

32nd Annual

CEPDS

November 16, 2017

at Purdue University



State Street
Project

General Information

Registration

Registration is available through the Purdue Conferences website:

<http://www.conf.purdue.edu/2017CEPDS>.

For those who need to register via mail or fax, a print registration form is available via this web page.

Conference Hours

Conference: 8:30 a.m. - 5:00 p.m.

Standard Tracks: 9:30 a.m. - 4:00 p.m.

Management, Structures,

& Write Right Tracks: 8:30 a.m. - 5:00 p.m.

Registration: Opens 7:30 a.m.

Registration Fees

UP TO NOVEMBER 6

(includes Management Track)

Government: \$75

Non-Government: \$200

NOVEMBER 7 AND AFTER

Government: \$100

Non-Government: \$225

Student: \$25

WRITE RIGHT TRACK

Up to November 6

Government: \$200

Non-Government: \$325

November 7 and after

Government: \$225

Non-Government: \$350

STRUCTURES TRACK

(includes book)

Up to November 6

Government: \$130

Non-Government: \$255

November 7 and after

Government: \$155

Non-Government: \$280

UNIVERSITY FACULTY/ STAFF

Please register by Nov 13th

University Faculty/Staff: \$75

Write Right Track: \$200

Structures: \$125

(includes book)

Continuing Education Units

Continuing Education Units (CEU) are a standardized, nationwide method of recognizing and rewarding participation in non-credit educational activities. Participants will receive 6 credits, and 7 credits for the Management, Structures, and Write Right Tracks.

In order to receive full credit, participants must check in at the registration desk and complete a CEU request form at the end of training.



Schedule

	Transportation	Bridge	Environmental	Structures*
8:30-9:30	General Session: West Lafayette State Street Project, Michael Cline and Don Petersen - Purdue University			<i>All Day Session</i> Cast-in-Place Post-Tensioned Concrete Design and Detailing for Building Structures
9:30-10:30	Towards Zero Death Initiative	MSE Walls	Update on the Range-wide Programmatic for the Indiana Bat and the Northern Long-eared Bat	
10:30-11:30	MOT - Beyond the IDM - Best Practices for Workers/Motorist	Bridge Railings	A Guide to Wetland Delineations: I-69 Ohio River Crossing and DC2RVA High Speed Rail	
11:30-1:30	The ASCE Grand Challenge is a Commitment to Rethinking What's Possible In Our Industry, Terry F. Neimeyer, ASCE			
1:30-2:30	Project Bundling	Load Ratings	Wetland Requirements in the State of Indiana - James Turner, IDEM	
2:30-3:30	HEA 1002 - Next Level Indiana Road Construction Plan Legislative and Funding	ABC Bridge Slide	An Update on Stormwater Regulations in the State of Indiana - IDEM	
3:30-4:30	HEA 1002 - Impacts to INDOT Construction Program	US 52 Mississippi River Bridge	Update on INDOT Public Involvement Procedures	
				Ends at 5 PM

*This track has an extra fee, please see the registration fees.

Schedule Continued

	Geotechnical	Management	Write Right*
8:30-9:30	General Session	<i>All Day Session</i> Organizational Leadership by The Signore Group	<i>All Day Session</i> Technical Writing by Bachner Communications
9:30-10:30	Drilled Shaft Supported Tall Buildings Using In-Site Testing to Predict Performance		
10:30-11:30	Experimental Study of the Load Response of Large Diameter Closed-ended and Open-ended Pipe Piles Installed in Alluvial Soil		
11:30-1:30	The ASCE Grand Challenge is a Commitment to Rethinking What's Possible In Our Industry, Terry F. Neimeyer, ASCE		
1:30-2:30	Case History: Ground Improvement Test Section and Ground Improvements for The Ohio River Bridges Downtown Crossing Project		
2:30-3:30	Exploration, Testing and Design of Ohio River Bridge East End Crossing Tunnel		
3:30-4:30	Ohio River Bridge Downtown Crossing Problems with Drilled Shafts at Pier 3R and Remediation		
		Ends at 5 PM	

*This track has an extra fee, please see the registration fees.

General Session | The State Street Redevelopment Project: Transforming a Campus and Community

The State Street Redevelopment Project is an innovative town-gown, public-private partnership (P3) that is being collaboratively advanced by the City of West Lafayette, Indiana, and Purdue University. The \$120 million project stretches from the Wabash River through downtown West Lafayette and the Purdue University campus to State Street's intersection with U.S. 231.

Inclusive of significant safety enhancements, improvements to roadway infrastructure and traffic circulation patterns, additional bicycle and pedestrian facilities and greenspaces, the project will transform State Street into a destination that reflects the vibrant spirit of the community and encourages growth in the local economy. State Street Redevelopment Project construction began in 2016 and will be complete by the end of calendar year 2018.

