

DEPARTMENT OF TRANSPORTATION

DIVISION OF TRAFFIC OPERATIONS

P.O. Box 942873, MS-36
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5176
FAX (916) 653-3053
TTY 711



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March 23, 2010

RECEIVED MAR 21 2010

Mr. Geoff Maus, Chief Design Engineer
TraFFix Devices Inc.
160 Avenida La Pata
San Clemente, CA 92673

Dear Mr. Maus:

The Compressor Attenuator is approved for use on California State highways. This approval was recommended by the California Department of Transportation's (Department) Highway Safety Features New Products Committee (HSFNPC), based on information you provided indicating the device complied with the requirements of the National Cooperative Highway Research Program Report 350 at Test Level 3. The Federal Highway Administration accepted the Compressor Attenuator on February 26, 2007 (HSSD/CC-95).

The Compressor, manufactured by TraFFix Devices, Inc., is a non-gating, re-directive crash cushion that has a total length of 21¼ feet, is approximately 48 inches wide and 53 inches high. The main components include a steel mounting base with track, six plastic modules and twelve steel fender panels. The mounting base track prevents lateral or vertical movement of the plastic modules upon contact, but allows them to slide as they compress. The modules are made of high density polyethylene (HDPE), with two heights and two thicknesses. The first two modules are 24 inches tall with a wall thickness of 1½ inches. The third module is 48 inches tall with a wall thickness of 1½ inches, and the fourth, fifth and sixth modules are 48 inches tall and have a wall thickness of 1⅞ inches. The 48-inch tall modules are attached using three ⅝-inch -11 grade 8 bolts, and the 24-inch tall modules are attached using two ⅝-inch - 10 grade 8 bolts. To mitigate snagging on a side impact, a 29-inch tall HDPE lateral support stiffening rib is installed between the first and second modules. The module clips on the third, fourth, fifth and sixth modules incorporate an anti-snag guard. The nose shoe is attached to the front module and the nose piece by a 1¼-inch steel pin, and fiber reinforced nylon slide inserts are incorporated on the contact surfaces between the nose shoe and the base rail to reduce sliding of the nose shoe.

Six sets of ⅝-inch thick side fender panels are used, which are attached to lower edge clips of each module, and telescope during longitudinal compression of the attenuator. The rear set of fender panels are retained at their trailing ends by two ⅜-inch wire rope cables.

The base is secured to a concrete pad with a minimum of ten and a maximum of fourteen ¾-

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inch studs. The ¾-inch studs are 5 to 6-inch ACME thread length below grade with a 1-inch shoulder and ¾-inch – 10 x 1½-inch above grade. A high strength catalyzed resin anchoring material is used to secure the below grade portion of the ¾-inch studs.

The Department will post design drawings and installation instructions for the Compressor Attenuator on the Qualified Products List. These postings can be viewed by bidders of construction contracts.

If you have any questions, please contact Randy Hiatt, Chair, HSFNPC at (916) 654-2465.

Sincerely,



JANICE BENTON
Chief, Office of Traffic Safety Program

c: Randy Hiatt, Chair, Highway Safety Features New Products Committee