

North Carolina Department of Transportation
Work Zone Safety & Mobility Final Rule Committee
 August 30, 2006 Meeting
 Traffic Control Conference Room, Century Center B2



Committee Members attending:

<i>Name</i>	<i>Representing</i>	<i>Sub-Committee</i>
Stuart Bourne, PE - Chair	NCDOT Work Zone Traffic Control Unit	Policy
Gus Jordi, PE	Charlotte Department of Transportation (CDOT)	Policy
Brad Hibbs, PE	Federal Highway Administration (FHWA)	Significant Projects
Max Tate, PE	Federal Highway Administration (FHWA)	Policy
Wendi Johnson, PE	NCDOT Division Construction	Significant Projects
Joey Hopkins, PE	NCDOT Division Maintenance	Significant Projects
Derrick Lewis, PE	NCDOT Feasibility Studies Unit	Policy
Nicole Hackler	NCDOT Feasibility Studies Unit	Significant Projects
Kelly Damron, PE	NCDOT ITS Operations Unit	Significant Projects
DeWayne Sykes, PE	NCDOT Roadway Branch	Policy
Terry Hopkins, PE	NCDOT Traffic Safety Unit	Policy
Joseph Ishak, PE	NCDOT Work Zone Traffic Control Unit	Policy (Lead)
Lawrence Gettier, PE	NCDOT Work Zone Traffic Control Unit	Policy
Meredith McDiarmid, PE	NCDOT Work Zone Traffic Control Unit	Significant Projects (Lead)
Steve Kite, PE	NCDOT Work Zone Traffic Control Unit	Significant Projects

Committee Members not present:

Joe Geigle	Federal Highway Administration (FHWA)	Significant Projects
Rodger Rochelle, PE	NCDOT Alternate Delivery Unit	
Jimmy Travis, PE	NCDOT Construction Unit (Public Information)	Policy
Greg Fuller, PE	NCDOT ITS & Signals Unit	Significant Projects
Burt Tasaico	NCDOT Program Analysis Unit	Significant Projects
Charles Cox, PE	NCDOT Project Development & Environmental Analysis	Policy
Scott Capps, PE	NCDOT State Road Maintenance Unit	Significant Projects
David Wasserman, PE	NCDOT Systems Planning Group	Significant Projects
Deborah Hutchings, PE	NCDOT Systems Planning Group	Significant Projects
Kevin Lacy, PE	NCDOT Traffic Engineering Branch	Policy
Mike Bruff, PE	NCDOT Transportation Planning Branch	Policy

Others attending:

Jennifer Portanova, PE	NCDOT Work Zone Traffic Control Unit	Policy
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The full committee met on August 30, 2006. The purpose of the meeting was to provide the Committee an update on activities happening outside of the Committee and the progress of the Subcommittees.

Attendees were provided with an update on the July 19, 2006 meeting with Len Sanderson. Sanderson recognized the efforts of the Committee, and agreed that this policy would apply to all projects, both federal and state funded. He requested an Executive Committee be formed that will include Debbie Barbour, Steve Varnedoe, and Steve DeWitt. The Executive Committee would be responsible for determining exceptions for State-funded projects. Stuart and staff will be meeting with this Executive Committee on August 31, 2006 to discuss their role in this policy. On September 5, 2006 the Division Engineers will be briefed on the draft policy at the September Operations Staff Meeting, and each one will be visited individually to solicit their input.

Attendees were asked what information they have shared with the units they are representing and what their respective units were saying about this rule. Committee members were encouraged to share the progress of the policy with their respective units and the units they represent.

The Southeast Conference will be held in mid-October and sponsored by FHWA for various states to get together to discuss their progress on the Policy Implementation. Two people from the NCDOT will be attending this conference.

Attendees were provided an update on the progress of the Policy Subcommittee. The first draft of the Goals and Objectives has been finalized and are included at the end of these minutes. The subcommittee is working on identifying the owners of the strategies, and will present this at the next full committee meeting.

Attendees were provided an update on the Significant Project Subcommittee. The Significant Projects Subcommittee is still working through the comments from the Committee and has started work on the procedures. The goal is to have this finalized by the next full committee meeting.

The next subcommittee meetings will be on September 14, 2006 in the Traffic Control and Signing Conference Rooms. The next full committee meeting will be on October 5, 2006 in the Traffic Control Conference Room.

