

April 10, 2001

HSA-10/CC54B

Mr. Rodney Boyd
President, Highway Safety Products Group
Trinity Industries, Inc.
2525 Stemmons Freeway
Dallas, TX 75207

Dear Mr. Boyd:

In your April 6 letter to Mr. Richard Powers of my staff, you requested formal Federal Highway Administration (FHWA) acknowledgment of the performance of an extended version of your TRACC impact attenuator, which you call the FASTRACC. At 7890 mm, the FASTRACC was made 1422 mm longer than the test level 3 (TL-3) TRACC by adding an extra bay at the rear of the unit. Included with your letter was a copy of a Texas Transportation Institute (TTI) summary test report dated December 5, 2000 and video tape documenting the results of a 2000-kg pickup truck impacting the FASTRACC head-on at a speed of 112.3 km/h.

Although testing guidelines contained in the National Cooperative Highway Research Program (NCHRP) Report 350 do not include impact speeds over 100 km/h, your FASTRACC met all evaluation criteria for a 100 km/h crash at the higher impact speed of 112.3 km/h. The test vehicle was stopped with minimal roll, pitch, or yaw in 6580 mm. Occupant impact velocity was 8.4 m/s and the subsequent ridedown acceleration was -14 g's. Both of these values were below the NCHRP Report 350 preferred values of 9 m/s and 15 g's, respectively.

Based on our review of the information you provided to us, we conclude that the FASTRACC, as tested, remains an acceptable TL-3 crash cushion, but one which has demonstrated additional capacity for the pickup truck in head-on crashes at higher speeds than are recognized by NCHRP Report 350. Since the selection of cost-effective safety devices for installation along a public road remains the prerogative of the appropriate highway authority, this letter should not be interpreted as tacit encouragement to use, nor as discouragement against using, roadside hardware that exceeds currently accepted minimum performance requirements.

Sincerely yours,

(original signed by Rudolph M. Umbs)
for

Frederick G. Wright, Jr.
Program Manager, Safety