HNG-14
SS-54

U.S. Department
of Transportation
Federal Highway Administration

400 Seventh St., S.W.
Washington, D.C. 20590

March 28, 1995

Refer to: HNG-14

Mr. Bradley R. Corral
Manager, Sign Posts
Chicago Heights Steel
211 E. Main
P.O. Box 129
Chicago Heights, Illinois 60411

Dear Mr. Corral:

Thank you for your March 17 letter requesting the Federal Highway Administration's (FHWA) acceptance of your company's u-channel posts for use as breakaway small sign supports on the National Highway System (NHS). We have reviewed the product literature you enclosed with your letter and find that your company's rerolled rail steel posts meet the material requirements detailed in our Technical Advisory T 5040.22 "Steel Flanged Channel Posts for Small Highway Sign Supports" dated September 27, 1983. In addition, the cross section drawings you supplied are equivalent to the Franklin Steel posts that have been successfully crash tested with the "EZE-Erect" breakaway sign support system and with the "Florida Splice." (The Florida splice consists of a lapped splice at the groundline using two A307 grade 2, 5/16-inch, (9.5-mm) diameter bolts separated by 152 mm. With each bolt in the splice a spacer is used between the webs of the stub and signpost to allow tightening of the bolts without damaging deformation of the nested u-channels.)

Therefore, by comparison, your company's single u-channel posts, up to a mass of 6.0 kg/m (4 pounds-per-foot), are acceptable for use on the NHS in "strong" or "weak" soils, using one of the breakaway systems mentioned above, if requested by a State. Likewise, single posts up to a mass of 4.5 kg/m (3 pounds-per-foot) with no weakening features are acceptable, but only when directly buried in a soil equivalent to the "standard" soil described in the National Cooperative Highway Research Program Report 350. In essence, your company's posts are acceptable wherever Franklin Steel u-channel supports have been found acceptable. The Franklin Steel EZE-Erect breakaway sign support system was accepted by our March 16, 1989, letter. The Florida splice for use with Franklin Steel post was accepted by our memorandum dated May 26, 1992. Direct burial of u-channel supports was accepted by our memorandum dated June 15, 1987. A copy of each of these memorandums is enclosed for your information.

Our acceptance is limited to the breakaway characteristics of the support systems and does not cover their structural features. Presumably, you will supply potential users with sufficient information on structural design and installation requirements to ensure proper performance. We anticipate that the States will require certification from Chicago Heights Steel that the posts furnished have essentially the same chemistry, mechanical properties, and geometry as those used in the Technical Advisory and crash tests we referenced, and that they will meet the FHWA change in velocity requirements.

Sincerely yours,

Jerry L. Poston, Chief
Federal-Aid and Design Division

3 Enclosures

Federal Highway Administration
HNG-14:NArtimovich:gm:3-27-95:61331
copies to:
HPD-1 HNG-1 HNG-10 HNG-14 Reader, 3128