

Project Title:	MASH Evaluation of MGS Traffic Barrier for 8-inch Curb with Various Curb Shapes and Small Offsets
Project Synopsis:	MASH evaluation and determination of MGS traffic barrier for 8-inch curb with various shapes and small offsets (0 – 6 in). Perform the necessary steps to certify MASH compliance to at least TL-2, but preferably to TL-3. If MASH TL-3 (or TL-2) is not feasible, evaluate the effect of stiffening the guardrail to achieve MASH compliance.
Project Goal(s):	Provide a determination of MASH compliance to at least TL-2, but preferably TL-3, for MGS barrier with 8” curb with various shapes and small offsets. Perform MASH full-scale crash tests on critical curb configuration. Develop guidelines for use of various 8-inch curb configurations with MGS Traffic Barrier.
Project Background:	<p>Standards for curb heights, shapes, and offsets vary from state to state. Applications on roadways for guardrail and curb is extremely common throughout the country (and world). Therefore, MASH compliance is needed for all of these variations.</p> <p>MDOT has been using curb combination and traffic barrier (standard <i>17_12_21_MD-605.31</i>) for many years with the face of barrier rail flush with the face of the curb. For design speed equal and less than 45 mph, Type A curb (8-inch) is used (standard <i>MD-602.02</i>).</p> <p>MDOT also uses traffic barrier with curb and sidewalk, which is basically having the barrier offset from the curb.</p> <p>Due to lack of crash testing for 8-inch curb with barrier aligned up with the face of curb, MDOT has difficulty to meet the criteria of MASH 2016.</p> <p>PennDOT also uses 8-inch vertical curb for roadways typically (<i>PennDOT typical curb detail</i>). A 4-inch curb is used with traffic barrier (<i>PennDOT Guide Rail with curb detail</i>). However, 4-inch curb often cannot be used on projects, and then 8-inch curb is allowed with stiffened traffic barrier. For example, 4-inch curb is problematic for drainage, so 8-inch curb is used with drainage inlet (<i>PennDOT inlet profile detail</i>).</p> <p>NCHRP 22-39 is an ongoing project, which is evaluating the use of the MGS Traffic Barrier with curbs for MASH TL-3 applications. The scope of the project currently includes the evaluation of the MGS with a 6-inch curb at offsets ranging from 6 in to 15 ft.</p>
Proposed Work Plan:	
Deliverables:	

Urgency and Expected Benefit:	
Problem Funding and Research Period:	
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