

Barrier System Transitions and Terminals and Sign Support
Highway Design Office
Spring 2026

Updates Overview

- Introduce two new Ram Shield System and two new EZY-GUARD SBGR
- Introduce a MASH Steel Beam Type M- Base plated on Embedded Underground Slab
- Provide additional MTOD to transition a roadside concrete barrier to a vertical concrete parapet
- Replace the existing OPSD 984.101 with a MASH tested post mounted Delineator Installation
- Introduce a MASH TL-3 SMARTPOD Crash Cushion.
- Replace the existing OPSD 989.110 and OPSD 989.210 with a MASH Sqr-Loc Steel Square Post Systems.
- Introduce a MASH TL-2 Pedestrian Handrail support System.

Ram Shield SBGR -

- Two new MTODs: 912.172 for single-sided installation adjacent to curb and gutter and 912.173 for single-sided installation adjacent to 3:1 slope with reduced post spacing.

EZY-GUARD SBGR -

- Two new MTODs: 912.166 for single-sided installation adjacent to curb and gutter and 912.167 for single-sided installation adjacent to 3:1 slope with reduced post spacing.

SBGR TYPE M

- New MTOD: 912.251 for a Type M Steel Beam Guide Rail (SBGR) using base-plated posts on an embedded underground concrete slab.

Barrier Connection -

- New MTOD 911.384 - to transition a roadside concrete barrier to a vertical concrete parapet.

Delineator Installation -

- New MTOD 984.101 - MASH Tested Post Mounted Delineator Installation

Crash Cushion TL-3 SMARTPOD

- Four new MTO Drawings for Energy Attenuator
 - 923.490 for Safety Shape Installation – Temporary Unidirectional
 - 923.491 for Safety Shape Installation – Temporary Bidirectional
 - 923.492 for Safety Shape Installation – Permanent Unidirectional
 - 923.493 for Safety Shape Installation – Permanent Bidirectional
- Update to CDED B723 to provide instruction on how to detail in contract packages
- Additional information will be provided in 2026 update of the Roadside Design Manual

Small Sign Support System MASH SQR-LOC

- Two new MTO Drawings for the Mash Sqr-Loc Steel Square Post System
 - 989.120 for Installation – Single Post Assembly
 - 989.220 for Installation – Double Post Assembly
- The two existing OPSDs on Sqr-Loc will be archived and be replaced with these new MTODs. (The current OPSDs are based on NCHRP Report 350).
- The new MTODs have been crash tested and approved to MASH TL-3.

Pedestrian Handrail Support System

- Four new MTO Drawings for the Pedestrian Handrail Support System
 - 912.460 for Handrail Midspan Assembly
 - 912.461 for Handrail Male End Assembly
 - 912.462 for Handrail Steel Blockout
 - 912.463 for Handrail Component

Updates to OPSS.PROV

- Update of OPSS.PROV 721
- Update of OPSS.PROV 723
- Update of OPSS.PROV 772

Summary of Updates

- 5 new MTODs for steel beam guide rail.
- 1 new MTOD for a structure connection, and 1 new MTOD for delineation post.
- 4 new MTODs for the SmartPod energy attenuator Crash Cushion
- 2 new MTODs for new sign supports.
- Updates to OPSS.PROV 721 and 723, 772.
- No significant changes to design processes, contract items or the way items are administered in the field.