GOALS AND OBJECTIVES

**Goal A: Implement requirements of the Work Zone Safety and Mobility Policy
(23 CFR 630 Subpart J)**

- Objective 1: Consider work zone impact during TIP development
- Revise existing feasibility study process to account for work zone impacts, such as network impacts
 - Consider appropriate project selection, project scope, and project limits
 - Coordinate work zone activities with IM during planning, design, and construction
- Objective 2: Consider work zone impact during project planning
- Identify “Significant” projects (develop process and criteria)
 - Revise existing project planning process to account for work zone impacts, such as network impacts, identification of “Significant” projects and environmental resources by considering other adjacent projects
 - Establish default traffic management strategies per project type based on impact that are then refined on a project-by-project basis
 - Consider funding for traffic management strategies early in the process
 - Consider contract duration at the planning scoping stage
 - Identify all stakeholders that could impact coordination issues such as, utilities, enforcement, communities, etc
- Objective 3: Consider work zone impact during design
- Develop TMP for all “Significant” projects
 - Conduct a more detailed design level assessment of the work zone impacts of individual projects and develop appropriate TMPs.
 - Establish a process during design to follow up on traffic management strategies that were determined in the planning process
 - Formalize design guidelines for temporary traffic patterns during construction
 - Consider impacts of geometric design on traffic management strategies
 - Consider impacts of geometric design in temporary and final alignment
 - Incorporate value engineering earlier in design
 - Anticipate construction and maintenance needs during design, such as, full depth shoulders and adjacent or future projects
 - Provide the most accurate contract duration estimate
 - Use internal and external constructability reviews on all significant projects
 - Allow more flexibility to the contractor to increase productivity
- Objective 4: Consider work zone impact during construction
- Implement and monitor TMP strategies
 - Revise TMP strategies if necessary

Goal B: To develop an agency culture committed to the Work Zone Safety and Mobility Policy

- Objective 1: Promote organizational awareness by educating staff on how decisions made in their respective work unit’s affect the success of the WZ Safety and Mobility Policy
- Develop a program or method to educate staff at all levels
 - Make policy easily available to all levels
 - Participate in national committees
 - Host national or regional work zone safety conferences
 - Document and share initiatives and successes nationally

- Develop a program or method to educate staff on how their timely decisions affect work zone safety and mobility, construction duration, and cost

Goal C: To provide safe work zones for all workers and road users

- Objective 1: Utilize ITS and enforcement strategies to enhance safety
- Use Smart Work Zone Technology to monitor traffic flow and adjust traffic strategies
 - Establish enforcement guidelines for matching enforcement strategy to type of work zone
 - Use permanent ITS devices/programs more effectively and cost effectively
 - Provide appropriate level of enforcement in work zone
 - Coordinate with other agencies to develop a program to familiarize law enforcement with work zone safety
- Objective 2: Provide safe design with the work zone in mind
- Establish criteria for the use of positive separation for temporary and final alignment
 - Design safe and user friendly roadway alignments
 - Use innovative methods and devices such as, temporary lighting, brighter/larger sheeting, better retroreflectivity, rumble stripes, delineation, and enforcement
 - Analyze crash history on corridor, alleviate any deficiencies, and incorporate into successive stages and the final design
- Objective 3: Provide a continuously safe work zone environment
- Monitor and maintain work zone devices
 - Follow guidelines for speed limit reduction in work zones
 - Establish procedures for speed limit in work zones
 - Continue to conduct safety meetings (tailgate meetings)
 - Include Incident Management (IM) Plan as part of TMP
 - Conduct investigations on major incidents, implement improvements where appropriate
- Objective 4: Reduce crashes in work zone
- Improve method of collecting work zone crash data
 - Analyze and consider pre-work zone crash data in TMP design
 - Routinely analyze work zone crashes and operational data on projects
 - Develop process where crash data is used in decision-making on all projects

Goal D: To consider mobility and access in work zones

- Objective 1: Utilize innovative technology in work zones
- Use ITS (dynamic lane merge, Smart Work Zone)
 - Establish guidelines to match technology with work zone strategy
 - Pro-active “Real-time” Regional and Statewide notifications for significant projects (similar to major accidents – Real time information to DMS, Welcome Centers, Trucking Association, etc.)
 - Establish a project website for “Significant” projects to provide and exchange information to participants in the delivery system
- Objective 2: Minimize impacts to users
- Implement IMAP in more areas across the state
 - Formalize coordination process with local travel stakeholders (schools, police, fire, etc.)
 - Provide the contractor adequate access to the project to expeditiously complete the work

