

**QUALIFIED PRODUCT LIST  
FOR  
CONNECTICUT DEPARTMENT OF TRANSPORTATION  
PROJECTS**

**January 2012**

**Report Number**

**CT-211-18-12-1**

Connecticut Department of Transportation  
Office of Engineering  
Division of Design Services

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**APPROVALS**

\_\_\_\_\_  
Division of Design Services

\_\_\_\_\_  
Date

\_\_\_\_\_  
Engineering Services Section

\_\_\_\_\_  
Date

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## **PREFACE**

This Report has been developed as a means for determining what products, suppliers, manufacturers, equipment and methodologies may be used on ConnDOT construction projects. The items referenced have met the approval of ConnDOT personnel in one of the following ways:

- They have been approved by the Research Liaison Committee.
- They have been used successfully since before the establishment of a formal approval process.
- They currently satisfy Department of Transportation specifications.

It should be understood that this document is open to refinement and will be under close scrutiny to ensure that the information contained herein is complete and accurate. Over the years, many items will be added and deleted.

Many products that may be used in ConnDOT will not be represented in this document because they conform to a generic specification, and the approval procedure is in accordance with the standard specifications.

Products that have been or are currently being reviewed by the Research Liaison Committee will be listed in **AASHTO's Product Evaluation Listing (APEL) Program:** <http://apel.transportation.org> The AASHTO Product Evaluation List (APEL) web site provides a repository consisting of findings from the evaluation and testing of new and/or proprietary, engineered transportation products.

**If you have any questions,  
inquires or suggestions,  
please contact:**

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**Product Evaluation Web Site:** <http://www.ct.gov/dot/gpl>

**Qualified Product List:**

[http://www.ct.gov/dot/LIB/dot/documents/dresearch/conndot\\_psl.pdf](http://www.ct.gov/dot/LIB/dot/documents/dresearch/conndot_psl.pdf)

**AASHTO Product Evaluation List (APEL):**

<http://apel.transportation.org/default.aspx>

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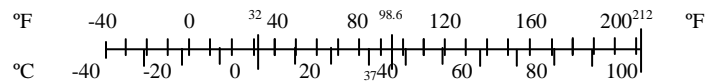
# METRIC CONVERSION FACTORS

## APPROXIMATE CONVERSIONS TO METRIC MEASURES

| SYMBOL              | WHEN YOU KNOW          | MULTIPLY BY<br>LENGTH      | TO FIND             | SYMBOL          |
|---------------------|------------------------|----------------------------|---------------------|-----------------|
| in                  | inches                 | 25.4                       | millimeters         | mm              |
| ft                  | feet                   | 0.305                      | meters              | m               |
| yd                  | yards                  | 0.914                      | meters              | m               |
| mi                  | miles                  | 1.61                       | kilometers          | km              |
| AREA                |                        |                            |                     |                 |
| in <sup>2</sup>     | square inches          | 645.2                      | square millimeters  | mm <sup>2</sup> |
| ft <sup>2</sup>     | square feet            | 0.093                      | square meters       | m <sup>2</sup>  |
| yd <sup>2</sup>     | square yards           | 0.836                      | square meters       | m <sup>2</sup>  |
| mi <sup>2</sup>     | square miles           | 2.59                       | square kilometers   | km <sup>2</sup> |
| ac                  | Acres                  | 0.405                      | hectares            | ha              |
| MASS                |                        |                            |                     |                 |
| oz                  | ounces                 | 28.35                      | grams               | g               |
| lb                  | pounds                 | 0.454                      | kilograms           | kg              |
| T                   | short tons (2000 lb.)  | 0.907                      | Megagrams           | Mg              |
| VOLUME              |                        |                            |                     |                 |
| fl oz               | fluid ounces           | 29.57                      | milliliters         | ml              |
| gal                 | gallons                | 3.785                      | liters              | l               |
| ft <sup>3</sup>     | cubic feet             | 0.028                      | cubic meters        | m <sup>3</sup>  |
| yd <sup>3</sup>     | cubic yards            | 0.765                      | cubic meters        | m <sup>3</sup>  |
| TEMPERATURE (exact) |                        |                            |                     |                 |
| °F                  | Fahrenheit temperature | 5/9 (after subtracting 32) | Celsius temperature | °C              |

