. Whether you are setting up a pavement management system (PMS) for the first time and from ground zero, or you are a seasoned pavement manager working with an existing system, this presentation will provide you with current, useful information that you will be able to apply the moment you step back into your office.

SPEAKER
Blair Barnhardt, APM, International Pavement Management Association

MODERATOR
Bill Tompkins, INDOT

MARCH 11, 2014
TUESDAY

PAVEMENT MANAGEMENT

TIME
4:00–4:50 PM

ROOM
STEW 313

PDH: 1

30. Evaluation of Variables Potentially Contributing to Joint Deterioration in Concrete Pavements

The focus of this presentation will be on the examination of potential impacts on the durability of joints in concrete pavements resulting from such variables as type of deicing salts, construction practices, temperature, and saturation level. Data obtained from cores extracted from both deteriorated and intact sections of pavements will be discussed and critically evaluated with respect to their potential link to the observed deterioration. In addition, laboratory work related to the potential application of electrical resistivity technique to identify factors contributing to joint deterioration will also be presented.

SPEAKERS

- Jan Olek, Purdue University
- Parth Panchmatia, Purdue University
- Nancy Whiting, Purdue University

MODERATOR
Bill Tompkins, INDOT



| 1928 HEAVY GRADING EAST OF SALEM ON STATE ROAD 56

31. Asphalt 101—Producing Binder and Aggregate for Asphalt

TIME
1:00–1:50 PM

ROOM
STEW 322

PDH: 1

This Asphalt 101 presentation will focus on binder (liquid asphalt) production, covering the following specific topics: how it is produced, PG grades and modification (certified binder supplier program), product transportation, and storage at plant. Additionally, aggregate production will be covered, including sizing, gradations, types (slag, limestone, gravel), and Indiana sources and quality (CAPP).

SPEAKER
Gerry Huber, Heritage Research

MODERATOR
Bill Knopf, Asphalt Pavement Association of Indiana

32. Asphalt 101—How Asphalt Is Mixed and Placed

TIME
2:00–2:50 PM

ROOM
STEW 322

PDH: 1

This Asphalt 101 presentation will focus on the following topics: asphalt mixture plant production; asphalt plant tour; types of asphalt plants; how paving mixtures are produced; aggregate feeder bins and recycle bins; liquid asphalt storage specialty additives; mixing drums and dust control systems; storage silos, scales, and load out; plant control house; use of recycled materials RAP and RAS; how RAP is not the enemy; and on the topic of asphalt mixture laydown: placement, planning for success, choosing the right paving equipment, using paving best practices, losing the mystery of asphalt paving, choosing the right compaction equipment, using compacting best practices, and losing the mystery of attaining adequate compaction.

SPEAKER
Brian Crume, E & B Paving, Inc.

MODERATOR
Bill Knopf, Asphalt Pavement Association of Indiana

33. Asphalt 101—Testing and Inspecting to Ensure Quality Paving

TIME
3:00–3:50 PM

ROOM
STEW 322

PDH: 1

This Asphalt 101 presentation will focus on the following topics: foundation preparation basics for a good road (subgrades, subgrade treatments, aggregate base; overlay preparation; and mixture thickness standards); what properties are critical to testing standards, quality, and inspection (materials, placement and compaction, use of INDOT specifications/certifications, APAI Local Government Specification Guide); and pavement preservation with 4.75 mm thin overlay.

SPEAKER
Dudley Bonte, Asphalt Pavement Association of Indiana

MODERATOR
Bill Knopf, Asphalt Pavement Association of Indiana

34. Portland Limestone Cements

TIME
4:00–4:50 PM

ROOM
STEW 322

PDH: 1

Portland limestone cements (PLCs) have recently been adopted by ASTM and AASHTO. These cements are designed to enable more sustainable concrete production by replacing up to 15% of the clinker with interground limestone particles. The result is a reduction in the CO₂ embodied in built infrastructure and an extension of the life of limestone quarries. This presentation will show the performance of PLCs compared to that of conventional ordinary Portland cement (OPC), illustrating that these cements can be used interchangeably with OPC to provide similar performance.

SPEAKERS

- Jason Weiss, Purdue University
- Tim Barrett, Purdue University

MODERATOR
Patrick Long, Indiana Ready Mixed Concrete Association

MARCH 11, 2014
TUESDAY

PORTS, RAIL & FREIGHT

TIME
3:00–3:50 PM

ROOM
STEW 218 CD

PDH: 1

35. Intermodal Rail in Indy

In January 2013, the Indiana Rail Road announced a partnership with transcontinental Class I railroad CN (Canadian National) to move trans-Pacific containerized freight to/from the West Coast Canadian ports to Indianapolis via an all-rail route, thereby bypassing the congested Chicago terminal area and decreasing over-the-road truck traffic on already-crowded I-65. We will examine how this agreement came together, the infrastructure investments that brought it to fruition, and what it means for the Indiana economy.

SPEAKER
Eric Powell, Indiana Rail Road Co.

MODERATOR
David Holt, Conexus

36. America's Inland Port System—Ports of Indiana

The state of Indiana ships about 70 million tons of cargo annually, ranking 14th among all US states. More than half of Indiana's border is water, which includes 400 miles of direct access to two major freight transportation arteries: the Great Lakes/St. Lawrence Seaway (via Lake Michigan) and the Inland Waterway System (via the Ohio River). The state's three-port system serves the world's most productive industrial and agricultural region through a combination of strategic location, intermodal connections, and specialized facilities. This presentation will describe Indiana's port system, its impact, and its operations.

SPEAKER
Scott Stewart, Ports of Indiana

MODERATOR
David Holt, Conexus

TIME
4:00–4:50 PM

ROOM
STEW 218 CD

PDH: 1

MARCH 11, 2014
TUESDAY

PROJECT MANAGEMENT

TIME
11:00–11:50 AM

ROOM
STEW 306

PDH: 1

37. Coordinating Utilities with Roundabouts

Roundabout designs pose significant challenges to utility coordinators. This presentation will highlight the design standards that are unique to roundabouts and will discuss the various options for coordinating utilities to those designs.

SPEAKERS

- Craig Parks, American Structurepoint, Inc.
- Natalie Parks, American Structurepoint, Inc.

MODERATOR
Jennifer Pyrz, Purdue University

38. How to Achieve Right of Way Success

The Real Estate Division of INDOT will provide an overview of the right of way process and review key factors that affect time and expenditures. This panel discussion and Q&A session will include established best practices, new developments, lessons learned, and factors resulting in improved customer service and efficiency in terms of time and money for project delivery.

SPEAKERS

- Todd Clift, INDOT
- Jim Crall, INDOT
- Dawn Haecker, INDOT
- Kathy Heistand, INDOT
- Michael Jett, INDOT
- Michelle Kossman, INDOT

MODERATOR
Jennifer Pyrz, Purdue University

TIME
1:00–1:50 PM

ROOM
STEW 306

PDH: 1

MARCH 11, 2014
TUESDAY

PROJECT MANAGEMENT

39. Kitchen Table Meetings: Applying the Golden Rule to Property Owner Outreach

TIME
2:00–2:50 PM

ROOM
STEW 306

PDH: 1

Property impacts are unavoidable with most road construction. Rather than the property owner's first experience being a drilling rig pulling up in the driveway, the kitchen table meeting process takes a proactive approach to sitting down in the safety and comfort of the property owner's home to discuss the type and timing of activities that will occur during design, property acquisition, and construction. The intent is to increase the property owner's understanding of this multi-year process—a process that happens too quickly for some and too slowly for others. Learn how this approach has resulted not only in increased project acceptance and perception but also in valuable knowledge that can minimize conflicts, avoid costly design rework, and expedite schedules.

SPEAKERS

- David Goffinet, Bernardin Lochmueller & Associates
- Dave Pluckebaum, The Corradino Group

MODERATOR

Jennifer Pyrz, Purdue University

40. Buy America Requirements for Utilities

TIME
3:00–3:50 PM

ROOM
STEW 306

PDH: 1

MAP-21 made significant changes to utility relocations as a result of a transportation improvement project. The nuances of the MAP-21 changes will be explored and discussed and the Buy America requirements as modified by MAP-21 for steel and iron products used on federally funded projects will be explored. It is anticipated that attendees will leave with a better understanding of how Buy America requirements apply to utility relocations. This will help them to better understand what actions they may need to take to ensure federal compliance and eligibility.

SPEAKERS

- Ken Leuderalbert, FHWA
- Kenny Franklin, INDOT

MODERATOR

Jennifer Pyrz, Purdue University

MARCH 11, 2014
TUESDAY

ROAD SCHOLAR

41. Road Scholar Core Course #6: Basics of a Good Road—Concrete Pavements

TIME
2:00–4:50 PM

ROOM
KRANNERT
AUDITORIUM

PDH: 3

This 3-hour course will provide the basic knowledge needed to design, build, and maintain concrete pavements at a local level. Attendees will hear industry experts discuss the many applications for concrete pavements in our industry and the emerging innovations in the field of mix designs and maintenance. Attendees will receive core course credit for core course #6: Basics of a Good Road. Attendees who have already attended this core course will receive 3 Road Scholar points.

SPEAKERS

- Richard Domonkos, Indiana LTAP
- Mike Byers, American Concrete Pavement Association

MODERATOR

Larry Lee, Lebanon Street Department



| 1944 STATE ROAD 150

42. Good Safety Info: MAP-21, Performance Measures, and Countermeasures

TIME
2:00–2:50 PM

ROOM
STEW 314

PDH: 1

MAP-21 addresses new safety issues that state and local agencies need to be aware of. A number of topics will be discussed, with particular focus on performance measures in highway safety. Additionally, a summary of safety countermeasures for both spot and systemic improvements available and used in Indiana will be shown and described.

SPEAKER
Rick Drumm, FHWA

MODERATOR
Mike Holowaty, INDOT

43. Improving Traffic Safety Culture—Public versus Expert Opinions

TIME
3:00–3:50 PM

ROOM
STEW 314

PDH: 1

This presentation will synthesize the results of a public opinion survey and expert interviews that were conducted in Iowa, as well as best safety practices and effective laws in improving traffic safety culture. The public perspective was gathered via a public opinion survey that covered a wide range of traffic safety topics. Expert opinions were solicited from the disciplines of public health, education, law enforcement, public policy, social psychology, safety advocacy, and engineering.

SPEAKER
Nadia Gkritza, Purdue University

MODERATOR
Mike Holowaty, INDOT

44. Identifying Safety Needs and Countermeasures in Safety Planning

TIME
4:00–4:50 PM

ROOM
STEW 314

PDH: 1

A Safety Needs Identification Package (SNIP) was developed at the request of INDOT to support screening of Indiana roads for locations with safety needs, as well as identifying the optimal combination of safety countermeasures to fulfill these needs. The SNIP is useful in developing a strategic highway safety plan and aligning the safety management process with the Indiana safety strategic goals. The presentation introduces the SNIP's concepts and demonstrates the tool's features.

SPEAKER
Andrew Tarko, Purdue University

MODERATOR
Mike Holowaty, INDOT



| 1941 US 31 DETOUR, SELLERSBURG

MARCH 11, 2014
TUESDAY
SOUTH SPLIT

TIME
2:00–2:50 PM

ROOM
STEW 310

PDH: 1*
*45-46
COMBINED

45. South Split Project Planning

This presentation will discuss how INDOT decided that closing the South Split and lowering the pavement profile was the best option for achieving the required vertical clearance for Virginia Avenue, and what was necessary to get approval from FHWA.

SPEAKER
Trevor Mills, INDOT

MODERATOR
Roland Fegan, INDOT

46. South Split Project Design

INDOT launched an accelerated project to close I-65 and I-70 between the North and South Split on the east side of downtown Indianapolis for approximately 59 days in the fall of 2013 to reconstruct and lower 0.5 miles of pavement beneath seven bridges. The project was necessary to increase bridge clearances and reduce the potential for collisions. This session will discuss the accelerated design efforts to prepare the bid letting documents in record time.

