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

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

April 15, 1998

Refer to: HNG-14/SS-79

Lewis Rhodes, P.E.
Director of Engineering
HwyCom Inc.
P.O. Box 3010
Big Spring, Texas 79721-3010

Dear Mr. Rhodes:

This is in response to your March 2 letter to the Director of the Office of Engineering, Federal Highway Administration (FHWA) requesting acceptance of HwyCom fiberglass posts mounted in an anchor bolted to the pavement. These posts, mounted in a "Universal Anchor System" (UAS) foundation, were found acceptable in our April 9, 1997, letter to Mr. Donnie L. Reagan of Universal Anchor Systems when mounted in "standard" soil. The analysis by Mr. Roger P Bligh of Texas Transportation Institute that accompanied your letter indicates that HwyCom posts mounted in the proposed bolted anchor would perform at least as well as they did in the full-depth anchors when they were crash tested. We have reviewed that analysis, the drawings of the proposed bolt down base (copies enclosed), and the report of the crash testing, and concur in Mr. Bligh's analysis.

Therefore, 76-mm OD, 3.175-mm (1/8-inch) wall fiberglass reinforced plastic tube sign supports mounted in the 100-mm high Universal Anchor System Bolt-Down Base are acceptable for use on the National Highway System (NHS) when requested by a State under the following conditions:

1. Single post installations have a maximum sign area of 1.49 square meters (16 square feet).
2. Dual post installations have a maximum sign area of 2.97 square meters (32 square feet).
3. Sign attachment hardware and location of attachment hardware will be as recommended in the TTI Report dated December 1996 and repeated in our April 9, 1997 letter reference above (Acceptance Letter SS-75).
4. Each anchor bolt will be a minimum of 15.875 mm (5/8 inch) in diameter, be embedded a minimum of 100 mm (4 inches) plus one bolt diameter, and have a rated pullout capacity of 54,666 N (12, 300 pound) or greater.

Our acceptance is limited to the breakaway characteristics of the system and does not cover its structural features. Presumably, you will supply potential users with sufficient information on design and installation requirements to ensure proper performance. We anticipate that the States will require certification from HwyCom, and the Universal Anchor that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance, and that the foundations will provide rigid support to the sign posts.

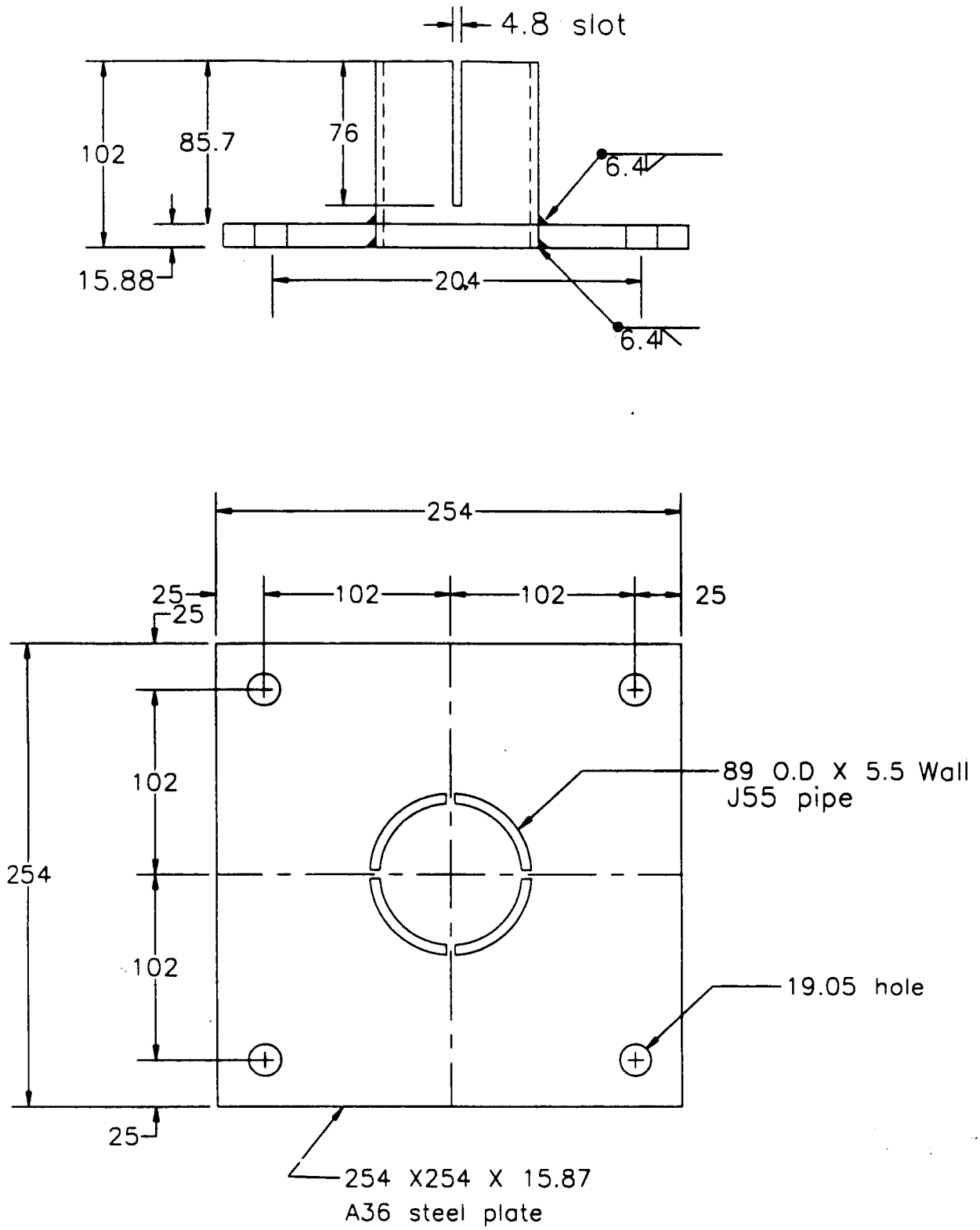
Some of the hardware covered by this acceptance are proprietary products. To be used in Federal-Aid projects, except exempt, non-NHS projects, proprietary products: (a) must be supplied through completive bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with existing highway facilities for that no equally suitable alternative exists or; (c) they must be used for research or for a distinctive type of construction on relatively short sections of road for experimental purposes. Our regulations concerning proprietary products are contained in Title 23, Code of Federal Regulations, Section 635.411, a copy of which is enclosed.

