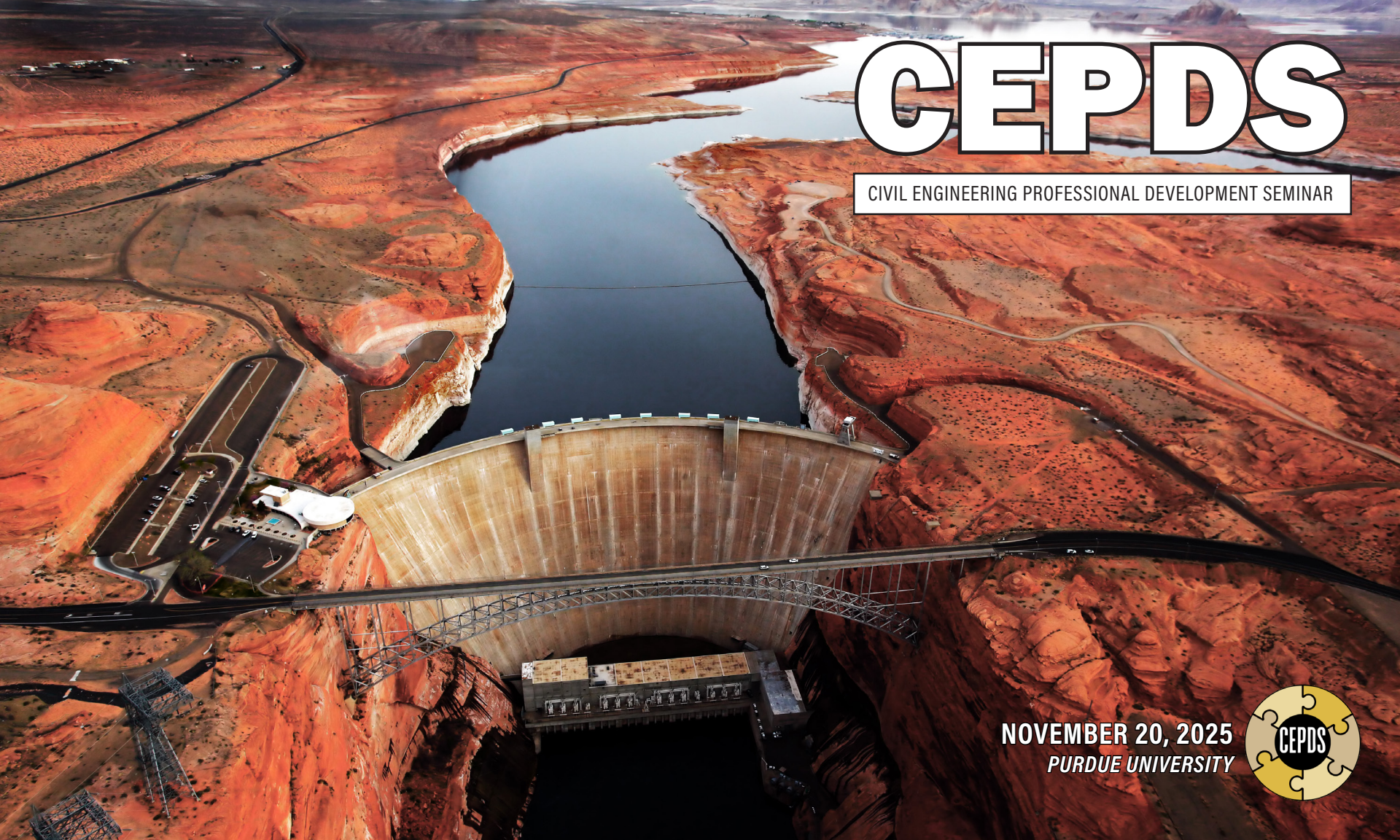

CEPDS

CIVIL ENGINEERING PROFESSIONAL DEVELOPMENT SEMINAR

NOVEMBER 20, 2025

PURDUE UNIVERSITY

8:30	**BREAKFAST & OPENING SESSION – How Plywood Saved Glen Canyon Dam - Presented by George Watson from the Leanord E. Wood Lecture Series**				
	TRANSPORTATION	**BRIDGE**	**CONSTRUCTION**	**GEOTECHNICAL**	**WATER RESOURCES**
	STEW 302	**STEW 306**	**STEW 214AB**	**STEW 206**	**STEW 202**
	See page 10	**See page 12**	**See page 14**	**See page 16**	**See page 18**
9:30	Guardrail Design and Placement 101	Using Zinc Metallic Coatings for Bridge Preservation	The Principles of Writing Construction Specifications and Special Provisions	From Mapping to Mitigation: New Geologic Mapping and Emergency Slope Failure Response along SR 56 in Madison, Indiana	How Two-Dimensional River Modeling Can Reduce Design and Construction Costs
10:30	Curbless by Design: Revitalizing Downtown Infrastructure for Pedestrians	Downdrag Defeated – the Neutral Plane Method	From Sound to Soil: Classifying Compaction Levels Using Audio-Based Machine Learning	Improving Moisture Resistance/Control of Pavement Foundation Systems via Geosynthetics	Solving Flooding Problems with 2D Modeling
11:30	**LUNCH & KEYNOTE PRESENTATION – ASCE's Report Card for America's Infrastructure Presented by Carol Haddock, ASCE President-elect**				
1:00	DADs...Improving Safety & Reducing Delay Using Driveway Assist Devices	The 30th Street Historical Arch. A complex restoration	INDOT Smoothness Specifications	Empowering Indiana through Orthoimagery, LiDAR, and Geospatial Resources	Hydrology of Solar Arrays
2:00	In-Situ Testing and Embedded Sensor Data Informed Design Framework for Geogrid-Stabilized Aggregate Road Bases	Long Span - ORX	Headlights and Headaches: Nighttime Road Work Challenges	Culvert Replacement in Karst Topography	A Gen-Z Perspective on the Water Industry
3:00	The Good, the Bad, and the Ugly regarding Right of Way Acquisition for Transportation Infrastructure Projects	Foundation Review Forms & Concepts	Update on INDOT's Progressive Project Delivery Methods (CM/GC and Progressive Design Build)	Laboratory Characterization of Polyurethane-Stabilized Aggregates for Pavement Foundations	I-69/I-465 Interchange: Relocating Major Sanitary and Sludge Lines Beneath the Freeway

