



U.S. Department  
of Transportation  
**Federal Highway  
Administration**

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400 Seventh St., S.W.  
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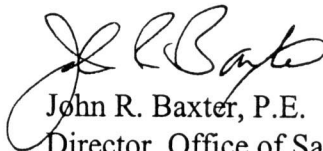
Mr. Kaddo Kothmann  
President  
Road Systems, Incorporated  
3616 Howard County Airport Road  
Big Spring, Texas 79720

Dear Mr. Kothmann:

In your October 14 letter, you provided copies of a September 8 report prepared by the Midwest Roadside Safety Facility, entitled "Safety Performance Evaluation of South Dakota's Cable Guardrail to W-Beam Transition System with a FLEAT End Terminal." That report described a full-scale crash test of a transition from a standard 3-strand cable guardrail to a standard strong-post w-beam guardrail. A FLEAT terminal with a 1.2-m (4-foot) offset was used to terminate the w-beam guardrail installation. As the cable approached the W-beam, its post spacing was reduced from its normal 4.877 m (16 feet) on centers to 1.219 m (4 feet) for the last 16 posts. Two cable transition brackets were bolted to the w-beam rail element, carrying the upper cable over the top of the w-beam and the middle and lower cables under the w-beam to a concrete anchor located behind the rail. These details are shown in Enclosures 1 and 2. The design is similar to South Dakota's current transition design that was previously tested successfully with a Breakaway Cable Terminal at the end of the w-beam rather than the FLEAT.

Based on the results of test 3-21, as summarized in enclosure 3, the tested design is an acceptable option for use on the National Highway System as a test level 3 transition from cable guardrail to w-beam guardrail.

Sincerely yours,



John R. Baxter, P.E.  
Director, Office of Safety Design  
Office of Safety

3 Enclosures

