



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

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

Refer to: HSA-10\SS-95

MR. James W. Young
Executive Vice President
Franklin Industries
P.O. Box 671
Franklin, PA 16323

Dear Mr. Young:

Thank you for your letter of January 9 requesting Federal Highway Administration (FHWA) acceptance of a modification to your company's U-channel sign posts as breakaway supports for use on the National Highway System (NHS). You requested that we find a new "ribbed" version acceptable for use on the NHS under the provisions of National Cooperative Highway Research Program (NCHRP) Report 350 "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

You cited the following to validate the acceptable performance of the modified u-channel posts, shown in the enclosed drawings for reference:

1. The FHWA Technical Advisory 5040.22 "Steel Flanged Channel Posts for Small Highway Sign Supports" dated September 27, 1983 regarding the interchangeability of re-rolled rail steel "flat back" and new billet steel "ribbed back" post if they meet the specified chemistry and have approximately the same section properties.
2. The FHWA Acceptance Letters SS-9B, dated 10-17-96, and SS-67, dated 9-9-97, covering Franklin's direct bury, EZE-Erect, Florida Splice, and Franklin Splice posts.
3. The FHWA Acceptance Letters SS-59, dated 3-7-96, and SS-59A, dated 4-26-96, covering Chicago Heights Steel flat back rail steel posts with both unthreaded spacers and a single bar with threaded holes.
4. The FHWA Acceptance letters SS-56, dated 7-13-95, and SS-56A, dated 3-14-96, covering Marion Steel's threaded spacers and threaded bar spacers for ribbed back posts.
5. The FHWA Acceptance letter SS-73, dated 2-24-97, covering a "universal spacer bar" for the Pennsylvania Department of Transportation connecting combinations of flat and ribbed back posts.
6. The FHWA Acceptance letter SS-74, dated 3-14-97, covering Granger and Associates' "Any Two Bracer Bar Connector" for use with Franklin or Chicago flat back posts with Marion ribbed back posts.
7. The FHWA Acceptance letter SS-94, dated 3-1-2001, covering Granger and Associates partially threaded spacer bar for U-channel posts.

You requested acceptance of ribbed back posts designated 740 Channel (2, 2.5, and 2.75 pounds per foot), 760 Channel (3 pounds per foot) and 790 Channel (4 pounds per foot) in 12 gauge steel.

The letters cited above encompass these post sizes and the various acceptable splice configurations. You also indicated that you would design the necessary spacers to fit the new post cross sections. Please note that although both threaded and unthreaded spacers have been successfully tested and found acceptable, the soil plate required for some weak soil applications is larger for breakaway systems using un-threaded spacers than they are for the systems using threaded spacers. All other conditions relating to soil type, foundation design, post spacing, etc., in the letters you cited are applicable to Franklin Steel ribbed-back posts, except were specifically superseded by this or subsequent letters.

We concur that the reconfiguration of the U-channel shape to incorporated the ribbed back cross section should not adversely affect the breakaway performance of the re-rolled rail steel U-channel posts. Therefore, the modified post sections, used with the breakaway devices described above where necessary, and shown in the enclosed drawings for reference are acceptable for use as Test Level 3 devices on the NHS under the range of conditions tested or as otherwise covered in the cited acceptance letters, when proposed by a State.

Please note the following standard provisions which apply to FHWA letters of acceptance:

- Our acceptance is limited to the crashworthiness characteristics of the devices and does not cover their structural features, nor conformity with the Manual on Uniform Traffic Control Devices.
- Any changes that may adversely influence the crashworthiness of the device will require a new acceptance letter.
- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals unacceptable safety problems, or that the device being marketed is significantly different from the version that was crash tested, it reserves the right to modify or revoke its acceptance.
- You will be expected to supply potential users with sufficient information on design and installation requirements to ensure proper performance.
- You will be expected to certify to potential users that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance, and that they will meet the crashworthiness requirements of FHWA and NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number SS-95 shall not be reproduced except in full. As this letter and the supporting documentation which support it become public information, it will be available for inspection at our office by interested parties.

Sincerely yours,

Frederick G. Wright, Jr.
Program Manager, Safety

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cc: HSA-10 (Reader-HSA-1, Chron File-HSA-10,
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