8:30	**BREAKFAST & OPENING SESSION – How Plywood Saved Glen Canyon Dam - Presented by George Watson from the Leanord E. Wood Lecture Series**				
	MULTI-DISCIPLINE	**PROFESSIONALISM**	**VERTICAL STRUCTURES**	**STUDENT**	**MANAGEMENT***
	STEW 279	**STEW 278**	**STEW 214CD**	**E/W FACULTY LOUNGE PMU 2ND FLOOR**	**STEW 310**
	See page 20	See page 22	See page 24	See page 26	See page 28
9:30	INDOT Digital Delivery Roadmap	Developing Others, Developing Yourself	Mass Timber Construction: Products, Performance and Design	**Look for the rocket icon!** Sessions with the rocket have been recommended for students!	EOS Traction: Get a Grip ** additional purchase required for admission*
10:30	30 tips, tricks, and ways to use your new intern called AI	Optimizing Community Projects with Qualifications-Based Selection	Tips for Detailing Masonry Assemblies: Lessons Learned from IMI's Drawing Reviews		
11:30	**LUNCH & KEYNOTE PRESENTATION – ASCE's Report Card for America's Infrastructure Presented by Carol Haddock, ASCE President-elect**				
1:00	Bid Pricing Trends and Supply Chain Issues	Beyond the Manual: Ethical Decision-Making in Everyday Infrastructure Delivery	Tolerance and Constructability Considerations for Steel Reinforced Concrete Buildings	Whodunit? Challenge with ASCE President-elect Carol Haddock	EOS Traction: Get a Grip *Continued...*
2:00	Cost-Effective Pavement Roughness Data for Local Agencies u	Role of Civil Engineers in Resilience of Built Environment	Steel Joist and Joist Girder Design		
3:00	Taking the LEAP with BOT	Working with Local Government Planning Staff: The Need-to-Know Basics	Masonry Lintel Design and Detailing	ASCE Mini-Games and Trivia Competition	

TABLE OF CONTENTS

GENERAL INFO

IMPORTANT ROOM LOCATIONS

- **PMU Ballrooms (1st Floor)** — Breakfast, Opening Session, & Lunch
- **STEW 218** — Hospitality Room featuring LTAP, ASCE, and our 2025 Exhibiting Partners
- **Stewart Center** — Tracks/Sessions
- **PMU East/West Faculty Lounge** — Student Tracks/Sessions and Lunch Overflow Room

CEUs/PDHs

You will receive a CEU form at the end of the day. When it comes to receiving your educational credits (CEUs/PDHs/Road Scholar points), please remember the 3 Es: EXIT EQUALS EARNINGS

Simply put: when you turn in the form, the credit clock stops. Even if you plan on staying the whole day, you will only receive partial credit turning the form in early. **We want to ensure you receive all your credits!**

Credit certificates will be available for download three weeks after the conference. Please follow the instructions below to receive your certificate.

1. Sign into to our Learning Management System. *If you have never logged in before select the "Forgot your password?" link. Enter your work email address and select "Send Reset Link." Follow the email instructions to create a new password and gain access to the database.*
2. Select "My Credits" from the left side. For each event you will see a small medal Icon on the right under actions.
3. Select that icon and your certificates should download as a PDF suitable to save and/or print.

Please email inltap@purdue.edu if you have any problems.


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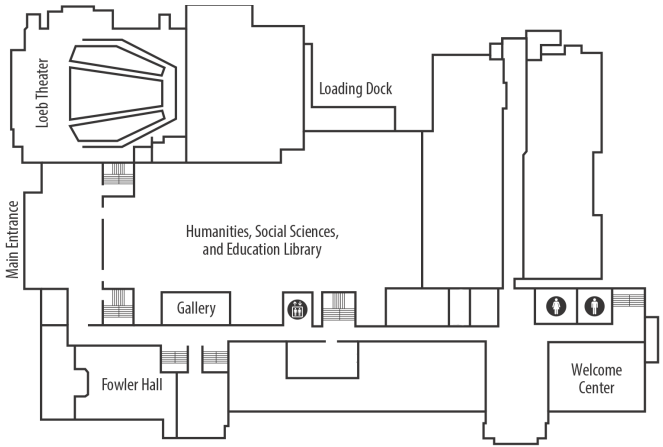
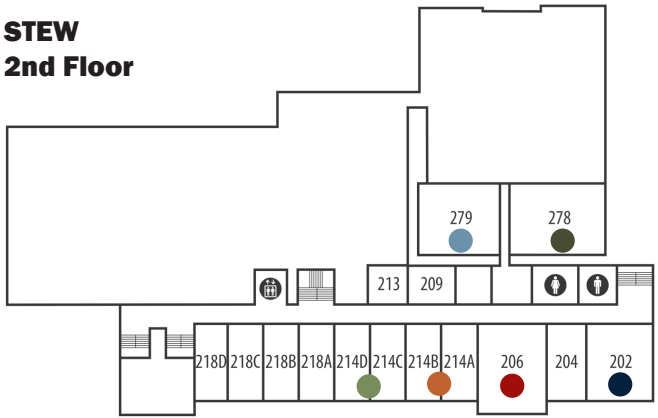
BUILDING MAPS

