55-87

U.S.Department
of Transportation
Federal Highway Administration

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

June 6, 2000

Refer to: HSA-1

Ms. Kristina Ericsson
Partner, Ericsson Manufacturing
3521 Pearkes Place
Port Coquitlam, British Columbia V3B 5E4
CANADA

Dear Ms. Ericsson:

This is to follow up our February 17 e-mail message and your April 13 reply regarding your company's concrete sign foundations. In our message we agreed to consider the concrete foundations for use with perforated square steel tube (PSST) sign posts where breakaway sign support systems are required. Requirements for breakaway supports are those in the American Association of State Highway and Transportation Officials' Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals. Crash testing of breakaway supports is covered in the National Cooperative Highway Research Program (NCHRP) Report 350, Recommended Procedures for the Safety Performance Evaluation of Highway Features.

The Ericsson Conical Concrete Footing is 457 mm (18 inches high), 152 mm (6 inches) square at the top, and 229 mm (9 inches) square at the bottom. Its mass is 37 kg with a coated square double sleeve. The 64 mm (2.5-inch) sleeve is doubled at the top and extends 38 mm (1.5 inches) above the top of the footing to allow room for a bolt to secure the signpost to the foundation.

Single PSST sign supports have been found acceptable for use when embedded directly into the soil, when placed in anchors consisting of larger size square steel tubes, and when placed in certain proprietary foundation systems. Because of the acceptable performance of single PSST posts in a variety of foundations, we find that your company's conical (actually pyramidal) concrete foundation, as shown in the enclosed drawings, is acceptable for use on the National Highway System when used in typical standard soil with 51-mm (2.0 inch) square, 10 gage wall PSST sign supports. They may also be used with PSST supports of 12 gage wall thickness and/or with smaller overall dimensions.

Use of your company's concrete foundation in NCHRP Report 350 "weak" soil, in multiple installations (posts closer than 2.1 meters apart) or with other sign supports should be verified through crash testing.

Our acceptance is limited to the crashworthiness characteristics of the sign foundation 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 Ericsson Mfg., that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance, and that sign supports using it will meet the crashworthiness requirements of Federal Highway Administration and NCHRP Report 350. To prevent misunderstanding by others, this letter of acceptance, designated as number SS-87, shall not be reproduced except in full.

Sincerely yours,

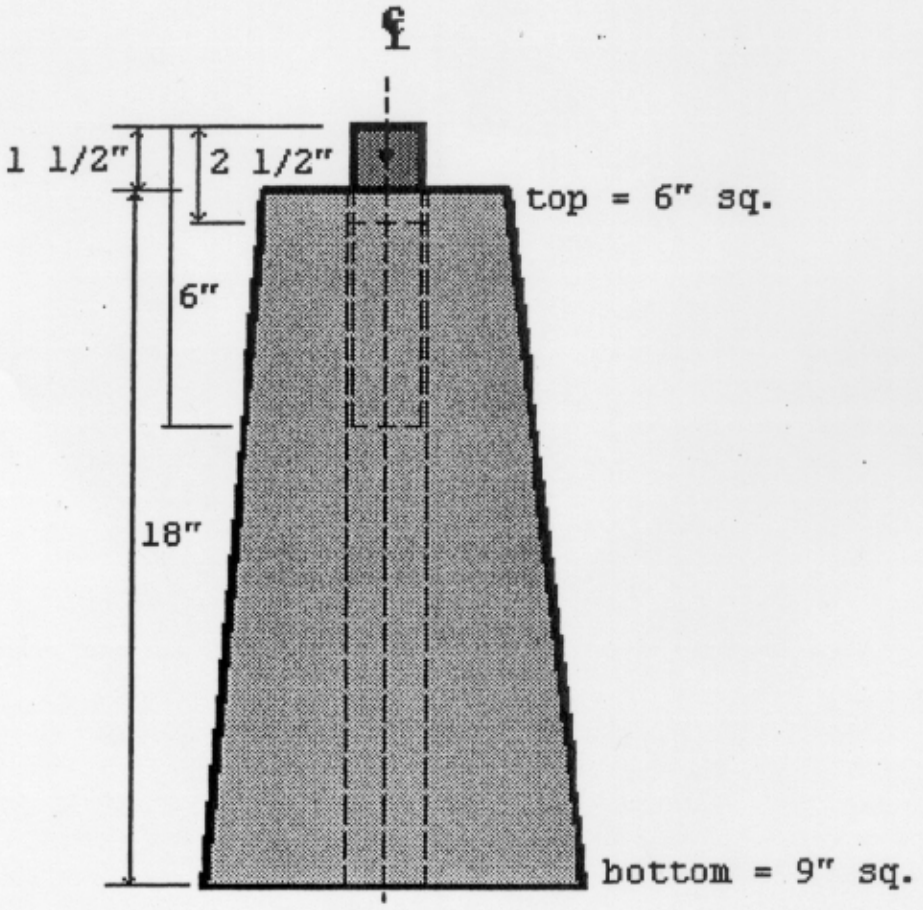
Frederick G. Wright, Jr.
Program Manager, Safety

CONICAL CONCRETE FOOTING

Road Sign Post Support Base

Double sleeved for breakaway.

Installed in burrow with top of concrete level with ground; embedded in soil.



Square Tube Post Footing
37 kg (81 lbs)
Proposed for a 2" square post
Double sleeved wall, drill hole for 3/8" bolt or rivet.