- Provide the road users with adequate access to business and residences (where applicable) without minimizing efficiency of the work zone

- Objective 3: Minimize delays and reduce congestion in work zones
- Monitor work zones (speed, volume, queue, lengths)
 - Establish a process for collecting and analyzing data
 - Establish and verify criteria for delays (thresholds)
 - Coordinate existing DOT data collecting efforts
 - Match the traffic management strategy to the desired construction duration and work zone impacts

Goal E: To advocate innovative thinking in work zone planning, design, and management

- Objective 1: Consider alternative/innovative design, construction, contracting, and transportation management strategies
- Consider the use of innovative design strategies
 - Consider the use of innovative contracting techniques and materials
 - Consider the use of innovative construction methods
 - Improve accessibility to electronic project files/data for all affected parties
 - Emphasize “Get In, Get Out, Stay Out” mentality

- Objective 2: Minimize third party delay on delivery of projects
- Update current Utility, Rail, and Right of Way policies, procedures, specifications, and design manuals
 - Include Utility, Rail, Municipality, and Right of Way coordination early in the planning process
 - Include and use the appropriate level of Subsurface Utility Exploration (SUE) on all significant projects
 - Investigate innovative ideas to minimize and eliminate 3rd party conflicts

Goal F: To improve credibility of work zones

- Objective 1: Continue to provide and disseminate useful and essential information
- Work with local media
 - Utilize ITS (Smart Work Zone Technology, permanent DMS)
 - Include Public Information (PI) component into Transportation Management Plan (TMP)
 - Coordinate work zone activities better by using existing databases that captures on going construction activities on Interstates and US Highways (TIMS, STOC, Construction Progress Database, RTMS, “Speed Info” Areas)
 - Ensure better information is generated and entered into existing databases that capture construction activities

- Objective 2: Provide consistency for all work zones, such as construction and maintenance
- Require Contractor Certification
 - Establish state industry standards for traffic control devices
 - Establish a statewide database that includes predetermined time restrictions on Interstates and US Highways based on location
 - Establish a system for issuing lane closure permits for every lane closure
 - Educate DOT staff including residents, inspectors, etc about standards and specifications

- Objective 3: Develop strategies to promote and ensure compliance with work zone policies and regulations
- Require the Contractor to provide a certified Traffic Control Inspector

- Use work zone signing only when work zone could be affecting traffic
- Develop strategies to enforce compliance with signing requirements

- Objective 4: Provide responsive customer service during the entire project delivery process to both internal and external customers
- Consider all target audiences during planning and early development stages of TMP strategies
 - Establish a project identity for significant projects at the planning stage that is consistent through the delivery of the project and transfers from planning to design to construction
 - Provide timely responses to customers regarding work zones and work zone impacts
 - Establish a project website for Significant Projects to provide information to the public

Goal G: To continuously assess and improve work zone strategies, practices, and procedures

- Objective 1: Assess, document, and implement successful strategies
- Evaluate work zone crash data to establish work zone strategies and procedures that reduce crashes in work zones
 - Solicit suggestions from field engineers through post-construction evaluations to develop lessons learned to ultimately change design policies
 - Solicit feedback from contractors, law enforcement, and road users

- Objective 2: Conduct project performance assessment and process reviews
- Conduct a bi-annual process review to assess wide scale performance of work zones with the goal of improving work zone processes and procedures. Appropriate personnel who represent the project development stages and the different offices within the Department, and the FHWA should participate in this review.
 - Regularly conduct “Windshield Reviews” of active construction project work zones. Appropriate personnel from the Department and the FHWA should participate in these reviews.
 - Conduct safety inspections/audits as needed to address specific problems that occur
 - Create an assessment checklist and/or work with Roadway Construction Engineers, Division Safety Engineers, and Regional Traffic Engineer to add the items that need to be assessed in their audits
 - Participate in the FHWA Work Zone Self Assessment Program
 - Develop strategies to address non-compliance

- Objective 3: Provide and disseminate essential temporary traffic control design information to traffic control professionals
- Set up communication web for traffic control professionals
 - Provide training for traffic control professionals
 - Develop Traffic Control Design Manual and standards
 - Continue to host Work Zone Traffic Control Rodeo
 - Provide training on updates, industry practices, NCDOT policies and procedures