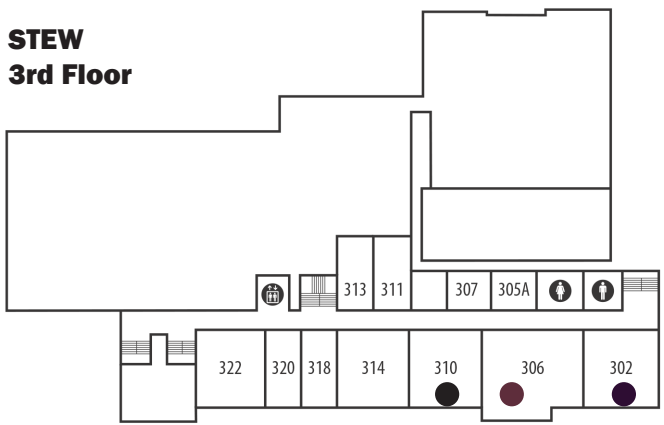
STEWART CENTER (STEW) 1st Floor



STEW 2nd Floor



STEW 3rd Floor

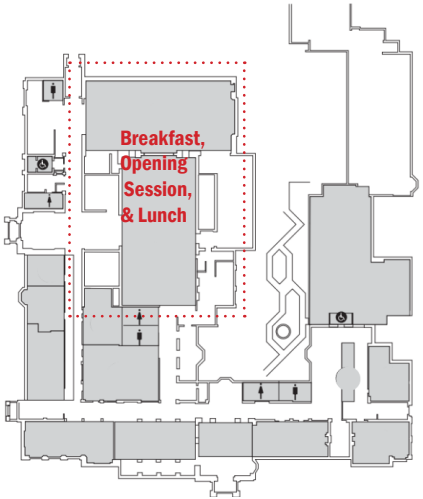


FIND YOUR TRACK!

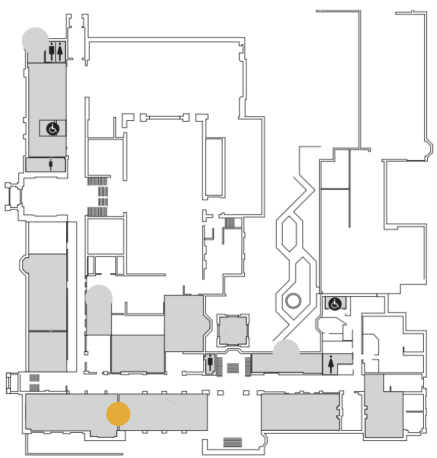
- Transportation
- Bridge
- Construction
- Geotechnical
- Water Resources
- Multi-Discipline
- Professionalism*
- Vertical Structures
- Student
- Management**

**ASCE Board Meeting Room*
*** additional purchase required for admission*

PURDUE MEMORIAL UNION (PMU) 1st Floor



PURDUE MEMORIAL UNION (PMU) 2nd Floor



OPENING SESSION

George Watson, PE | Vice President of Bridges and Roadways at Egis Indianapolis

George Watson serves as the Vice President of Bridges and Roadways at Egis Indianapolis. He is a father of three, Indiana native, Purdue graduate, and Professional Civil Engineer. As a transportation engineer, his interest and connection to dam design and Glen Canyon Dam is limited to his capacity as an amateur historian. Professionally, he has led major transportation and bridge projects across Indiana including a portion of I-69 Section Finish Line and the Henry Street Bridge.

Always curious, he would love to discuss any of the following topics with you, potentially for longer than you would like to listen:

- Egis and the talented people we have delivering for Indiana's transportation team
- Bridge design, his favorite bridges, and cool hidden bridges around Indiana
- Motorsports; including IndyCar, F1, and IMSA
- and why Survivor and LegoMasters Australia are the finest programs on TV.

About the Opening Session

In 1983, the Civil Engineers working for the US Bureau of Land Reclamation faced an unprecedented crisis. Water from the Colorado River was arriving at Lake Powell faster than it could be released. Glen Canyon Dam's emergency spillways were opened, but almost immediately it was clear that something was wrong. Concrete, rebar, and boulders were being thrown from the 40' diameter spillway and the spillway water was tinted the color of sandstone. The Colorado River was tearing Glen Canyon Dam apart, threatening to suddenly send 2.5 trillion gallons of floodwater downstream into the Grand Canyon and over Hoover Dam. Join me for the CEPDS Opening Session to learn how clever engineering avoided catastrophe.

About the Leonard E. Wood Lecture Series

The Leonard E. Wood Lecture Series has been given since 2010 in honor of Professor Leonard E. Wood, an alum (PhD, 1956) and Purdue faculty member from 1956 to 1993. During his distinguished career at Purdue University, Dr. Wood served as more than an instructor. He was a mentor, a counselor, a teacher, and a friend who was truly dedicated to and for the students. His influence continues to be felt through the impact he had on his students and colleagues and through his legendary work with the Co-op Program.

KEYNOTE PRESENTATION

Carol Ellinger Haddock, PE, F.ASCE | ASCE 2026 President-Elect

Carol Haddock, P.E., is a professor-in-the-practice at Rice University and a senior program advisor at Black & Veatch Corp.

She recently served as the director of Houston's Department of Public Works, the first woman to oversee the largest public works agency in the United States. In that role, she led a team of over 4,000 employees responsible for vital services such as water, wastewater, streets, stormwater, and permitting in Houston. She played a key role in long-term planning and managing capital projects during her time serving Houstonians.

A staunch advocate of employee and infrastructure development, Haddock has been a champion for employee equity and infrastructure enhancements at the local, state, and national levels. She has spoken to civic clubs, city councils, the Texas Legislature, and the U.S. Congress, stressing the significance of adequate standards and funding.

Haddock is a licensed professional engineer in the state of Texas and has a diverse background, including experience in private consulting at the Harris County Flood Control District and as an ASCE/AAAS congressional fellow for the U.S. Senate Committee on Environment and Public Works.

Haddock is currently the vice-chair of ASCE's Committee on America's Infrastructure, which released the 2025 Report Card for America's Infrastructure in March. She previously served on ASCE's Board of Direction from 2016 to 2019 and has held various leadership roles in ASCE's Environmental and Water Resources Institute.

Haddock has been an active member of ASCE for more than 30 years. In addition to her service on ASCE's Board of Direction, she served on the Society's Public Policy Committee, Flood Safety Policies and Practices Task Committee, and in a variety of leadership roles with the ASCE Texas Section and was elected as president of ASCE's Houston Branch in 2010.

She holds a bachelor's degree in civil engineering from Rice University and has a master's degree in public administration from the University of Houston.

