

Federal Work Zone Regulations

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Agenda

- Background
- Federal Rules
 - WZ Safety & Mobility Rule
 - Temporary Traffic Control Devices Rule
 - Worker Visibility Rule
- Effects
- Resources

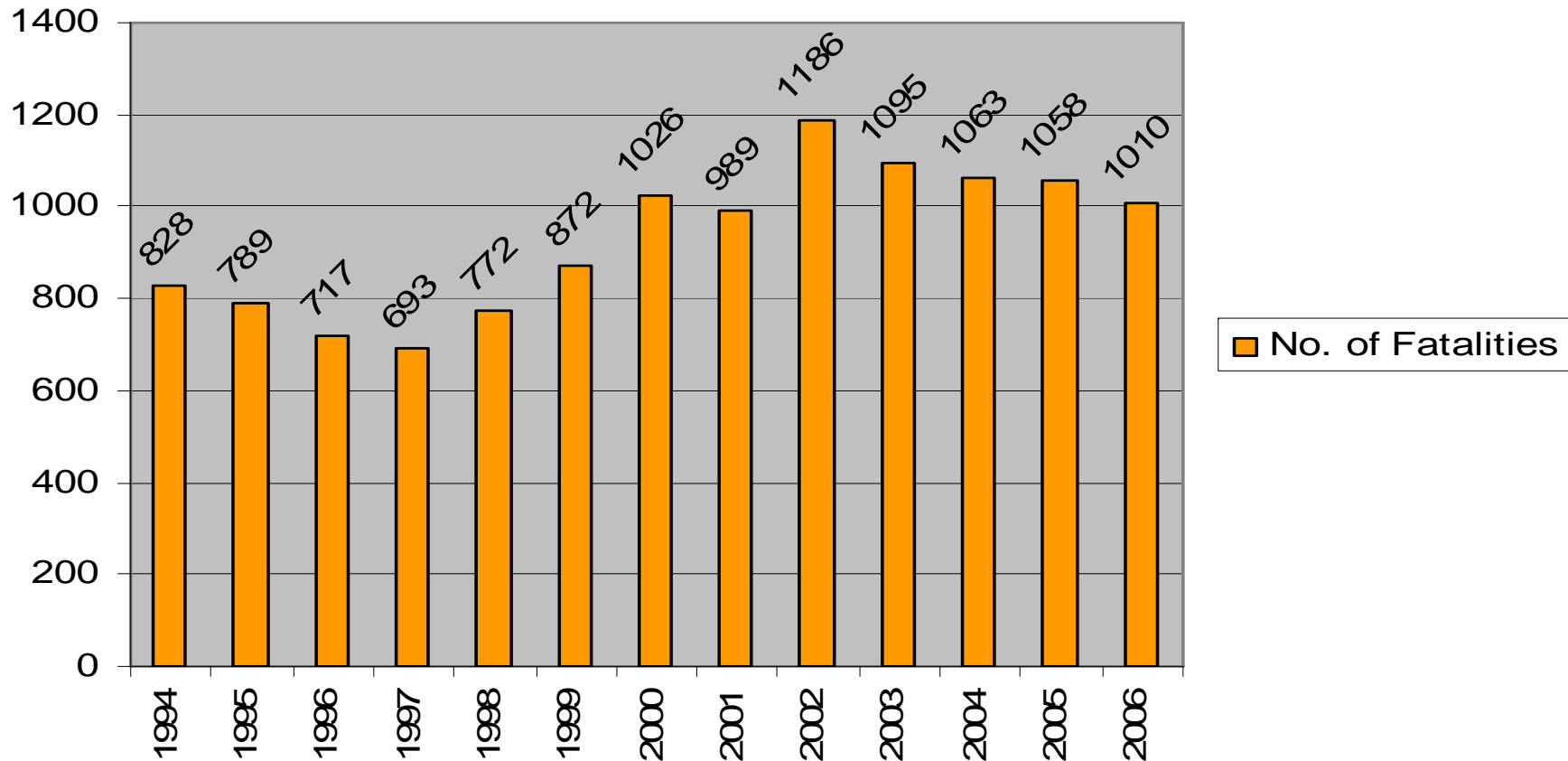
Facts

- Our highway infrastructure is aging and the need for rehabilitation and reconstruction is growing.
- Much of this work is occurring while traffic is maintained on the facility under repair.

