64th Annual Alabama Transportation Conference
February 9-11, 2021

Program Developed by:
Alabama Department of Transportation
Federal Highway Administration
Auburn University
Alabama Road Builders Association
Alabama Asphalt Pavement Association
Alabama Concrete Industries Association
American Society of Civil Engineers, Alabama Section
Association of County Engineers of Alabama
Institute of Transportation Engineers, Alabama Section
American Council of Engineering Companies of Alabama
Alabama Bridge Contractors Association
Precast/Pre-stressed Concrete Institute, Gulf South Region
ABOUT THE CONFERENCE

The 64th Annual Alabama Transportation Conference will be held virtually February 9-11, 2021. The Alabama Transportation Conference is developed by the Department of Civil and Environmental Engineering at Auburn University and the Alabama Department of Transportation. This event provides an opportunity to share innovative advances in transportation planning, design, construction, operations, and maintenance. Technical sessions create a forum for the exchange of ideas among transportation professionals.

PROGRAM COMMITTEE

Alabama Department of Transportation
John R. Cooper  Edward Austin
George Conner  Maxine Wheeler
William Adams  Willie Bradley
Tim Colquett  John Eagerton
Scott George  Stacey Glass
Robert Lee  Brad Lindsey
Matt Leverette  Clay McBrien
Michelle Owens  Phillip Shamburger
John-Michael Walker  Steve Walker

Auburn University
Brian Anderson  Ben Bowers
Kim Brumbeloe  Veronica Ramirez
Justin Marshall  Mike Perez
Anton Schindler  Carla Story
Rod Turochy  Jose Vasconcelos
Hugo Zhou

Federal Highway Administration
Mark Bartlett, Montgomery, AL
Kristy Harris, Montgomery, AL

American Society of Civil Engineers, Alabama Section
Maggie Weems, Birmingham, AL

Institute of Transportation Engineers, Alabama Section
Blair Perry, Birmingham, AL

Association of County Engineers of Alabama
Greg Bodley, Hartselle, AL

American Council of Engineering Companies of Alabama
Renée Casillas, Montgomery, AL

Alabama Road Builders Association
Tom Layfield, Montgomery, AL

Alabama Asphalt Pavement Association
Mel Monk, Montgomery, AL

Alabama Concrete Industries Association
John Sorrell, Montgomery, AL

Alabama Bridge Contractors Association
Clay McInnis, Montgomery, AL

Precast/Pre-stressed Concrete Institute, Gulf South Region
Dan Eckenrode, Gulfport, MS

REGISTRATION FEES

Conference registration is required for all attendees. Registration includes access to all technical sessions as well as virtual vendor booths.

Regular  $40
ALDOT  $40
Student  $10
ALDOT Retiree  $10

Please register for the conference online at aub.ie/registerATC2021

PROFESSIONAL DEVELOPMENT HOURS

Participants at this virtual conference will be able to attend up to seventeen (17) hours of Professional Development Hours (PDHs). Auburn University makes every effort to ensure that its technical programs conform to the requirements of the State of Alabama Board of Licensure for Professional Engineers and Land Surveyors for the award of PDHs to support the annual renewal of professional licensure.

SPONSORSHIP OPPORTUNITIES

Premium Sponsorship - $1000
• Promotional Video of Products and Services
• Virtual Sponsor Booth
• Recognition in between sessions
• Banner Ad in Event Application
• Two Complimentary Registrations

Standard Sponsorship - $500
• Virtual Sponsor Booth
• Recognition in between sessions
• Banner Ad in Event Application
• One Complimentary Registration

For registration and additional information, please visit aub.ie/sponsorregisterATC2021
64th Annual Alabama Transportation Conference
Agenda
Tuesday, February 9, 2021

8:30am – 10:00am
Opening General Session
Presiding: Dr. Rod Turochy, Professor and ATAP Director
Department of Civil and Environmental Engineering, Auburn University, AL

