


<b>Massachusetts Department of Transportation Highway Division Standard Operating Procedures</b>		<b>S.O.P. No. TS-2023-002</b>  <b>Page 1 of 3</b>	
<b>Subject: Work Zone Speed Limits</b>			
<b>Effective 2/3/2023</b>	<b>Issued 2/3/2023</b>	<b>Supersedes No. n/a</b>	 <b>State Traffic Engineer</b>

**I. PURPOSE**

This Standard Operating Procedure (SOP) establishes procedures for establishing Work Zone Speed Limits.

This SOP’s scope is limited to State Highways and on any project advertised by MassDOT.

**II. AUTHORITY**

MassDOT is granted authority to establish Speed Regulations by MGL c. 90 § 18 and the authority to establish speed limits in construction zones by MGL c. 90 § 17D.

**III. SUPPORTING REFERENCES**

*Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), 2009 Edition:*

- Chapter 2B, Regulatory Signs, Barricades, and Gates
- Chapter 6F, Temporary Traffic Control Zone Devices

*MassDOT’s Procedures for Speed Zoning on State Highways and Municipal Roads, 2021 Edition.*

**IV. DESCRIPTION**

There are two types of Work Zone Speed Limits (WZSL):

- A **Static WZSL** is needed due to one or more geometric conditions created by the temporary traffic control setup that necessitates a reduction in the posted speed limit throughout that entire phase of construction, regardless of whether construction work is active. A Static WZSL is in effect 24 hours a day while the regulatory signs are posted.
- A **Dynamic WZSL** is needed due to one or more geometric conditions created by the temporary traffic control setup that exists only while construction, repair, maintenance, or survey workers are present and necessitates a temporary reduction in the posted speed limit but returns to a condition where the existing speed limit is adequate when the construction or maintenance work is not active. A Dynamic WZSL is only in effect when workers are present and the speed limit signs have been activated as described below.

Work Zone Speed Limits may not be appropriate for all temporary traffic control setups and are not intended to be used as an alternative to properly designed and deployed temporary traffic control devices. As with most traffic control devices, the overuse of WZSLs may ultimately decrease the effectiveness of all WZSLs.

Work Zone Speed Limits may be proposed by the Designer of Record, the Department, or a 3<sup>rd</sup> Party contracted by the Department and/or permitted to work within the Layout but

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are not official and are unenforceable until approved and signed by the State Traffic Engineer and installed per the approved plans.

**V. TRAFFIC CONTROL DEVICES**

All Work Zone Speed Limits shall be signed with SPEED LIMIT (MUTCD code R2-1) signs, supplemented with a WORK ZONE (G20-5aP) plaque on top and a FINES DOUBLE (R2-6aP) plaque beneath it. For Static WZSL, if a standalone WORK ZONE/SPEEDING FINES DOUBLED (MA-R2-10a) is placed upstream of the work zone the R2-6aP sign may be omitted.

Existing Speed Limit signage within the bounds of a Static Work Zone Speed Limit shall be securely covered or removed.

Dynamic WZSL assemblies shall include a pair of round, alternating flashing, yellow beacons that are active only when the speed limit is in effect. The beacons can be remotely or manually activated but shall only be in operation when workers are present. A WHEN FLASHING (W16-13P) plaque, utilizing a white background, shall be mounted beneath the R2-6aP plaque.

Additional WZSL assemblies may be required if the temporary traffic control setup is extraordinarily long and/or if on-ramps are present within the setup.

If the Work Zone Speed Limit reduces the existing speed limit by 10 mph or more, a graphical REDUCED SPEED LIMIT AHEAD (W3-5) sign, utilizing a fluorescent orange background, shall be placed upstream at a distance conforming to MUTCD standards.

All WZSL sign assemblies shall be crashworthy unless mounted behind a guardrail or barrier.

The use of a WZSL shall not be cited as justification for allowing a reduced the Test Level for crashworthy roadside hardware in a work zone.

**VI. PROCEDURES**

Fixed-location projects advertised by the Department should have the WZSL and type, shown on the Temporary Traffic Control Plans (TTCP) at the 75% submission. Various location projects, typically associated with maintenance work, should show potential WZSL location(s) and type(s) on a typical detail at the first submission. WZSLs requested as part of a State Highway Access Permit shall include the type and location in the TTCP at the 75%/100% submission.

A WZSL package shall be submitted to the State Traffic Engineer at the PS&E stage, and shall include the following:

- A cover page that includes project information (location, Project ID or Access Permit Number), existing speed limit(s), proposed speed limit(s), and type (Static or Variable). The cover page shall be signed by the Engineer of Record.
- Plans or typical details showing the location of all traffic control devices required to establish the work zone speed limit. These shall each be stamped and signed by the Engineer of Record.

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- A copy of any Special Speed Regulations that exist within the limits of where the work zone speed limit is proposed.

For projects advertised by the Department, the Contractor may elect to revise the TTCP to better suit their means and methods. In these cases, the Contractor, at their own expense, shall be responsible for submitting a revised WZSL package, including stamped and signed plans, to the State Traffic Engineer. If the Contractor proposes no changes to the TTCP included in the contract documents, no additional WZSL submittals will be required.

## **VII. APPROVAL AND IMPLEMENTATION**

Upon receipt of the WZSL package, the State Traffic Engineer will review and, if appropriate, approve the WZSL. Approval of the WZSL package will include a cover letter and any limitations on the usage of the WZSL. The approved package will be transmitted to the District Construction, Maintenance, Permits, or other applicable section(s).

The Contractor may install the WZSL per the cover letter, providing the District and the State Traffic Engineer with the date and time of its installation. Upon completion of that phase of work, the WZSL shall be removed as soon as practical. The Contractor shall provide the District and the State Traffic Engineer with the data and time of its removal.