



U.S. Department  
of Transportation

Federal Highway  
Administration

# Memorandum

**SENT VIA ELECTRONIC MAIL**

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Subject: **INFORMATION**: NCHRP Report 711:  
Guidance for the Selection, Use, and  
Maintenance of Cable Barrier Systems

Date: November 27, 2012

From: Michael S. Griffith  
Director, Office of Safety Technologies  
Office of Safety

In Reply Refer To:  
HSST

To: Division Administrators  
Federal Lands Division Engineers  
Safety Field

This memorandum responds to Recommendation H-11-24 from the National Transportation Safety Board (NTSB) and updates the July 20, 2007, Office of Safety memorandum "Cable Barrier Considerations." The 2007 memorandum listed a number of design factors that highway agencies need to consider when selecting, locating, installing, and maintaining cable roadside and median barriers. The memorandum noted that research was underway to address many of the gaps in our knowledge and understanding of cable barrier performance. The research was recently completed, and the NCHRP Report 711, "Guidance for the Selection, Use, and Maintenance of Cable Barrier Systems" has been published by the Transportation Research Board and is available for free download at: [http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_711.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_711.pdf)

NTSB Recommendation H-11-24 asked FHWA to:

Provide to state transportation agencies information from current research, such as National Cooperative Highway Research Program Project 22-25, *Development of Guidance for the Selection, Use, and Maintenance of Cable Barrier Systems*, about the safety risks associated with the installation of cable barrier systems that differs from the configuration of the system as designed and tested; information should include the risks associated with the dynamic deflection that may occur when installation distances between cable barrier anchorages differ from the 600-foot test length prescribed in the *Manual for Assessing Safety Hardware*.

Report 711 resulted from Project 22-25 and is provided for the information of FHWA Division Offices and for State and local highway agencies that use, or are interested in using, cable barriers. Of special note is Appendix E, "Summary of Recommended Guidelines," found at the end of Report 711. This summary of guidance provides a solid basis for agencies that have been using cable barriers to update their practices to enhance safety performance or cost effectiveness of cable barrier systems, as well as to aid agencies interested in considering the use of cable barriers for the first time. Whereas most barriers were crash tested on flat terrain with a length of 300 to 600 feet, many real

world installations go for thousands of feet between anchors, are located on sloping embankments, are used in horizontal or vertical curves, etc. The guidance in Report 711 should be consulted to account for these real world installation issues.

FHWA:HSST:NArtimovich:sf:x61331:10/31/12: **Updated 11/19/12**

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cc: HSST (NArtimovich; BFouch)



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