This program will provide an overview of the P3 procurement process, construction execution schedule and unique project components.

Conference Tracks and Sessions

Transportation

Moderators: Ross Snider (AM) & David Pluckebaum (PM)

Towards Zero Death Initiative

Mike Holowaty (INDOT), Roger Manning (INDOT Moveable Barriers) & Laura Huizinga (Lindsay Transportation)

Toward Zero Deaths (TZD) is the United States' highway safety vision. Led by the TZD Steering Committee, the National Strategy on Highway Safety provides a platform of consistency for state agencies, private industry, national organizations and others to develop safety plans that prioritize traffic safety culture and promote the national TZD vision. This presentation will describe INDOT's efforts towards this goal.

Included in this session will be presentation by Linda Huizinga of Lindsay Transportation on how moveable barriers can enhance safety in work zones.

MOT - Beyond the IDM - Best Practices for Workers/Motorist

John Wright (INDOT), Duane McKinney (WSP USA, Inc.), and Eric Jordan (Rieth Riley Construction, Inc.)

Maintenance of Traffic design and construction best practices for worker and motorist safety with focus on providing space for construction, minimizing motorist and construction interaction, full closure verses phased construction/staging, and understanding contractual closure durations/calendar day limits and impacts.

Project Bundling

Randy Brooks (RQAW)

Project bundling by INDOT has recently become a common practice. Bundling of projects provides many advantages if done properly, however bundling a group of projects together also introduces new challenges. This presentation will summarize the bundling process and present some suggested best practices for a successful project delivery from both the consultant and INDOT viewpoints.

HEA 1002 - Next Level Indiana Road Construction Plan Legislative and Funding

Louis Feagans (INDOT)

During the 2017 session of the Indiana General Assembly, House Enrolled Act (HEA) 1002 was passed and will provide the funding for the "Next Level Indiana" road construction program, which will provide for sustainable plan to fund roads and bridges that are maintained by INDOT for at least the next 20 years, in addition to providing additional road and bridge funding for local government agencies. This session will describe this program from a legislative and funding perspective.

HEA 1002 - Impacts to INDOT Construction Program

Louis Feagans (INDOT)

This session will describe INDOT's efforts to increase project delivery to take advantage of this additional funding, and will also give an update on INDOT's Asset Management Program.

Conference Tracks and Sessions *Continued*

Bridge

Moderators: Anne Rearick (AM) & Michael Eichenauer (PM)

MSE Walls

Tommy Nantung (INDOT) & Barry Christopher (Geotechnical Engineer)

This presentation will provide information to assist design and construction engineers, and construction inspectors and maintenance personnel with the selection, design, construction and maintenance of Mechanically Stabilized Earth Walls (MSEW). The design, construction and monitoring techniques for these structures have evolved over the last 30 years as a result of efforts by researchers and MSEW experts to improve some single aspect of the technology or the materials used. This presentation is a comprehensive presentation that integrates all design, construction, materials, and monitoring aspects required for successful MSEW project implementation.

Bride Railings

Robert Frosch (Purdue) and Elizabeth Phillips (INDOT)

Discussion of the recently completed study, Guardrails for Use on Historic Bridges. This two part study investigated different strategies to address railings on historic bridges as well as design of the bridge deck overhang. Design recommendations will be provided and address both historic and new bridge construction.

Load Ratings

Jeremy Hunter (INDOT) and Sean Hankins (INDOT)

This presentation will provide an update regarding Bridge Load Rating and Load Posting requirements for Indiana bridges. General load rating concepts will be discussed as well as policies and procedures for properly analyzing and documenting bridge load carrying capacity.

ABC Bridge Slide

Tyler Wolf (Beam Longest and Neff) and Jeremy Hunter (INDOT)

On interstate bridge replacement projects the cost of maintenance of traffic, duration of maintenance of traffic and worker safety are primary concerns. Using Accelerated Bridge Construction (ABC) can address all three of these items. By compressing the time that construction is performed on the roadway, it minimizes the scope of work required to maintain traffic and inherently limits the duration of maintenance of traffic and worker exposure. The replacement of I-70 over SR 121 is planned on being accomplished with two 13-day single lane closures of I-70 and minimal full closures of the roadway below.