## APPROXIMATE CONVERSIONS FROM METRIC MEASURES

| SYMBOL              | WHEN YOU KNOW                     | MULTIPLY BY<br>LENGTH | TO FIND                | SYMBOL          |
|---------------------|-----------------------------------|-----------------------|------------------------|-----------------|
| mm                  | millimeters                       | 0.039                 | inches                 | in              |
| m                   | meters                            | 3.28                  | feet                   | ft              |
| m                   | meters                            | 1.09                  | yards                  | yd              |
| km                  | kilometers                        | 0.621                 | miles                  | mi              |
| AREA                |                                   |                       |                        |                 |
| mm <sup>2</sup>     | square millimeters                | 0.0016                | square inches          | in <sup>2</sup> |
| m <sup>2</sup>      | square meters                     | 10.764                | square feet            | ft <sup>2</sup> |
| m <sup>2</sup>      | square meters                     | 1.195                 | square yards           | yd <sup>2</sup> |
| km <sup>2</sup>     | square kilometers                 | 0.386                 | square miles           | mi <sup>2</sup> |
| ha                  | hectares (10,000 m <sup>2</sup> ) | 2.47                  | acres                  | ac              |
| MASS                |                                   |                       |                        |                 |
| g                   | grams                             | 0.035                 | ounces                 | oz              |
| kg                  | kilograms                         | 2.202                 | pounds                 | lb              |
| Mg                  | Megagrams (1000 kg)               | 1.103                 | short tons             | T               |
| VOLUME              |                                   |                       |                        |                 |
| ml                  | milliliters                       | 0.034                 | fluid ounces           | fl oz           |
| l                   | liters                            | 0.264                 | gallons                | gal             |
| m <sup>3</sup>      | cubic meters                      | 35.314                | cubic feet             | ft <sup>3</sup> |
| m <sup>3</sup>      | cubic meters                      | 1.307                 | cubic yards            | yd <sup>3</sup> |
| TEMPERATURE (exact) |                                   |                       |                        |                 |
| °C                  | Celsius temperature               | 9/5 (then add 32)     | Fahrenheit temperature | °F              |



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Addendum

Date:    Item Changed

Page Number

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**Qualified Product Lists**

The following pages contain lists, which are directly referenced in the standard specifications as Approved Products Lists. These lists will be updated annually, and no product may be used in these categories unless it is shown on an appropriate list.

**Bituminous Concrete Patching Materials (Cold Applied):**

**SPECIFICATION: REFERENCE FILE No. 2011-01**

**PREAPPROVAL CRITERIA: Compliance with CT General Statutes - section 22a-174-20 (k)**

| <b>BRAND NAME</b>                      | <b>SUPPLIER/LOCATION</b>                                                                                                                                                                                     |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EZ Street Cold Asphalt                 | The EZ Street Company<br>Mr. Tom Francione<br>1786 NW 82 Avenue<br>Miami, FL 33126<br><a href="http://www.ezstreetasphalt.com">www.ezstreetasphalt.com</a>                                                   |
| GreenPatch                             | Cold Mix Manufacturing Corp.<br>120-30 28 <sup>TH</sup> Ave<br>Flushing, NY 11354<br>Scott Herman<br>914.755.4575 Direct<br>718.463.0292 Fax<br><a href="http://www.GREENPATCH.com">www.GREENPATCH.com</a>   |
| Plus Patch Asphalt Emulsion            | Tri-Products, LLC<br>Mr. Mike Jennings<br>89 Ship Street<br>Providence, RI 02903<br><a href="http://www.hudsoncompanies.com/hag/tripproducts.asp">www.hudsoncompanies.com/hag/tripproducts.asp</a>           |
| ProLine Cold Asphalt Patching Material | Logan County Asphalt<br>Mr. Steven McBride<br>2905 Commerce Blvd.<br>Guthrie, OK 73044<br><a href="http://www.prolinecoldasphalt.com/predistributors.php">www.prolinecoldasphalt.com/predistributors.php</a> |
| QPR                                    | Quality Pavement Repair<br>Mr. Anthony J. Fargnoli<br>154 Bouckhart Avenue<br>Rochester, NY 14622<br><a href="http://www.qprcoldpatch.com">www.qprcoldpatch.com</a>                                          |

