COLORADO DEPARTMENT OF TRANSPORTATION

PRE-APPROVED PRODUCT EVALUATION REQUEST & SUMMARY

APL Reference No. 2238-11

Product Evaluation Coordinator
Colorado Department of Transportation
4670 North Holly Street, Unit A
Denver, Colorado 80216

Material code: 614.07.02.00

FOR INTERNAL CDOT USE

Material code description full name: Impact Attenuator

PART 1

Product name: QuadGuard System

Product category: Roadway Safety\Crash Cushion\Impact Attenuator, Permanent

Product representative (name & address):
Attn: Roger N. Egan
Interwest Safety Supply, Inc.
195 South Navajo Street
Denver, CO 80223
Phone: (303) 733-8447 FAX: (303) 733-8664

Manufacturer (name & address):
Attn:
Energy Absorption Systems, Inc.
35 East Wacker Drive
Chicago, IL 60601
Phone: (312) 467-6750 FAX: (312) 467-9625

Web-site address: www.energyabsorption.com

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Description of the product: (Include specific quantifiable details from tech data sheet. Advertising generalities are not appropriate.)
The QuadGuard System is a redirective, non-gating attenuator. It safely redirects vehicles upon side impacts along its entire length, and it prevents penetration when impacted head-on or angle impacts on the front of the device. QuadGuard is available in 3 widths : 24", 30", or 36". It is a modular system, and is available in lengths of 5' 8" (1-bay system for 25 mph) up to 38' 8" (12-bay system for 75 mph). It features the Quad-Beam side fender panel which provides 30-35% more strength when impacted on the side system. It is 80% reusable after a design impact.

Restrictions, (installation and/or use):

Use of the product, (be specific to CDOT highway activities only):
Used to protect hazards from 2' to 3' in width, such as Type 4 or Type 7 barrier. With proper transitions, it can protect Type 3 guardrails.

Benefits to CDOT, (how will your product enhance quality, improve safety, save money, be a better value then other manufacturer's products):
QuadGuard System is the can protect hazards in speed applications up to 75 mph. Since Colorado has many roads where the speed limits are 65, 70 or 75 mph, QuadGuard is the proper solution for these sites. Furthermore, its high reusability of 80% after design impact makes it an economical device from a maintenance standpoint. Provides easier, less expensive maintenance costs.

Specifications, (listing those applicable is required) **& Certificate of Compliance** (required to certify compliance with listed specifications):

- ☐ CDOT :
- ☐ ASTM :
- ☐ AASHTO :
- ☒ FHWA : NCHRP 350, TL-3
- ☐ other :

Product testing, (from national/independent laboratories or universities) **& Certified Test Report** (CTR required to validate all claims):

- ☐ NTPEP-AASHTO :
- ☐ FHWA :
- ☒ other : FHWA Letter of Acceptance HNG-14 (June 21, 1996) (October 17, 1996)
- ☒ other : E-TECH Testing Serves, Inc. (May 1996)

State DOT Approvals, (current documentation required):

Sample submitted: ☐ yes ☒ no ☐ n/a | Materials Safety Data Sheets (MSDS): ☐ yes ☒ no ☐ n/a

Notes/Additional Comments
A sample QuadGuard System could be made available if CDOT requires it to evaluate the product completely.