ASCE's Report Card for America's Infrastructure

In highlighting the Report Card for America's Infrastructure, the presentation offers key information detailing both overall grade and grades for each of the categories, leading issues experienced across the infrastructure network, and recommendations to improve the built environment. Introductory remarks provide context on how the report card was established, its purpose, and development. The presentation also offers specific aspects relating to individual categories such as roads, energy, and drinking water justifying their respective standing in the report. Discussion closes with key recommendations to "raise the grades" across investment, resilience, and innovation.

TRANSPORTATION

9:30 | Guardrail Design and Placement 101

Katherine Smutzer

Not all “guardrail” is created equal. Within the last 10 years INDOT has adopted the MASH-compliant Midwest Guardrail System (MGS). While similar to the previous standard w-beam guardrail, there are nuances that aren’t well understood by designers. The presentation would reinforce the fundamentals of guardrail as a safety barrier, explain the function of various components of a guardrail system, and review important design considerations.

10:30 | Curbless by Design: Revitalizing Downtown Infrastructure for Pedestrians

Alex Duran and Steve Cherry

This presentation will discuss the design of a curbless, pedestrian-focused corridor as part of a small-town downtown reconstruction in Sylvania, Ohio. The project team will share how they balanced community goals, accessibility, and utility coordination, along with considerations for drainage, hardscape, lighting, and power. The session will also highlight early construction lessons learned from Phase 1.

1:00 | DADs...Improving Safety & Reducing Delay Using Driveway Assist Devices

John Beery

Driveway Assist Devices, commonly referred to as “DADs”, are becoming a more attractive use in one-lane Maintenance of Traffic Configurations. DADs have proven to be an effective solution in reducing the number of phases required single lane work zone MOT operations. DADs can greatly reduce the total Cycle length required for temporary signals in work zones, which reduces delay and queueing.

- Reduces delay and queuing in work zones
- Increases work zone safety
- Promotes efficient traffic flow by reducing signal phases

2:00 | In-Situ Testing and Embedded Sensor Data Informed Design Framework for Geogrid-Stabilized Aggregate Road Bases

Syed Faizan Husain

This presentation will focus on the input back calculation and FEM validation procedure to establish a design protocol for INDOT Geogrid-Stabilized aggregate bases using MEPDG.

3:00 | The Good, the Bad, and the Ugly regarding Right of Way Acquisition for Transportation Infrastructure Projects

Monica Morgan, Gabriel Becker, and Tiffany Lunsford

This presentation will demystify the Right of Way (ROW) acquisition process for transportation infrastructure projects, tracing the journey from the initial need for land to project completion. We’ll begin by outlining when and how the decision to pursue ROW acquisition is made, including a visual timeline of key milestones prior to initiating property appraisals.

Following this, the session will detail each stage of the acquisition process,

beginning with the appraiser's assignment through to title clearance, and discuss criteria for relocation determinations. We will highlight typical timelines, identify common challenges, and share real-world examples from significant INDOT projects, including the NICTD rail project in LaPorte County, I-69 Section 6, and US 31 in Franklin, Indiana.

By examining the successes, obstacles, and difficult situations that can arise, including property owner reluctance and condemnation proceedings—participants will gain a comprehensive understanding of the complexities involved in acquiring right of way for public infrastructure.

READ SPEAKER BIOS

BRIDGE

9:30 | Using Zinc Metallic Coatings for Bridge Preservation

Kevin Irving

Steel corrosion presents a critical threat to global infrastructure, particularly in bridge maintenance, leading to significant economic burdens. This presentation explores four primary methods of corrosion protection—hot-dip galvanizing, thermal spray metalizing, and both single coat organic and inorganic zinc-rich paints. We emphasize the importance of these zinc-based coatings in enhancing the longevity and durability of steel structures. Additionally, the presentation addresses the mechanisms of protection, including barrier and cathodic protection. Participants will engage in and analyze case studies, emphasizing the economic and sustainability benefits of effective corrosion protection strategies.

10:30 | Downdrag Defeated – the Neutral Plane Method

Kyle Zak and Min Sang Lee

The neutral plane method for evaluating downdrag on deep foundations has been gaining popularity over the past few years. It is a powerful tool that, in many situations, can all but eliminate downdrag concerns on deep foundations. INDOT has allowed its use recently and adapted its forms to accommodate this method. The presentation will cover the theory behind the method and how it can be applied in bridge design. We will then demonstrate how to incorporate the method into the INDOT workflow, and we'll show a couple real-life examples where the neutral plane method saved the day.

1:00 | The 30th Street Historical Arch. A complex restoration complicated by unforeseen circumstances and site conditions

Bryan Wright and John Lewis

The 30th Street historical arch rehabilitation and restoration sought to remove the degrading existing arch rings and replace the superstructure, reusing the existing limestone blocks and railing. Once construction began, complications arose from originally unknown construction techniques and lack of existing plans that turned this construction project, into essentially a design build project. The presentation will discuss work leading up to plan development and construction and how issues in the field were addressed.

2:00 | Long Span - ORX

Corey Gilreath, Celeste Spaans, and Vincent Alley

This session will present on the long span bridges required over the Ohio River floodplain. Site constraints for construction access, beam and material types used to achieve the long spans, seismic implications for the design, and beam fabrication, transport, and erection challenges will be discussed.

3:00 | Foundation Review Forms & Concepts

James Tradup, Randall Brooks, and Rose Walther

The INDOT Foundation Review Form is a crucial part of many bridge projects. This presentation will focus on why the form is important, how it is used within INDOT, best practices to properly complete the form for different substructure types, and common mistakes for consultants to avoid.

STEW 306

CONSTRUCTION

9:30 | The Principles of Writing Construction Specifications and Special Provisions

Scott Trammell

The purpose of this presentation is to assist project managers and designers prepare the necessary information required for Department contracts with regard to the Standard Specifications and Special Provisions.

10:30 | From Sound to Soil: Classifying Compaction Levels Using Audio-Based Machine Learning

Sara Khoshnevisan and Nayyar Siddiki

This presentation introduces a novel, non-invasive method for evaluating soil compaction by analyzing audio recordings captured during the compaction process. Machine learning models are applied to classify compacted and non-compacted zones using features extracted from the acoustic signals. The approach leverages wavelet-based audio analysis to support real-time, data-driven decision-making in the field. This method offers a practical alternative to traditional intrusive testing, with the potential to enhance efficiency and quality control on construction sites.