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**Qualified Product Lists - continued**

**Chemical Anchors:**

**SPECIFICATION:** Form 816, M.03.01-15

**PREAPPROVAL CRITERIA:**

1. ASTM E-1512 pullout test by an independent laboratory.
2. The use of all chemical anchors (referenced in Standard Specifications Section M.03.01-15) in sustained tensile-load overhead applications is prohibited where failure of the chemical adhesive would result in a risk to the public. This applies to all design and ongoing construction projects. Other anchorage alternatives must be used for such applications.

| <b>SUPPLIER/LOCATION</b>                                                                                                                                                   | <b>BRAND NAME</b>                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| A & P Foglia, Inc.<br>14 Hickory Drive<br>East Brunswick, NJ 08816                                                                                                         | Magnabond                                                                                                                           |
| Adhesives Technology Corp.<br>450 East Copans Road<br>Pompano Beach, FL 33064<br><a href="http://www.atc.ws">www.atc.ws</a>                                                | Anchor-It HS200<br>Ultra Bond 1300<br>Ultra Bond 1<br>Ultra Bond 2                                                                  |
| Covert Operations Inc.<br>1940 Freeman Avenue<br>Signal Hill, CA 90755                                                                                                     | CIA Gel 7000                                                                                                                        |
| Dayton Superior Chemical Division<br>4226 Kansas Avenue<br>Kansas City, Kansas 66106<br><a href="http://www.daytonsuperiorchemical.com">www.daytonsuperiorchemical.com</a> | Sure Anchor I (J-51)<br>ResCon 304 (Symons)<br>Highway Fast Set Epoxy (AHT)                                                         |
| Fosroc, Inc.<br>150 Carley Court<br>Georgetown, KY 40324                                                                                                                   | Thoroc Anchor Bond<br>Thoroc Anchortite                                                                                             |
| Hilti, Inc.<br>P.O. Box 21148<br>Tulsa, OK 74121<br><a href="http://www.us.hilti.com">www.us.hilti.com</a>                                                                 | Hilti HIT HY150MAX<br>Hilti HTE50<br>Hilti HVA Capsules<br>Hilti RE500                                                              |
| ITW Ramset/Red Head<br>1300 North Michael Drive<br>Wood Dale, IL 60191<br><a href="http://www.ramset-redhead.com">www.ramset-redhead.com</a>                               | Epcon Acrylic 7<br>Epcon Ceramic 6<br>Granite 5                                                                                     |
| Kelken Construction Systems<br>P.O. Box 284<br>Parlin, NJ 08859<br><a href="http://www.kelken.com">www.kelken.com</a>                                                      | Kelibond Anchors<br>KeligROUT<br>KeligROUT 101                                                                                      |
| MKT Fastening LLC<br>#1 Gunnebo Drive<br>Lonoke, AR 72086<br><a href="http://www.mktfastening.com">www.mktfastening.com</a>                                                | Liquid Roc 300 28oz. Twin Tube<br>Liquid Roc 300 Polyester Pump<br>Liquid Roc 300 Capsule Anchors<br>Liquid Roc 500 Epoxy Twin Tube |

**Continued on Next Page:**

**Qualified Product Lists - continued**

**Chemical Anchors:**

**SPECIFICATION:** Form 816, M.03.01-15

**PREAPPROVAL CRITERIA:**

1. ASTM E-1512 pullout test by an independent laboratory.
2. The use of all chemical anchors (referenced in Standard Specifications Section M.03.01-15) in sustained tensile-load overhead applications is prohibited where failure of the chemical adhesive would result in a risk to the public. This applies to all design and ongoing construction projects. Other anchorage alternatives must be used for such applications.

