



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

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

July 18, 1996

Refer to: HNG-14/SS-64

Mr. Rick Mauer
National Sales Manager
Marion Steel Company
912 Cheney Avenue
Marion, Ohio 43302

Dear Mr. Mauer:

This is in reply to your June 24 letter to Mr. Nicholas Artimovich regarding your company's Rib-Bak U-channel signposts. Various sizes of Rib-Bak posts have been crash tested and found acceptable as breakaway sign supports when buried directly in the soil, when used with Lap-Splice system, or when used with the Minuteman Breakaway System. You requested that FHWA acceptance be contained if the shape of the post cross-sections is changed. To increase the steel mill's rolling efficiency, you propose to remove the two outermost ribs (at the edge of the "flanges" of the U-channel) while retaining the two ribs on either side of the web, adjacent to the row of holes.

In support of this request you provided section data via facsimile on July 9 on both the original and proposed post cross sections. The net effect of revising the Rib-Bak cross section is a slight change to the Moment of Inertia and the Section Moduli of some of the posts (4 percent \pm). The cross section area and the mass per meter of the posts will not change since your revision will redistribute the metal that was formerly rolled into the ribs. This metal will remain in the flanges or, in some cases, a small portion will be redistributed to the sidewalls.

Because the section properties of the proposed posts are very close to those of the crash tested posts, and the mill's rolling tolerance on the dimensions of U-channel post is \pm five percent, we find the proposed revised design acceptable for use on the National Highway System, if requested by a State. Conditions regarding steel quality, spacing, splice details, stub height, etc, that were discussed in our acceptance of the original Rib-Bak design remain in effect.

Sincerely yours,

Seppo I. Sillan
Federal-Aid and Design Division

Geometric and Roadside Design Acceptance Letter Number SS-64
Supplemental GARDAL 55-5, 55-13, 55-18, 55-56, and 55-57.