



INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

Design Memorandum No. 23-07

July 11, 2023

TO: All Design, Operations, and District Personnel, and Consultants

FROM: /s/Subhi Bazlamit
Subhi Bazlamit
Standards & Policy Director

SUBJECT: Guardrail End Treatments

EFFECTIVE: Lettings on or after October 1, 2023

Design Memos 17-10 and 17-17 are the prevailing guidance on the implementation of MASH-compliant roadside safety devices. This memo revises the guidance related to guardrail end treatments only. The attachment to DM 17-17 has been revised accordingly and is included for reference on the following page.

Designers should no longer include either “31 in.” or “27 ¾ in.” as a supplemental description for guardrail end treatment pay items.

All MASH-compliant end treatments have a standard installation height of 31 in. ± 1 in. and accommodate the mid-span splice that is part of MGS w-beam guardrail.

Guardrail End Treatment, Type OS. Specifying a 27 ¾ in., NCHRP Report 350-compliant Guardrail End Treatment, Type OS may still be necessary as the industry lacks a MASH-compliant curved w-beam system on par with the system detailed in Standard Drawing series 601-CWGS. In these instances, designers should coordinate with the INDOT Standards and Policy Division as well as document the decision as part of a Level Two design exception.

Guardrail End Treatment, Type MS. The need to specify a 27 ¾ in. Guardrail End Treatment, Type MS should be rare and will be considered on a project-by-project basis. Coordinate with the INDOT Standards and Policy Division.

For questions related to this design memo please contact the Standards and Policy Division, Elizabeth Mouser, at emouser@indot.in.gov.

DM 17-17 Attachment Revised (End Treatment Information Only)

Pay Item	Description	Units	Notes
601-94689	GUARDRAIL, END TREATMENT, OS	EA.	Designers should coordinate with the INDOT Standards and Policy Division where a 27 ¾ in. end treatment is needed. Document the decision as a Level Two design exception. In these instances, the supplemental description “SKT 350” is required.
Pay Item	Description	Units	Notes
601-94690	GUARDRAIL, END TREATMENT, MS	EA.	Until there are multiple MASH-compliant devices on the Qualified Products List, the contractor will have the option to choose either a MASH-compliant device or an NCHRP 350-compliant device that is 31 in. and MGS-compatible.

Note: All MASH-compliant end treatments have a standard installation height of 31 in. ± 1 in. and accommodate the mid-span splice that is part of MGS w-beam guardrail. Some NCHRP 350-compliant devices are available in a 31-in., MGS-compatible configuration. Any time guardrail set at 27 ¾ in. connects to MGS w-beam guardrail or a 31-in. end treatment, an MGS Height Transition is required.