1:00 | INDOT Smoothness Specifications

Jeffrey Rothamer

Introduction to INDOT Smoothness Specifications fully implemented in 2023. The presentation will include: overview of the equipment, profile data collection, analysis and reporting of the inertial profiling results, and INDOT smoothness specifications.

2:00 | Headlights and Headaches: Nighttime Road Work Challenges

Bo Reed, Josh Echterling, and Jasper Hawkins

Nighttime roadwork offers clear advantages in reducing daytime disruptions, but it brings its own set of challenges, as highlighted by the I-69 project. The complexity of interstate traffic control demanded precise setup and takedown procedures to maintain safety and flow. Coordination with parties outside of a nighttime schedule remained essential, requiring detailed planning and strong communication. Daily traffic analysis played a crucial role, allowing the team to adjust lane closures and work windows dynamically to minimize impact while maximizing productivity. The project underscores that “less traffic” does not necessarily mean “less planning” and highlights the need for clear protocols, flexibility, and collaboration to successfully deliver nighttime construction through high-traffic corridors while navigating all the hidden hurdles of working after dark.

3:00 | Update on INDOT’s Progressive Project Delivery Methods (CM/GC and Progressive Design Build)

Brian Shattuck, Dave Ayala, and Kevin Jasinski

Update on the projects with lessons that have been learned along the way now that some of the projects are in construction. Additional updates on the procurement and qualifications based selection process and how that has changed.

STEW 214AB

GEOTECHNICAL

9:30 | From Mapping to Mitigation: New Geologic Mapping and Emergency Slope Failure Response along SR 56 in Madison, Indiana

Victoria Leffel and Joey Franzino

This presentation will highlight recent geologic mapping efforts done by the Indiana Geological and Water Survey, including detailed bedrock mapping at a finer scale than previously available and updated landslide inventory mapping focused on southeastern Indiana. The second part of the presentation will cover the emergency response to a significant slope failure that occurred along SR 56 in Madison following heavy rainfall in March and April 2025. The reactivation of a known landslide led to a major road failure, creating a public safety hazard and forcing the closure of this heavily traveled route. Due to the critical nature of the road and the excessively long detour, INDOT had to act quickly and creatively, both in managing traffic during the closure and expediting emergency repairs. This presentation will explore how INDOT adapted to evolving site conditions and rapidly advanced the project to contract letting and construction.

10:30 | Improving Moisture Resistance/Control of Pavement Foundation Systems via Geosynthetics

Bora Cetin

This presentation introduces the use of woven wicking geotextiles as a smart solution to improve pavement resilience in wet-freeze climates. The core issue addressed is the moisture-induced damage to pavement foundations, primarily driven by moisture migration and accumulation. The presentation will demonstrate how wicking geotextiles manage and balance moisture distribution within foundation layers. Unlike traditional drainage approaches, these geotextiles create a suction gradient that enables water removal from both saturated and unsaturated soils, effectively mitigating frost heave and thaw weakening. The evaluation includes large-scale laboratory testing simulating freeze–thaw cycles, rainfall, and traffic loading, as well as full-scale field monitoring at MnROAD using sensors and performance testing. Moisture redistribution, drainage efficiency, stiffness measurements, and deformation patterns are discussed to show how the geotextile improves lateral water movement, reduces frost-related distress, and promotes long-term foundation uniformity. Moisture reduction may improvement pavement subgrade and its foundation improvement.

1:00 | Empowering Indiana through Orthoimagery, LiDAR, and Geospatial Resources

Daniel Council and Shaun Scholer

The Indiana Geographic Information Office invites you to explore the state's Imagery and Elevation Program, spotlighting the many ways users can access high-quality, authoritative orthoimagery and LiDAR data via both CAD and GIS platforms. This session will provide a historical overview of the program's development and recent updates to the data collection cycle for 2025-2028, in addition to how to access the data through various platforms.

We'll also showcase the growing library or geospatial data openly available through IndianaMap. From web mapping and Field Maps to various ArcGIS Online tools, IndianaMap empowers curious GIS users across the state to

create Community accounts and engage in entry-level GIS activities with ease.

2:00 | Culvert Replacement in Karst Topography

Eric Plaiss and Alex Schwinghamer

Southern Indiana's unique karst terrain presents both fascinating natural features and complex engineering challenges. This presentation explores the preliminary design and field reconnaissance measures of an active infrastructure project. The session will trace the project's development from initial planning through Stage 1 design and field observation, highlighting how the team adapted standard practices to this distinctive geologic setting. Using pipe inspection footage, INDOT archive plans, and photos, we will demonstrate how the design team is addressing culverts discharging directly into karst features via chimney systems under the road. We will also discuss preliminary water quality treatment options being considered to protect sensitive groundwater pathways. This session is ideal for professionals interested in geology-informed design, stormwater engineering, environmental protection, and infrastructure resilience

3:00 | Laboratory Characterization of Polyurethane-Stabilized Aggregates for Pavement Foundations

Alfarooq Al Oide

The presentation explores polyurethane-bonded aggregates as a robust, permeable solution for drainage, erosion control, and pavement foundation applications. Through detailed laboratory testing, various aggregate gradations were treated with controlled polyurethane dosages to evaluate mechanical strength and hydraulic performance. The study examines how gradation, particle morphology, and polyurethane content influence key behaviors such as strength, stiffness, and permeability. Ultimately, the study provides practical mix-design guidance and implementation protocols to support INDOT's objectives in enhancing infrastructure performance, sustainability, and cost-effectiveness.

READ SPEAKER BIOS

WATER RESOURCES

9:30 | How Two-Dimensional River Modeling Can Reduce Design and Construction Costs

Jessica Eichhorst and Alec Weninger

Two-dimensional river modeling simulates flow with greater accuracy by accounting for both horizontal movement and depth. While widely used in states like Washington and New Jersey, its adoption in Indiana is more recent. Compared to traditional one-dimensional modeling, two-dimensional models provide better insights for design decisions, optimizing efficiency and reducing costs. Some states mandate SRH2D, while others favor HEC-RAS 2D—both powerful tools for project savings.