Exposure

- Approximately 20% of NHS under construction during peak construction season
- More than 3,000 WZs are expected to be present on the NHS during the peak
- Approximately 12 billion vehicle miles of travel a year will be through active work zones
- Motorists can expect to encounter an active work zone 1 out of every 100 miles driven on the NHS

Work Zone Fatalities



- One WZ fatality every 8.7 hours (almost 3 a day)
- One WZ injury every 9 minutes (160 a day)

- The need for rehabilitation and reconstruction is not going away
- We must do better when we design and manage our work zones so that they work better

Regulations

- **Work Zone Safety & Mobility Rule (Subpart J)**
 - Published September 2004
 - Effective October 2007
 - Established framework for systematic consideration and management of WZ safety & mobility impacts
- **Temp. Traffic Control Devices Rule (Subpart K)**
 - Published December 5, 2007
 - Effective December 4, 2008
 - Supplements Subpart J with additional safety considerations
- **Worker Visibility Rule**
 - Published November 24, 2006
 - Effective November 24, 2008
 - Requires workers to wear high-visibility safety apparel

Subpart J Status

- 48 States fully met initial compliance requirements
 - Approved WZ policy, definition for significant projects, procedures for TMPs, training plan
- 4 States partially in compliance – close to finalizing their WZ policies
- Agencies should be implementing their WZ policy and procedures on all Federal-aid highway projects going to bid after October 12, 2007 unless a project exception was obtained

What Does Implementation of Subpart J Look Like?

- Projects with significant impacts are identified early during project development.
- TMPs are developed for all Federal-aid projects.
- Both you and the contractor are designating a responsible person to make sure the TMP is implemented.
- All key personnel are appropriately trained.
- WZ safety and operational data is used to better understand performance and improve practices.
- Scope of WZ process reviews is broadened to match new WZ policy and procedures.

Overview of Subpart K

- NPRM published November 1, 2006
- Comment period closed February 16, 2007 with 60 substantive comments received
- Final Rule published December 5, 2007
- Implement by December 4, 2008

Goal:

Decrease Work Zone fatalities & injuries to workers and road users

Approach:

- Build on processes, procedures, and/or guidance implemented under Subpart J
- Establish minimum requirements and provide guidance

Key Components of Subpart K

- Added emphasis on safety in WZ policy
- Positive protection devices
- Exposure control measures
- Other traffic control measures
- Uniformed law enforcement
- Safe entry/exit for work vehicles and equipment
- Payment for traffic control features & operations
- Quality guidelines

Work Zone Policy

The policy and related processes, procedures, and/or guidance established under Subpart J shall include consideration of road user and worker safety by addressing:

- Use of positive protection devices to prevent intrusions;
- Exposure control measures to minimize exposure;
- Other traffic control measures to minimize crashes;
- Safe entry/exit of work vehicles and equipment onto/from the travel lanes

Positive Protection Devices

- Use **shall** be based on an engineering study
- An engineering study **may** be used to develop positive protection guidelines, or to determine appropriate measures for an individual project
- The engineering study **should** be based on consideration of factors and characteristics such as:

Example factors and characteristics to consider:

1. Project scope and duration;
2. Anticipated traffic speeds through the work zone;
3. Anticipated traffic volume;
4. Vehicle mix;
5. Type of work (as related to worker exposure and crash risks);
6. Distance between traffic and workers, and extent of worker exposure;
7. Escape paths available for workers to avoid a vehicle intrusion into the work space;
8. Time of day (e.g., night work);
9. Work area restrictions (including impact on worker exposure);
10. Consequences from/to road users resulting from roadway departure;
11. Potential hazard to workers and road users presented by device itself and during device placement and removal;
12. Geometrics that may increase crash risks (e.g., poor sight distance, sharp curves);
13. Access to/from work space;
14. Roadway classification; and
15. Impacts on project cost and duration.

Positive Protection Devices

Use of positive protection shall be considered where workers are at increased risk from traffic and where positive protection devices offer the highest potential for increased safety for workers and road users

Examples of conditions that may warrant use of positive protection:

- WZs that provide workers no means of escape from motorized traffic;
- Long duration WZs that result in substantial worker exposure to traffic
- Projects with high anticipated operation speeds
- Work operations that place workers close to travel lanes open to traffic
- Roadside hazards that will remain in place overnight or longer

Exposure Control Measures

Exposure control measures **should** be considered to avoid or minimize exposure for workers and road users

- Full road closures
- Ramp closures
- Median crossovers
- Full or partial detours or diversions
- Protection of WZ setup and removal using rolling road blocks
- Performing work at night or during off-peak periods
- Accelerated construction techniques

Other Traffic Control Measures

Other traffic control measures **should** be considered to reduce WZ crashes and risks and consequences of intrusions into the work space.

