

**MDOT Guidance on Manual for Assessing Safety Hardware (MASH) Compliance
for
Temporary Traffic Control Devices in Work Zones
August 8, 2019**

The American Association of State Highway and Transportation Officials (AASHTO) and the Federal Highway Administration (FHWA) agreed in 2016 to the following requirements for temporary traffic control devices used in work zones on state highways and roadways on the National Highway System.

Temporary work zone devices, including portable barriers, manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

The Michigan Department of Transportation (MDOT) recognizes and adopts the current categorization of temporary traffic control devices used in work zones as developed by FHWA after the publication of NCHRP Report 350. These categories are as follows:

- Category I Lightweight devices (such as cones, barrels, delineators) which could be self-certified by the vendor.
- Category II Lightweight devices which needed individual crash testing.
- Category III Barriers and other fixed or massive devices also needing crash testing.
- Category IV Trailer mounted lighted signs, arrow panels, etc.

Category I

MDOT recognizes that the crashworthiness and MASH compliance of Category I devices may be established by way of certification letters from the respective manufacturers, and no testing of these devices is required to meet MASH-16 requirements.

Category II

All Category II temporary traffic control devices manufactured after December 31, 2019, that are NCHRP 350 or MASH-09 compliant will continue to be allowed until MASH-16 compliant devices are available and reviewed by MDOT. These devices may be used for five (5) years after MASH-16 compliant devices are approved, provided the device meets the requirements of the Standard Specifications for Construction and any applicable special provisions.

Category III

All mobile attenuators (i.e., truck mounted attenuators and trailer mounted attenuators; also known as TMAs) and temporary impact attenuators manufactured after December 31, 2019, that are NCHRP 350 or MASH-09 compliant will continue to be allowed until MASH-16 compliant devices are available and reviewed by MDOT.

All portable temporary concrete barriers and steel barriers manufactured after December 31, 2019, that are NCHRP 350 or MASH-09 compliant will continue to be allowed until MASH-16 compliant devices are available and reviewed by MDOT.

These devices may be used for ten (10) years after MASH-16 compliant devices are approved, provided the device meets the requirements of the Standard Specifications for Construction and any applicable special provisions.

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Category IV

Category IV devices are currently not required to be NCHRP 350 crash tested by FHWA. The benefit of Category IV devices was determined greater than the exposure of the device on the roadway shoulder. MDOT encourages manufacturers to seek compliance with MASH-16 for Category IV devices. MDOT will continually research and evaluate Category IV products coming to the marketplace. MDOT will update the guidance for Category IV work zone devices based on the availability of MASH-16 compliant devices and the acceptability of these devices to MDOT.