SPEAKER
Dave Ayala, Parsons Corporation

MODERATOR
Roland Fegan, INDOT

MARCH 11, 2014
TUESDAY
SOUTH SPLIT

TIME
3:00–3:50 PM

ROOM
STEW 310

PDH: 1*
*47-48
COMBINED

47. Keeping Customers Informed: The South Split Experience

Through the Joint Transportation Research Program, INDOT and Purdue used existing low-cost consumer technology and social media in lieu of an expensive advertising campaign to inform the public of the need for and progress during the downtown Indianapolis I-65/I-70 closure. Key players will show you how to take advantage of what we learned.

SPEAKERS

- Nathan Riggs, INDOT
- Will Wingfield, INDOT
- Steve Lavrenz, Purdue University
- Teresa Morris, Purdue University

MODERATOR
Roland Fegan, INDOT

48. South Split Traffic Monitoring

The Traffic Management Center's contribution to the I-65/I-70 South Split project will be the focus of this presentation. Discussion will focus on how traffic patterns were analyzed to provide the appropriate detours during the closure, the coordination between INDOT and the Indianapolis Department of Public Works to adjust signal timings, and how real-time monitoring of interstate traffic leads to more efficient incident management and response.

SPEAKERS

- Ed Cox, INDOT
- Steve Remias, Purdue University

MODERATOR
Roland Fegan, INDOT



49. South Split Project Management

TIME
4:00–4:50 PM

ROOM
STEW 310

PDH: 1*

*49-50
COMBINED

This presentation will discuss the efforts made to keep key I-65/I-70 South Split project personnel involved on a daily basis on this fast-track project and the methods used to reach timely solutions for construction- and design-related issues. Strategies used for tracking and resolving all contractor RFIs without delaying the critical path will also be presented.

SPEAKERS

- Roland Fegan, INDOT
- Mike Wilmot, INDOT

MODERATOR

Roland Fegan, INDOT

50. South Split Contracting

This presentation will discuss challenges encountered on the I-65/I-70 South Split project in Indianapolis during bidding and construction, including the items unknown during the bidding process, the removal and replacement of the Virginia Avenue bridge beams, CRC pavement, and truck routing and schedule. Included in the presentation will be a review of items that were discovered during construction, including soft subgrade with groundwater, existing slope materials and changes, and other issues, as well as how those were mitigated while still keeping the project ahead of schedule.

SPEAKERS

- Ron Nagle, Milestone
- Mark Andrews, Milestone

MODERATOR

Roland Fegan, INDOT

51. Indiana's Traffic Incident Management Effort (IN-TIME)

TIME
1:00–4:50 PM

ROOM
UNION FACE

PDH: 4

INDOT, in association with the Indiana State Police and other public agencies, is participating in Indiana's Traffic Incident Management Effort (IN-TIME), which meets to promote best practices for mitigation and safe handling of traffic incidents. Fire and police, along with others at a crash scene, may not always handle the cleanup in the most efficient manner. The National Traffic Incident Management Responder Training program that is provided by members of IN-TIME promotes education and good working relationships to improve that efficiency. Attendees of this 4-hour course will walk away with powerful training that will help them at every traffic incident scene.

SPEAKER AND MODERATOR

Steven Harney, INDOT



| 2013 SOUTH SPLIT PROJECT

MARCH 11, 2014

TUESDAY

TRAFFIC OPERATIONS

TIME
2:00–2:50 PM

ROOM
STEW 202

PDH: 1*

*52-53
COMBINED

52. High-Resolution Event-Based Data at Diamond Interchanges

This presentation describes a series of performance measures derived from high-resolution signal controller data that can be used to qualitatively and quantitatively assess the quality of progression of the interior movements at a signalized diamond interchange and optimize the internal offset to improve traffic flows.

SPEAKERS

- Darcy Bullock, Purdue University
- Christopher Day, Purdue University
- Rick Freije, Purdue University
- Alexander Hainen, Purdue University
- Amanda Stevens, INDOT
- Jim Sturdevant, INDOT

MODERATOR

Doug Valmore, ITE Indiana Section

53. Field Cycle Length Sweep to Evaluate Resonant Cycle Sensitivity

Cycle length selection in corridor timing is often dictated by critical intersections with the highest level of saturation. Along corridors with balanced volumes and favorable link distances, a resonant cycle length is often sought to provide good progression in both directions of travel. This presentation will discuss the search for a resonant cycle length at a 5-intersection corridor in Fishers, Indiana, over a 3-month period. A set of 11 cycle lengths from the 104- to 124-second range were tested over 12 weeks, with each iteration using optimized offset values generated by the Link Pivot progression optimization algorithm to maximize the percentage of vehicles arriving on green, and holding all phase splits constant.

SPEAKER

Howell Li, Purdue University

MODERATOR

Doug Valmore, ITE Indiana Section

MARCH 11, 2014

TUESDAY

TRAFFIC OPERATIONS

TIME
3:00–3:50 PM

ROOM
STEW 202

PDH: 1*

*54-55
COMBINED

54. Traffic Microsimulation as a Design Diagnostic

Preliminary designs are often based on traffic projections from a regional travel demand model. Traffic microsimulation can take the model's projected traffic and simulate the vehicular operations of the preliminary design. Project owners, managers, designers, and stakeholders can view the simulations to assist in determining the final design. The benefits of using traffic microsimulation for evaluating and communicating a project design will be presented.

SPEAKERS

- Lee Klieman, P.E., PTOE, Bernardin Lochmueller & Associates
- Tim Miller, CEP, Bernardin Lochmueller & Associates

MODERATOR

Hardik Shah, ITE Indiana Section

55. Method for Considering Nontraditional Intersection Designs

It is INDOT's desire to expand the use of nontraditional intersections statewide in a responsible manner. The Department developed a new decision-making model for execution starting in 2014 that provides guidelines for the proper consideration and selection of essential intersection forms, including those common and uncommon to Indiana. The latter types are typically referenced as alternative intersections and include median U-turn, displaced left-turn, and roundabout designs. The Intersection Decision Guide defines this new, systematic procedure and will be reviewed and discussed in this presentation.

SPEAKER

Brad Steckler, INDOT

MODERATOR

Hardik Shah, ITE Indiana Section

MARCH 11, 2014
TUESDAY

TRAFFIC OPERATIONS

TIME
4:00–4:50 PM

ROOM
STEW 202

PDH: 1*
*56-57
COMBINED

56. Impacts of the Renewable-Energy Economy on Rural Roads

This presentation will synthesize the results of a recently completed study on Iowa's renewable energy and infrastructure impacts. The objective of that research project was to investigate the physical and fiscal impacts of substituting imported energy with local and renewable resources (wind and biomass) in Iowa. A local agency survey was conducted and a simple spreadsheet model (impact calculator) was designed to quantify these impacts.

SPEAKER
Nadia Gkritza, Purdue University

MODERATOR
Hardik Shah, ITE Indiana Section

57. New Roadway Luminaire Technologies

This presentation will focus on recent developments in light source technology and INDOT's standards and design procedure for highway lighting. The roadway lighting industry is gradually moving away from the traditional high-pressure sodium vapor lamps and toward more energy-efficient options such as LED and plasma.

SPEAKERS

- Dave Boruff, INDOT
- Steve Bates, Techlite Corp.
- Lalit Garg, INDOT

MODERATOR
Hardik Shah, ITE Indiana Section

MARCH 11, 2014
TUESDAY

WORK ZONE

TIME
2:00–2:50 PM

ROOM
STEW 214 AB

PDH: 1

58. Why Should You Care About Queuing?

Queuing situations are difficult for drivers to navigate safely. Queuing can lead to increased rear-end crash risk due to the higher speed of traffic approaching the back of a queue. The higher the variability in speed, the higher the crash risk. Two events that often create a queue are traffic incidents and work zones. This presentation will examine ways that we can reduce the risk of back-of-the-queue crashes in work zones.

SPEAKER
Karen Stippich, FHWA

MODERATOR
Robert Dirks, FHWA

59. Effective Use of Truck Mounted Attenuators (TMAs)

Effective use of truck mounted attenuators (TMAs) can be both confusing and challenging. This presentation will explore testing requirements for TMAs, TMA use requirements, and tips and guidelines for getting the most out of the TMA safety investment. Crash test videos as well as post-impact photos will be reviewed. Special consideration will be given to performance expectations, rolling vs. static work zones, positioning the TMA in the workzone, and post-impact roll-ahead considerations.

SPEAKER
Kent Kekeis, Trinity Highway Products

MODERATOR
Rick Drumm, FHWA



MARCH 11, 2014

TUESDAY

WORK ZONE

60. The Temporary Portable Rumble Strip: Road Safety Reinvented

TIME
4:00–4:50 PM

ROOM
STEW 214 AB

PDH: 1

The scourge of distracted driving is not limited to any one demographic group or nation. It is global and affects every victim and victims' families. This dire situation, caused largely by technology such as texting, requires technological solutions, including new traffic safety countermeasures. The transverse rumble strip, a countermeasure reinvented in 2009 as the temporary portable rumble strip, is already proving a significant, innovative addition to work zone safety processes and procedures. This device is designed to reduce accidents and save lives by alerting drivers to changing road conditions. Our presentation will show and discuss design criteria of the temporary portable rumble strip, how the device alerts drivers, work zone applications in which to install temporary rumble strips, and specifications from governing agencies. Attendees will learn effective methods to reduce work zone accidents, techniques to reduce drivers' speeds in work zones, and how to include the temporary portable rumble strip in design plans and specifications. The installation of RoadQuake 2 temporary portable rumble strip on I-65 in northwest Indiana in fall 2013 will be used as an example.

SPEAKERS

- Tim Cox, Plastic Safety Systems
- Kenny Kolberg, Public Safety Systems

MODERATOR
Rick Drumm, FHWA

| SEPTEMBER 29, 2013 STATE ROAD 25, SHADELAND



MARCH 12, 2014

WEDNESDAY

BICYCLES & PEDESTRIANS

61. Sharing the Road: Driver/Bicyclist Interactions on Rural Roads

TIME
8:00–8:50 AM

ROOM
STEW 204

PDH: 1*

*61-62
COMBINED

This presentation will describe research that analyzed the overtaking maneuver on various rural roads and driver behavior for various illegal/dangerous maneuvers. The methodology developed allowed for collection of interaction data in video format and via ultrasonic distance sensor. GPS was used to track bicycle location/speed, and results showed that drivers made numerous lane and other safety violations that threatened both vehicles and bicyclists. Gathering this type of exposure data allows practitioners and researchers to identify countermeasures to reduce or prevent such maneuvers.

SPEAKER

Jeremy Chapman, Rose-Hulman Institute of Technology

MODERATOR

Sean Northup, Indianapolis Metropolitan Planning Organization

62. Targeting User Safety Through Education

Education is often the neglected "E" in the four E's of safety. With changes to our transportation networks such as roundabouts and HAWK signals, the need for user education has never been greater. Learn about Drive Safe Michiana, a Michiana Area Council of Governments' public safety program that targets these emerging safety topics in this presentation.

SPEAKERS

- James Turnwald, Michiana Area Council of Governments
- Zach Dripps, Michiana Area Council of Governments

MODERATOR

Sean Northup, Indianapolis Metropolitan Planning Organization

MARCH 12, 2014
WEDNESDAY

BICYCLES & PEDESTRIANS

63. New Ideas for Implementing Active Transportation

TIME
9:00–9:50 AM

ROOM
STEW 204

PDH: 1

This presentation will explore new trends in planning and designing active transportation back into the lives of Hoosier residents, giving us more choices in how we safely move around in our communities. Attendees will learn about statewide programs to promote active transportation along with specific community projects that plan and implement the idea. New and emerging standards for developing active transportation infrastructure will be presented, including the new NACTO Urban Street Design Guide.