| <b>SUPPLIER/LOCATION</b>                                                                                                                                          | <b>BRAND NAME</b>                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Polygem, Inc.<br>1105 Carolina Ave.<br>West Chicago, IL 60185<br><a href="http://www.polygem.com">www.polygem.com</a>                                             | Polybac 1257                                                           |
| Powers Fasteners, Inc.<br>2 Powers Lane<br>Brewster, NY 10509<br><a href="http://www.powers.com">www.powers.com</a>                                               | AC 100+ GOLD<br>Chem-Stud<br>PE1000+<br>T308+                          |
| Simpson StrongTie Anchoring Systems<br>4120 Dublin Boulevard, Suite 400<br>Dublin, CA 94568<br><a href="http://www.simpsonanchors.com">www.simpsonanchors.com</a> | Simpson Strong-Tie Epoxy-Tie<br>Simpson Strong-Tie Acrylic-Tie<br>EDOT |
| Unisorb Installation Technologies<br>P.O. Box 1000<br>Jackson, MI 49204-1000<br><a href="http://www.unisorb.com">www.unisorb.com</a>                              | Unisorb Capsule Anchor                                                 |
| Unitex<br>3101 Gardner<br>Kansas City, MO 64120<br><a href="http://www.unitex-chemicals.com">www.unitex-chemicals.com</a>                                         | Pro-Poxy 300 Fast<br>Pro-Poxy 300<br>Sonneborn Epogel (ChemRex Inc.)   |
| W.R. Meadows, Inc.<br>300 Industrial Drive<br>Hampshire, IL 60140<br><a href="http://www.wrmeadows.com">www.wrmeadows.com</a>                                     | Sealtight Rezi-Weld Gel Paste UCE                                      |
| Wejit Inc.<br>7737 Japine Dr.<br>Liverpool, NY 13090<br>315-396-8063 (Cell)<br><a href="http://www.wejit.com">www.wejit.com</a>                                   | Inject-TITE Fast Set<br>Inject-TITE AWF (All Weather Formula)          |

**Qualified Product Lists - continued**

**Erosion Control Matting:**

SPECIFICATION: Form 816 Section 9.50 & M.13.09

PREAPPROVAL CRITERIA: See below

In general, organic materials are cheaper than synthetics, will photo-degrade after a period of time leaving a naturally vegetated channel, and are adequate for channels, which are expected to carry storm water flows not exceeding 95.76 Pa shear stress. Synthetic materials generally do not photo-degrade and often remain as a permanent element within a drainage channel. Although more expensive, synthetic materials are generally best for critical channels which will carry high flows or velocities of storm water runoff.

**Minimum Performance Standards**

Erosion control matting is evaluated for use in eight Types, grouped in two Classes. In order for a product to be placed upon the Department's Approved Products List, it must meet the following Minimum Performance Standards.

**CLASS 1: Slope Protection** - Classification is based upon steepness of slope and soil type. The purpose is to protect the seedbed from loss of sediment, and promote the establishment of a warm season, perennial vegetative cover.

- Type A. Slopes 3:1 or Flatter - Clay Soils
- Type B. Slopes 3:1 or Flatter - Sandy Soils
- Type C. Slopes Steeper than 3:1 - Clay Soils
- Type D. Slopes Steeper than 3:1 - Sandy Soils

Minimum Acceptable Vegetation Density Standards<sup>1</sup>

|                         | <u>Clay Soils</u> | <u>Sandy Soils</u> |
|-------------------------|-------------------|--------------------|
| Slopes 3:1 or Flatter   | 80%               | 70%                |
| Slopes steeper than 3:1 | 80%               | 70%                |

Minimum Acceptable Sediment Loss Standards (kg/10 m<sup>2</sup>)<sup>1</sup>

|                         | <u>Clay Soils</u> | <u>Sandy Soils</u> |
|-------------------------|-------------------|--------------------|
| Slopes 3:1 or Flatter   | 0.35              | 12.00              |
| Slopes steeper than 3:1 | 0.35              | 27.00              |

**CLASS 2: Flexible Channel Liner Protection** - Classification is based upon the permissible shear stress<sup>2</sup> ( $\tau_p$ ) present. The purpose is to protect the geometry of the channel from loss of sediment, and to promote the establishment of a warm-season, perennial vegetative cover.

- Type E. Permissible shear stress: <25 Pa
- Type F. Permissible shear stress: 25 to <50 Pa
- Type G. Permissible shear stress: 50 to <100 Pa
- Type H. Permissible shear stress:  $\geq$ 100 Pa

$\tau_p$ , the permissible shear stress, indicates the force required to initiate the movement of the lining material.

