

# 2024 NCDOT Preconstruction Workshop Agenda

Monday, September 30, 2024					
1:00 to 2:00 pm	<b>Opening Session: Welcome and Strategies for Success (Room 1)</b> Welcome from Matt Clarke, NCDOT Director of Technical Services Chris Peoples, NCDOT Chief Operating Officer Lamar Sylvester, NCDOT Chief Engineer Kristin Barnes, NCDOT Director of Strategic Planning & Programming Julie White, NCDOT Deputy Secretary for Multi-Modal Transportation				
2:00 to 2:15 pm	<b>Quick Stretch Break</b>				
2:15 to 3:15 pm	<b>General Session I: Tools for Success (Room 1)</b> FHWA Updates – FHWA (Brad Hibbs & George Hoops) and NCDOT (John Jamison) ROW and Utility – Wright Archer, NCDOT Division 7				
3:15 to 3:45 pm	<b>Networking Break and Unit Booths (Room 2)</b>				
3:45 to 5:00 pm	<b>General Session II: Tools for Success</b> Digital Delivery Transformation Update – Matt Clarke Project Delivery Tools: Gordon Road Project Highlight – Katie Hite, NCDOT Division 3 Quality in Project Delivery: Coin Presentation				
5:00 to 7:00 pm	<b>Evening Network Reception (Room 2)</b>				
Tuesday, October 1, 2024					
7:30 to 8:30 am	<b>Continental Breakfast (Room 1)</b>				
8:30 to 9:45 am	<b>Room 2C</b> Updates from the Utilities Unit	<b>Room 3</b> Agreements, AFRA, and Accounts Receivable: Understanding Their Role in NCDOT STIP Project Delivery	<b>Room 6</b> NCDOT OpenX Digital Delivery Update	<b>Room 7</b> Environmental Updates from Murphy to Manteo	<b>Room 8</b> New Designs! Intersections! Interchanges!
9:45 to 10:15 am	<b>Networking Break</b>				
10:15 to 11:30 am	<b>Room 2C</b> Communication Conundrums and the Road to Correcting and Connecting	<b>Room 3</b> Next-Gen Aerial Surveying and Mapping	<b>Room 6</b> Submitting a Complete PS&E Package	<b>Room 7</b> Progress and Promise: An Update on Express Design Traffic Evaluations	<b>Room 8</b> Cool Projects Ferry & Rail
11:30am to 1:00pm	<b>Lunch (Room 1)</b>				
1:00 to 2:15 pm	<b>Room 2C</b> Lessons from the Field	<b>Room 3</b> STIP Funding	<b>Room 6</b> Easements 101 – How to Know What's Right	<b>Room 7</b> Down to Earth with Geotech	<b>Room 8</b> Moving Traffic and Water in Work Zones
2:15 to 2:30 pm	<b>Grab and Go Break</b>				
2:30 to 3:30 pm	<b>Room 2C</b> Cool Project U-4437 Grade Separation	<b>Room 3</b> What Long Range Planning Can Do For You	<b>Room 6</b> TSMO Updates: Ongoing Projects and Strategies	<b>Room 7</b> NCDOT OpenX Digital Delivery Update (REPEAT)	<b>Room 8</b> Submitting a Complete PS&E Package (REPEAT)

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## **Tuesday, October 1, 2024**

### **8:30 am – 9:45 am Sessions**

#### **Updates from the Utilities Unit**

This session will provide updates to policies, procedures and initiatives of the Utilities Unit. Conversations will include: Utilities and the revised PDN; the new Utility Construction Request Form; Utility Environmental Permitting; Utility Cost and Schedule Estimating; and more!

#### **Agreements, AFRA, and Accounts Receivable: Understanding Their Role in NCDOT STIP Project Delivery**

Learn about the interconnectedness of funding authorizations, municipal/developer agreements, and end of TIP Project invoicing for such items as: project cost share, utility relocations costs, or additional work requested by an outside entity (local government or developer).

#### **NCDOT OpenX Digital Delivery Update**

As the North Carolina Department of Transportation (NCDOT) embraces digital transformation in infrastructure management, the integration of platforms like SharePoint, OpenX and ProjectWise is pivotal. This presentation will outline how NCDOT is planning to deploy these digital delivery platforms to optimize the management of highway projects, detailing ongoing development efforts designed to benefit all stakeholders involved.

- How digital delivery will enhance efficiency, accuracy, and collaboration within NCDOT projects.
- Development and Planning: Current progress and updates for NCDOT OpenX.
- ProjectWise integration with NCDOT's existing workflows and tools, with ongoing enhancements and future improvements aimed at better supporting highway projects.
- Streamlining Data Management by providing a Centralized data systems and efficient project delivery processes

#### **Environmental Updates from Murphy to Manteo**

This session will include three presenters from the Environmental Analysis Unit speaking on bat updates, early utility relocations/permitting, and traffic noise. One piece will focus on three primary questions for Section 404 and 401 Environmental Permitting for pre-let utility relocation activities: how to determine if a permit is required for pre-let activities, scheduling recommendations, and risks/ potential considerations. Another piece will focus on how the environmental document type may determine when to do a noise study and when to build a noise wall.

