LS-24



Federal Highway

JUL 2 2 1991

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

Refer to: HNG-14

Mr. Robert A. Sik Vice President Akron Foundry Company 2728 Wingate Avenue Akron, Ohio 44314

Dear Mr. Sik:

Thank you for your June 28 letter to Mr. Nicholas Artimovich requesting the Federal Highway Administration's (FHWA) acceptance of revisions to your company's TB-1, TB-2, and TB-3 cast aluminum transformer bases. The FHWA had previously accepted these bases for use on Federal-aid highway projects as meeting our breakaway requirements. The proposed revisions consist of adding stiffener ribs to the inside of the <u>top</u> of the transformer base. The stiffener ribs are intended to improve the load carrying ability of these bases. To support your request, you submitted a letter from the Southwest Research Institute which stated that none of the pendulum tests on these bases showed any cracking at the top. Therefore, we concur with the conclusion that stiffening the top of TB-1, TB-2, and TB-3 transformer bases, as shown in the enclosed drawings, will not have an adverse effect on their breakaway performance. They are, therefore, acceptable for use on Federal-aid highways, subject to the same restrictions, if any, in our original acceptance letters.

Our acceptance is limited to the breakaway characteristics of the bases 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 the Akron Foundry Company or other suppliers of your company's bases that the castings furnished have essentially the same chemistry, mechanical properties, and geometry (except as revised) as the castings used in the tests qualifying the original bases, and that the castings will meet the FHWA change in velocity requirements.

Since your company's breakaway support designs are proprietary items, to be used in a Federal-aid highway project they; (a) must be supplied through competitive bidding with equally suitable unpatented items; (b) the State highway agency must certify that they are essential for synchronization with existing highway facilities, or that no equally suitable alternate 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 was provided with earlier correspondence.

Sincerely yours,

a. Stain

L. A. Staron Chief, Federal-Aid and Design Division

Enclosures

--- 7.69 -(15.38 5Q) 88 TYP -1.50 Ø.25 R. 1.69 10" .75R / TYI .25 K BLEND - 1.69 .25 -12 2 2.75 DI4. 0. Q. 15. 1.00 R LAY FLAT ON .50 R______ TYP 668 ON 13.5 ON 10.50 DIA 5.25 TYP 6.56 13.12 3Q.) PLUS 10° DR. -,75 TYP. START OF RIBS K.12A 5.00 1.08 PLUS 15" DRAFT -____3/ (). 1.88 TYP (A) - 18 P US 5 / 7' DRAFT PER SIDE STIFFENER 9.25 SYM ABOUT TT

> SKETCH OF UPPER CORNER STIFFENERS AKRON FOUNDRY TRANSFORMER BASE TB-1





SKETCH OF UPPER CORNER STIFFENERS AKRON FOUNDRY TRANSFORMER BASE TB-3