Opening Remarks
The Honorable Kay Ivey, Governor (Invited)
State of Alabama
John R. Cooper, Transportation Director
ALDOT, Montgomery, AL

AASHTO 25-Year Awards of Meritorious Service

10:30am – 12:00pm
Spotlight Session
Accelerated Bridge Construction (ABC) for Alabama
Presiding: Paul Froede, Miscellaneous Structures & Bridge Design, ALDOT, Montgomery, AL

Design of PennDot’s First Self-propelled Modular Transporter Bridge Move: Shaler Street Bridge
Lou Ruzzi, WSP, Pittsburgh, PA
Matt Cochran, H.W. Lochner, Pittsburgh, PA

Construction of PennDot’s First Self-propelled Modular Transporter Bridge Move: Shaler Street Bridge
Shane Szalankiewicz, Pennsylvania DOT, Bridgeville, PA
Patrick Heer, Mammoet Northern USA, Inc., Swedesboro, NJ

Use of Accelerated Bridge Construction for the University Boulevard Bridge over US-82 in Tuscaloosa, Alabama
Kevin McAlister, Barge Design Solutions, Inc., Nashville, TN
Jack Kimbrough, Barge Design Solutions, Inc., Huntsville, AL

1:00pm – 2:30pm
Highway Safety
Presiding: Steve Walker, State Design Engineer, ALDOT, Montgomery, AL

TDOT’s Story on Improving Worker Safety
James C. Norris, Tennessee DOT, Nashville, TN

MASH Update and Potential Impact on Current Practices
Chiara Silvestri Dobrovolny, Ph.D., Texas A&M Transportation Institute, College Station, TX

Wrong-Way Driving Mitigation: Case Studies in Alabama
Hugo Zhou, Ph.D., Department of Civil and Environmental Engineering, Auburn University, AL

3:00pm – 4:30pm
Construction
Presiding: Matt Leverette, State Construction Engineer, ALDOT, Montgomery, AL

Construction of a Diverging Diamond Interchange in Baldwin County
Jennifer Eubanks, ALDOT, Southwest Region, Mobile, AL

Alabama’s First ABC Culvert Using All Precast Elements
Wesley Fulmer, ALDOT, Southeast Region, Montgomery, AL

Do The Right Thing #buildsafetogether
Scott Overby, McInnis Construction, Summerdale, AL
Wednesday, February 10, 2021

8:30am – 10:00am

**Roadway Design**
Presiding: Maggie Weems, President, American Society of Civil Engineers, Alabama Section

**ALDOT’s New Performance-Based Practical Design Guide**
Steve Walker, ALDOT, Design Bureau, Montgomery, AL

**Lessons Learned from Alabama’s First DDI: I-10 at SR 181**
Liz Johnson, Kimley-Horn Associates, Birmingham, AL

**Southern Boulevard: From Conceptualization to Implementation**
Aaron White, ALDOT, Southeast Region, Troy, AL
Justin Palmer, ALDOT, Southeast Region, Montgomery, AL

10:30am – 12:00pm

**Geotechnical Engineering**
Presiding: Kaye Chancellor Davis, Deputy Materials and Tests Engineer, ALDOT, Montgomery, AL

**Geotechnical and Geophysical Investigations of the US-231 Landslide**
Jack Montgomery, Ph.D., Department of Civil and Environmental Engineering, Auburn University, AL
Brannon McDonald, ALDOT, Materials and Tests Bureau, Montgomery, AL

**Using a Drilled Shaft Supported Bridge for Emergency Slide Repair, US 231**
Robert Thompson, Dan Brown and Associates, Montgomery, AL