SPEAKERS

- Pete Fritz, Indiana State Department of Health
- Dave Hayward, P.E., Christopher B. Burke Engineering, LLC

MODERATOR

Sean Northup, Indianapolis Metropolitan Planning Organization

64. Role of Infrastructure Improvements in Branding and Placemaking

TIME
10:00–10:50 AM

ROOM
STEW 204

PDH: 1*

*64-65
COMBINED

Roadways are an integral part of every downtown and the conduit for moving people into and through a community. They also provide a unique opportunity for the introduction of pedestrian and bicycle amenities that create a sense of place. This presentation will offer past examples of corridors and amenity suites used to create a brand for a trail and/or community, and creative placemaking ideas for future projects.

SPEAKER

Dawn Kroh, Green 3

MODERATOR

Sean Northup, Indianapolis Metropolitan Planning Organization

MARCH 12, 2014
WEDNESDAY

BICYCLES & PEDESTRIANS

65. Bicycle and Pedestrian Facility Planning as Part of Context Sensitive Solutions

TIME
10:00–10:50 AM

ROOM
STEW 204

PDH: 1*

*64-65
COMBINED

This presentation will review the process used to develop the plan for construction of bicycle and pedestrian facilities as part of the US 31 Hamilton County limited access freeway project.

SPEAKERS

- Dawn Kroh, Green 3
- Scott Minor, Green 3

MODERATOR

Sean Northup, Indianapolis Metropolitan Planning Organization

66. Opportunities and Challenges for Trail Development in Indiana

TIME
1:00–2:50 PM

ROOM
STEW 204

PDH: 2

This presentation will bring trail and greenway managers together to share and explore the opportunities and challenges faced at the local/regional level for trail development, operations, and maintenance. Topics will include building local support, finding the funding, working with state, federal, and local agencies on trail development, and approaches to long-term operations and maintenance. Presentations will be followed by group discussion, further addressing these topics.

SPEAKERS

- Dawn Ritchie, City of Fort Wayne
- Larry Neff, Elkhart County Parks
- Angie Pool, Cardinal Greenway, Inc.
- Mitch Barloga, NW Indiana Regional Planning Commission

MODERATOR

Josh Desmond, Bloomington/Monroe County Metropolitan Planning Organization

MARCH 12, 2014
WEDNESDAY

BICYCLES & PEDESTRIANS

67. "Civil Streets": Paving the Way for Bikes in Bloomington

TIME
3:00–3:50 PM

ROOM
STEW 204

PDH: 1

Bloomington's blueprint for becoming a Bicycle Friendly Community. Hear about how Bloomington became the first Bicycle Friendly Community in Indiana and the city's plan to go to the Platinum level by 2016. This presentation will explore innovative ways to build bikeways in limited ROW and unique situations, as well as bicycle parking, education, and encouragement.

SPEAKERS

- Josh Desmond, Bloomington/Monroe County Metropolitan Planning Organization
- Vince Caristo, Bloomington/Monroe County Metropolitan Planning Organization
- Justin Stuehrenberg, Bloomington/Monroe County Metropolitan Planning Organization

MODERATOR

Josh Desmond, Bloomington/Monroe County Metropolitan Planning Organization

68. ADA PROWAG Status and Common Issues/Solutions

TIME
4:00–4:50 PM

ROOM
STEW 204

PDH: 1

The Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (aka PROWAG), dated July 26, 2011, went through an extensive public comment period that ended in early 2012. The Access Board anticipates issuing final guidance that will be the enforceable standard for facilities in the public ROW. This presentation will provide the latest status of the guidelines and present common problems and creative solutions.

SPEAKER

Stephen Metzger, DLZ Indiana, LLC

MODERATOR

Josh Desmond, Bloomington/Monroe County Metropolitan Planning Organization

MARCH 12, 2014
WEDNESDAY

BRIDGES

69. Advancements in Bridge Inspection and Monitoring

TIME
8:00–8:50 AM

ROOM
STEW 302

PDH: 1

This presentation will provide updates from three ongoing or recently completed research projects related to bridge inspection and monitoring. The first is investigating the industry's current level of inspection performance and training through a probability of detection study. The second is developing a reliability-based method for setting bridge inspection intervals for Indiana bridges. And the last created a web-based bridge monitoring system to capture video footage of bridge impacts.

SPEAKERS

- Jason Lloyd, Purdue University
- Luke Snyder, Purdue University
- Becky Reising, Purdue University

MODERATOR

Merril Dougherty, INDOT

70. New Philosophy in Steel Bridge Design and Fabrication

TIME
9:00–9:50 AM

ROOM
STEW 302

PDH: 1

The foremost parameters in the design of any structure are safety and cost. The SEBD (simplified economical bridge design) concept meets and exceeds all conditions of safety but with an added benefit of cost savings over more conventional design procedures for steel bridges. Comparative analysis indicates that cost saving as much as 10 percent of the bridge cost can be realized. Learn about SEBD and how you can apply it to steel bridge design and fabrication.

SPEAKER

David Henkle, DLZ Indiana, LLC

MODERATOR

Merril Dougherty, INDOT

MARCH 12, 2014
WEDNESDAY

BRIDGES

71. Milton–Madison Bridge Slide and Superstructure Demolition

TIME
10:00–10:50 AM

ROOM
STEW 302

PDH: 1

Over the last year, the finishing touches were largely completed on the Milton–Madison Bridge Reconstruction. Hear about the project during this each stage of this period. During the summer, traffic was shifted onto the new truss, and through the fall the 84-year-old truss was demolished. Finally, over the winter, the big achievement: the design-build team fronted by Walsh Construction slid the new 15,260 ton superstructure from the temporary supports, 55 feet into its permanent location.

SPEAKER
Kevin Hetrick, INDOT

MODERATOR
Merril Dougherty, INDOT

72. Post-Fracture Capacities of Railroad Flatcar Bridges and Built-up Steel Girders

TIME
1:00–1:50 PM

ROOM
STEW 302

PDH: 1

This presentation will provide updates from two research projects conducted at Purdue University. The first is a completed project that will discuss the capacity of railroad flatcar bridges constructed with composite concrete decks, including load path redundancy after fracture of one of the main girders and the development of load rating guidelines. The second project is ongoing and examines post-fracture strength and fatigue life of riveted and bolted built-up steel girders where multiple components provide internal member redundancy.

SPEAKERS

- Teresa Washelelski, Michael Baker Jr., Inc.
- Matt Hebdon, Purdue University

MODERATOR
Victor Hong, INDOT

MARCH 12, 2014
WEDNESDAY

BRIDGES

73. Use of NDT Tools in Inspecting Stay Cable Bridges

TIME
2:00–2:50 PM

ROOM
STEW 302

PDH: 1

The Quincy Bayview Bridge is a cable-stayed bridge spanning the Mississippi River in Quincy, Illinois, with a total of 56 grouted stay cables. Cracks developed in the polyethylene (PE) sheathing which allowed water to infiltrate the stay cables. A cable wrap was applied to prevent additional moisture infiltration, but concerns that water may still be present within the cables prompted a desire to identify grout voids within the cables and determine if water was present within the voids and/or causing strand corrosion. One of the owner's requests was to determine areas of possible voids without drilling or opening the cables. Learn about how three nondestructive tools were successfully utilized to identify voids and other defects within the stay cables: ground-penetrating radar (GPR), infrared thermography (IRT), and acoustic technology.

SPEAKERS

- Stewart Mundth, Siva Corrosion Services, Inc.
- Siva Venugopalan, Siva Corrosion Services, Inc.

MODERATOR
Victor Hong, INDOT

74. Element Level Bridge Inspection

TIME
3:00–3:50 PM

ROOM
STEW 302

PDH: 1

MAP-21 requires bridge owners to collect element level bridge inspection data on all bridges on the NHS beginning in October 2014. Element level bridge inspection is a condition assessment process based on the use of the AASHTO Guide Manual for Bridge Element Inspections. It provides more precise condition assessment of bridges, more quantitative condition data, and data beyond a deck, superstructure, and substructure rating. This presentation will review the process and its benefits.

SPEAKER

- Keith Hoernschemeyer, FHWA
- Merrill Dougherty, INDOT

MODERATOR
Victor Hong, INDOT

MARCH 12, 2014
WEDNESDAY

BRIDGES

75. ERC Session for County Bridge Inspections

TIME
4:00–4:50 PM

ROOM
STEW 302

PDH: 1

This presentation will discuss the role and duties of the LPA's Employee in Responsible Charge (ERC) with respect to managing a county's bridge inspection program. As this is a new requirement, all county ERCs and elected officials are encouraged to attend. As possible, information regarding MAP-21 impacts to bridge inspection will be discussed.

SPEAKERS

- Merrill Dougherty, INDOT
- Keith Hoernschemeyer, FHWA

MODERATOR
Victor Hong, INDOT



| 1928 OLD VEVAY BRIDGE

MARCH 12, 2014
WEDNESDAY

CONSTRUCTION

76. Precast Concrete Products: Pre-Installation Guidance

TIME
8:00–8:50 AM

ROOM
STEW 310

PDH: 1

The Indiana Concrete Pipe Association has worked with INDOT to create an illustrational guideline to help owners evaluate precast products on site. This guideline discusses the differences between acceptable aesthetic anomalies and unacceptable structural issues, as well as repair options. The inherent strength of the reinforced concrete products can lead to mishandling of the products on site. This presentation will cover on-site evaluation of concrete products.

SPEAKERS

- John Susong, Indiana Kentucky Ohio Concrete Pipe Association
- Steve Smart, Independent Concrete Pipe Company
- Trygve Hoff, American Concrete Pipe Association

MODERATOR
Mike Smith, City of Indianapolis

77. Use of DCP and LWD for Compaction Control

TIME
9:00–9:50 AM

ROOM
STEW 310

PDH: 1

This presentation will cover the use of DCP and LWD for soils and aggregates compaction, focusing on INDOT's recommendations for soil sampling and laboratory testing and its criteria for the DCP blow counts and moisture content. These guidelines also include recommendations for estimating the blow counts and moisture during construction.

SPEAKER
Nayyarzia Siddiki, INDOT

MODERATOR
Mike Smith, City of Indianapolis

MARCH 12, 2014
WEDNESDAY
CONSTRUCTION

78. ADA-Focused Construction Inspection

TIME
10:00–10:50 AM

ROOM
STEW 310

PDH: 1

This presentation will introduce inspection guidelines for field staff to implement in inspecting projects with pedestrian facilities, including curb ramps and pedestrian signals. Review of new INDOT curb standards and requirements for accessible pedestrian signals will be included. These recent changes in standards will impact projects and thus it is imperative to advise field staff of what they should be looking for with regard to width and slopes on pedestrian access routes and pedestrian push buttons. Several issues have been noted in the field, including excessive cross slope and running slope, installation of fingertip-actuated push buttons, and substandard level landings and facility width. The process of determining technical infeasibility once the project is in construction will also be addressed. The session will be co-presented with INDOT construction staff.

SPEAKERS

- Eryn Fletcher, FHWA
- Erik Seef, INDOT

MODERATOR

Mike Smith, City of Indianapolis

79. Erosion and Sediment Control Updates

TIME
1:00–1:50 PM

ROOM
STEW 310

PDH: 1

This presentation will serve to update the construction community on developments with INDOT's erosion and sediment control (ESC) program. Topics will include updates on certification requirements for INDOT contracts, INDOT ESC form changes, statewide ESC multi-agency review, and the new INDOT ESC Manual.

