

September 22, 1998

Refer to: HNG-14

Dr. Hayes E. Ross, Jr.  
Professor and Research Engineer  
Texas Transportation Institute  
Structural Research Division  
The Texas A&M University System  
College Station, Texas 77843-3135

Dear Dr. Ross:

In your September 3 letter to Mr. Henry H. Rentz, you requested the Federal Highway Administration to approve the use of two 3810-mm long w-beam panels as an alternative to the single 7625 mm panel that was originally tested and accepted for use with the ET-2000 guardrail terminal. The use of two shorter panels would result in the bolted splice at post 3 being forced through the extruder head in an end-on impact with the 2000-kg pickup truck (test 3-31), but not with the 820-kg car (test 3-30) which was stopped at that point in the original certification test.

To support this request, you ran test 3-31 into an ET-2000 installation which used the shorter rail lengths. Test results were given in your report entitled "Testing and Evaluation of the ET-2000 with 3.8 m W-Beam Sections," by Hayes E. Ross, Jr., Wanda L. Menges, and Barbara G. Baker, Project/Report No. 520201-1, August 1998. The results of this test and the earlier test with the single 7625 mm panel were essentially the same, with 7600 mm of rail being extruded in both instances and with all NCHRP Report 350 evaluation criteria being met in both cases.

Based on these results, we agree that the ET-2000 can be used with either length rail element.

Sincerely yours,

(original signed by Dwight A. Horne)

Dwight A. Horne  
Chief, Federal-Aid and Design Division

Acceptance letter CC12E