#### **New Designs! Intersections! Interchanges!**

Progress has continued this year in intersection and interchange designs, and this presentation will bring participants up to date. New intersection designs include several

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with three-phase signals that may fit easier and be more readily accepted than two-phase designs, and several variations that could help in urban areas. New interchange designs include several with roundabouts in unusual locations that may deliver better safety, efficiency, and cost-effectiveness.

### 10:15 am – 11:30 am Sessions

#### **Communication Conundrums and the Road to Correcting and Connecting**

In this breakout session, we will explore how effective communication is essential for building collaboration and teamwork to deliver NCDOT projects successfully. Participants will learn to navigate the complexities of communication by examining assumptions and mental models that influence interactions. The session will highlight tools such as the \*Ladder of Inference\* and how thinking patterns affect communication effectiveness. Join us to enhance your communication skills and build stronger, collaborative teams at NCDOT and beyond.

#### **Next-Gen Aerial Surveying and Mapping**

In today's fast-paced engineering world, precise and efficient data collection is crucial. Discover how aviation innovations, photogrammetry, and aerial surveying can transform your projects, from small roundabout projects to massive highway infrastructure projects, by revolutionizing workflows and boosting efficiency at every stage.

#### **Submitting a Complete PS&E Package**

To improve success in project delivery, this session is set to educate and assist in submitting a complete PS&E package. We will also discuss common pitfalls and errors, and what is coming in training and tools for delivery.

#### **Progress and Promise: An Update on Express Design Traffic Evaluations**

The Express Design Traffic Evaluation (EDTE) is a relatively new process that will allow NCDOT to better fulfill its mission of determining project goals and identifying viable concepts for proposed projects during the project scoping process (Stage 1 of the PDN). The presentation will discuss recent progress with EDTE, changes in the EDTE process, and how express designs and project scoping reports can prime a project for success as it moves into the delivery process. To make sure that the audience does not get lost in a forest of flowcharts and acronyms, much of the presentation will focus on example projects.

#### **Cool Projects: Ferry and Rail**

##### Project Management at Sea

Ferry ramp replacements are unique in both design, construction, and the impacts they have on the traveling public. The presentation will provide insight into upcoming replacement projects that are being supported by PMU, the project development process, and the importance to safety and local communities.

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## S-Line: Developing a Transformational Rail Corridor

This session will focus on the development to date and path forward of this critical rail link connecting Virginia, North Carolina and the entire Southeast. Details on corridor design approach, development of stations (mobility hubs), transit-oriented development planning, and community and stakeholder engagement will be shared.

### 1:00 pm – 2:15 pm Sessions

#### **Lessons From the Field**

The presentation will focus on constructability challenges in highway design, drawing from real-world lessons learned with both roadway and structural topics. Additionally, the presentation will explore practical strategies to enhance design efficiency, minimize risks, and ensure smoother project delivery from concept to completion.

#### **STIP Funding**

A high-level presentation regarding the STIP. Topics include a Prioritization Overview, the basics of funding, locally selected projects, and cost estimates. Participants will gain an understanding of how the STIP works and who to contact for questions.

#### **Easements 101 - How To Know What's Right**

This presentation covers methods for analyzing property value changes before and after easement acquisitions, focusing on evaluating the rights encumbered by the easement and its impact on property utility. It uses market value estimation and percentage encumbrance to assess these changes. Key concepts include understanding dominant and servient estates and comparing pre-existing conditions with post-acquisition impacts.

#### **Down to Earth with Geotech**

Presentation will review geotechnical deliverables and recommendations related to roadway and how to incorporate these recommendations appropriately into a roadway contract plan set. Example project reports and plan sets will be used to discuss recommendations such as reinforced soil slopes, retaining walls, unclassified excavation quantity reductions, and aggregate subgrade.

#### **Moving Traffic and Water in Work Zones**

Providing a safe work zone environment for both workers and the motoring public begins with well-developed traffic management plans. In this session Construction, Work Zone Traffic Control, Hydraulics and Roadway will provide examples, discuss risks, and provide design guidance and coordination recommendations to move traffic and water in work zones efficiently.

### 2:30 pm – 3:30 pm Sessions

#### **Cool Project: U-4437 Grade Separation**

This presentation will highlight the Blue Ridge Road and Hillsborough Street grade separation project, including design considerations and what it takes to build the project.

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## **What Long Range Planning Can Do For You**

The Comprehensive Transportation Plan (CTP) is NCDOT's long-range planning product that can benefit several Pre-Construction activities. Examples of this are 2 Regional CTPs that each cover 3 county regions, encouraging cross collaboration and communication on statewide and regional projects. Other long-range planning products are Travel Demand Models, used to support base and future year traffic projections as well as project-level Traffic Forecasting.

## **TSMO Updates: Ongoing Projects and Strategies**

In this presentation, the Transportation Systems Management and Operations (TSMO) unit will showcase ongoing projects, strategies, and innovations aimed at enhancing our corridors. Key topics will include Broadband Projects, Signal Modernization, Signal Design updates and guidance being development for Ramp Meters, Variable Speed Limits, Queue Warning, and Dynamic Shoulder Running implementation. Additionally, the session will cover TSMO PDN activities, Integrated Corridor Management, Standard Scopes and the Transportation Operations Manual (TOM).

## **NCDOT OpenX Digital Delivery Update (REPEAT)**

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