SPEAKERS

- Michelle Allen, FHWA
- Nathan Saxe, INDOT
- Kurt Pelz, INDOT

MODERATOR

Bradley Davis, Hamilton County Highway Department

MARCH 12, 2014
WEDNESDAY
CONSTRUCTION

80. Culvert Rehab-Slip Lining Case Study

TIME
2:00–2:50 PM

ROOM
STEW 310

PDH: 1

This presentation will discuss the decision process and criteria for culvert replacement vs. culvert rehabilitation, along with various culvert rehabilitation methods available. In addition, a summary of a Union County Highway Department's slip line project utilizing HDPE pipe that was completed in the summer of 2013 will be presented.

SPEAKERS

- Sam Martin, CPI Supply
- Jeff Bowers, Union County Highway Department

MODERATOR

Bradley Davis, Hamilton County Highway Department

81. Most Common Errors for ADA Ramp Construction

TIME
3:00–3:50 PM

ROOM
STEW 310

PDH: 1

Curb ramps are essential for persons with disabilities to traverse pedestrian facilities, allowing them to get from street level to the sidewalk. Errors that occur during the construction of curb ramps can result in ramps that are non-compliant with the Americans with Disabilities Act (ADA) guidelines. This presentation will include examples of common sidewalk construction errors and offer ways that project engineers can assess existing ramps to identify cases where additional design assistance may be required.

SPEAKER

Stephen Metzger, DLZ Indiana, LLC

MODERATOR

Bradley Davis, Hamilton County Highway Department

MARCH 12, 2014
WEDNESDAY

DRAINAGE

82. Ohio River Bridges: Partial Cane Run Watershed Relocation Case Study

TIME
8:00–8:50 AM

ROOM
STEW 206

PDH: 1

Learn the basics of the O.R.B. project. Understand the complex hydraulic scenario of the Cane Run watershed. Follow design decisions which led to a partial watershed relocation. See an example and benefits of hydrodynamic wave routing and volume calculations as well as an example of why it pays to consider design criteria which are beyond the “scope” of a contract. Understand basic legal aspects of drainage design and mitigate exposure to drainage lawsuits.

SPEAKER
Matt Gavelek, P.E., St. Joseph County

MODERATOR
Scott Hesler, Crawfordsville Street & Sanitation Department

83. Working with Regulated Drains

TIME
9:00–9:50 AM

ROOM
STEW 206

PDH: 1

This presentation will focus on the ways in which utilities, road right of way, and railroad right of way affect regulated drains. Benefits of the drainage code when working with these entities, as well as hardships or delays that typically occur when working with these entities, will be discussed. This presentation will further explore ways to make this relationship benefit all parties.

SPEAKER
Joe Miller, Banning Engineering

MODERATOR
Scott Hesler, Crawfordsville Street & Sanitation Department



| 1929 MAY FLOOD EAST OF MEDOVA

MARCH 12, 2014
WEDNESDAY

DRAINAGE

84. Indiana Rainfall Patterns and a Network for Future Measurements

TIME
10:00–10:50 AM

ROOM
STEW 206

PDH: 1

This presentation will provide a brief overview of conditions necessary for the development of heavy rainfall and flooding across Indiana. An analysis of changes in warm season precipitation since 1950 at four Indiana cities will be shown, along with the effects that urbanization can have on rainfall patterns. Measuring future precipitation events for an improved climatological record will be discussed by introducing a national network of volunteer precipitation observers known as the Community Collaborative Rain, Hail and Snow (CoCoRaHS) Network.

SPEAKERS
Sam Lashley, National Weather Service

MODERATOR
Scott Hesler, Crawfordsville Street & Sanitation Department



| 1929 MAY FLOOD IN ROCKFORD, US 31

MARCH 12, 2014
WEDNESDAY
ENVIRONMENTAL

85. Environmental Services Policy and Manuals Updates

TIME
8:00–8:50 AM

ROOM
STEW 314

PDH: 1

Several offices within the Environmental Services Department have updated their policies, manuals, and procedures within the last year. These changes greatly affect the planning and execution of INDOT projects through the environmental process. This presentation will allow discussion of changes to the following documents: "Procedural Manual for Preparing Environmental Studies," "Categorical Exclusion Manual," "Waterway Permitting Manual," and "Cultural Resources Manual." In addition, procedural changes will be reviewed and time will be provided to allow for questions addressed to the environmental services managers. Input on future changes and needed changes will also be sought.

SPEAKERS

- Ken McMullen, INDOT
- Nathan Saxe, INDOT
- Patrick Carpenter, INDOT

MODERATOR

Tim Miller, CEP, Bernardin Lochmueller & Associates

86. INDOT CE–Pitfalls & Potholes

TIME
9:00–9:50 AM

ROOM
STEW 314

PDH: 1*

*86-87
COMBINED

All LPA projects receiving federal funds must follow the National Environmental Policy Act (NEPA). The INDOT Categorical Exclusion (CE) process was designed to minimize the amount of work needed to meet this requirement. Failure to follow the process can cause letting delays and jeopardize federal funds. The purpose of this presentation is to identify some of the common issues associated with INDOT CE preparation and to provide some best practices for successful completion.

SPEAKER

Jewell Stone, INDOT

MODERATOR

Tim Miller, CEP, Bernardin Lochmueller & Associates

MARCH 12, 2014
WEDNESDAY
ENVIRONMENTAL

87. The Indiana Bat: What You Need to Know About This Little Creature that Can Have Big Impacts on Your Project Schedule

TIME
9:00–9:50 AM

ROOM
STEW 314

PDH: 1*

*86-87
COMBINED

Along with other bat species, the Indiana bat plays a major role in keeping crop pests in check, making it critical to the Indiana economy. It is also protected under the Endangered Species Act (ESA). Any project that may impact the species or its habitat must therefore take certain steps to adhere to the ESA. This presentation will include requirements of the Act, allowable timetables for certain field activities such as tree clearing, and strategies to ensure that the local or state projects remain on schedule. Participants will learn what steps they need to take to satisfy current regulations while keeping projects on schedule.

SPEAKER

Dr. Tom Cervone, Bernardin Lochmueller & Associates

MODERATOR

Tim Miller, CEP, Bernardin Lochmueller & Associates

88. Indiana's Historic Bridges Programmatic Agreement: Overview

TIME
10:00–10:50 AM

ROOM
STEW 314

PDH: 1

INDOT's Cultural Resource Office staff will present a refresher on the Historic Bridges Programmatic Agreement. Specifically, the presentation will explain the Select and Non-Select list and provide guidance on completing the Section 4(f) alternatives analysis and navigating the historic bridge project development process. The intended audience is bridge owners, engineers, and historic and environmental consultants.

SPEAKER

Mary Kennedy, INDOT

MODERATOR

Tim Miller, CEP, Bernardin Lochmueller & Associates

MARCH 12, 2014
WEDNESDAY

ETHICS

TIME
9:00–9:50 AM

ROOM
FOWLER

PDH: 1

89B. Indiana Statutes and Rules for Professional Engineers

This presentation explains the statutes created by the Indiana legislature concerning the professions and the role of the State Board of Registration for Professional Engineers in administering the statutes and rules for engineers. This version of the course will focus on changes to the rules associated with the new computer-based testing for the Fundamentals of Engineering exam and with the continuing education requirements to make them more consistent with those in other states. It also will provide an overview of recent and pending changes to the NCEES Model Law and Model Rules. This course fulfills the rule requiring one hour on Indiana statutes and rules.

90B. Ethics and the Indiana Law for Professional Engineers

TIME
10:00–10:50 AM

ROOM
FOWLER

PDH: 1

This presentation is designed for engineers licensed in Indiana. The course explains why ethics are important, gives an overview of professional codes of ethics, describes professional conduct requirements in the Indiana statutes and rules, provides guidelines and examples for making value-laden decisions, and shows the value of professional and technical societies in maintaining ethical health fitness. This course fulfills the rule requiring one hour on ethics applicable to the practice of professional engineering.

SPEAKER
Vincent Drnevich, Purdue University

MODERATOR
Brad Bowen, Purdue University

MARCH 12, 2014
WEDNESDAY

ETHICS

TIME
2:00–2:50 PM

ROOM
STEW 202

PDH: 1

91. Anti-Trust and Anti-Collusion Issues Related to Road Construction

The business and contractual relationships involved in road construction sometimes give rise to allegations of price fixing, bid rigging, and other anticompetitive activities. This presentation will review current trends in government enforcement and strategies that businesses and trade associations can take to avoid illegal conduct. The presentation will also review antitrust laws and enforcement policies relevant to mergers and acquisitions in the road construction industry.

SPEAKER
Darren Craig, Frost Brown Todd, LLC

MODERATOR
Gary Eakin, Town of Danville Plan Commission

TIME
3:00–3:50 PM

ROOM
STEW 202

PDH: 1

92. Leading in the Public Eye: Practicing Principled Public Service

This workshop will challenge all public officials, elected or appointed, to think anew about what it means to practice “principled public service.” Rather than learning rules of dos and don’ts, participants will explore five principles that may inform their ethical approach in the public service. The workshop is designed to challenge and inspire both the veteran and novice public servant alike. It will consist of a presentation of the five principles of ethical public service fashioned from the Josephson Institute. The presenter will discuss the ways these principles inform his public service and relate it to your own as responsible municipal and county officers tasked with advancing the public good.

SPEAKER
Michael Griffin, Town of Highland

MODERATOR
Gary Eakin, Town of Danville Plan Commission

MARCH 12, 2014
WEDNESDAY

GEOTECH

93. MSE Wall Systems Approval Criteria and Design Review

TIME
8:00–8:50 AM

ROOM
STEW 218 AB

PDH: 1

This presentation will focus on the INDOT specifications and design criteria for MSE wall systems as well as the requirements for approving a new MSE wall system. AASHTO design specifications and FHWA guidelines regarding MSE wall design are reviewed and incorporated as INDOT's requirement. Current MSE wall design methodology and potential change will also be discussed.

SPEAKER
Yuhui Hu, INDOT

MODERATOR
Bill Williams, Monroe County Highway
Department

94. Mechanisms and Mitigation of Highway Landslide Collapse in Indiana

TIME
10:00–10:50 AM

ROOM
STEW 218 AB

PDH: 1

Four generalized types of landslides will be discussed during this presentation: high bluff peeloff, groundwater blowout, deep-seated, and shallow colluvial. The presentation will include case histories that describe approaches for repairing slopes of these types and combinations of these types of landslides, for improving the stability of slopes that could be affected by landslides, and for reducing the hazard from debris flows to highways and properties below landslides.

SPEAKERS

- Malek Smadi, GEOTILL, Inc.
- Joey Franzino, INDOT

MODERATOR
Bill Williams, Monroe County Highway
Department

MARCH 12, 2014
WEDNESDAY

GEOTECH

95. Design & Construction Guidelines for Chemical Modification

TIME
1:00–1:50 PM

ROOM
STEW 218 AB

PDH: 1

INDOT has been using chemical soil modifications since the mid-1990s. This presentation will discuss current guidelines for the design and application of these modifications in construction. Specific emphasis will be given to laboratory testing, review of test results, and an overview of how to interpret the contents of the report. The presentation will also include various guidelines from spreading to compaction

SPEAKERS

- Nayyarzia Siddiki, INDOT
- David Harness, Alt & Witzig Engineering

MODERATOR
Liza Dwyre, Parsons Brinkerhoff

96. Change Orders Related to Geotechnical Engineering

TIME
2:00–2:50 PM

ROOM
STEW 218 AB

PDH: 1

This presentation will focus on the different types of change orders that occur during construction related to geotechnical engineering. We will look at typical causes such as changed site conditions, omissions in design plans, and others. The discussion will also include a review of measures that can be taken to minimize such change orders in the future.

SPEAKER
Athar Khan, INDOT

MODERATOR
Liza Dwyre, Parsons Brinkerhoff

MARCH 12, 2014
WEDNESDAY

GEOTECH

97. Drilled Shaft Design & Construction—Integrity Testing Issues

TIME
3:00–3:50 PM

ROOM
STEW 218 AB

PDH: 1

This presentation will provide an overview of the design and construction of drilled shafts in Indiana, including construction monitoring issue, discussion of CSL, PIT and TIP testing, and comparisons with cores taken.

