COLORADO DEPARTMENT OF TRANSPORTATION

PRE-APPROVED PRODUCT EVALUATION REQUEST & SUMMARY

APL Reference No. 3229-10

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

Material code: 630.07.01.00

FOR INTERNAL CDOT USE

Material code description full name: Traffic Zone, Barrier (Temp.)

PART 1

Product name: Zoneguard

Product category: Traffic Control\Traffic Barrier, Temporary

Product representative (name & address):
Attn: William (Bill) Forbes
Hill & Smith, Inc.
279 South 425 West
Bountiful, Utah 84010
Phone: (801) 725-3279 FAX: (614) 340-6296

Manufacturer (name & address):
Attn: Gary Lallo
Hill & Smith, Inc.
1000 Buckeye Park Road
Columbus, Ohio 43207
Phone: (614) 340-6294 FAX: (614) 340-6296

Web-site address: www.hillandsmith.com

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Description of the product: (Include specific quantifiable details from tech data sheet. Advertising generalities are not appropriate.)
Zoneguard is a Portable Galvanized Steel Traffic Barrier that has been accepted by the FHWA to NCHRP 350 Test Level 3 & 4, and MASH Test Level 3. Height is 813 mm (32"), width at the base is 700mm (27 9/16"), standard lengths are 15.24m (50'-0) and weight 1405 kg (3097 lbs). 229m (750'-0) can be loaded on one standard flatbed. "Speedjoint" connection system allows for installation rates up to 305m (1000'-0) per hour. Standard System installations are anchored with 4 anchors at each end of the run and result in a normalized NCHRP TL-3 deflection of 1.4m (4'-8"). Minimum Deflection System (MDS) installations are anchored at the ends like the Standard System and also have anchors every 10.2 m (33'-4"), resulting in a normalized NCHRP 350 TL-3 deflection of 0.05m (0'-2"). Differentiators with competitive products are our engineered lifting points, external anchor pockets with rubber pads, and the same barrier is used for the Standard and MDS systems meaning no extra parts need to be added to the barrier to achieve a MDS.

Restrictions, (installation and/or use):

Use of the product, (be specific to CDOT highway activities only):
Used in applications where a portable concrete barrier is normally specified.

Benefits to CDOT, (how will your product enhance quality, improve safety, save money, be a better value then other manufacturer's products):
Lightweight allows for 750'-0 of barrier to be shipped on one standard truck, vs. 100'-0 +/- for portable concrete barrier. This results in 80% reduction in: heavy truck traffic, wear & tear on highways, heavy trucks mixed in with general driving public, traffic in and out of work zones, and fuel emissions. The resultant increase in safety is significant. Higher rates of installation means expedited construction schedules leading to reduced costs and less inconvenience to the driving public. The rubber pad epoxied to each foot helps to reduce deflection and allows for water runoff to move under the barrier eliminating the damming effect of traditional concrete barrier.

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

- ☐ CDOT :
- ☒ ASTM : A 36, A 123 (galvanized to)
- ☒ AASHTO : MASH Test Level 3
- ☐ FHWA :
- ☒ other : NCHRP 350 Test Level 3 & 4

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

- ☐ NTPEP-AASHTO :
- ☒ FHWA : NCHRP 350 Test Level 3 & 4; AASHTO MASH Test Level 3
- ☒ other : Southwest Research Institute (October 2007)
- ☐ other :

State DOT Approvals, (current documentation required):
Idaho, Minnesota, Mississippi, South Carolina, Tennessee, Texas, Utah, Vermont

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

Notes/Additional Comments
To avoid inventory issues for CDOT, we intend to set up a distributor in state who will maintain an inventory of Zoneguard and will be our representative/point of contact for any issues that may arise. To date in 2009 we have had more than 20 installations of Zoneguard in 7 different states.