This presentation will compare SRH2D and HEC-RAS 2D, highlighting real-world projects where two-dimensional modeling led to measurable cost reductions.

10:30 | Solving Flooding Problems with 2D Modeling

Rachel Sparks

This presentation explores innovative 2D stormwater modeling techniques used to mitigate urban flooding. It highlights key differences between 1D and 2D modeling, strategies for effective 2D modeling, and insights from three case studies in Indiana: Wolcott, Warsaw, and Crown Point. The case studies demonstrate how 2D models help visualize flooding patterns, assess alternatives, and support cost-effective, phased solutions. Attendees will gain an understanding of 2D modeling's unique benefits, including its visual outputs, and practical guidance for applying these tools to future projects.

1:00 | Hydrology of Solar Arrays

Luke Sherry

Ground mounted solar arrays are becoming more widely used around the nation and appropriate stormwater management practices and regulations are just now catching up. This has led to a wide variation in the stormwater regulations used for permitting solar arrays throughout the nation. An approach was developed at the University of Minnesota that estimates the unique runoff potential of these developments by incorporating NRCS runoff curve number methodology. Building upon that methodology, this presentation introduces an approach that recognizes that much of the panel runoff could be reinfiltrated as long as proper land management techniques are utilized. Through a comparison of pre- and post-construction conditions, the presentation outlines three scenarios and provides recommendations for the stormwater storage required to mitigate stormwater impacts of each.

2:00 | A Gen-Z Perspective on the Water Industry

Ryan Gansemer

As the United States' water workforce ages and staffing shortages amongst engineers, operators, and support staff increase there is a rising cause for concern in the industry. Increased growth and investments in water infrastructure continues to rise, attracting and retaining new, young engineers and operators has become more critical than ever before. Generation Z is beginning to enter the workforce en masse, and it is important to understand their perspective to attract and retain them in this industry. This presentation will provide one Gen Zer's insight on the

Generation's values, expectations, and misconceptions as it pertains to the working world. Strategies for attracting younger staff to the water industry and working alongside them to develop them as professionals will also be discussed.

3:00 | I-69/I-465 Interchange: Relocating Major Sanitary and Sludge Lines Beneath the Freeway

Jeff Glover

The final stages of the I-69 interstate extension from Evansville to Indianapolis involve extensive coordination with multiple utility stakeholders. This presentation focuses on the complexities of utility relocation required to support the expansion of a major interstate within a dense urban environment.

READ SPEAKER BIOS

MULTI-DISCIPLINE

9:30 | INDOT Digital Delivery Roadmap
Andrew Pangallo and Jonathan Paauwe
This presentation will provide an update on INDOT's Strategic Planning and roadmap for Digital Delivery. Digital Delivery is focused on efficient ways of sharing data and information amongst stakeholders throughout the lifecycle of infrastructure assets. Digital Delivery can take many forms, such as incorporating pay item information into digital project models at construction letting or having asset data readily available to maintenance crews in the field. Join us to learn more about these efforts, including how you can make your voice heard by providing input into this exciting transformation!

10:30 | 30 Tips, Tricks, and Ways to Use Your New Intern Called AI

Dave Thurston
A way to use Artifical intelligence in meaningful ways. The presentation will show a variety of different ways to "simply" use AI to get your first draft 80% there, to treat as a sounding board, and to look for patterns and "unnoticable items" in data, text, and designs.

1:00 | Bid Pricing Trends and Supply Chain Issues
Peter Flynn
The lingering Covid-19 effects continue to cause a ripple effect that is being felt around the world in the form of supply chain issues. This presentation will discuss how these issues have manifested in the construction industry in Indiana. We will talk through some apparent trends in bid pricing and touch on some potential approaches to lowering bid risk.

2:00 | Cost-Effective Pavement Roughness Data for Local Agencies using Connected Vehicles

Howell Li
Anonymized connected vehicles offer a cost-effective solution for acquiring pavement roughness data, empowering state and local agencies to enhance funding applications and maintenance decisions. Decision-makers can leverage daily-updated data to strategically plan patching, crack sealing, treatments, rehabilitation, and capital improvement decisions, moving beyond conventional, resource-intensive methods and technologies. For instance, the Central Indiana Asset Management Report, published by the Indianapolis MPO in 2021, utilized collected PASER or PCI data to rank the percentage of the road network in Good, Fair, or Poor condition for 36 LPAs in the region. Because of the high frequency of the data, connected vehicles are able to provide updates to these Indiana numbers for 2025. This presentation will delve deeper into the method and results of this innovative technology and welcomes questions and open-discussion among participants.

3:00 | Taking the LEAP with BOT
John Lightner and Spencer Varner
Join BF&S's Program Management team as we explore how alternative delivery methods like Build-Operate-Transfer (BOT) are reshaping public infrastructure. We'll highlight real-world examples from our Owner's Rep work and our role in delivering water and wastewater support to the LEAP innovative district to show how strategic coordination keeps complex programs moving forward.

STEW 279

READ SPEAKER BIOS

PROFESSIONALISM

9:30 | Developing Others, Developing Yourself

Christine Meador, Landon Little, and Kelli McNamara

Join the panel of three professionals at different career stages as they share how personal growth and developing others go hand in hand. Learn practical skills for building your skills, mentoring colleagues, and creating successful teams. Attendees will hear firsthand how development priorities change over time, from early-career skill building to mid-career mentoring and leadership, and senior-level strategies for building talent and creating high-performing teams.

10:30 | Optimizing Community Projects with Qualifications Based Selection

Karl Krukenberg and Michael Pearce

This interactive session offers engineers, project managers, and agency representatives a deep dive into leveraging Qualifications-Based Selection (QBS) for successful, high-value projects. You'll explore how prioritizing expertise over initial cost leads to superior long-term project outcomes, maximizing efficiency and public value.