SPEAKERS

- Mir Zaheer, INDOT
- David Latka, Cardno ATC

MODERATOR

Liza Dwyre, Parsons Brinkerhoff

98. Radar Interferometry for Geotechnical and Structural Monitoring

TIME
4:00–4:50 PM

ROOM
STEW 218 AB

PDH: 1

Active radar sensors can be effectively used to monitor millimeter or even sub-millimeter displacement of targets over time. Radar sensors mounted on satellites can illuminate areas as wide as 60 by 60 sq. mi. up to every 10 days. Whenever an archive of radar images becomes available, millimeter ground settlement can be detected by comparing sequential images through interferometric analyses. Slow deformation phenomena such as landslides, subsidence, soil compaction, and tectonic activities, as well as slow movements of single structures such as buildings, bridges, and dams, can be monitored remotely over wide areas. Conversely, if a portable radar sensor is installed on the ground, smaller areas (up to few sq. mi.) can be monitored at higher sampling rates (up to 100 samples per second) and quick movements also become detectable. During this presentation, examples of satellite and ground based radar analyses will be shown, with particular attention to road and infrastructure monitoring, and advantages and limitations of the technology will be discussed.

SPEAKER

Daniele Perissin, Purdue University

MODERATOR

Liza Dwyre, Parsons Brinkerhoff

MARCH 12, 2014
WEDNESDAY

INFORMATION TECHNOLOGY

99. Information Technology and Local Government

TIME
8:00–8:50 AM

ROOM
STEW 320

PDH: 1

The personal computer and electronic age changed the way local government provides services and handles information. Commonly, local agencies with limited experience in technology issues must make decisions regarding the purchase of information, technology infrastructure, hardware, software, and support staff. This presentation will discuss the financial and support challenges of developing and maintaining local IT needs and the changes it offers in supporting government services.

SPEAKER

John Beery, City of Noblesville Department of Engineering

MODERATOR

Karen Avery, Association of Indiana Counties

100. IndianaMap Resources

TIME
9:00–9:50 AM

ROOM
STEW 320

PDH: 1

The IndianaMap.org website makes over 260 separate layers of GIS data and services easily discoverable, viewable, and available in various formats for use by everyone. This presentation will discuss how IndianaMap provides statewide GIS data layers and technology to help Indiana's local, state, and federal governments and private entities to access authoritative statewide GIS map layers across Indiana; utilize statewide county parcel and address data with the newest orthophotography, LiDAR, and national hydrography data; support the desktop, web, and mobile mapping needs; provide national hydrological data (NHD—6 acre drainage maps for your area); access elevation data and show its potential uses (LiDAR—Open Topography site); utilize imagery from different time periods—what is available, how to access it, and the future needs for orthophotography; and provide county boundary status.

SPEAKER

Phil Worrall, Indiana Geographic Information Council (IGIC)

MODERATOR

Karen Avery, Association of Indiana Counties

MARCH 12, 2014
WEDNESDAY

INFORMATION TECHNOLOGY

TIME
10:00–10:50 AM

ROOM
STEW 320

PDH: 1*
*101-102
COMBINED

101. A Primer on Mobile Devices

The objective of this presentation is to provide information on mobile devices and their various capabilities for the purpose of encouraging their use and removing misunderstanding. This presentation will describe mobile device hardware options, their various pros and cons, and statistics and other relevant data about their use. Included in this presentation will be how to set up mobile devices and how to use built-in apps. Wi-Fi-enabled vs. data-enabled options will be compared and associated costs and usability issues will be reviewed.

SPEAKER
Chris Nuland, 3iD

MODERATOR
Karen Avery, Association of Indiana Counties

102. Apps for Transportation Professionals

This presentation will discuss the software and apps side of mobile devices. Topics will include app software models, how to get apps, the difference between on-device apps and web apps, apps for transportation professionals, and accessories to enhance mobile applications.

SPEAKER
Brendan Strahm, 3iD

MODERATOR
Karen Avery, Association of Indiana Counties

MARCH 12, 2014
WEDNESDAY

INFORMATION TECHNOLOGY

TIME
1:00–1:50 PM

ROOM
STEW 320

103. Linking Data to Transportation Research: The Purdue e-Pubs and PURR Model

This presentation will discuss ongoing developments in a collaboration between the Purdue University Libraries and the Joint Transportation Research Program (JTRP). We will present a case study where a comprehensive work flow was developed that links technical report publication to cited data sets. The Libraries, JTRP, and researchers have leveraged this new model to increase research impact, reduce research redundancy, and incorporate data management into the research life cycle.

SPEAKERS

- Lisa Zilinski, Purdue University
- David Scherer, Purdue University
- Courtney Matthews, Purdue University
- Roberto Sarmiento, Northwestern University
- Amit Varma, Purdue University

MODERATOR
Sam Taylor, Indiana LTAP

104. The LTAP Lending Library: From Physical to Digital

Indiana LTAP currently has a lending library containing resources in various formats such as paper, CD, DVD, and VHS tape. The client searches and orders resources through the LTAP website using a custom web application. When an order is submitted, LTAP receives an e-mail and the librarian processes the request. This presentation describes an initiative developed and implemented by Indiana LTAP to provide uncopyrighted resources in an electronic format for online searching, viewing, or download with the outcomes of reducing physical library space while providing online access to these digital resources. This presentation will help local agencies understand how to implement a digital system for their physical resources while using existing IT resources

SPEAKER
Bob McCullouch, Indiana LTAP

MODERATOR
Sam Taylor, Indiana LTAP



MARCH 12, 2014
WEDNESDAY

LEADERSHIP

TIME
8:00–8:50 AM

ROOM
STEW 311

PDH: 1

105. Accountability: The Missing Link in Leadership Development

In this presentation we will share outcomes from INDOT's Code 5 leadership development pilot and discuss how the program has continued to build accountability. We will offer creative and proven ideas that you can apply in order to support the success of your own leadership development programs. These include the use of peer accountability teams, individual development plans, internal coaches, the use of renewal sessions, and informal accountability groups that, with your support, will continue on long past your program.

SPEAKERS

- Andrea Moore, FlashPoint
- Kim Pearson, INDOT

MODERATOR
Daniel Keefer, FHWA

106. Talent Review: The Rationale for Succession Planning as a Means to Foster Employee and Organizational Development

Regardless of the industry or the economic climate, many organizations are beginning to realize that proactive and thoughtful investment in human capital can augment corporate sustainability. A succession plan is one tool to help continuously identify those internal employees with high potential; it can serve as a catalyst to recruit and retain highly qualified candidates and ensure future success. This presentation will define the overall value in developing a progressively elaborate succession plan, the challenges in doing so, and a number of general guidelines to consider when embarking on such a meaningful project. The goal of this presentation is not to solve specific problems, but to start a dialogue on the value and overall worth of the subject itself.

SPEAKER
Bob Thalls, Ivy Tech Community College

MODERATOR
Daniel Keefer, FHWA

TIME
9:00–9:50 AM

ROOM
STEW 311

PDH: 1

MARCH 12, 2014
WEDNESDAY

LEADERSHIP

TIME
10:00–10:50 AM

ROOM
STEW 311

107. Leadership Excellence Through Accelerated Development

The Leadership Excellence through Accelerated Development (LEAD) Institute at CH2M HILL provides a yearlong curriculum designed to accelerate the development of leaders of individual contributors and leaders of managers who have demonstrated skill, potential, and aspiration for roles requiring strategic, operational, and leadership capabilities. An overview of the program and intended outcomes will be presented and the various elements comprising the LEAD Institute will be discussed.

SPEAKERS
Stephen P. Wanders, P.E., CH2M HILL

MODERATOR
Daniel Keefer, FHWA



| 2013 PURDUE ROAD SCHOOL

MARCH 12, 2014
WEDNESDAY

LOCAL COMMUNITY TRANSPORTATION

**108. LPA Project Development
Training Recertification–Session 1**

TIME
8:00–9:50 AM

ROOM
STEW 214 CD

PDH: 2

This hands-on 2-hour course will satisfy ERC requirements for 1 year. Quarterly reports, how to effectively assess your project timeline and funds, how to complete a request for proposals, consultant contract review, and miscellaneous updates for ERCs who have been in the role for 2 years or less are covered. Pre-registration is required to attend this course due to limited capacity. To register, email the following information to LPAQuestions@indot.IN.gov: name, agency you represent, email address, phone number, and the name and time of the class for which you are registering. You will receive a confirmation email in return.

SPEAKERS

- David Armstrong, INDOT
- Michael Cales, INDOT
- Susan Kemp, INDOT
- Britni Saunders, INDOT
- Jaclyn Schmitt, INDOT
- Greg Smith, INDOT
- Michael Wink, INDOT

109. LPA Open Panel Discussion

TIME
10:00–10:50 AM

ROOM
STEW 214 CD

PDH: 1

Join INDOT's LPA leadership team, training personnel, and land acquisition staff in a 50-minute open panel discussion regarding anything related to the LPA Program—from financing to program delivery to ROW to project delivery. Questions for the panel members will be solicited both prior to the panel and at panel discussion. Pre-registration for this course is NOT required.

SPEAKERS

- Ann Marie Bishop, INDOT
- Todd Clift, INDOT
- Kathy Eaton-McKalip, INDOT
- Jeremy McManana, INDOT
- Trevor Mills, INDOT
- Britni Saunders, INDOT
- April Schwering, INDOT

MARCH 12, 2014
WEDNESDAY

LOCAL COMMUNITY TRANSPORTATION

**110. Delphi Stellar Communities
Program Overview**

TIME
1:00–1:50 PM

ROOM
STEW 313

This presentation covers the City of Delphi's process of planning for downtown revitalization and the urgency of the projects. The completion of the Hoosier Heartland Highway's impact on the city and county has been a significant driving force. The balancing of current industry, tourism, downtown business, and opportunities for growth from the new highway have formed the direction for the plan for the Stellar Application. Those projects, coupled with the need to increase owner-occupied housing, improve downtown infrastructure, and create a state of the art performing arts facility, partner very well with the Wabash & Erie Canal theme. The city's goal is to use the arts as an economic development tool that will take advantage of its other rich quality of life assets.

SPEAKER

Randy Strasser, City of Delphi

MODERATOR

Jason Koch, Structurepoint, Inc.

**111. LPA Project Development
Training Recertification–Session 2**

TIME
1:00–2:50 PM

ROOM
STEW 206

PDH: 2

This hands-on 2-hour course will satisfy ERC requirements for 1 year. Quarterly reports, how to effectively assess your project timeline and funds, consultant invoicing, consultant contract review, and miscellaneous updates for ERCs who have been in role for 2+ years are covered. Pre-registration is required to attend this course due to limited capacity. To register, email the following information to LPAQuestions@indot.IN.gov: name, agency you represent, email address, phone number, and the name and time of the class for which you are registering. You will receive a confirmation email in return.

SPEAKERS

- David Armstrong, INDOT
- Michael Cales, INDOT
- Greg Smith, INDOT
- Susan Kemp, INDOT
- Lora Lewis, INDOT
- Renee Neukam, INDOT
- Britni Saunders, INDOT
- Jaclyn Schmitt, INDOT
- Michael Wink, INDOT

MARCH 12, 2014
WEDNESDAY

LOCAL COMMUNITY TRANSPORTATION

112. Utility Coordination and ADAAG/PROWAG Compliance

TIME
2:00–2:50 PM

ROOM
STEW 313

PDH: 1

This presentation will look at the federal ADA compliance process and explore the difficulties encountered by both LPAs and utility companies in trying to comply with the federal letter of finding. Ken Woodruff of the Federal Highway Administration will discuss the compliance process and the expectations that emerge from that process. Duke Campbell of the City of Muncie will discuss case-specific issues that have been found to make compliance with the federal letter of finding difficult, and Janet Everett of American Electric Power (AEP) will discuss strategies for communicating with utilities toward supporting ADA compliance.

