



Technical Sessions Schedule 2025



View full Road School technical program at <https://purdue.pub/rs2025-program>

TUESDAY, MARCH 18

Visit With the Exhibitors

North & South Ballrooms, Purdue Memorial Union 8:00 AM–5:00 PM

Opening Session

Loeb Theater, Stewart Center 9:30 AM–10:30 AM

Student Poster Session

Purdue Memorial Union 11:00 AM–1:00 PM

	Bridges	Design/Construction			Elected Officials	EC & EV Vehicles	Finance/ Administration	Leadership	Legal	Local Agency		Maintenance & Operations	Multimodal Transportation	Pavements	Project Management/Planning		Safety	Traffic Operations	Urban Planning
	STEW 206	Fowler Hall	Loeb	STEW 302	STEW 320	STEW 214 CD	WTHR 104	STEW 278	WALC 1055 (Hiler Thtr)	STEW 306	STEW 314	UC 114	CL50 224	STEW 218 AB	STEW 202	STEW 279	STEW 218 CD	STEW 310	STEW 214 AB
11:00–11:50 AM		5. A Digital Inspection System for Training Construction Inspectors		15. Seeing is Believing: BIM for Infrastructure in Indiana			27. Needs and Gap Assessment of INDOT Workforce Development	32. Engineers Without Borders: Mission and Indiana Project Updates <div>Cancelled</div>		42. Local Agency QC/QA Specifications and Resources	47. INLTAP's Local Agency Roundtables for Street Commissioners	52. Spray Injection: Patch Your Problems Before You Repave!		58. Thin Concrete Overlays: Implementation and Lessons Learned	64. How to Conduct a Successful Utility Joint Bore and Why You Should Do It	69. Lessons Learned on the US 30 ProPEL Study		78. Winter Operations Beyond Indiana: Clearing New Orleans and Reopening I-10	
12:00–12:50 PM		6. IYKYK: Better Understanding the INDOT PCSM Program		16. CSGP/Rule 5 Erosion Control Tips and Tricks			28. NextLevel Grants Management	33. The Power of Presence		43. Road Slide Challenges for LPA		53. Deep Learning Strategies for Semantic Segmentation of Mobile LiDAR Data		59. Indiana's First Glow-in-the-Dark Asphalt Greenway		79. Innovative Intersection Public Involvement: Strategies That Work			
1:00–1:50 PM	1. Hamilton Bridge 310: Pleasant Street Over White River	7. SR 22 Upland: Utility Challenges in Urban Roadway Reconstruction	11. Utility and Environmental Coordination on INDOT Projects	17. Sherman Minton: A Look Back	21. Effective Media Strategies: Tips for Communicating With the Press	23. Connected Vehicle Data: Uses and Benefits		34. Public Speaking 101: Overcoming the Fear Factor	38. Whose Maintenance Responsibility is It, LPA or INDOT?		48. From Data to Decisions: Enhancing Pavement Asset Management				65. Project Management: Navigating a Public Private Partnership	70. Nexus Between NEPA and Utilities	74. Safer Streets With Asphalt Art	80. No More Building! Move Those Cars!	84. Navigating Urban Forestry Requirements for Road Projects
