Mr. Gary Lamolinara
Special Lite Products Company
1634 Latrobe-Derry Road
Loyalhanna, Pennsylvania 15661

Dear Mr. Lamolinara:

Thank you for your letter of March 28, 2006, requesting the Federal Highway Administration’s (FHWA) acceptance of your company’s smooth wall aluminum poles as breakaway sign supports for use on the National Highway System (NHS). Based on tests of generic supports by others, you requested that we find smooth 3 inch diameter poles acceptable for use on the NHS under the provisions of the National Cooperative Highway Research Program (NCHRP) Report 350 “Recommended Procedures for the Safety Performance Evaluation of Highway Features.”

Introduction

Testing
Smooth, thin walled aluminum sign supports have been found acceptable in the following FHWA acceptance letters:

SS-15 dated December 12, 1989, regarding a test on a 3-inch OD 3/16-inch wall using 6061-T6 alloy.


Findings
Velocity changes on the referenced crash tests were all within acceptable limits.
Two of the test programs used poles extruded from 6061-T6 aluminum and one used 6063-T6 aluminum. Your request was for 3-inch OD poles of 6063-T6 aluminum, which has approximately 22 percent less strength than the 6061-T6 material. In addition, the wall thickness of your poles is less than the tested poles. By extrapolation we can concur in your assertion that your company’s 2.950-inch OD poles x 0.095-inch wall described above and shown in the enclosed drawing for reference meet the FHWA breakaway criteria and are acceptable for use as test level 3 devices on the NHS under the range of conditions the other generic poles were tested, when proposed by a State. Neither weakening holes nor soil plates appear to be necessary.

Please note the following standard provisions that apply to the 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 the FHWA and the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance, designated as number SS-138, shall not be reproduced except in full. As this letter and the supporting documentation that support it become public information, it will be available for inspection at our office by interested parties.
- This acceptance letter shall not be construed as authorization or consent by the FHWA to use, manufacture, or sell any patented device for which the applicant is not the patent holder. The acceptance letter is limited to the crashworthiness characteristics of the candidate device, and the FHWA is neither prepared nor required to become involved in issues concerning patent law. Patent issues, if any, are to be resolved by the applicant.

Sincerely yours,

John R. Baxter, P.E.
Director, Office of Safety Design
Office of Safety

Enclosures
ALLOY: 6063 T6

CRITICAL DIMENSIONS

Φ2.950 ±.024

R0.216 TYP.

45° TYP

R0.031 TYP

0.095 TYP ±.010

2.800 ±.024

TITLE

Special-Lite Prod. Co. Inc.
1634 Latrobe-Derry Road
Loyalhanna PA 15661