

# MASH SDDOT

Christina Bennett, PE  
South Dakota Department of Transportation



# Internal Process

Committees set up to review different categories of devices

## **Roadside Barriers and Associated Hardware**

### **Committee Chair: Standards Engineer**

Product Categories: Guardrail, Guardrail Transitions, Crash Cushions, End Terminals for Steel Beam and Cable Barrier, Cable Barriers, Temporary Work Zone Barriers, Transitions for Temporary Work Zone Barriers, and Mailbox Supports.

## **Bridge Barriers**

### **Committee Chair: Chief Bridge Engineer**

Product Categories: Bridge Rail, Bridge Rail End Blocks, and Permanent Concrete Barriers.

## **Traffic Hardware**

### **Committee Chair: Operations Traffic Engineer**

Product Categories: Sign Supports, Specialty Breakaway Supports, Work Zone Traffic Control Devices, Longitudinal Channelizers, Luminaire Supports, Truck and Trailer Mounted Attenuators, Variable Message Signs, and Arrow Board Trailers.

# Approved MASH Crashworthy Devices

Proprietary devices will be on an Approved Products List for the State

Non-Proprietary devices will require updates to manuals, details, and standard drawings

# Temporary Traffic Control Devices

## Categories of Devices

### Category 1:

Small and lightweight channelizing and delineating devices. These devices include cones, tubular markers, flexible delineator posts, and plastic drums without warning lights attached

Category 1 devices may be manufacturer-certified as MASH-compliant as long as there are no attachments to the device. If there are attachments, crash testing and/or evaluation to MASH criteria is required. Warning lights on drums, for example, would require crash testing.

# Temporary Traffic Control Devices

## Category 2:

Includes barricades, portable sign supports, and Category 1 devices with attachments

## Category 3:

Includes temporary barrier, fixed location sign supports, and crash cushions

Category 2 & 3 devices will require MASH testing

Existing Category 2 & 3 devices will be allowed to remain in use for their “normal service life”

# Temporary Traffic Control Devices

## Category 4:

Includes portable or trailer-mounted devices such as arrow boards, temporary traffic control signals, area lighting, and portable changeable message signs

Category 4 devices continue to be analyzed for potential to be crashworthy

Until there are MASH-compliant Category 4 devices available, Category 4 devices will be positioned and operated in as safe a manner as practical. Category 4 devices should be delineated or shielded when in use and removed from the clear zone as soon as practicable when they are no longer needed

## SDDOT Definition for Normal Service Life:

SDDOT has defined a Normal Service Life for each category of devices, however, we have not started the clock on these until we have viable MASH crashworthy devices on our Approved Products List

Temporary Traffic Control Devices are allowed a normal service life after MASH crashworthy devices are approved since these devices are owned by contractors and re-used on projects instead of installed and transferred to ownership by the DOT like permanent devices are

## TMA's:

TMA's are in a separate category than the other Category 4 devices because MASH crash testing was developed specifically for these devices and there are TMA's that currently meet MASH-16