SPEAKERS

- Ken Woodruff, FHWA
- Duke Campbell, Muncie Department of Public Works
- Janet Everett, American Electric Power

MODERATOR

Jason Koch, Structurepoint, Inc.

113. US 231: How to Get a State Highway Built When the Funding Falls Short

TIME
3:00–3:50 PM

ROOM
STEW 206

PDH: 1*

*113-114
COMBINED

After 35 years of planning and several stalls in construction due to funding issues, the US 231 Relocation Project was completed and opened in September 2013. In this presentation you will learn how the MPO, LPAs, and Purdue University worked creatively with INDOT to get the project completed, including having locals perform their own value engineering.

SPEAKERS

- Sallie Fahey, Area Plan Commission of Tippecanoe County
- Opal Kuhl, Tippecanoe County Highway Department

MODERATOR

John Thomas, Area Plan Commission of Tippecanoe County

MARCH 12, 2014
WEDNESDAY

LOCAL COMMUNITY TRANSPORTATION

114. Hoosier Heartland: The Road to Economic Opportunities

TIME
3:00–3:50 PM

ROOM
STEW 206

PDH: 1*

*113-114
COMBINED

Now that Indiana has a safe, efficient route between I-65 in Lafayette and the Great Lakes port in Toledo, it is time to examine the strategic economic development opportunities for the communities along the corridor. Presenters will discuss existing and planned projects representing corridor-related economic development in various communities as well as strategies that are ripe for implementation.

SPEAKER

- Sallie Fahey, Area Plan Commission of Tippecanoe County
- Garry Petersen, William-Lynn-James, Inc.

MODERATOR

John Thomas, Area Plan Commission of Tippecanoe County

115. LPA New Call Application Process

TIME
3:00–3:50 PM

ROOM
STEW 313

PDH: 1

This presentation will review the LPA/MPO program (spending authority vs. programmed amounts) for FY 14, 15, 16, and 17, along with the new call application process which ties into the next call for projects in April for FY 2018. Pre-registration for this course is NOT required.

SPEAKER

- Kathy Eaton-McKalip, INDOT
- April Schwering, INDOT

MODERATOR

Jason Koch, Structurepoint, Inc.

MARCH 12, 2014
WEDNESDAY

PAVEMENT MANAGEMENT

116. Preservation Inspection: Why It Is Important

TIME
1:00–1:50 PM

ROOM
STEW 214 CD

PDH: 1

The benefits of several common sustainable preservation treatments will be discussed in this presentation. The application and special considerations for the combination of treatments including cape seals, stress absorbing membrane interlayers, forge seals over chip seals, and surface treatments over crack treatments will all be discussed in this presentation. These tailored combination treatments can provide a durable life-cycle-cost-effective method for improving the overall pavement condition if constructed properly. Participants in this session will leave with a clearer understanding of how to utilize these proven preservation treatments in combination, or by themselves, to address more types of common issues and further extend their roadway's life cycle.

SPEAKER
Pierre Peltier, Strawser Construction, Inc./Terry Asphalt Materials

MODERATOR
Tom Duncan, FHWA

117. Extending the Life of Asphalt Pavement Joints

TIME
2:00–2:50 PM

ROOM
STEW 214 CD

PDH: 1

Is premature asphalt joint failure bringing your PASER number down? Participants will learn how applying asphalt preservative seals directly to the asphalt longitudinal paving joint can restore plasticity and flexibility and how application of in-depth sealing methods will protect against harmful UV rays, prevent oxidation, and waterproof against chloride intrusion. Rehabilitation methods to repair poorly performing and failed paving joints will also be covered.

SPEAKERS

- Rex Hedges, RejuvTec, Inc.
- Jim Brownridge, Tricor Refining

MODERATOR
Tom Duncan, FHWA

MARCH 12, 2014
WEDNESDAY

PAVEMENT MANAGEMENT

118. Asphalt Rejuvenation for Preservation-Focused Agencies

TIME
3:00–3:50 PM

ROOM
STEW 214 CD

PDH: 1

This presentation will focus on how and why asphalt rejuvenation can reduce carbon footprint and extend pavement life at a low cost. This is an extension of the presentation made at the 2013 Road School explaining how these strategies work and why they should be incorporated into a city or county pavement preservation program. Used within a pavement management system such as PASER, they prove their long-term value.

SPEAKER
Jim Brownridge, Tricor Refining

MODERATOR
Tom Duncan, FHWA

119. Busting Crack Sealing Myths

TIME
4:00–4:50 PM

ROOM
STEW 214 CD

This presentation is designed to provide the most up-to-date information on crack sealing treatments, including materials, equipment, application, and program implementation. Attendees will learn how new crack sealing technology can provide immediate and long-term maintenance costs savings. The presentation will show why the FHWA says crack sealing is the most cost-effective pavement preservation treatment an agency can utilize to extend pavement life.

SPEAKER
Jim Lippert, Crafcro, Inc.

MODERATOR
Tom Duncan, FHWA

MARCH 12, 2014
WEDNESDAY

PAVEMENTS

TIME
9:00–9:50 AM

ROOM
STEW 322

PDH: 1

120. Advanced Rapid Travel Profile Analyses: Fundamental Calculus

This presentation provides an overview of rapid travel profile analysis routines that are calculus and statistics based. Road profile analysis is an excellent platform for demonstrating the power of fundamental calculus and statistics. Detailed analysis of the first derivative of the profile data (slope variation) provides an analysis of slab tilt related to under-slab erosion caused by pumping. Analysis of the second derivative of the profile data describes curling and warping in concrete slabs.

SPEAKER
Christopher Byrum, Soil and Materials Engineers, Inc.

MODERATOR
Tommy Nantung, INDOT

121. Hot Mix Asphalt—The Last 50 Years in Indiana

TIME
10:00–10:50 AM

ROOM
STEW 322

PDH: 1

This presentation will summarize the advancements in the production, testing, and laydown of hot mix asphalt in Indiana over the past 50 years. Insights into the future of this industry will also be provided.

SPEAKER
Ronald Walker, INDOT

MODERATOR
Tommy Nantung, INDOT

MARCH 12, 2014
WEDNESDAY

PAVEMENTS

TIME
1:00–1:50 PM

ROOM
STEW 322

PDH: 1

122. SR25 Roller-Compacted Concrete Paving Shoulder Case Study

This presentation will discuss roller-compacted concrete (RCC) paving, one of the Midwest's most sought-after paving alternatives. A case study/video presentation of the 2013 SR 25 project will be followed by a panel discussion of RCC experts from IMI Concrete, E&B Paving, IRMCA, and INDOT, who will offer insight and guidance about materials, testing, paving/construction techniques, best practices, benefits, and other aspects of this pavement option.

SPEAKERS

- Mike Byers, American Concrete Pavement Association
- Tommy Nantung, INDOT
- David Heyde, E & B Paving, Inc.
- Chad Clark, Irving Materials, Inc.

MODERATOR
Jerry Larson, Indiana Ready Mixed Concrete Association



| AUGUST 28, 2013 HOOSIER HEARTLAND SHOULDER

MARCH 12, 2014
WEDNESDAY

PAVEMENTS

TIME
2:00–2:50 PM

ROOM
STEW 322

PDH: 1

123. I-65 South Split Continuously Reinforced Concrete Pavement

Continuously reinforced concrete pavement (CRCP) is constructed with reinforcing steel placed in along the entire length of the pavement. CRCP forms tight transverse cracks to evenly transfer loads without the need of contraction joints. The result is a continuous, smooth-riding pavement surface capable of accommodating heavy traffic loads in a severe environmental condition. First constructed in Indiana more than 75 years ago on US-50, CRCP became popular with the construction of the Interstate Highway system in the 1960s and 1970s. Many sections of interstate and non-interstate highways constructed at that time are still in service today, having outperformed their original design-life predictions. After more than 30 years' absence from Indiana pavement construction, the CRCP is making a successful comeback in the interstate pavement. This presentation will discuss the design principle and construction of the newest CRCP pavement in Indiana on I-65 South Split.

SPEAKERS

- Tommy Nantung, INDOT
- Dave Holtz, INDOT

MODERATOR

Jerry Larson, Indiana Ready Mixed Concrete Association

SEPTEMBER 18, 2013 SOUTH SPLIT PROJECT



MARCH 12, 2014
WEDNESDAY

PLANNING

TIME
1:00–1:50 PM

ROOM
STEW 314

PDH: 1

124. Purdue's Master Plan: A Vision for the Future

Three different master plans have guided physical changes to Purdue's campus over the past 90 years. This presentation will document the evolution of the campus master plan, highlight projects that have transformed the appearance of campus, and describe the guiding principles of the current master plan, which establishes an exciting vision for a more pedestrian- and bicycle-friendly campus.

SPEAKER

John Collier, Purdue University

MODERATOR

Janice Osadczyk, FHWA

125. INDOT's Transportation Asset Management Plan for the NHS

This presentation will explain INDOT's risk-based approach to preparing the Transportation Asset Management Plan (TAMP) for the NHS as required by MAP-21. If this plan is not completed, implemented, and approved, DOTs face the possibility of having their federal match reduced to 65%. This presentation will also provide tips for county and LPA organizations who want to implement their own TAMP.

TIME
2:00–2:50 PM

ROOM
STEW 314

PDH: 1

SPEAKERS

- Daniel Keefer, FHWA
- Roy Nunnally, INDOT
- Clark Packer, INDOT

MODERATOR

Janice Osadczyk, FHWA

MARCH 12, 2014
WEDNESDAY

PLANNING

126. MAP-21, GIS, Road Inventory and You

TIME
3:00–3:50 PM

ROOM
STEW 314

PDH: 1*
*126-127
COMBINED

MAP-21 brought on many new requirements for highway departments of all sizes. The four program areas—National Highway Performance Program (NHPP), Highway Safety Improvement Program (HSIP), Congestion Mitigation and Air Quality Improvement Program (CMAQ), and Freight Movement—all have one critical underlying element: the road inventory. This presentation will cover the changes in data collection, data sharing, software, and planned developments occurring within INDOT and how they affect the local street and highway departments.

SPEAKER
Eric Conklin, INDOT

MODERATOR
Janice Osadczuk, FHWA

127. Certified Roads, GIS, and HPMS Attribution

The Certified Public Road Mileage, the GASB Report, the 534 Report to FHWA, and the Highway Performance Monitoring System (HPMS) Report all rely on geographic information systems (GIS). GIS can help departments both large and small to increase productivity, reduce waste, and increase planning efficacy. This presentation will showcase real Indiana examples of how GIS changed the business processes used to gather, analyze, and disseminate information, not only at the state level but also the local level.

SPEAKERS

- Eric Conklin, INDOT
- Paul McBride, Madison County Council of Governments

MODERATOR
Janice Osadczuk, FHWA

MARCH 12, 2014
WEDNESDAY

PLANNING

128. Community Context Audits: Best Practices

TIME
4:00–4:50 PM

ROOM
STEW 314

PDH: 1

INDOT Public Involvement Procedures encourage all projects to have a Community Context Audit submitted along with the project's public involvement plan. The Community Context Audit is an important tool in project development and should be used during the development of any public involvement plan. In addition, completion of the Community Context Audit better equips the project sponsor in developing a project that best meets the needs of the community. The Community Context Audit will be defined and described in this presentation and examples of best practices will be presented.