Minimum Acceptable Vegetation Density Standards<sup>1</sup>

70%

Minimum Acceptable Sediment Loss Standards<sup>1</sup>

|                          | <u>Average Soil Deformation (cm)</u> |
|--------------------------|--------------------------------------|
| Shear Stress 1 to 100 Pa | 1.15                                 |
| Shear Stress > 100 Pa    | 1.00                                 |

Qualified Product Lists - continued

**Erosion Control Matting:**

**SPECIFICATION:** Form 816, Section 9.50 & M.13.09

**PREAPPROVAL CRITERIA:** It should be recognized that those products listed by brand or trade name on the Approved Products List have demonstrated their ability to meet or exceed the Department's minimum Performance standards. It is the Contractor's option as to which product he or she actually uses on a project, provided that the product used is on the Approved Products List for that application.

It will be the district's responsibility to verify that the Erosion Control Matting proposed by the Contractor is, in fact, listed as an acceptable product on the Approved Products List.

It should also be recognized that the decision to undergo testing for possible approval rests solely with the manufacturers or distributors of Erosion Control Matting. The Department has created a fair but rigorous testing process for Erosion Control Matting. The Department does not choose or stipulate which products are to be tested.

The Department's position is that, while we encourage the evaluation of new products for possible use in our operations, we cannot utilize a product, which has not been tested and approved through the Department's evaluation process.

As new products are tested on an annual basis, those meeting our requirements will be added to the Approved Products List. If, by the time actual field installation of Erosion Control Matting commences on a project, new products have been added to the Approved Products List, the Contractor may elect to use these newly approved products even though they were not an "approved" product at the time bids were received on the project.

<sup>1</sup> Final Performance Analysis - 1995 Evaluation Cycle, Texas DOT/Texas Transportation Institute, Hydraulics and Erosion Control Laboratory, February 1996.

<sup>2</sup> Shear Stress ranges based on values published in FHWA Hydraulic Engineering Circular No. 15 (HEC-15), Design of Roadside Channels with Flexible Linings, Publication No. FHWA-ZP-87-7, April 1988.

