



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

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

September 27, 1995

Refer to: HNG-14-SS58

Ms. Cynthia L. Horton  
General Manager  
Flexstake  
2348 Bruner Lane SE  
Fort Meyers, Florida 33912

Dear Ms. Horton:

Thank you for your letter of August 14, which transmitted product literature and a video of your company's Flexstake delineator posts, and your subsequent package containing the test reports you referenced. The video illustrated a number of informal "crash tests" conducted to show the durability of the posts and the foundation hardware.

Because of the obviously benign nature of Flexstake delineator posts, they will be acceptable for use on the National Highway System (NHS), when selected by a highway agency.

Most highway safety hardware requires full-scale crash testing in accordance with the National Highway Cooperative Research Program Report 350 Recommend Procedures for the Safety Performance Evaluation of Highway Features. Requirements for breakaway supports are found in the American Association of State Highway and Transportations Officials' (AASHTO) Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. These specifications have been adopted by the Federal Highway Administration.

In order to be considered acceptable, breakaway supports must not cause a test vehicle to slow down by more than 5 meters per second when striking the test articles at 35 km/h and 100 km/h. In addition, the vehicle must not become unstable because of the crash, and no part of the test article is permitted to penetrate the passenger compartment. Most delineator supports are not substantial enough to significantly slow or damage an impacting vehicle.

Because of the design of Flexstake delineators and the hinges, the posts slap down to the ground when struck and return upright when the vehicle passes. Because the change in

vehicle velocity appears to be negligible we consider Flexstake delineators to be crashworthy.

Because Flexstake delineators are proprietary, to be used in Federal-aid highway projects, except exempt non-NHS projects: (a) they must be supplied through competitive bidding with equally suitable unpatented items; (b) the 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 is enclosed.

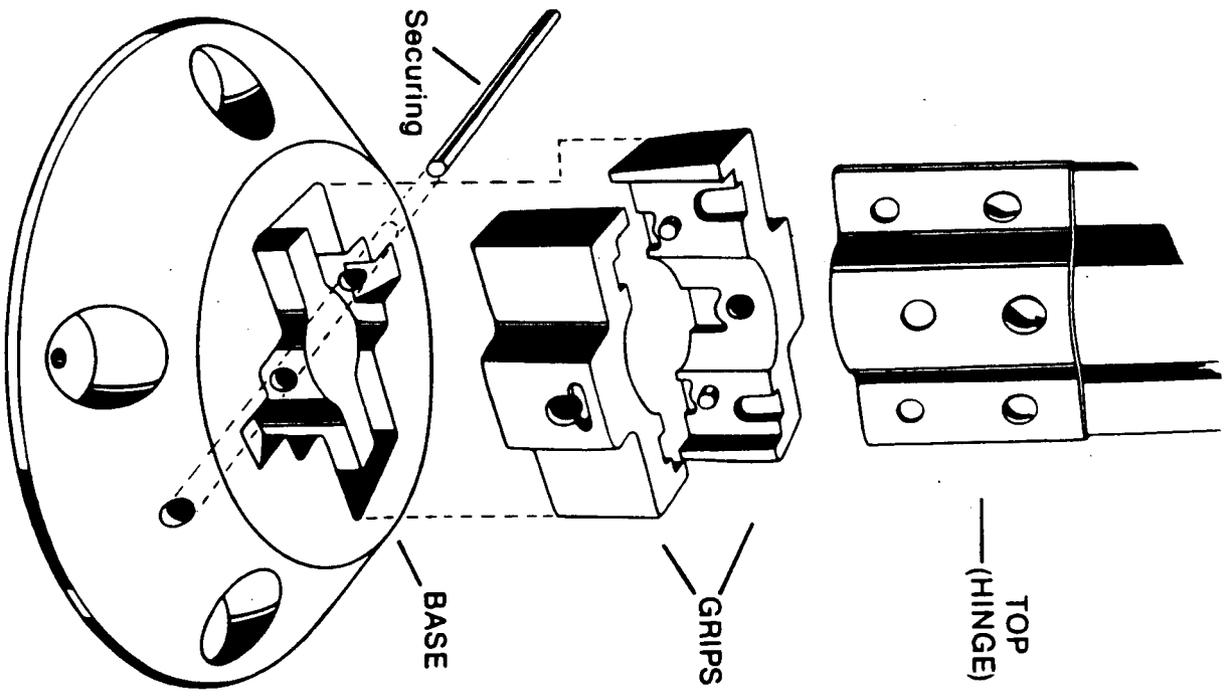
We are informing our field offices of this action with a copy of this letter and then enclosed illustrations of your company's surface mount and driven post delineators.

Sincerely yours,

Jerry L. Poston, Chief  
Federal-Aid and Design Division

2 Enclosures

Geometric and Roadside Design Acceptance Letter SS-58



4 foot Surface Mount with Base