US 52 Mississippi River Bridge

Greg Hasbrouck (Parsons)

The US 52 bridge over the Mississippi River in Savanna, Illinois was originally constructed in 1932. It provides a crucial transportation link for the region, connecting Savanna, Illinois to Sabula, Iowa with the nearest alternate Mississippi River crossing located almost 20 miles to the south in Fulton, Illinois. Over

Conference Tracks and Sessions *Continued*

the years, a number of repairs have been made to the bridge and it is now rapidly approaching the end of its useful life and is in need of replacement. The proposed replacement consists of 12 spans totaling 2454 ft from a causeway in the middle of the Upper Mississippi River Wildlife and Fish Refuge in the Mississippi River on the low side to the high bluffs of the Mississippi Palisades in Illinois. A 546 ft main span steel tied-arch over the navigation channel flanked by steel plate girder approach spans has been designed by Parsons Corporation in coordination with the Illinois DOT with an expected summer 2015 letting and the new bridge to be open to traffic by November 2017.

Environmental

Moderator: Dan Miller

Update on the Range-wide Programmatic for the Indiana Bat and the Northern Long-eared Bat

Forest Clark (USFWS) and Robin McWilliams-Munson (USFW)

This session will provide an overview of the programmatic range-wide informal and formal consultations with the Federal Highway Administration, the Federal Railroad Administration, and the Federal Transit Administration for Indiana bat and northern long-eared bat. A brief summary of the history and consultation process will be followed by an overview of key components of the consultation and some specific examples of its use with the FHWA and INDOT in Indiana over the last two years.

A Guide to Wetland Delineations; I-69 Ohio River Crossing and DC2RVA High Speed Rail

Luke Eggering and Lindsey Postaski

This session will cover best practices on how to prepare for and perform wetland delineations on large scale projects. This will include an overview of the I-69 Ohio River Crossing project that is currently underway and the DC2RVA High Speed Rail project.

Wetland Requirements in the State of Indiana

James Turner (IDEM)

This session will discuss current Indiana Department of Environmental Management permitting requirements for impacts to jurisdictional waters in the State of Indiana.

An Update on Stormwater Regulations in the State of Indiana

Randy Braun (IDEM)

This session will discuss current Indiana Department of Environmental Management permitting requirements and regulations for stormwater in the State of Indiana.

Update on INDOT Public Involvement Procedures

Rickie Clark (INDOT)

This session will discuss current Indiana Department of Transportation Public Involvement Requirements and Procedures in the State of Indiana.

Conference Tracks and Sessions *Continued*

Structures

Moderator: Chip Bradway

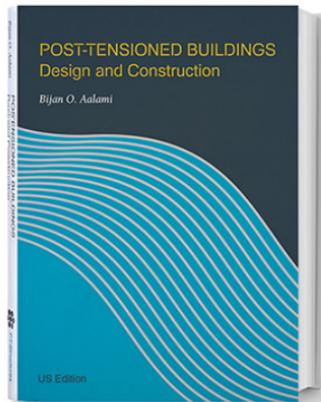
Cast-in-Place Post-Tensioned Concrete Design and Detailing for Building Structures

Bijan Aalami, PhD

This session begins with a brief application of post-tensioning in building construction and transitions to covering the background of designing post-tensioned members, followed by the salient, but critical concepts (beyond the basics) necessary for a better understanding of post-tensioning, leading to efficient and sound designs. The application of concepts and the current code provisions will be demonstrated through the long-hand calculation of a column-supported floor slab. Detailing for support restraint, tendon modeling and tendon layout will be followed by vibration evaluation and the design of concrete floors with specific reference to post-tensioning. Software application for the design of post-tensioned members will be briefly reviewed.

Attendees of this session will receive a copy of "Post-Tensioned Buildings: Design and Construction" by Dr. Bijan O. Aalami. This book builds on over three decades of the author's observation and design of post-tensioning projects in more than 35 countries worldwide. Having met and discussed with thousands of practitioners whose work encompasses the design or construction of post-tensioned projects, the author presents his observations and experience in a clear and concise format, highlighting the concepts and procedures

that lead to good practice and economical designs. The book is easy to read and is accompanied by many schematics and photographs of actual post-tensioning installations.



Conference Tracks and Sessions *Continued*

Geotechnical

Moderators: Jim Bullard (AM) & Tom Struewing (PM)

Drilled Shaft Supported Tall Buildings Using In-site Testing to Predict Performance

Bill Walton

Experimental Study of the Load Response of Large Diameter Closed-ended and Open-ended Pipe Piles Installed in Alluvial Soil

Monica Prezzi (Purdue)

The Indiana Department of Transportation has commonly used 14-inch diameter, closed-ended pipe piles and, on a few bridge foundations, up to 16-inch diameter pipe piles. For the first time, INDOT used 24-inch diameter open-ended pipe piles and closed-ended pipe piles to support the piers and bents for the east-bound U.S. 52 bridge over the Wabash River. Open-ended pipe piles have a response that is highly dependent on the plugging process that takes place inside the pile during driving. The plugging process is not well understood; thus, estimation of the static resistances of these piles is not accurate with current knowledge. Open-ended pipe piles are easier to install, particularly in Indiana soils of glacial origin. This makes them attractive to INDOT if greater knowledge can be developed about their axial resistance. This project presented INDOT and Purdue with a unique opportunity to conduct highly

relevant research. One open-ended pile and one closed-ended pile were heavily instrumented, installed at the bridge site, and tested statically and dynamically. The results of this project, which will be discussed in this seminar, had an immediate impact through the re-design of the bridge foundations for the bridge replacement project, leading to more reliable and cost-effective foundations.