2:00–2:50 PM	2. Implementation of SNBI for Bridge Inspections	8. Navigating the World of Urban Curb Ramps	12. Lessons Learned From INDOT's Second DLT Intersection	18. Renew Richmond: Revitalizing a Critical Structure in Downtown	22. How to Create Funding Sources for Transportation Projects	24. Charging Indiana's Crossroads: INDOT's Latest	29. Changing Considerations for Funding Road and Transportation Projects	35. It's Them, Not You: Navigating Difficult Work Relationships	39. Artificial Intelligence: Impacts on You and Your Job	44. Great Expectations: Employee Evaluations	49. Major Bridge Inspection Program Changes	54. Friction Performance of Pavement Markings: A Laboratory Evaluation	57. Transit Planning 101	61. The Fundamentals of Geogrids in Trafficked Applications	66. Data Visualization to Empower Great Transportation Decision Making	71. Balancing Act: Creating Safe, Legal, and Complete Streets	75. National Wildlife Crossings Program: Enhancing Roadway Safety	81. Real-Time Positioning of Pan-Tilt-Zoom Roadside ITS Camera for Traffic Incident Management	
3:00–3:50 PM	3. The HBPA and the Project Development Process	9. Complex Roundabout at DDI Crossover	13. Help! We Need Accurate Utility Information	19. I-70 Hancock County: Overcoming Challenges in a Design-Build		25. Assessing the Coverage of Commercial Truck Dash Cam Images on Interstate Roads	30. Tell Your Story and Demonstrate Your Value With KPIs	36. Deposition 101	40. A Closer Look at INDOT's Alternative Delivery Procurement Processes	45. LTAP PASER Program—What's Next?	50. How to Prepare for Change in the Field of Technicians	55. Web Portal Development for Mobile LiDAR/Image Data Along Indiana's Transportation Corridors		62. REBEL™ IoT Sensors for Real-Time Concrete Strength Determination	67. The Epic Quest for Utility Easement Knowledge	72. Navigating NEPA for Engineers	76. Comparing Safety Data on a Constructed Hard Shoulder Running (HSR) Project	82. Evaluation of LiDAR Technology for Traffic Signal Performance Measures	86. Indianapolis Neighborhood's Tactical Urbanism Project Prevents Crashes
4:00–4:50 PM	4. Assessing Bridge Inspection Consistency Using Virtual Reality	10. Threading an 8-ft Needle: Designing Blue Line's Trunkline	14. Level Up: New Tools for Stormwater During Construction	20. Emergency Repair of the US 50 Blue Mesa Bridge		26. Capital Program Prioritization With Probe Data	31. Indiana Bond Bank: Financing Road Infrastructure and Equipment	37. The Evolution of Civil Engineering	41. How to Be Compliant and Avoid the Prequalification Committee	46. CDL Training and Test Modernization	51. Communicating Your Transportation Projects to the Public	56. The Future of Roadside Mowing Operations		63. Enhancing Road Performance With Void Reducing Asphalt Membrane	68. Understanding the FHWA Cost and Schedule Risk Assessment (CSRA) Process	73. Planning for Resilience: Assessing Indiana's Transportation Network	77. Shelbyville Safety Action Plan: USDOT SS4A Grant Success Story	83. Diverging Diamond Interchange Optimization With Big Data Validation	87. Regional Stormwater Detention Basins: Treating Urban Runoff Efficiently