1. Effective, credible signing;
2. Changeable message signs;
3. Arrow panels;
4. Warning flags and lights on signs;
5. Longitudinal and lateral buffer space;
6. Trained flaggers and spotters;
7. Enhanced flagger station setups;
8. Intrusion alarms;
9. Rumble strips;
10. Pace or pilot vehicle;
11. High quality work zone pavement markings and removal of misleading markings;
12. Channelizing device spacing reduction;
13. Longitudinal channelizing barricades;
14. Work zone speed management (including changes to the regulatory speed and/or variable speed limits);
15. Law enforcement;
16. Automated speed enforcement (where permitted by State/local laws);
17. Drone radar;
18. Worker and work vehicle/equipment visibility;
19. Worker training;
20. Public information and traveler information; and
21. Temporary traffic signals.

Uniformed Law Enforcement

Each agency, in partnership with the FHWA, **shall** develop a policy addressing the use of uniformed law enforcement on Federal-aid highway projects. The policy may consist of processes, procedures, and/or guidance. The processes, procedures, and/or guidance **should** address the following:

1. Basic interagency agreements between the highway agency and appropriate law enforcement agencies to address work zone enforcement needs;
2. Interaction between highway and law-enforcement agency during project planning and development;
3. Conditions where law enforcement involvement in work zone traffic control may be needed or beneficial, and criteria to determine the project-specific need for law enforcement;
4. General nature of law enforcement services to be provided, and procedures to determine project-specific services;
5. Appropriate work zone safety and mobility training for the officers, consistent with the training requirements in 23 CFR 630.1008(d);
6. Procedures for interagency and project-level communications between highway agency and law enforcement personnel, and
7. Reimbursement agreements for law enforcement service.

Work Vehicles and Equipment

- The agency processes, procedures, and/or guidance established under Subpart J shall address the safe entry/exit of work vehicles onto/from the travel lanes.
- Provisions for safe means for work vehicles and equipment to enter and exit traffic lanes and for delivery of construction materials to the work space should be based on individual project characteristics and factors.

Payment

- Payment for traffic control features and operations shall not be incidental to the contract, or included in payment for other items of work not related to traffic control and safety
- Separate pay items shall be provided for major categories of traffic control devices, safety features, and WZ safety activities
- For method-based specs, unit price pay items, lump sum pay items, or a combination thereof may be used
- Specs should include provisions to require and enforce compliance with implementation and maintenance of the project TMP and related traffic control items

Quality Guidelines

- Each agency shall develop and implement quality guidelines to help maintain the quality and adequacy of the temporary traffic control devices for the duration of the project
- A level of inspection necessary to provide ongoing compliance with the quality guidelines shall be provided

In Summary, Subpart K Requires...

- Supplementing the WZ processes and procedures developed under Subpart J to specifically address appropriate consideration of positive protection devices, exposure control measures, and other traffic control measures in order to help reduce WZ fatalities and injuries.
- A policy addressing the use of uniformed law enforcement on Federal-aid projects.
- Specific provisions that address appropriate payment and quality assurance for necessary safety features.
- Quality guidelines for temporary traffic control devices along with appropriate level of inspection.

Worker Visibility Rule

- Effective November 24, 2008
- Goal: Enhance worker safety
- Requirement: All workers within the right-of-way of a Federal-aid highway who are exposed either to traffic or to construction equipment within the work area shall wear high-visibility safety apparel (Class 2 or 3 – ANSI/ISEA 107-2004)

What We Expect to See

- More focus on system impacts versus individual WZ site impacts
- WZ impacts considered throughout project delivery process
- More WZ training
- More effective communication with the public
- More performance monitoring and assessment
- Increased consideration and management of worker and motorist safety in WZs
- More strategic and effective use of uniformed law enforcement in WZs
- More clarity on and better provisions for safety features needed on projects
- Better quality devices throughout life of project
- Workers who are more visible
- Safer and more effective WZs

Resources

- FHWA Website

<http://ops.fhwa.dot.gov/wz/resources/policy.htm>

- WZ Peer-to-Peer Program

<http://ops.fhwa.dot.gov/wz/p2p/index.htm>

- National WZ Safety Information Clearinghouse

<http://www.workzonesafety.org/>

Additional Resources

Interactive Workshop

- Development of Policy on Use of Law Enforcement in WZs (in development)

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