Case History: Ground Improvement Test Section and Ground Improvements for The Ohio River Bridges, Downtown Crossing Project, Louisville and Southern Indiana Approaches

Mike Minton - Hayward Baker

The Ohio River Bridges – Downtown Crossing Project consisted of construction of a new cable stayed bridge that carries northbound traffic on I-65 across the Ohio River from Louisville, KY to Jeffersonville, IN. Associated with the new main river bridge was a major redesign and realignment of the ramps and interchange junctures where I-65, I-71 and I-64 converge along with the Kentucky approaches to the downtown Ohio River bridges. The reconstructed interchange included the widening, reconstruction and construction of more than 40 bridges, 27 retaining walls and about 34 miles of roadway, ramps and connectors to allow for more efficient traffic management. The Walsh Design-Build Team, consisting of Jacobs and Stantec, concluded that ground improvements would be required for many of the new ramps, embankment sections and MSE walls that are associated with the interchange reconstruction.

Conference Tracks and Sessions *Continued*

Hayward Baker (HBI) was selected by Walsh to be the designer and installer of the ground improvement systems that were required for the project. As part of HBI's quality control program, HBI constructed a test embankment supported by ground improvement elements. The test embankment was instrumented to measure settlement, pore pressures and earth pressures. The purpose of the instrumented test embankment was to provide a full-scale validation of the performance of the ground improvement elements as well as HBI's design and installation methodology.

This presentation will discuss the results of the geotechnical investigations; predicted behavior and observations; project criteria; test embankment section, instrumentation and results; selection of production elements; and installation of production ground improvement elements.

Exploration, Testing and Design of Ohio River Bridge East End Crossing Tunnel

Nick Chen (Jacobs Engineering)

The Ohio River Bridges East End Crossing (ORBEE) Tunnel is part of the Ohio River Bridges Crossing project (procured by Public Private Partnership, PPP, contract), that connects transportation network between Louisville, Kentucky and southern Indiana. The twin-tube highway tunnel provides northbound and southbound lanes of the Kentucky approach to a new bridge across the Ohio River to Indiana. It is the largest highway tunnel, approximately 55-ft wide by 30-ft tall, constructed by Sequential Excavation Method in the US. Tunnel excavation is through mix-ground condition, which includes karstic limestone, shale, and dolomite geologic units. This seminar presents topics on subsurface exploration and testing, geotechnical

parameters and rock load derivations for final lining design, groundwater loading evaluation and determination, lining reinforcing system selection (plain, steel, or fiber reinforcing concrete), concepts for tunnel waterproofing and drainage systems, concrete details to satisfy project durability and service life requirements, and passive fire protection concept of the concrete lining. The final lining support type of the tubes was predetermined during early design phase and confirmed or adjusted/redesigned based on actual ground condition mapped in the field during tunnel excavation.

Ohio River Bridge Downtown Crossing Problems with Drilled Shafts at Pier 3R and Remediation

Scott Zang (Michael Baker)

Anomalies observed during placement of concrete in one of the 12 foot diameter drilled shafts that would support Pier 3 of the new Ohio River Bridge Downtown crossing lead to concerns regarding the integrity of the drilled shaft. Subsequent testing and coring confirmed that the bottom 60 feet of the 115' long shaft contained weak concrete that did not meet the design specification. A remediation plan was implemented that consisted of:

- Compaction grouting of loosened soils outside the shaft.
- Drilling a 7.5 foot diameter shaft down the center of the 12 foot diameter shaft.
- Installing a large reinforcing beam to increase the moment capacity and stiffness of the smaller diameter shaft.
- Placing new concrete.
- Verifying the integrity of the smaller diameter shaft.

Conference Tracks and Sessions *Continued*

Management

Moderator: Steve Osborn

Organizational Leadership

Dino Signore, Ph.D., The Signore Group

Participants of this thought-provoking session will learn strategies for dealing with the ever-changing business environment, hear how to navigate these turbulent times to avoid becoming irrelevant and what it takes to elevate your organization to the next level (realizing the approach will be different than what it took to get you where you are today) and how to assemble, inspire and lead a team toward a shared vision.