WEDNESDAY, MARCH 19

Visit With the Exhibitors

North & South Ballrooms, Purdue Memorial Union 8:00 AM–3:00 PM

148B. Indiana Statutes and Rules for Professional Engineering Licensure

Loeb Theater, Stewart Center 8:00 AM–8:50 AM

149B. Professionalism and Ethics in the Practice of Engineering

Loeb Theater, Stewart Center 9:00 AM–9:50 AM

228. Indiana Transportation Innovators

PMU East & West Faculty Lounges 8:00 AM–8:50 AM

	Aviation	Bridges		Design/Construction				Elected Officials	EC & EV Vehicles	Leadership	Local Agency	Maintenance & Operations	Multimodal Transportation	Pavements	Project Management/Planning		Public Relations	Safety	Traffic Operations	
	WTHR 104	STEW 206	STEW 214 AB	Fowler Hall	Loeb	STEW 302	STEW 306	STEW 320	STEW 214 CD	STEW 278	STEW 314	UC 114	CL50 224	STEW 218 AB	STEW 202	STEW 279	WALC 1055 (Hiler Thtr)	STEW 218 CD	STEW 310	
8:00–8:50 AM	88. Advanced Air Mobility at Purdue: Opportunity Meets Capability	95. Evaluation and Remediation of KYTC T-1 Steel Members	103. Temporary Bridge Construction	107. Managing Risk to Successfully Let a Project		120. Indiana Geology and the Sampling Process	128. Concrete Air Entrainment in Cold Climates	136. Win-Win-Win: A Road Transfer 10+ Years in the Making		150. Advice to Younger Me	158. SNBI Bridge Load Posting Status and Evaluation	166. AI and Roadway Asset Management	173. Indy's Successful \$20 Million SS4A Implementation Grant: Application Insights	180. Longer Lasting Road Repairs With Full-Depth Reclamation	188. Different Perspectives for Building a Successful Project Team	196. Automated Activity Detection in Construction: Video Analytics for Monitoring	204. Lessons Learned: Building a Successful Educational Campaign	212. INDOT Statewide Safety Research Update	220. Ohio DOT Automated Driving System Deployment Project Findings	
9:00–9:50 AM	89. Fort Wayne International Airport Project Gateway Terminal Transformation	96. Built-Up Press-Brake Formed Tub Girders: Concept to Demonstration	104. ORX Section 2	108. What's Coming With INDOT Alternative Delivery?		121. Post Installation Inspection of Storm Drain Pipelines	129. Going With the Flow: Successful Stream Reconstruction Lessons	137. INLTAP's Local Agency Roundtables for Elected Officials		142. Smart Crossroads: Solving Complex Challenges in the Freight and Logistics Industry	151. Ethical Leadership	159. Effective Utility Coordination: IMPO Discussion	167. Smart Salting: Tips and Tricks	174. Terre Haute 2050 Metropolitan Transportation Plan	181. Road Surface Evaluation Using Navigation, Imaging, and LiDAR Systems	189. Leveraging IndianaMap Data and Tools for Transportation Projects	197. Capital Program Management: CIP Database Overview	205. The Lloyd4U: Embracing Innovative Intersections	213. Slowing Traffic to Enhance Safety on Local Streets	221. Impact of the 2024 Solar Eclipse on National Traffic Mobility Using CV Data and Images
10:00–10:50 AM	90. Airfield vs. Roadway Pavements: Evaluation and FAA Impacts	97. The Next Generation of Slab Bridges	105. Structural Health Monitoring of Bridges for Lifecycle Asset Management	109. Effective Asset Management of MSE Walls		122. Sliding Into SR 62	130. I-69 Finish Line: Keys for Successful Project Execution			143. Dynamic Wireless Power Transfer	152. Winning Your Team With Intentional Connection	160. Bell Ford Bridge Reconstruction Project	168. Tools and Technology for Roadside Vegetation Asset Management	175. Yes, Indiana Has Ports!	182. Pavement Patching: INDOT's Comprehensive Patching Table Initiatives	190. Constructability Reviews for the Win: How to Model Success	198. Capital Program Management: Capital Outputs		214. Move Over Barrels: Automation to Keep Work Zones Safe	222. I-465 TSMO: Operations, Effectiveness, and Lessons Learned
11:00–11:50 AM	91. Improving Air Transport Operations	98. A Dyer Story: US 30 Bridge Replacement	106. Bridges of the Monon South Trail	110. Portable Signals and Driveway Assistance Devices: Lessons Learned		123. Automated Machine Guidance (AMG) Technology and 3D Modeling	131. BIM for Lifecycle Quality Management of Precast Concrete Infrastructure		144. Electric Vehicles: Research, Trends, and Usage	153. Updates in Innovation	161. The More You Know: Grant Applications	169. Pavement Condition Assessment Using Crowdsourced Vehicle Data	176. Ports of Indiana: Life in the Fastlane	183. Rising Expectation for Pavement Foundation				206. Engaging Your Audience: Best Practices for Public Speakers	215. KISS: Keep It Simple for Safety	223. Prioritizing Transit Along the IndyGo Purple Line BRT