Sincerely yours,

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

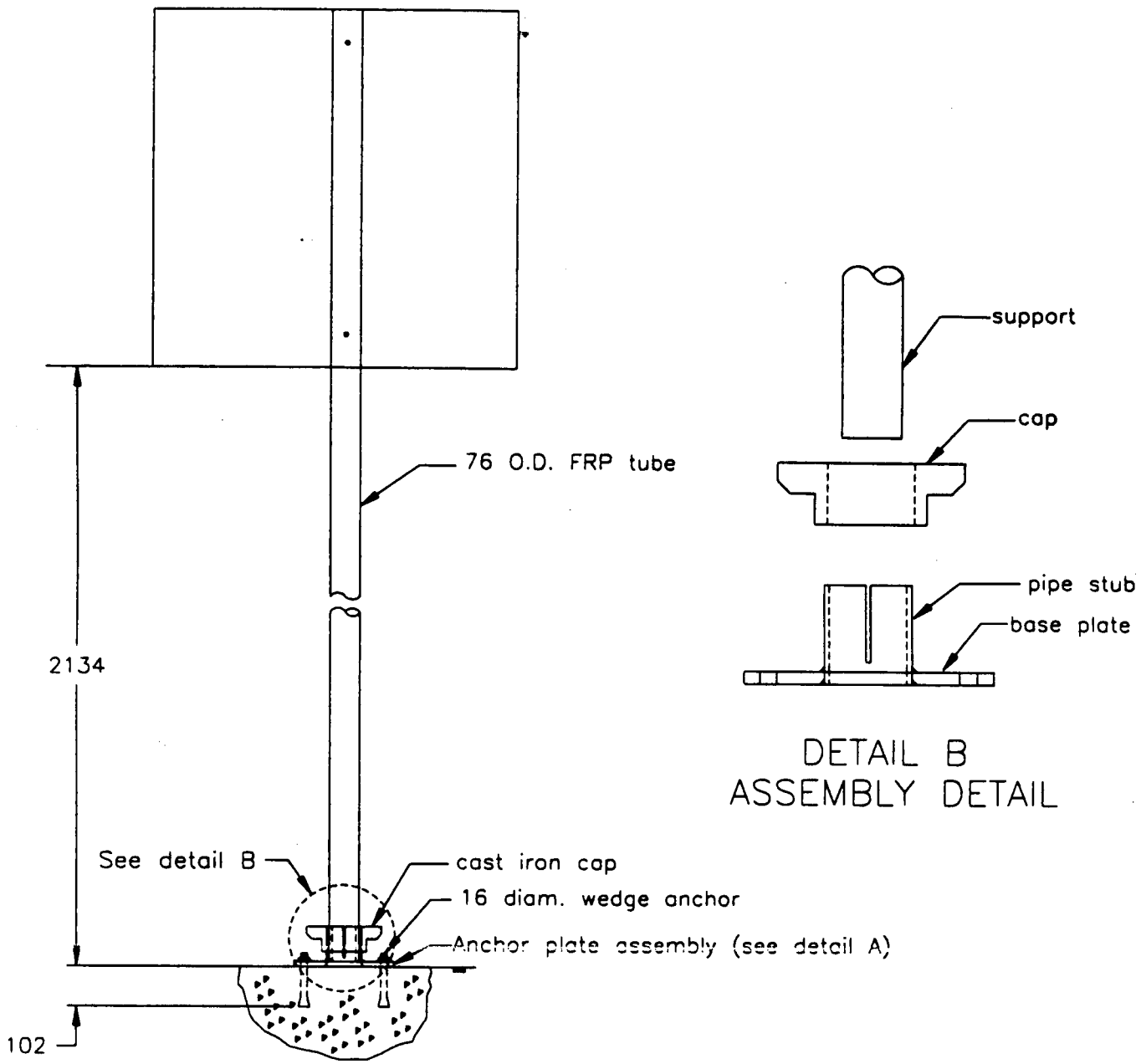
2 Enclosures

Geometric and Safety Design Acceptance Letter SS-79




DETAIL A

ANCHOR PLATE ASSEMBLY




DETAIL B
ASSEMBLY DETAIL

BOLT DOWN UNIVERSAL ANCHOR SIGN SUPPORT