This session will inform the participants on the nature of thinking strategically and provide a deeper understanding of team dynamics. Special emphasis will be given to providing a framework for anticipating future trends, differences in personality perspectives, and a structure for evaluating and improving the team functions of the organization.

The following is an approximate session timeline:

AM

8:30 – Introductions and Overview, Warm up

Activity: Unique Things

9:00 – Thinking Like a Futurist, the Macro-Environment and Application

10:30 – DISC Card Activity

11:30 – Lunch

PM

1:30 – Locus of Control, Understanding How People Process Information

2:15 – Building a High-Performance Team

4:00 – Key Takeaways

4:30 – Conclusion

Write Right

Moderator: Mike Wigger

John Philip Bachner, Bachner Communications

John Philip Bachner, a Harvard English major, will lead the seminar. Mr. Bachner has authored some 1,000 books, manuals, texts, case histories, monographs, and other materials on professional liability loss prevention issues. He has had more than 2,500 magazine articles and columns published.

Topics to be covered in the seminar include, among others: the professional advantages of effective communication, including the importance of avoiding liability; the characteristics of good writing and techniques for beginning a writing project; proper use of nouns, verbs, pronouns, and other parts of speech, and typical mistakes of usage; and sentence structure, including subject and verb agreement, and active and passive voice.

The seminar is intended for firm and project managers, project engineers, environmental scientists, and other technical and nontechnical personnel in these firms who have contact with clients, who prepare or review contracts, develop proposals, or pursue similar endeavors.

Speaker Bios

Bijan O. Aalami, ASCE life member, is Emeritus Professor of San Francisco State University; Legend, Fellow and Life Member of the Post-Tensioning Institute; and Founder and Principal of ADAPT Corporation, a structural engineering and concrete software development company in California, serving clients in over 70 countries. He is an ACI recipient of the Design Award for application of advanced engineering to a notable concrete structure. He has published extensively on analysis and design of post-tensioned structures. A renowned educationalist, he has held courses on design of structural concrete and post-tensioning in over 35 countries worldwide. He is an honorary member of the Argentine Structural Engineering Association.

John Philip Bachner is president and CEO of Bachner Communications, Inc., a business communication firm he established in 1971. Part of John's business includes association management and, since May 1, 1973, he has served as chief staff executive of the geoprofessional Business Association (GBA). John also serves as a consultant to GBA, other associations, and an array of private-sector organizations. He is a prolific writer. His more than 250 books, texts, manuals, and guides include GBA's Contract Reference Guide (editions 2, 3, and 3.1); the ECS Contract Reference Guide, editions 1 and 2; the DPIC Guide to Better Contracts; the RA&MCO Contract Reference Guide; and well-received books and guides on subjects such as forensic engineering, ADR, case histories, and limitation of liability. John Wiley & Son publishes John's Practice Management for Design Professionals; van

Nostrand-Reinhold published his Marketing and Promotion for Design Professionals. McGraw-Hill and Charles C. Thomas have published other books by John, and he also has to his credit some 2,500 published magazine articles and columns, plus literally thousands of newsletters, case histories, brochures, and flyers. He has had more than a dozen movies produced. He has written, directed, and produced hundreds of successful television and radio ads. He lectures and leads seminars throughout the United States. His "GeoCurmudgeon" column appears regularly in GeoStrata magazine.

John is regarded as a top-flight seminar leader who keeps participants' attention with a fast-paced, sometimes irreverent presentation style.

Randy Braun is the Section Chief for the Indiana Department of Environmental Management's Office of Water Quality/Surface Water, Operations & Enforcement. Mr. Braun oversees all permits pertaining to impacts to jurisdictional waters and stormwater within the state.

Randy Brooks joined RQAW in 2016 and serves as Bridge Department Manager. Randy has over 13 years of experience managing extensive road bridge projects of various scopes. He graduated from Southern Illinois University with both a Bachelor's and Master's Degrees in Civil Engineering; and then also earned an MBA from Indiana University.

Nick Chen is Regional Vice President and Chief Tunnel Engineer for Jacobs

Speaker Bios *Continued*

Engineering Building and Infrastructural Group. He is the Tunnel Engineer of Record for the two recent US underground P3 projects, including the The Port of Miami Tunnel project, and The Ohio River Bridge East End Crossing Tunnel project

Dr. Barry R. Christopher is an independent geotechnical engineering consultant specializing in reinforced soil and other ground improvement technologies, geosynthetic application and design, and geotechnical/geosynthetic testing and instrumentation with 35 years of geotechnical engineering experience. Currently he is a co-instructor for the Federal Highway Administration/ National Highway Institute (FHWA/ NHI) workshops on “Geosynthetics Design and Construction”, “Geotechnical Instrumentation”, “Mechanically Stabilized Earth (MSE) Walls and Reinforced Soil Slopes”, “Soils and Foundations”, “Subsurface Investigation” and “Geotechnical Aspects of Pavements” and was the editor for the earth retaining structures section of the 2001 AASHTO LRFD Specifications.