12:00–12:50 PM				111. College Avenue and Main Street Sewer Separation							162. Building Resilience: Strategies for Bridge Preservation and Rehabilitation				191. Cracking the Code on Predictive Maintenance for Culverts	199. Capital Program Management: C-Map	207. The Foot: A Community Remembered			
1:00–1:50 PM	92. Lessons Learned From the Warsaw Airport	99. I-65 Over White River: First UHPC Repair in Indiana		112. Louisville viaSmart Over-Height and Flood Driver Prevention and Protection Systems	116. Holistic View of INDOT Processes: From Planning to Construction	124. Designing a Lower Salt Future	132. Peter Schickel Way Design and Construction Lessons Learned	138. Community Strategies for Engaging Developers	145. From Study to Street	154. Engaging Emerging Professionals in the Hybrid World	163. INLTAP's Local Agency Roundtables for County Engineers and Supervisors	170. Low Cost and High Impact AI and IoT for Weather Monitoring		184. Preserve Your HMA Pavements From the Start	192. When Expanding Project Scope Delivers Greater Value	200. Project Delivery Methods in Action	208. Connecting Stakeholders to the I-69 Finish Line	216. Connected Trucks: Challenges and Solutions	224. FlexRoad: Corridor-Wide TSMO Implementation and CMGC Delivery	
2:00–2:50 PM	93. Purdue Takes Flight: Commercial Air Service, Airport Improvements	100. Foundation Review Form: Concepts and Best Practices		113. Indy DPW's First BOT is Complete: What Was Learned?	117. Pavement Markings: Deciding What to Use	125. A Mixed-Use Model: Lafayette Sagamore Parkway NLT Trail	133. Nuances of Roundabout Design: Did Carmel Get It Right?	139. Lebanon LEAP	146. Status Update: EV Projects in Indiana	155. Marian University's Civil Engineering: The First 3 Years		171. Strategies for Improving Indiana Roadside Right-of-Way Vegetation Maintenance	177. Ports of Indiana, Burns Harbor, and Berth Redevelopment	185. Resilient Modulus of Aggregate and Cement Stabilized Soils	193. Critical Success Factors (CSF) for Managing Utility Coordination Stakeholders	201. Utility Work Plans: Iterating Your Way to Success	209. Leveraging Regional Collaboration for Trail Success: The Monon South Experience	217. Low Cost and Systemic Safety for Local Governments: A Workshop	225. Evolution of Traffic Signal Detection Technology	
3:00–3:50 PM	94. Virtual Tower Siting at the Purdue Airport	101. An Analysis of MSE Wall Engineering Behavior		114. Connected Work Zones in 2025	118. Chester Bridge Design-Build: Innovative Large River Crossing	126. Using Roller Sound to Assess Site Compaction Uniformity	134. TheLloyd4U: Taking Innovative Intersections From Concept to Construction	140. After the Crash: Navigating Legal Challenges of a Traffic Fatality	147. Autonomous Vehicle Discoveries and Updates	156. Getting the Most Out of Your Interns	164. The Basics: ADA and Section 504 Self-Evaluations	172. Monitoring Pavement Roughness Using Connected Vehicle Data	178. Design of Safe Trail and Roadway Interactions	186. Impact of INDOT's New Binder Specification on BMD	194. Capital Program Management: Key Philosophical Take-Aways on Data Management	202. Utility Coordination 101: An Overview and Updates	210. Fueled by Feedback: PEL Study Communications (WWVDS) Pilot Project	218. Wrong Way Vehicle Detection System (WWVDS) Pilot Project	226. Impacts of Traffic Calming Using Connected Vehicle Data	
4:00–4:50 PM		102. Innovations in Bridge Inspection Methods		115. INDOT and AASHTOWare Project: What You Need to Know	119. Utility Coordination and the Value of Partnership	127. Principles of Writing Construction Specifications and Special Provisions	135. Engineered Vegetated System for Slope Reinforcement/ Soil Retention			157. Mentoring to Retain Engineering Students and Graduates	165. Understanding and Complying With Title VI		179. Transforming Rails to Trails: A Technical Approach to Trail Design	187. Enhance FWD Analysis in Pavement ME Design	195. AI Assist and Other Innovations for Asset Management	203. ProPEL Indy: A Plan to Modernize I-65 and I-70	211. INDOT's Enhanced Planning for Public Engagement	219. Advancements in Roadway Lighting and Pavement Marking Practices and Standards	227. Implementation of Rail-Crossing Information Systems	