**Qualified Product Lists - continued**

**Erosion Control Matting:**

**SPECIFICATION:** Form 816, Section 9.50 & M.13.09

**PREAPPROVAL CRITERIA:** Certified Test Report

|                                                                                                                                                 | CLASS 1: SLOPE PROTECTION *                                                                                                                                                                                                               |                                                                                                                                                                                                                                           |                                                                                                                                                                                                                         |                                                                                                                                                                                                                         | CLASS 2: FLEXIBLE CHANNEL LINER PROTECTION                                                                    |                                                                                                               |                                                                                                               |                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                 | TYPE A                                                                                                                                                                                                                                    | TYPE B                                                                                                                                                                                                                                    | TYPE C                                                                                                                                                                                                                  | TYPE D                                                                                                                                                                                                                  | TYPE E *                                                                                                      | TYPE F *                                                                                                      | TYPE G *                                                                                                      | TYPE H **                                                                                                     |
| American Excelsior Co.<br>850 Avenue H East<br>Arlington, TX 76011<br><a href="http://www.amerexcel.com">www.amerexcel.com</a>                  | AEC Premier<br>Straw Single Net<br>AEC Premier<br>Straw Double Net<br>Curlex I CL<br>Curlex NetFree<br>Curlex I<br>AEC Premier<br>Straw/Coconut<br>AEC Premier<br>Coconut<br>Curlex II<br>Curlex Enforcer<br>Recyclex<br>Recyclex TRM - V | AEC Premier<br>Straw Single Net<br>AEC Premier<br>Straw Double Net<br>Curlex I CL<br>Curlex NetFree<br>Curlex I<br>AEC Premier<br>Straw/Coconut<br>AEC Premier<br>Coconut<br>Curlex II<br>Curlex Enforcer<br>Recyclex<br>Recyclex TRM - V | AEC Premier<br>Straw Single Net<br>AEC Premier<br>Straw Double Net<br>Curlex I CL<br>Curlex I<br>AEC Premier<br>Straw/Coconut<br>AEC Premier<br>Coconut<br>Curlex II<br>Curlex Enforcer<br>Recyclex<br>Recyclex TRM - V | AEC Premier<br>Straw Single Net<br>AEC Premier<br>Straw Double Net<br>Curlex I CL<br>Curlex I<br>AEC Premier<br>Straw/Coconut<br>AEC Premier<br>Coconut<br>Curlex II<br>Curlex Enforcer<br>Recyclex<br>Recyclex TRM - V | Curlex II<br>Curlex III<br>Curlex<br>Enforcer<br>AEC<br>Premier<br>Coconut<br>Recyclex<br>Recyclex<br>TRM - V | Curlex II<br>Curlex III<br>Curlex<br>Enforcer<br>AEC<br>Premier<br>Coconut<br>Recyclex<br>Recyclex<br>TRM - V | Curlex II<br>Curlex III<br>Curlex<br>Enforcer<br>AEC<br>Premier<br>Coconut<br>Recyclex<br>Recyclex<br>TRM - V | Curlex II<br>Curlex III<br>Curlex<br>Enforcer<br>AEC<br>Premier<br>Coconut<br>Recyclex<br>Recyclex<br>TRM - V |
| Belton Industries<br>8613 Roswell Rd.<br>Atlanta, GA 30350                                                                                      |                                                                                                                                                                                                                                           | Geocoir/<br>DeKoWe<br>700&900                                                                                                                                                                                                             |                                                                                                                                                                                                                         | Geocoir/<br>DeKoWe<br>700&900                                                                                                                                                                                           |                                                                                                               |                                                                                                               |                                                                                                               |                                                                                                               |
| ContechConstruction Products, Inc.<br>265 Highland Avenue<br>Cheshire, CT 06410<br><a href="http://www.contech-cpi.com">www.contech-cpi.com</a> | Ero-Mat<br>Ero-Mat<br>Standard<br>Hi-Velocity<br>Ero-Mat                                                                                                                                                                                  | Ero-Mat<br>Ero-Mat<br>Standard                                                                                                                                                                                                            | High-Velocity<br>Ero-Mat                                                                                                                                                                                                |                                                                                                                                                                                                                         |                                                                                                               |                                                                                                               |                                                                                                               |                                                                                                               |
| Conwed Fibers<br>219 Simpson Street<br>Conover, NC 28613                                                                                        | Futerra<br>Mat                                                                                                                                                                                                                            | Futerra<br>Mat                                                                                                                                                                                                                            |                                                                                                                                                                                                                         |                                                                                                                                                                                                                         |                                                                                                               |                                                                                                               |                                                                                                               |                                                                                                               |
| Greenstreak Group<br>3400 TreeCourt BLVD<br>St. Louis, MO 63122                                                                                 | Pec-Mat                                                                                                                                                                                                                                   | Pec-Mat                                                                                                                                                                                                                                   |                                                                                                                                                                                                                         |                                                                                                                                                                                                                         |                                                                                                               |                                                                                                               | Pec-Mat                                                                                                       | Pec-Mat                                                                                                       |
| North American Green<br>14649 Highway 41<br>Evansville, IN<br>47711                                                                             | S150<br>S150BN<br>SC150<br>SC150BN<br>S75&S75BN                                                                                                                                                                                           | S150<br>S150BN<br>SC150<br>SC150BN<br>S75&S75BN                                                                                                                                                                                           | S150<br>S150BN<br>SC150<br>SC150BN                                                                                                                                                                                      | S150<br>SC150<br>S150BN<br>SC150BN<br>C125&C125BN                                                                                                                                                                       | P300<br>C125<br>C125BN                                                                                        | P300                                                                                                          | P300                                                                                                          | P300<br>C350<br>Biodegradable                                                                                 |

\* Products listed in this category are generally temporary (bio- or photo-degradable). Exceptions are noted.  
 \*\* Products listed in this category are generally permanent (non-bio- or non-photo-degradable). Exceptions are noted.  
 TYPE E - Generally includes, but is not limited to, Woven Paper Net, Jute Net.  
 TYPE F - Generally includes, but is not limited to, Fiberglass Roving (single or double).  
 TYPE G - Generally includes, but is not limited to, Straw with Net, Curled Wood Mat.  
 TYPE H - Generally includes, but is not limited to, Synthetic Net

