CHAPTER 1 - WORK ZONE ASSESSMENT AND IMPACT MANAGEMENT
Implementation of the Work Zone Safety and Mobility Rule

Project Classification

All operations (highway construction projects, utility projects, maintenance work, right-of-way use permits, etc.) shall be classified as significant, non-significant, or exempt.

The determination of the project classification shall be made prior to the constructability review or as early in the project life as possible. See Responsibility Table in Appendix C for when and who should complete this determination for various project types; (not all possible project types are listed). If your project is not one of the types listed, the project manager should ensure that the significance determination and TMP are completed.

These classifications allow TDOT to manage work zone impacts of individual projects and help determine what mitigation strategies should be considered in the TMP.

Transportation Management Plan

A TMP is required for all projects; however the content of the TMP varies, depending on the project classification. A TMP will have a TTC Plan and could include TO and/or PI strategies. The scope, content, and level of detail of a TMP will vary based on the anticipated work zone impacts of the project. See template in Appendix D.

- A Significant Project TMP shall include a TTC plan, TO strategies, and PI strategies. The TMP should be an ongoing process, from the scoping process through project development, and continuing through the design and construction phase of a project. Coordination with TDOT’s Community relations Division is required.
- A Non-Significant Project TMP shall include a TTC plan. Non-significant projects may include TO and PI strategies depending on project specific circumstances. Coordination with TDOT’s Community relations Division is required.
- An Exempt project does not require a formal TMP document, but all projects must comply with MUTCD and TDOT Standard Drawings with respect to the TTC.

Forms located in Appendix A will help make the project classification. Complete forms shall be stored on Filenet or with project files.

- Form A – Work Zone Significance Determination, is the worksheet to help determine if a project is significant or non-significant. This form must be completed for all projects that are not on the exempt list. The project manager must sign this form.
- Form B – Delay and Qualitative Criteria Determination, is used on non-significant projects to determine what scale of a TMP is needed. If delay criteria is met and/or extraordinary qualitative criteria are present, TO and/or PI strategies should be considered. If the project manager determines that TO strategies are unnecessary, a justification of this determination shall be attached to the form. The project manager must sign this form.
- Form C – Transportation Management Plan (TMP) Summary Sheet, shall be completed for all significant and non-significant projects. This form will be the TMP cover sheet. The TTC plan must be signed by the state or regional traffic engineer, the TO strategies must be signed by the project manager, and the PI strategies must be signed by the communications office. TTC and TO strategies
considered must be discussed in detail (description of the strategy, reason for using or not using the strategy, and any assumptions made). The complete TMP shall be stored on Filenet or with project files.

Chart 1-1 Determine if project is Exempt

Chart 1-2 Determine project Significance
Temporary Traffic Control Plan
The TTC plan shall:

1. Be consistent with the provisions under Part 6 of the MUTCD.
2. Be consistent with the work zone hardware recommendations in Chapter 9 of the American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide.
3. Be a reference to either specific TTC elements in the MUTCD, to approved standard TTC plans, or to TDOT Department Manuals and Standards, or be designed specifically for the project.
4. Consider longitudinal traffic barriers or other Positive Protection Devices in work zone situations that place workers at increased risk from motorized traffic, and where positive protection devices offer the highest potential for increased safety for workers and road users, such as:
   • Work zones that provide workers no escape from motorized traffic (tunnels, bridges, etc.),
   • Work zones with durations of 2 weeks or longer,
   • Operating speeds of 45 mph or greater,
   • Work operations that place workers close to travel lanes open to traffic, and
   • Work zones with roadside hazards, such as drop-offs or unfinished bridge decks, that will remain in place overnight or longer.

The need for longitudinal traffic barriers or other Positive Protection Devices shall be determined on a case-by-case basis.

During construction, existing pedestrian access must be maintained and be fully ADA compliant.

In developing and implementing the TTC plan, pre-existing roadside safety hardware shall be maintained at a level equivalent or better than that which existed prior to project implementation.

Approved traffic control devices should all be in place in accordance with the approved traffic control plan before other work activities within the work zone commence.