We'll dissect strategic procurement methods, providing a clear understanding of QBS benefits compared to traditional approaches. The session will guide you through the QBS process step-by-step, covering:

- Defining a precise Preliminary Scope of Services to align project goals.
- Assembling a qualified Selection Committee with the right expertise.
- Crafting a compelling Request for Qualifications (RFQ) to attract top-tier talent.
- Reviewing practical evaluation criteria for fair and optimal selection.

1:00 | Beyond the Manual: Ethical Decision-Making in Everyday Infrastructure Delivery

Larry M. Summers

Infrastructure projects are designed to meet technical standards—but often miss the human point. This presentation explores how everyday engineering decisions quietly shape public trust, equity, and community belonging. Using real-world case studies from municipal transportation projects, it illustrates where the system succeeds, where ethical drift occurs, and how practitioners can integrate tools like CIVIC6 and CivicPulse to reinforce values in project delivery.

2:00 | Role of Civil Engineers in Resilience of Built Environment

Gauri Gorakshanath Chandore

This presentation is focused on the role of civil engineers in Built environments and what responsibilities they have to ensure resilience. I presented on this topic as part of the ASCE D.V. Terrell Paper competition in the ASCE Region 4 Spring Assembly for year of 2025.

3:00 | Working with Local Government Planning Staff: The Need-to-Know Basics

K.K. Gerhart-Fritz

Many civil engineers will need to interact with local government during their careers. Understanding WHAT local government planners do and WHY they do it can make that process much easier to navigate, for all involved.

ASCE BOARD MEETING TO OCCUR FROM THIS ROOM FOLLOWING BREAKOUT SESSIONS

STEW 278

VERTICAL STRUCTURES

9:30 | Mass Timber Construction: Products, Performance and Design
Anthony Harvey
Due to their high strength, dimensional stability and positive environmental performance, mass timber building products are quickly becoming materials of choice for sustainably-minded designers. This presentation will provide a detailed look at the variety of mass timber products available, including glue-laminated timber (glulam), cross laminated timber (CLT), nail laminated timber (NLT), heavy timber decking, and other engineered and composite systems. Applications for the use of these products under modern building codes will be discussed, and examples of their use in U.S. projects reviewed. Mass timber's ability to act as both structure and exposed finish will also be highlighted, as will its performance as part of an assembly, considering design objectives related to structural performance, fire resistance, acoustics, and energy efficiency. Other topics will include detailing and construction best practices, lessons learned from completed projects and trends for the increased use of mass timber products in the future.

10:30 | Tips for Detailing Masonry Assemblies: Lessons Learned from IMI's Drawing Reviews
Joe Alberts
Over the years, IMI has conducted thousands of masonry assembly drawing and specification reviews for architects, engineers, construction managers, general contractors, and mason contractors. Learn from our findings to help you assemble construction documents that lead to more functional, durable, constructable, aesthetically pleasing, and economical masonry details. We'll review typical and reoccurring masonry detailing mistakes and give you tips for coordinating masonry drawing, specifications, and reviews. Finally, see how comprehensive construction documents help facilitate a successful project by supporting contractors in creating more inclusive bids and minimizing or eliminating requests for information (RFI's) and changes during construction. You'll walk away with a better understanding of what to expect on your next masonry project.

1:00 | Tolerance and Constructability Considerations for Steel Reinforced Concrete Buildings
Parisha Chanodia
In this session we will identify and remedy possible tolerance conflicts in steel reinforced, cast-in-place concrete construction. Additionally we will acquire information to improve constructability.

2:00 | Steel Joist and Joist Girder Design
Paul Mugleston and Gerald McKenzie
This course starts with the basics of steel joist design, terminology, SJI (Steel Joist Institute) load tables, and special loading conditions, but then will take a closer look at many details on the construction of a joist that you probably haven't seen before. You will learn what the extra clips and bars are attached to joists and what their purposes are. This will be a picture rich presentation.

3:00 | Masonry Lintel Design and Detailing
Scott Walkowicz
Learn key concepts to optimize masonry performance through better detailing and design analysis. Join us as we identify design approaches and analytical examples of masonry lintels' benefits, and concerns related to other lintel materials. See real world projects that incorporated masonry lintels to improve building performance, cost, and schedule.

READ SPEAKER BIOS

STUDENTS

1:00 | Whodunit? Challenge
with ASCE President-elect Carol Haddock

3:00 | ASCE Mini-Games and Trivia Competition

LUNCH OVERFLOW ROOM from 11:30-12:50
Lunch will be served from the North and South ballrooms of the Purdue Memorial Union, with overflow seating available in the east and west faculty lounge. All content will be streamed into the overflow room during lunch presentations.

Look for the rocket icon!

Sessions with the rocket have been recommended for students!

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ASCE INDIANA SECTION
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YOUNGER MEMBER GROUP

ASCE Younger Members *focuses on matters of the professional development of civil engineers 35 years of age and younger and facilitate their engagement with and participation in the Society. Use this QR Code to learn more!*

PMU E/W FACULTY LOUNGES

9:30 - 4:00 | EOS Traction: Get a Grip
Joshua Hauser

The Goal of EOS
EOS provides a comprehensive and practical operating system to help businesses achieve greater control, gain momentum, and improve overall performance, ultimately leading to more predictable and profitable results.

The Six Components of EOS

- **Vision Component:** Develop a clear, long-term vision for the company, including a compelling 3-year vision and a 1-year plan to guide decisions.
- **People Component:** Ensure the right people are in the right seats within the organization, using tools like the People Analyzer to assess cultural fit and the Accountability Chart to clarify roles and responsibilities.
- **Data Component:** Establish a consistent set of data, such as weekly scorecards, that provides a reliable view of the company's performance and progress.
- **Issues Component:** Create an environment where problems are identified, assessed, and resolved systematically, rather than constantly firefighting daily challenges.
- **Process Component:** Develop and document the core processes that are critical to the business's success, ensuring efficiency and consistency.
- **Traction Component:** Establish the "operating system" for the business, which includes a structured weekly meeting agenda and quarterly planning, to ensure the team consistently moves forward and achieves its goals.