He has been an officer in national and international professional committees including the president of the North American Geosynthetics Society, chairman of ASTM Committee D35 on Geosynthetics, council member for the International Geosynthetic Society and chair of the Transportation Research Board Committee AFS70 on Geosynthetics. He is also a life member of ASCE. He has a BSCE from the University of North Carolina at Charlotte, a MSCE from Northwestern University, and a Ph.D. from Purdue University.

Forest Clark is a USFWS biologist in the Indiana Field Office. He began his career in 1988 working on habitat restoration. Subsequently he led efforts to develop tools for conservation landscape scale analysis including Gap Analysis, the Indiana Biodiversity Initiative, and the Grand Kankakee Marsh National Wildlife Refuge plan. He worked on individual transportation and other federal projects before spending the last decade leading and working on multi-state HCPs and the FHWA programmatic section 7 consultation.

Rickie Clark is the manager for the Indiana Department of Transportation’s Office of Public Involvement. Mr. Clark oversees the public involvement required for transportation projects in the state of Indiana.

Michael B. Cline. Purdue University Vice President for Physical Facilities Michael B. Cline is responsible for the planning, design, and construction of all university facilities; the operation and maintenance of existing buildings, lands, and infrastructure; utility production and distribution; energy and space management; acquisition and development of real estate; and sustainability. Cline oversees facilities activities for all Purdue University campuses and manages an annual general fund operating budget of over \$108 million and approximately 880 employees on the West Lafayette campus.

Cline has served as the Vice President for Physical Facilities since July 2013. Prioritizing customer care and management accountability, Cline has led the Physical

Speaker Bios *Continued*

Facilities organization to focus upon delivering quality service at the lowest possible cost. Over the course of his tenure at Purdue, he has played a critical role in envisioning and advancing the State Street Redevelopment Project in collaboration with the City of West Lafayette and successfully led Purdue's capital program. Current major capital projects include the Hobart and Russell Creighton Hall of Animal Sciences and Land O'Lakes Center for Experiential Learning and Purina Pavilion, Flex Lab Facility, and transformative renovations to multiple College of Engineering facilities. Upcoming major capital projects include the Veterinary Medicine Teaching Hospital (Phase I), Bioscience Innovation Building and Agricultural and Biological Engineering Renovation and Addition.

Prior to working for Purdue, Cline served as the Commissioner of the Indiana Department of Transportation (INDOT), first appointed by Governor Mitch Daniels in June 2010 and reappointed by Governor Mike Pence in January 2013. As Commissioner, he was entrusted with overseeing all aspects of one of the state's largest agencies and successfully led INDOT's effort to provide high-quality highway infrastructure as a platform for economic development opportunities across Indiana.

Cline has more than 25 years of management and engineering experience in both the public and private sectors. He holds a Bachelor of Science degree in Civil Engineering from Purdue University, is a registered Professional Engineer in Indiana,

and is a board certified Professional Traffic Operations Engineer.

Luke Eggering has extensive experience in preparing and managing complex NEPA documents for both small and large transportation and military projects including environmental impact statements (EIS), environmental assessments (EA), biological assessments (BA), categorical exclusions, and other technical documents, such as ecological studies, ecosystem restoration plans, and natural resource GIS projects. He is a Certified Project Manager that provides supervision and technical support for transportation, military, and civil works planning/permitting projects.

Louis Feagans is the INDOT Statewide Technical Service Director and has over 28 years of transportation experience. During his career he has worked in hydraulics, water resources, design, asset management, scoping, and project management. He is a professional engineer with a BS for University of Evansville and MS for Purdue University.

Robert Frosch is a Professor of Civil Engineering and Associate Dean of Resource Planning & Management in the College of Engineering at Purdue University. A fellow of the American Concrete Institute and past member of the Board of Direction, he serves on the ACI 318 Structural Concrete Building Code and is Chair of ACI 318D, the design of structural members. He also is Chair of the ACI Financial Advisory Committee which guides the financial operations of the Institute. His research, which focuses on the design and behavior

Speaker Bios Continued

of structural concrete for both buildings and bridges, has resulted in changes to the ACI Building Code, AASHTO Design Specifications, and INDOT practice.