**Advanced Geotechnical Methods for Exploration**
Ben Rivers, Federal Highway Administration, Atlanta, GA

1:00pm – 2:30pm

**Emerging Technologies**
Presiding: Chris Hilyer, State TSM&O Administrator, ALDOT, Montgomery, AL

**Focus in a Blissful Environment: Systems and Standards Which Reduce Distracted AV Operation**

**Electric Vehicle Infrastructure for the Future Demand**
Cedric Daniels, Alabama Power Company, Birmingham, AL

**Traffic Signal Systems and Connected Vehicles**
Alex Hainen, Ph.D., Department of Civil, Construction, and Environmental Engineering, The University of Alabama, Tuscaloosa, AL

3:00pm – 4:30pm

**Asphalt: Balanced and Recyclable**
Presiding: Scot George, State Materials and Tests Engineer, ALDOT, Montgomery, AL

**Balanced Mix Design: The County Experience**
Buzz Powell, Ph.D., National Center for Asphalt Technology, Auburn University, AL
Alex Murphree, Midsouth Paving, Dothan, AL

**Virginia’s Road to BMD Implementation**
Stacey Diefenderfer, Ph.D., Virginia Transportation Research Council, Charlottesville, VA

**Cold Recycling: Can We Use It Here?**
Stephen Cross, Ph.D., Asphalt Recycling and Reclaiming Association, Stillwater, OK
Thursday, February 11, 2021

8:30am – 10:00am
City and County Engineering
Presiding: Greg Bodley, President, Association of County Engineers of Alabama

New LPA Design Policies for City and County Projects
Adam Sanford, ALDOT, Local Transportation Bureau, Montgomery, AL

Local Government Transportation Project Funding Guide
James Boyer, ALDOT, Local Transportation Bureau, Montgomery, AL

Upcoming Changes to Survey Measurements and Coordinates
Bill Hazelton, Ph.D., Department of Geospatial Informatics, Troy University, Troy, AL

10:30am – 12:00pm
Bridges
Presiding: Tim Colquet, State Bridge Engineer, ALDOT, Montgomery, AL

Design of the New Mentone Arch Bridge
Nick Walker, ALDOT, Bridge Bureau, Montgomery, AL

Rapid Replacement of CSX’s Bayou Sara Bridge Swing Span
Kevin Kane, Brasfield & Gorrie, LLC, Birmingham, AL
David Knickerbocker, Ph.D., HDR, Inc., Charlotte, NC

Experimental Determination of Horizontal Braking Force Distribution in Pile Bent Bridges
Justin Marshall, Ph.D., Department of Civil and Environmental Engineering, Auburn University, AL

1:00pm – 2:30pm
Maintenance
Presiding: Stacey Glass, State Maintenance Engineer, ALDOT, Montgomery, AL

ALDOT’s Response to the Sodium Hydrosulfide Spill on I-59
Roddy Mitchell, ALDOT, East Central Region, Birmingham, AL
Adam Anderson, ALDOT, Materials and Tests Bureau, Montgomery, AL

Cleanup After Hurricane Sally
Don Powell, ALDOT, Southwest Region, Mobile, AL
Corey Thomas, Thompson Engineering, Mobile, AL

Data Collection for ALDOT’s Maintenance Quality Assurance Program with ArcGIS 123
Jeremy Barnes, ALDOT, Maintenance Bureau, Montgomery, AL
Morgan Musick, ALDOT, Maintenance Bureau, Montgomery, AL

3:00pm – 4:30pm
Natural and Cultural Resources
Presiding: Wade Henry, Assistant State Design Engineer, ALDOT, Montgomery, AL

Georgia’s Section 106 Programmatic Agreement: A Partnership of Agencies and Non-Resident Tribes and How We Got There
Sandy Lawrence, Georgia DOT, Atlanta, GA
Heather Mustonen, Georgia DOT, Atlanta, GA
Terri Lotti, Georgia DOT, Atlanta, GA

Integrated Project Delivery at NCDOT – Improving Delivery from Concept to Construction
Christopher M. Werner, North Carolina DOT, Raleigh, NC

ALDOT’s Public Response to COVID
Natasha Clay, ALDOT, Design Bureau, Montgomery, AL