SPEAKERS

- Joyce Newland, FHWA
- Rickie Clark, INDOT

MODERATOR
Janice Osadczuk, FHWA



| 1994 PURDUE ROAD SCHOOL

MARCH 12, 2014
WEDNESDAY

PORTS, RAIL & FREIGHT

TIME
8:00–8:50 AM

ROOM
STEW 218 CD

PDH: 1

129. Indianapolis Airport and FedEx Operations

This presentation will describe the FedEx Corporation's operations in Indiana and how each of its operating companies helps move freight within the state and around the world. The FedEx Express Hub at the Indianapolis airport, which is the second largest sorting facility in the FedEx worldwide network, will be highlighted.

SPEAKERS

- Jonathan Greer, FedEx
- Robert Brown, FedEx

MODERATOR

Mike Repay, Lake County

130. The Trucking Industry in Indiana

TIME
9:00–9:50 AM

ROOM
STEW 218 CD

PDH: 1

Trucking enables commerce: more than 70% of our nation's freight moves by truck and more than 80% of all US communities are served solely by a truck. The last decade has brought significant change to the trucking industry and forecasts predict that even more change is on the way. Increased regulation regarding safety, the environment, and efficiency is driving fresh thinking about current and future highway infrastructure needs and alternative ways to pay for them. This presentation will explore current and future trends in the Indiana trucking industry.

SPEAKER

Gary Langston, Indiana Motor Truck Association

MODERATOR

Mike Repay, Lake County

MARCH 12, 2014
WEDNESDAY

PORTS, RAIL & FREIGHT

TIME
1:00–1:50 PM

ROOM
STEW 218 CD

PDH: 1

131. The Importance of Freight in Indiana

This panel presentation will address the techniques used by Indiana to identify and highlight the importance of freight and freight projects in the state. INDOT will discuss the development and implementation of its Statewide Freight and Logistics Freight Plan; CONEXUS Indiana will speak about its work with business and industry stakeholders to help in the identification, development, and implementation of freight polices and projects in Indiana; and FHWA will discuss Indiana's success in having two projects officially designated as "freight projects" under the new MAP-21 provisions. This discussion will also include an overview of the analyses that inform and support future Indiana freight initiatives, policies, and program development efforts.

SPEAKERS

- Jay DuMontelle, FHWA
- Jack Kimmerling, INDOT
- David Holt, Conexus

MODERATOR

Nancy Adams, Porter County



MARCH 12, 2014
WEDNESDAY

PORTS, RAIL & FREIGHT

132. MAFC: Multi-State Coalitions to Leverage Freight for Transportation and Economic Development

TIME
2:00–2:50 PM

ROOM
STEW 218 CD

PDH: 1

This presentation addresses the work that is being done at the Mid-America Freight Coalition to support development and implementation of the freight polices and initiatives in MAP-21. This discussion will include an overview of the policy and program analyses that inform and support future freight policy and program development efforts. The presentation also details the activities and research being conducted at the Coalition to support multi-state collaboration and a broader understanding of freight corridors and freight transportation as multimodal, economic networks.

SPEAKERS

- Ernie Perry, PhD, Mid-America Freight Coalition; University of Wisconsin-Madison
- Teresa Adams, PhD, University of Wisconsin-Madison

MODERATOR

Nancy Adams, Porter County

133. Freight Modeling and Traffic Simulation

TIME
3:00–3:50 PM

ROOM
STEW 218 CD

PDH: 1

In this presentation, INDOT will provide details on its statewide model and freight movement along with the most up-to-date techniques for future planning. Utilizing TransCAD and TransModeler software programs, INDOT will share its insights on simulating freight movement and obtaining a variety of significant traffic statistics. These results play an important role in the determination of state-funded projects.

SPEAKERS

- Roy Nunnally, INDOT
- Korey Chu, INDOT

MODERATOR

Nancy Adams, Porter County

MARCH 12, 2014
WEDNESDAY

PORTS, RAIL & FREIGHT

134. Divisible Loads and Permitting

TIME
4:00–4:50 PM

ROOM
STEW 218 CD

PDH: 1

This presentation will provide an overview of the new overweight permitting regulations that apply in Indiana as a result of recent changes to state legislation.

SPEAKERS

- Mark Michael, INDOT
- Jack Kimmerling, INDOT
- Dick Hayworth, Indiana Department of Revenue

MODERATOR

Nancy Adams, Porter County



JUNE 10, 1981 BARGE STUCK UNDER HOGAN CREEK BRIDGE, STATE ROAD 350 AND LOOKING TOWARD US 50



NOVEMBER 27, 1973 DAMAGED SIGN SUPPORT TRUSS ON KENNEDY BRIDGE APPROACH

MARCH 12, 2014
WEDNESDAY

PROJECT MANAGEMENT

TIME
8:00–9:50 AM

ROOM
STEW 306

PDH: 2

135. Assessing and Mitigating Risk in Project Delivery

This audience-interactive presentation will consider risk assessment and develop strategies for addressing risk in project delivery. The presentation will define the critical path to project delivery and how risk can alter that path. The panel will define risk, when and how to assess risk, and who should assess and own risk. Panel members will discuss specific stages of project development and how to successfully manage risks associated with that stage of development. Questions such as, is all risk bad? should all risk be avoided? and what strategies are available to minimize risk? will be posed to panelists for discussion.

SPEAKERS

- Adam Burns, Crawford, Murphy, & Tilley
- Roland Fegan, INDOT
- Louis Feagans, INDOT
- Kenny Franklin, INDOT
- Greg Kicinski, American Structurepoint, Inc.
- Mike Rowe, United Consulting

MODERATOR
Gail Lee, INDOT



| AUGUST 23, 1979 US 52, 2 MILES NORTH OF STATE ROAD 1

MARCH 12, 2014
WEDNESDAY

PROJECT MANAGEMENT

TIME
1:00–2:50 PM

ROOM
STEW 306

PDH: 2

136. Practical Design and Constructability Issues/Avoiding and Minimizing Utility Impacts

Minimizing and/or avoiding utility impacts may result in additional challenges for construction if not addressed properly: designers, utility coordinators, and project managers will be challenged to seek opportunities during early design to minimize impacts to utilities; utility partners will be challenged to find flexible options to minimize relocations; and construction teammates will be challenged to engage in constructability reviews throughout project development. This presentation will discuss how to conduct constructability reviews with construction. Additionally, we will cover how to get sufficient design and details from each utility to determine what is needed to protect their facilities during construction of road projects, and how to accurately and properly translate this information into construction information bid documents.

SPEAKERS

- Kenny Franklin, INDOT
- Chad Nierman, INDOT
- Cassie Reiter, Crawford, Murphy, & Tilley
- Ken Slaninka, Cardno TBE

MODERATOR
Jay Wasson, INDOT

137. Practical Design: Toward a Culture of Continuous Improvement

This presentation will provide an overview of Practical Design methodology as a project delivery model for optimizing the condition and performance of the transportation system/corridor, while maximizing the efficient and effective use of public transportation dollars. Practical Design approaches implemented by other states will be explored, as will efforts to adopt Practical Design in Indiana.

SPEAKERS

- Scott Adams, INDOT
- Adam Burns, Crawford, Murphy, & Tilley

MODERATOR
Jay Wasson, INDOT

MARCH 12, 2014
WEDNESDAY

PUBLIC RELATIONS

TIME
1:00–2:50 PM

ROOM
STEW 311

PDH: 2

138. The Media Wants Me to Talk About What? When? Why?

You get a call from the media. They are asking for an interview or giving a heads-up that they are already headed your way. Now what? During this interactive presentation, we will explore ways to convey and focus your message(s) effectively on all platforms: television, newspaper, radio, and social media.

SPEAKERS

- Liz Evans, Purdue University
- Shelley Triol, Purdue University

MODERATOR

Teresa Morris, Purdue University

139. Planning Innovative and Engaging Public Meetings

One of the most effective yet challenging aspects to public outreach is hosting public meetings. Effective facilitators know that public meetings extend well beyond a PowerPoint presentation. Plans must be made for large crowds, media interviews, renderings and handouts, and collection of feedback. During this presentation, we will discuss best practices, including federal guidelines, for planning public meetings of all sizes. We will also discuss some innovative approaches to public meetings, such as integrating social media and televising the event.

SPEAKERS

- Erin Pipkin, Borshoff
- Andrea Farmer, Borshoff
- Rickie Clark, INDOT

MODERATOR

Teresa Morris, Purdue University

TIME
3:00–3:50 PM

ROOM
STEW 311

PDH: 1

MARCH 12, 2014
WEDNESDAY

PUBLIC RELATIONS

TIME
4:00–4:50 PM

ROOM
STEW 311

140. Social Media Strategy and Trends

Martin Sickafoose, Purdue's Director of Digital Marketing, will share insights and strategies garnered from 20 years of experience in digital marketing. As social media networks have made sharing stories and ideas instantaneous, Martin has been exploring ways to amplify the university's brand to all its audiences. In this presentation he will share his findings and experiences related to social media outreach and trends.

SPEAKER

Martin Sickafoose, Purdue University

MODERATOR

Teresa Morris, Purdue University



MARCH 12, 2014
WEDNESDAY

SAFETY

TIME
1:00–1:50 PM

ROOM
STEW 214 AB

PDH: 1*

*141-142
COMBINED

141. Improving Rural Intersection Safety

Certain features at an intersection will increase the likelihood of a crash. This presentation will discuss how to identify and correct these high-risk features and other common rural intersection safety problems through cost-effective, proven countermeasures. Technology-based countermeasures that may be used when low-cost solutions are not appropriate will also be discussed.

SPEAKER
Laura Slusher, Indiana LTAP

MODERATOR
Pat McCarty, Area Wide Protective

142. Road Safety Audits

The Road Safety Audit (RSA) can be a useful tool for enhancing road safety. This presentation will provide an overview of RSAs, including the purpose and benefits of an RSA, the steps to conducting an RSA, and types of safety concerns that can be identified during an RSA. A sample RSA will be presented.

SPEAKER
Henry Brown, University of Missouri

MODERATOR
Pat McCarty, Area Wide Protective

| 1988 PURDUE ROAD SCHOOL



MARCH 12, 2014
WEDNESDAY

SAFETY

TIME
2:00–2:50 PM

ROOM
STEW 214 AB

PDH: 1

143. New Developments In Traffic Safety Programs

INDOT's Office of Traffic Safety staff will present a roundup of the current efforts by the traffic safety community to reduce the incidence and risk of severe injury and fatal crashes on Indiana's roadways. There will be a discussion of new developments in traffic safety analysis tools and methodologies. Also, this presentation will describe the various approved low-cost systemic safety improvements and how they can reduce the risk of severe crashes and will provide tips on how to identify opportunities to apply systemic safety improvements to your road network.

SPEAKERS

- Mike Holowaty, INDOT
- Dave Boruff, INDOT

MODERATOR
Pat McCarty, Area Wide Protective

144. Improving Traffic Safety in Your Community

Traffic safety is important for a local community's protection, health, and economic well-being. There are a variety of options available to communities that can help improve traffic safety and meet needs which, ideally, should be based on data that is specific to the area. We will discuss where a variety of data can be found and used by everyone from community members to engineers in order to improve traffic safety. Some of the options that will be discussed in this presentation are grant opportunities for law enforcement to conduct traffic safety specific enforcement and partnering with local businesses, high schools, hospitals, and nonprofits.

SPEAKER
Ryan Klitzsch, Indiana Criminal Justice Institute

MODERATOR
Pat McCarty, Area Wide Protective

MARCH 11, 2014
WEDNESDAY

SPECIAL EVENTS/PUBLIC SAFETY

145. Hazard Communication—The New Globally Harmonized System (GHS) Program and Training Requirements

TIME
8:00–8:50 AM

ROOM
UNION FACE

PDH: 1

In 2012, OSHA revised its Hazard Communication Standard to be part of the Globally Harmonized System of Chemical Classification and Labeling. This revision includes new chemical labels and a standardized format for the new Safety Data Sheets (SDS). This revision will help employees with their knowledge and recognition of the hazards of the chemicals they are exposed to.