Roger Manning has served the Indiana Department of Transportation as its' Strategic Highway Safety Plan Manager since 2006, helping keep the state in compliance with federal laws and regulations regarding highway safety project federal funding. He was the principal writer/editor for Indiana's first SHSP adopted in 2006, and the current SHSP adopted in 2015. He also wrote and edited the Indiana Highway-Rail Grade Crossing Safety Action Plan approved by the FRA in 2012.

Roger joined INDOT in 1998, following two decades of working in radio and television. Prior to his assignment in the INDOT Office of Traffic Safety, Roger worked in INDOT's Office of Communication as well as in project management.

A native of the New Jersey shore, he found his way to Indiana by way the University of Evansville.

Duane McKinney is the Area Manager of WSP, Inc (Formerly Parsons Brinckerhoff) He is a 1995 Purdue Graduate in Civil Engineering. He has 22 years experience in design with MOT focus/design build delivery. Duane is from SW Indiana currently resides in Indianapolis.

Mike Minton is the Division Manager for Ground Modification in Hayward Baker's Midwestern Branch. In this role, Mike manages a dynamic group of engineers,

project managers, and field crews that bid, design and install Ground Improvement projects such as Aggregate Piers, Rigid Inclusions, Wet and Dry Soil Mixing, along with various grouting technologies. Mike has 17 years of experience in construction and geotechnical engineering. In addition to being a Divisional Manager, Mike is the Hayward Baker product team chairman for Vibratory Technologies where he is responsible for establishing innovation and research initiatives, as well as best practices for Aggregate Piers and Vibro Compaction. Mike has a BS in Civil Engineering from Purdue and a graduate certificate in Geotechnical Earthquake Engineering from Missouri S&T. Mike previously held the title of Project Manager for Hayward Baker and has been the lead ground improvement designer and project manager for numerous building and DOT projects in the Midwest.

Robin McWilliams Munson is a Fish and Wildlife Biologist for the U.S. Fish and Wildlife Service. She currently serves as the Transportation Liaison between the USFWS and FHWA.

Tommy Nantung received his PhD from Purdue University in 1993 and has 29 years of experience in pavement, materials, and construction. He currently serves as Manager of Pavement, Materials, and Construction Research Testing at the INDOT Office of Research and Development in West Lafayette, Indiana.

Terry F. Neimeyer joined KCI Technologies, Inc., after graduating from college in 1977 and was named

Speaker Bios *Continued*

president and chief operating officer of the firm in November 1995, chief executive officer in March 1999, and Chairman of the Board in December 2000. KCI employs a staff of more than 1200 and is the largest employee-owned, multi-disciplined engineering firm in Maryland, operating 23 offices in thirteen States—Delaware, Florida, Georgia, Maryland, North Carolina, Ohio, Tennessee, Texas, Indiana, New York, Pennsylvania, Virginia, and South Carolina—as well as the District of Columbia. With revenues of \$164 million in 2014, KCI Technologies is ranked 78th among the top engineering firms in the country by the Engineering News Record. KCI was also voted as one of the top 50 Engineering Firms to work for in 2003 by Civil Engineering News and top 100 Hot Firms in 2003, 2007, 2008 and 2010 by Zweig White.

Don Petersen. As managing director of Capital Program Management in Physical Facilities at Purdue University, Don Petersen's primary responsibilities include supervising staff within Capital Program Management and serving as the authorized representative for the City of West Lafayette-Purdue University Joint Board on the State Street Redevelopment Project and Purdue's contact for coordination on the \$1.2B Purdue Innovation District development.

Petersen has been with Purdue University since 2014, where he previously earned a bachelor's degree in building construction technology (now known as building construction management). Prior to joining the Physical Facilities organization, he spent nearly 20 years developing his professional career at Hunt Construction, where he

started as a project engineer and worked his way up to the position of a senior project manager. Among other projects, Petersen devoted seven years to a \$1.1B airport expansion project during his time at Hunt.

Elizabeth Phillips earned her Bachelor of Science in Civil Engineering from Purdue University. She began her career as a designer and stress analyst for The Boeing Company in Washington State. Upon returning to Indiana, Elizabeth spent 12 years as a consultant in bridge design and plan review before joining INDOT in 2012. She currently serves as the Bridges Division Office of Standards and Policy Manager.

Dr. Monica Prezzi holds both a Master of Science degree in geotechnical engineering and a Ph.D. degree in civil engineering from the University of California Berkeley. At Purdue, Dr. Prezzi teaches undergraduate and/or graduate courses on soil behavior, foundation engineering and ground engineering. She is currently doing research on analysis and design of piles, on the effect of soil disturbance on the performance of prefabricated vertical drains, and on utilization of recyclable materials in civil engineering structures.

Sean Hankins has 10 years of experience in bridge load rating as well as several years in both bridge design and inspection. He serves as a bridge design engineer at INDOT and is heavily involved in the modernization of the load rating program.