https://www.eosworldwide.com

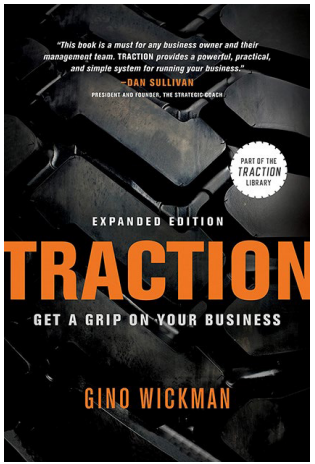
Sessions
Session 1 – Unlocking the entrepreneurial mindset
Session 2 – EOS in a nutshell
Session 3 – The six components
Session 4 – Rules, Tools, and Disciplines

JOSHUA HAUSER - Speaker Bio
As a former collegiate basketball player, long-time business owner, and father of eight, I've learned that VISION, TRACTION, and HEALTH don't just happen by chance. For years, I thought I could outwork and out love my way to success - at home and in business. But what I discovered is that real, lasting success comes from proven tools, clear rules, and disciplined systems you can apply in every area of life.

For me, that system was EOS, Entrepreneurial Operating System. When I made the choice to implement it fully, and in its purity, it didn't just improve my business, it transformed my life. The change was so profound that I knew I had to help others experience the same. Now, with thousands of hours in session rooms, I have worked with leadership teams across the

country. From physician groups, restaurants like Chicfil-A, engineers, and construction companies to one of the fastest growing AI companies in the country, I help teams of all sizes build traction. I've been married for 28 years, and together my wife and I have raised eight incredible children. Alongside the joys and challenges of family life, I've held executive leadership roles at major organizations, including Chief Agency Officer with OneAmerica and President of District 22 with Farmers Insurance group, where I built and bolstered 92 offices from the ground up. I also served as an owner/operator with Best Western. Throughout each chapter, I embraced the role of a change agent, guiding teams and people toward growth and transformation. Those experiences, combined with my background as an educator and my passion as a coach, shaped my personal mission: **to reach and teach as many people as possible to find joy, success, and humor in both business and life.**

This isn't just my profession; it's my calling. Helping people get what they want out of their business while truly enjoying the life they're building is what energizes me, fuels my passion, and drives my own success.



Attendees receive a copy of **Traction** *with the purchase of admission*

INDIANA LTAP

2026 Conference Calendar

Learn more at inltap.info/main

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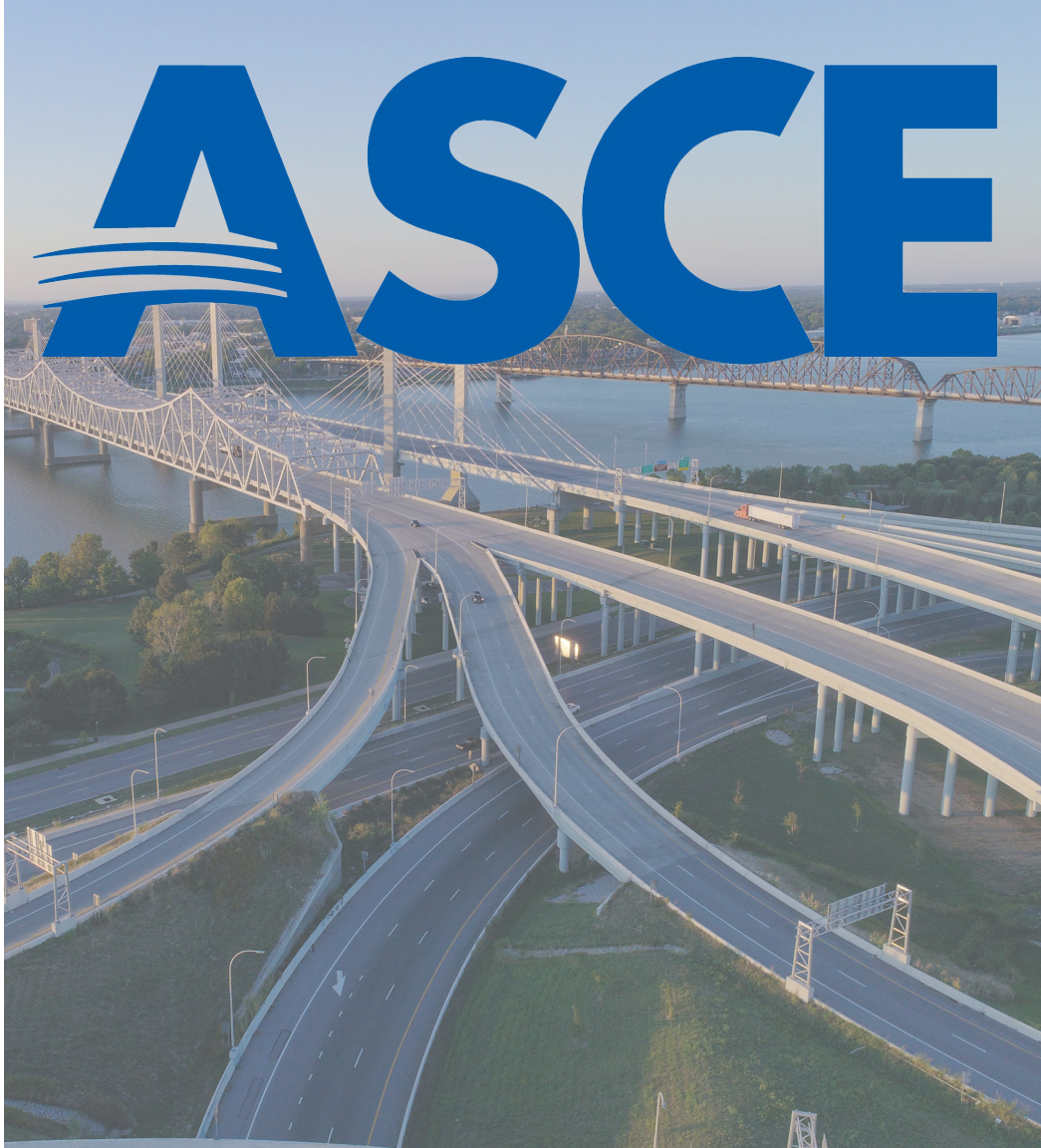

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