The state or regional traffic engineer must sign off on the chosen TTC plan.

Transportation Operation Strategies
When the TO strategies are needed, the TMP shall include the identification of strategies that will be used to mitigate impacts of the work zone on the operation and management of the transportation system within the work zone impact area. The TO strategy details shall be included in the TMP behind Form C. The project manager must sign off on TO strategies.

Public Information Strategies
The TDOT Community Relations Division (CRD) will determine if a public information plan is needed and will provide it to be included with the TMP document. If CRD determines that a plan is not needed, smaller strategies may still be employed (as detailed on FORM C) provided that CRD agrees and signs off on their use. The PI plan shall be included with the TMP behind Form C and any TO strategies.
Additional Information

A. The significance determination shall be made prior to the constructability review or as early in the project life as possible.

B. The TTC notes page in the plan sets and the TTC notes section of proposal books should also include the significance determination, and should list the TO, and PI strategies as applicable.

C. The Plans, Specifications, and Estimates (PS&E) package shall include either a TMP or provisions for contractors to develop a TMP at the most appropriate project phase. A contractor developed/modified TMP shall be subject to the approval of TDOT and shall not be implemented before it is approved by the design manager and Traffic Engineering representative.

D. The PS&E package shall include appropriate pay item provisions for implementing the TMP, which may only include the TTC plan, either through method- or performance-based specifications.
   - For method-based specifications, individual pay items, lump sum payment, or a combination thereof may be used.
   - For performance-based specifications, applicable performance criteria and standards may be used (e.g., safety performance criteria such as number of crashes within the work zone; mobility performance criteria such as travel time through the work zone, delay, queue length, and traffic volume; incident response and clearance criteria; and work duration criteria).
   - Major categories of traffic control devices, safety features, and work zone safety activities funded through the project, including but not limited to Positive Protection Devices and uniformed law enforcement activities, shall be paid according to the TDOT specifications book.

E. The Contractor and TDOT shall each designate a trained person at the project level who has primary responsibility and sufficient authority for implementing the TMP and other safety and mobility aspects of the project. The Regional Traffic Engineering Office and the Construction supervisor are both responsible to ensure the TMP is implemented and updated as needed throughout the project.
   - An inspector trained in traffic control should be assigned to monitor the approved traffic control plan and recommend changes.
   - Traffic control setups and the maintenance of the traffic control devices should be reviewed regularly. Assistance in reviews should be requested from the Region Traffic Engineer’s office as appropriate.

F. Personnel involved in the development, design, implementation, operation, inspection, and enforcement of work zone related transportation management and traffic control shall be trained appropriately for the job decisions each individual is required to make.
   - Training shall be retaken to keep employees current with changing industry practices and TDOT processes and procedures.

G. TDOT shall work in partnership with the FHWA in the implementation of TDOT’s policies and procedures to improve work zone safety and mobility. At a minimum, this collaboration shall involve an FHWA review of conformance of TDOT’s policies and procedures with 23 CFR 630 Subpart J-Work Zone Safety and Mobility, Subpart K-Temporary Traffic Control Devices, and reassessment of the implementation of TDOT’s procedures at appropriate intervals. Implementation of this regulation is addressed in the Stewardship and Oversight Agreement with the FHWA.
Guidance for Implementation

Work Zone Assessment procedures can provide a framework within existing project development and construction processes to help the Tennessee Department of Transportation:

5. Identify and understand the work zone safety and mobility implications of alternative project options and design strategies.
6. Identify significant projects and better allocate work zone management resources to projects likely to have greater work zone impacts.
7. Identify transportation management strategies to manage the expected work zone impacts of a project. Compile a Transportation Management Plan which will include a TTC and may include TO and PI Strategies. See Appendix E for a Sample TMP.
8. Estimate costs and allocate appropriate resources for the implementation of the work zone management strategies.
9. Implement the strategies and monitor and manage work zone impacts during construction, maintenance, or utility work and adjust the (TMP) if needed.
10. Conduct post-construction work zone performance assessment to evaluate the performance of work zones and to improve work zone policies, practices, and procedures.