Greg Hasbrouck is a Supervising Bridge

Speaker Bios *Continued*

Engineer with Parsons in the Chicago office and was the Bridge Design Lead for the US 52 Mississippi River Bridge project. He has over 14 years of experience working on complex bridge projects including the design of the Hastings Tied Arch Bridge over the Mississippi River in Hastings, Minnesota and the Christopher S. Bond Cable-Stayed Bridge over the Missouri River in Kansas City, Missouri. Mr. Hasbrouck received his Master's in Structural Engineering from Princeton University and his Bachelor's in Civil Engineering from Duke University and is a registered professional engineer.

Laura Huizinga has worked in the Road Building and Safety industry for 18 years. She currently represents Lindsay Transportation Solutions/Barrier Systems as a regional manager covering the Eastern United States and Canada. Laura was employed as a General Manager of a Guardrail Installation Company and also Sales and Marketing Director for a Barricade Rental Company. Throughout the years she has participated in numerous industry committees and organizations to gain Work Zone Safety knowledge.

Jeremy Hunter has 18 years of experience in bridge design, inspection, load rating, and project management. In his current role, he serves as the Bridge Design and Load Rating Manager overseeing INDOT bridge design projects, consultant plan review of bridge projects, bridge load rating, as well as supporting INDOT's Bridge Inspection, Bridge Maintenance, and Construction Departments by responding to critical bridge issues and inquiries.

Eric Jordan is Sales Manager at Rieth-Riley Construction Co., Inc. He is a 2007 Purdue Grad in Building Construction Management and has 10 years experience in construction project coordination/management. Eric is from Greenwood currently resides in Indianapolis.

Dino Signore PhD is the president of The Signore Group, a professional consulting firm with expertise in strategic facilitation, organizational performance and executive effectiveness for middle market businesses and nonprofit organizations. With more than 30 years' experience in business and education and 17 years as a professional facilitator, Signore has worked with both for-profit and non-profit organizations and specializes in creating productive learning environments through a unique strategic planning model, peer-to-peer roundtable protocols and a process consultation approach. In addition, Signore serves as the director of the Edward Lowe Foundation's educational / entrepreneurship programs. Through this role, he has facilitated several hundred learning events and designed an extensive range of leadership learning modules for CEOs of second-stage growth companies.

James Turner has served as a Wetlands, Lakes, and Streams Project Manager for the Indiana Department of Environmental Management for 5 years. He has a BS in Biology from Iowa State University and an MS in Ecology from Purdue University.

William (Bill) Walton is senior vice president at GEI Consultants. He is a licensed

Speaker Bios *Continued*

civil and structural engineer in 21 states and has 37 years of experience in the geotechnical and structural design. He is previously worked at STS Consultants (now AECOM). He has worked on the design of many exciting projects such as the Cleveland Clinic in Abu Dhabi, the 1,362 foot high Trump Tower in Chicago, Chicago Soldier Field Stadium, the 2,000 foot Spire Tower in Chicago, etc. He had lead an investigation of the Kingston Dredge Pond failure in Tennessee. He was the forensic expert on the failure and had the privilege of reporting to the U.S. Congress and Senate on the findings of the study. Walton has worked hard to advance the working capacities of many different deep foundation systems and believes in performance monitoring and the observational method.

Walton serves on the board of governance of the Structural Engineers Association of Illinois. He was elected Fellow of ASCE for his work in advancing high bearing pressures for drilled shafts and the evolution of high load capacity micropiles in Chicago. Walton was also named 2010 Illinois Civil Engineer of the Year by the ASCE Illinois Section. He was profiled in Deep Foundation Institute magazine

Tyler S. Wolf is a graduate of Purdue University, obtaining a BS in Civil Engineering in 2001 and an MS in Civil Engineering in 2003. He is a Professional Engineer in 10 states.

Tyler has been with Beam, Longest and Neff for 14 years and currently serves as

a Senior Bridge Designer and Assistant Bridge Department Manager. Tyler is experienced in all phases of bridge design and inspection projects. In his role at Beam, Longest and Neff, his responsibilities include the design and plan development for bridge replacement and rehabilitation projects and well as managing larger multi-structure projects.

John Wright graduated from Tri-State College in 1975 with a BSCE. He has worked for INDOT for 42 years. He has worked in construction, bridge design, road design, plan review and is currently Director of Highway Design & Technical Support. He is also an active member in AASHTO for the Subcommittee on Design and the Technical Committee on Lighting.

Scott D. Zang is a geotechnical engineer with over 37 years of experience in geotechnical design for bridges, roadways, railroads, earth dams, buildings, hazardous waste studies, industrial facilities, airports



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