

Design Advisory

From Mark Van Port Fleet, Engineer of Design

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Index: Design Exceptions
Road Design Manual Section
3.06, 3.09.02 and Appendix
3-A.

Questions regarding this
Design Advisory should be
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Posted Speed Design vs. MDOT Design Speed

Recent revisions to Section 3.06 of the Road Design Manual were approved by the Engineering Operations Committee on December 3, 2007. The revisions included a change in the design exceptions process for geometric design elements that are determined based on design speed.

MDOT design speeds are generally 5 mph greater than posted speeds. Designers should always strive to meet standards based on the design speeds listed in Appendix 3-A of the Road Design Manual for new construction/reconstruction projects and in Section 3.09.02 for non-freeway 3R projects.

When standards based on these design speeds cannot be met, the Design Exception Form (FC26) must be completed and all related documentation, including crash analysis, must be included.

This is no different than what has been required in the past. The change in the process is related to whether or not the standards can be met for at least the posted speed.

If the design element in question is dependent on design speed and as a minimum meets the standards for a design speed equal to posted speed, the design exception form and documentation is not submitted to the Engineer of Design. Instead, it is maintained in the project file and a copy is forwarded to the Lansing Traffic and Safety Geometrics Design Unit.

If the design element does not meet the standards for posted speed, the design exception form and documentation is submitted to the Engineer of Design for approval.

Reminders:

1. A form FC26, crash analysis and other related documentation is required independently for each element for which the MDOT design speed based standard can not be met. Blanket documentation for multiple elements is not acceptable.
2. Exceptions for design elements that are not dependent on design speed (example: cross slope) must still be approved by the Engineer of Design.
3. The Project Manager must always sign form FC26 as an assurance that the crash analysis and documentation support the use of a standard based on less than MDOT design speed.