MnDOT Work Zone Safety & Mobility Policy
- Elements and Current Efforts

Statewide Work Zone Safety Committee
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What we’ll answer today…

- Why does the policy exist?
- What are the major elements of the policy?
- What areas of improvement are necessary?
- Next steps…
Why does the Policy exist?

• Short answer –
  • To implement CFR, Title 23 Part 630, Subpart J, Work Zone Safety and Mobility

• Longer answer –
  • Feds wanted to encourage all states to improve safety *and mobility* of work zones by providing standards and guidelines from existing best practices
What is Subpart J?

Establishes requirements and provides guidance for:

- Systematically addressing WZ safety and mobility impacts
- Developing strategies to help manage these impacts

Applies to all Federal-aid highway projects

- Published September 2004
- Effective October 2007
MnDOT published in 2007 – TM 07-16-T-05: *Minnesota Work Zone Safety and Mobility Policy*

MnDOT updated the Tech Memo for 2012 – TM 12-03-T-02

- Reflects personnel and committee changes
Key Concepts

We can be more effective in improving safety and reducing mobility impacts if we:

• Better understand, anticipate, and plan for the impacts
• Do so early in the program delivery process
• Consider solutions that go beyond the immediate vicinity of the project
• Integrate this thinking into all phases/levels
  • Scoping through construction
  • Policy – District – Project
Major Elements of Policy

1. Project Level Procedures
2. District or Local Level Process & Procedures
3. State Level Processes & Procedures
1. Work Zone Mobility Impact Assessment
   • Identify the level of impact of the project
   • Determine the level of Transportation Management Plan
     • From identification of layout in Field Manual
     • To Full Transportation Management Plan

PREPARE A TRANSPORTATION MANAGEMENT PLAN

A Transportation Management Plan (TMP) should be prepared through the assistance of the road authority’s Traffic Engineer. The scope of the TMP will range from minor to major depending upon the project’s complexity. See “Basic TMP” below.

Tasks include listing all potential work zone impacted services, businesses, or specific traffic types, and the anticipated closures and durations. Refer to the worksheet of “Work Zone Impact Considerations” for examples of potentially work zone impacted services, businesses, and traffic types.

Mitigation strategies for each identified Work Zone Impact should be identified and incorporated into the TMP. Many work zone impact management strategies can be used to minimize traffic delays, improve mobility, maintain or improve motorist and worker safety, complete road work in a timely manner, and maintain access for businesses and residents. Refer to the listing of “Work Zone Impact Management Strategies” for examples of typical measures utilized to reduce work zone impacts.

Refer to FHWA publication titled “Developing and Implementing Transportation Management Plans for Work Zones” for complete descriptions of various work zone management strategies, grouped according to the following categories:

- Temporary traffic control (TTC): Control strategies.
- Traffic control devices.
- Project coordination, contracting and innovative construction strategies.
- Public Information (PI):
  • Public awareness strategies.
  • Motorist information strategies.
- Transportation operations (TO): Demand management strategies, Coordination/Work Management (traffic operations) strategies.
- Work zone safety management strategies.
- Traffic incident management and enforcement strategies.

PREPARE A BASIC TRANSPORTATION MANAGEMENT PLAN

A Basic Transportation Management Plan (BMP) shall contain documentation of all anticipated Work Zone Impacts and associated mitigation strategies. The Basic BMP may vary in complexity as appropriate for the project, but as a minimum, it shall provide the following:

- TO: a detour plan and/or access plan (if needed), with an appropriate work schedule for minor, delay,
- PI: a process for identifying potentially affected services, businesses, or traffic types.
- TTC: a selection of an appropriate combination of TTC plan from the Long-term TTC Templates or crash sheets developed specifically for the project. Some projects may utilize modified layouts for the BMM Transportation Management Plan.

THE PROJECT MAY NOT REQUIRE A TTC PLAN

Projects with no equipment or work within 15 ft of an open traffic lane do not need a TTC Plan. Review the project for other TMP considerations including TO and PI strategies.
Project Level Procedures

2. Transportation Management Plans
   • Lays out a set of strategies for managing the work zone impacts of a project
     • TTC, TO & PI elements
     • Need to determine impacts (Attachment A)
     • Need to determine mitigations (Attachment B)
   • Living document that follows project development and into Construction
   • Starts as early as possible (could even be in Scoping)
   • Responsible persons need to be identified
     • Road authority & Contractor
Project Level Procedures

2. Plans, Specifications & Estimates
   • Contains appropriate provisions of the TMP

3. TTC Field Observations
   • May require modifications to TMP
   • Documentation critical
District or Local Level Process & Procedures

1. Encourage the establishment of Work Zone Safety Coordinator (or delegate responsibilities to appropriate personnel)
   a. Make periodic reviews of projects (Constr & Maint)
   b. Ensure proper documentation is maintained
   c. Regularly obtain and keep a record of all known crashes in a work zone
   d. Make recommendations to functional areas regarding TTC
   e. Assist design & field personnel with TMP & TTC development
District or Local Level Process & Procedures

2. Operational Performance Information
   • Incident response time
   • Delay time comparison between expected and actual
   • Traffic measures (when IWZ data is available)

3. Work Zone Crash Data Review on a District Level
   • Review all fatal and life-changing crashes
     • Within project area or approaching?
   • Assess possible improvements
   • Report deficiencies in current standards and guidelines
State Level (CO) Process & Procedures

1. Statewide Analysis of Work Zone Crash Data (OTST)

2. Statewide TTC Field Reviews (OCIC & OM)
   • Determine adequacy of TTC
   • Identify improvement areas

3. Training in Transportation Management and TTC
   • Provide training to personnel appropriate to job decisions
   • Development, design, implementation, operation, inspection & enforcement

4. Process Feedback Discussion
   • District visits to assess the effectiveness of WZ Safety & Mobility procedures
State Level (CO) Process & Procedures

5. Statewide Group Activities
   - Set policies, standards and guidelines
   - Direct research and practices
     - Statewide Work Zone Safety Committee
     - Special Provisions Annual Update
     - TEO Temporary Traffic Control Committee
     - Resident Engineers Work Zone Safety Advisory Committee
Questions?