SPEAKERS

- Elise Langenberg, Public Risk Underwriters
- Pete Isom, Public Risk Underwriters

MODERATOR

Wm. "Smokey" Anderson, Tippecanoe County Emergency Management

146. IN-TIME Emergency Response Planning

TIME
9:00–9:50 AM

ROOM
UNION FACE

PDH: 1

What happens when a road is closed down because of a crash? Attendees will learn how two communities minimize community disruption by planning for such emergencies, how incident management coordinates the different first responders to prevent an even more severe secondary crash, and how planning alternative or emergency routes reduces the impact of rerouted traffic.

SPEAKERS

- Sallie Fahey, Area Plan Commission of Tippecanoe County
- Dan Avery, Northeastern Indiana Regional Coordinating Council
- Ron Hinsenkamp, West Central Indiana Economic Development District
- Thomas Melville, Boone County Sheriff's Office

MODERATOR

Wm. "Smokey" Anderson, Tippecanoe County Emergency Management

MARCH 11, 2014
WEDNESDAY

SPECIAL EVENTS/PUBLIC SAFETY

147. Special Events Traffic Management Case Study: Purdue Football

TIME
1:00–1:50 PM

ROOM
UNION FACE

PDH: 1

This presentation will focus on Purdue football game day traffic and how to use available technologies to organize and prioritize police, exit routes, pedestrians, signage, coning plans, and parking. A case study will be presented that uses data and images from the 2013 football season.

SPEAKERS

- Steve Remias, Purdue University
- John Cox, Purdue University
- Dan Mason, Purdue University

MODERATOR

John Cox, Purdue University

148. Special Events Traffic Management Case Study: Purdue Football—Panel Discussion

TIME
2:00–2:50 PM

ROOM
UNION FACE

PDH: 1

A panel of public safety colleagues from adjacent universities will discuss special event traffic management at their respective institutions.

SPEAKER AND MODERATOR

John Cox, Purdue University

| OCTOBER 12, 2013 PURDUE FOOTBALL TRAFFIC



MARCH 12, 2014
WEDNESDAY
TRAFFIC OPERATIONS

149. Performance-Based Traffic Signal System Asset Management

TIME
8:00–8:50 AM

ROOM
STEW 202

PDH: 1*
*149-150
COMBINED

This presentation will introduce a methodology for managing the maintenance and operations of traffic signal systems. This methodology is based on a hierarchy of needs extending from the health of the physical plant of the system to the operational objectives of traffic control; it uses high-resolution event data to develop scalable performance measures that reveal the need for maintenance activities and the impacts of the traffic control plan on efficiency and traffic progression on a system-wide basis. The performance measures can be further extended to timing plan optimization. The presentation concludes with case studies demonstrating the applicability and scalability of the methodology.

SPEAKER
Christopher Day, Purdue University

MODERATOR
Doug Valmore, ITE Indiana Section

150. Traffic Signal Performance Measures for Local Agencies

Performance measures for traffic signals have been available for the past few years. These have been primarily engineering-related measures focused on improving operations along coordinated systems. Recently, performance measures have been adapted to concentrate on the day-to-day operations of traffic signals. This presentation will look at how a range of performance measures have been applied to both engineering and maintenance management roles at a local agency in Indiana. These include both previously developed measures, as well as new ones created to provide indicators of system health, equipment malfunctions, and intersections where timing improvements could be made.

SPEAKER
Jay Grossman, Elkhart County Highway Department

MODERATOR
Doug Valmore, ITE Indiana Section

MARCH 12, 2014
WEDNESDAY
TRAFFIC OPERATIONS

151. 2012 Indiana Mobility Report and Applications

TIME
9:00–9:50 AM

ROOM
STEW 202

PDH: 1

This presentation will summarize the rapidly evolving probe vehicle data literature and propose a series of performance measures to characterize the temporal and spatial aspects of congestion in a graphical manner that decision makers may use to evaluate the impact of past investments and prioritize future investments. The methodologies are presented using the 2012 Indiana Mobility Report and the I-80/I-94 corridor in northwest Indiana, adjacent to Chicago. The presentation also discusses how these techniques can be extended on a national scale to characterize corridors such as I-80 from New York to California.

SPEAKERS

- Steve Remias, Purdue University
- Ed Cox, INDOT

MODERATOR
Doug Valmore, ITE Indiana Section

| JULY 12, 2013 I-80/94



MARCH 12, 2014
WEDNESDAY
TRAFFIC OPERATIONS

TIME
 10:00–10:50 AM

ROOM
 STEW 202

PDH: 1*

*152-153
 COMBINED

152. Flashing Yellow Arrow: Design & Operations Updates

This presentation will address INDOT's policy and procedures for utilizing flashing yellow arrow signals for protected/permissive left turns. This type of signal indication was added to the Manual on Uniform Traffic Control Devices in 2009 and is just coming into use nationally and in Indiana. This device improves the overall traffic mobility for the intersection without compromising safety.

SPEAKER
 Joe Bruno, INDOT

MODERATOR
 Ericka Miller, ITE Indiana Section

153. Implementing Flashing Yellow Arrows in Indiana

The flashing yellow arrow has been proven to increase safety at signalized intersections that have one or more permissive left turns. There are, however, a variety of options for implementing such a signal. Researchers from Purdue University Calumet, through the JTRP partnership with INDOT, have reviewed these options and have created a draft policy for the state, including preferences for layout and controller programming. This draft policy and a review of expected issues and of the initial flashing yellow arrow in Indiana signals will be presented.

SPEAKER
 Robert Rescot, Purdue University-Calumet

MODERATOR
 Ericka Miller, ITE Indiana Section



MARCH 12, 2014
WEDNESDAY

WINTER OPS

TIME
9:00–9:50 AM

ROOM
UNION FACW

PDH: 1

154. Total Liquid Routes and Anti-Icing Liquids

INDOT has successfully used salt brine in anti-icing efforts as a way to deliver preventative treatment before an event (e.g., bridge deck frost) occurs. In 2011 INDOT investigated the use of salt brine in de-icing operations. This study executed a comparative analysis of brine routes and salt routes during two winter seasons (2011–2012 and 2012–2013). Another study item designed and fabricated a combination winter vehicle and analyzed its performance. This presentation will discuss the study findings and conclusions and how they apply to your winter operations.

SPEAKERS

- Bob McCullough, Indiana LTAP
- Phil Ivy, INDOT
- Bryan Donze, INDOT

MODERATOR

Ken Einselen, Miami County Highway Department

155. Combining Truck Mounted Underbody Scrapers with Anti-Icing Methods

This presentation will take a fresh look at truck mounted underbody scrapers. Attendees will learn how the latest anti-icing methods have breathed new life into the utilization of underbody scrapers. Examples of county road managers using scrapers to their fullest potential will be highlighted. Attendees will also learn about how some counties have correctly used underbody scrapers to manage their gravel road network during the winter months.

SPEAKERS

- Richard Domonkos, Indiana LTAP
- Steve Moriarty, Kosciusko County Highway Department

MODERATOR

Ken Einselen, Miami County Highway Department

TIME
10:00–10:50 AM

ROOM
UNION FACW

PDH: 1

MARCH 12, 2014
WEDNESDAY

WINTER OPS

TIME
1:00–1:50 PM

ROOM
UNION FACW

PDH: 1

156. Understanding Weather and Climate Data and Resources

Weather impacts various areas of transportation, including traffic flow, management, and road maintenance, each of which depends on timely and accurate weather and climate data for traffic analysis. Understanding how to find, read, interpret, and use this data is a challenge. This presentation will show users where to find usable weather and climate data, what products are available, and how ongoing research related to urban weather processes can improve our analyses.

SPEAKERS

- Dev Niyogi, Indiana State Climate Office
- Olivia Kellner, Indiana State Climate Office

MODERATOR

Bryan Donze, INDOT

157. INDOT Moves Forward with Tow Plow Strategies

In 2008, INDOT purchased its first tow plow in the Fort Wayne District. With the tow plow concept and strategy, INDOT is increasing its effectiveness by enabling two lanes to be evenly treated and plowed with one truck, one driver, and a combination of material strategies. This machine can swing into the adjoining lane, allowing the driver to plow 24 feet of roadway simultaneously while applying materials. This presentation will provide an overview of INDOT's current and future plans for utilizing this practice.

SPEAKER

Phil Ivy, INDOT

MODERATOR

Bryan Donze, INDOT

TIME
2:00–2:50 PM

ROOM
UNION FACW

PDH: 1

MARCH 12, 2014
WEDNESDAY
WORK ZONE

TIME
8:00–8:50 AM

ROOM
STEW 214 AB

PDH: 1

158. Work Zone Update

This presentation will describe changes to the way INDOT will review work zones in 2014, will discuss the findings of the work zone reviews that were performed in 2013, and will introduce the new structure of INDOT's Work Zone Safety Section.

SPEAKER
Pat McCarty, Area Wide Protective

MODERATOR
Rick Smith, RoadSafe Traffic Systems, Inc.

159. Best Practices For Work Zone Traffic Control

TIME
9:00–9:50 AM

ROOM
STEW 214 AB

PDH: 1

This presentation will discuss several of the dos and don'ts of work zone traffic controls. Topics will include the IMUTCD, work zone devices, personal protection equipment, flagging, and training.

SPEAKER
Pat McCarty, Area Wide Protective

MODERATOR
Rick Smith, RoadSafe Traffic Systems, Inc.

MARCH 12, 2014
WEDNESDAY
WORK ZONE

TIME
10:00–10:50 AM

ROOM
STEW 214 AB

160. Poison Ivy Dangers: Preventable Occupational Health Costs

The impact of poison ivy can be felt in every aspect of highway construction and maintenance. The toxin associated with this plant can disrupt productivity for days for multiple employees at many jobsites and projects. Lost time for workers, workers' compensation claims, and employee suffering are all issues of great concern. This presentation will cover the characteristics and photographs of these plants, common and unusual symptoms, and statistics and costs associated with this disease state. Attendees will also have the opportunity to learn tips for protecting themselves and their workers from these plants, how to decontaminate equipment, and what treatments are available for minimizing or eliminating the effect of poison ivy.

SPEAKER
Steve Sisler, Zanfel Laboratories, Inc.

MODERATOR
Rick Smith, RoadSafe Traffic Systems, Inc.

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| 2001 PURDUE ROAD SCHOOL



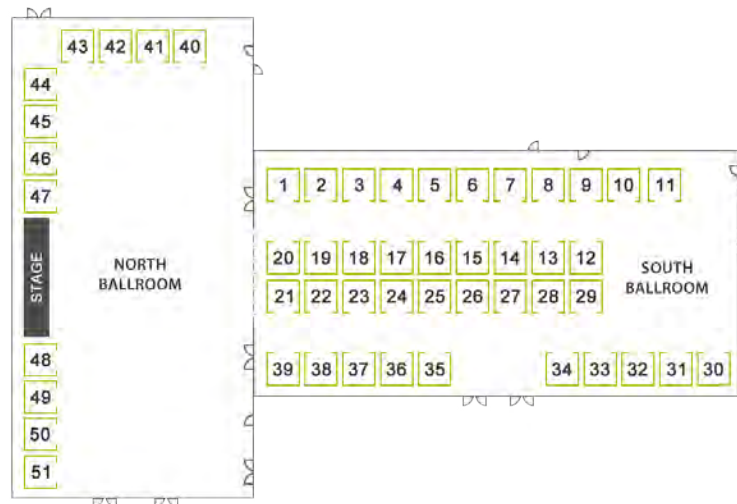
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Hannah Ogburn
Government Transportation Safety
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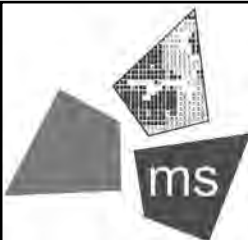
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