COLORADO DEPARTMENT OF TRANSPORTATION

# PRE-APPROVED PRODUCT EVALUATION REQUEST & SUMMARY

APL Reference No. 3374-11

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

Material code: 604.04.04.01

FOR INTERNAL CDOT USE

Material code description full name: Storm Water Separator, Regular Flow

## PART 1

Product name: FloGard Dual-Vortex Hydrodynamic Separator

Product category: Drainage\Stormwater Separator\Regular Flow Hydrodynamic

Product representative (name & address):
Attn: Craig Beatty
KriStar Enterprises, Inc.
360 Sutton Place
Santa Rosa, CA 95407
Phone: (800) 579-8819 FAX: (707) 524-8188
Web-site address: www.kristar.com

Manufacturer (name & address):
Attn: Craig Beatty
KriStar Enterprises, Inc.
360 Sutton Place
Santa Rosa, CA 95407
Phone: (800) 579-8819 FAX: (707) 524-8188
Web-site address: www.kristar.com

**Description of the product:** (Include specific quantifiable details from tech data sheet. Advertising generalities are not appropriate.)

Particle settling is accelerated by tangential flow pattern forces in a highly circuitous path. Through the use of two independent cylindrical separators and control weirs, low flow is initially directed to the first separator while higher flow overflows the first weir and enters the second separator. Settled particles are collected in the isolated bottom storage area, minimizing re-suspension while floating debris and oils are retained in the separator and upper storage areas. At peak flows, excess flows breach the second control weir and exit the system without impacting treatment flow or re-entraining captured pollutants. The product's internal components are manufactured from stainless steel and housed in industry standard precast concrete structures.

Eight models with an inside diameter from 3' to 12', a depth below invert of 3.75' to 16', total flow capacity of 4 cfs to 154 cfs.

**Restrictions,** (installation and/or use):

**Use of the product**, (be specific to CDOT highway activities only):

Post-construction stormwater treatment for urban roadway runoff from public roadways. Removal of roadway pollutants such as suspended solids, oil, etc.

**Benefits to CDOT**, (how will your product enhance quality, improve safety, save money, be a better value then other manufacturer's products):

Water quality is enhanced through the high efficiency dual separation action of the unit. Ability to integrate multiple pipe inlets or angled inlets is easily accommodated with flexibility in the inlet gallery area. Accessibility to sediment storage area through the two separate vortex tubes facilitates inspection measurements and removal of sediment and cleaning of unit with standard vacuum equipment.

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

- ☐ CDOT :
- ☐ ASTM :
- ☐ AASHTO :
- ☐ FHWA :
- ☒ other : NJDEP, Tier 1 Certification (Nov. 2009)

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

- ☐ NTPEP-AASHTO :
- ☐ FHWA :
- ☒ other : Alden Research Laboratory, Inc. (Sept.2007)
- ☒ other : NJCAT (August 2007) (March 2009)

**State DOT Approvals**, (current documentation required):

Connecticut, Ohio

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

Notes/Additional Comments

* The FloGard Dual-Vortex Hydrodynamic Separator is available in sizes ranging from 36" diameter to 144" diameter with modular stainless steel components.
* Available with removable internal components.