**Qualified Product Lists - continued**

**Erosion Control Matting:**

**SPECIFICATION:** Form 816, Section 9.50 & M.13.09

**PREAPPROVAL CRITERIA:** Certified Test Report

|                                                                                                                                                                     | CLASS 1: SLOPE PROTECTION *                                                                                      |                                                                                                                                 |                                                                                                                  |                                                                                                                             | CLASS 2: FLEXIBLE CHANNEL LINER PROTECTION                                   |                                                                              |                                                                              |                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
|                                                                                                                                                                     | TYPE A                                                                                                           | TYPE B                                                                                                                          | TYPE C                                                                                                           | TYPE D                                                                                                                      | TYPE E *                                                                     | TYPE F *                                                                     | TYPE G *                                                                     | TYPE H **                                                                     |
| Western Excelsior Corp.<br>PO Box 270308<br>Fort Collins, CO 80527                                                                                                  | Excel SR-1<br>Excel SS-2<br>Excel R-1<br>Excel S-2                                                               | Excel SR-1<br>Excel SS-2<br>Excel R-1<br>Excel S-2                                                                              | Excel SS-2<br>Excel S-2                                                                                          | Excel SS-2<br>Excel S-2                                                                                                     | Excel S-2<br>Excel SD-3<br>Excel PP5-8                                       | Excel SD-3<br>Excel PP5-8                                                    | Excel PP5-8<br>Excel PP5-10<br>Excel PP5-12                                  | Excel PP5-10<br>Excel PP5-12                                                  |
| SI Geosolutions<br>(formally known as<br>Synthetic Industries)<br>6025 Lee Highway<br>Chattanooga, TN 37421<br><a href="http://www.fixsoil.com">www.fixsoil.com</a> | Landlok:<br>TRM435<br>S1<br>S2<br>CS2<br>unseeded                                                                | Landlok:<br>TRM 435<br>S1<br>S2<br>CS2<br>unseeded                                                                              | Landlok:<br>TRM 435<br>C2<br>S2<br>CS2<br>unseeded                                                               | Landlok:<br>TRM 435<br>C2<br>S2<br>CS2<br>unseeded                                                                          | Landlok:<br>TRM 435<br>TRM1060<br>TRM 450<br>C2                              | Landlok:<br>TRM 435<br>TRM 1060<br>TRM 450<br>C2                             | Landlok:<br>TRM 435<br>TRM 1060<br>TRM 450<br>C2                             | Landlok:<br>TRM 435<br>TRM 1060<br>TRM 450<br>Pyramat<br>SFB 12               |
| Verdyol Alabama, Inc.<br>P.O. Box 605<br>407 Miles Parkway<br>Pell City, AL 35125                                                                                   | Ero-Mat:<br>Standard<br>Excelsior:<br>Standard<br>Hi-Velocity                                                    | Ero-Mat:<br>Standard<br>Excelsior:<br>Standard                                                                                  | Excelsior:<br>Hi-Velocity                                                                                        |                                                                                                                             |                                                                              |                                                                              |                                                                              |                                                                               |
| East Coast Erosion<br>Blankets<br>443 Bricker Rd<br>Bernville, PA 19506                                                                                             | ECS - 1<br>ECS - 1B<br>ECS - 1D<br>ECS - 2<br>ECS - 2D<br>ECS - 2B<br>ECSC - 2<br>ECSC - 2B<br>ECX -1<br>ECX - 2 | ECS -1<br>ECS -1B<br>ECS -1D<br>ECS - 2<br>ECS - 2D<br>ECS - 2B<br>ECSC - 2<br>ECSC - 2B<br>ECX -1<br>ECX - 2<br>EC-7Y<br>EC-9Y | ECS - 2<br>ECS - 2D<br>ECS - 2B<br>ECSC- 2<br>ECSC- 2B<br>ECX -1<br>ECX - 2<br>ECC-2<br>ECC-2B<br>ECC-3<br>ECP-2 | ECS - 2<br>ECS - 2D<br>ECS - 2B<br>ECSC - 2<br>ECSC - 2B<br>ECX -1<br>ECX - 2<br>ECC-2B<br>ECC-3<br>ECP-2<br>EC-7Y<br>EC-9Y | ECC-2<br>ECC-2B<br>ECC-3<br>ECP-2<br>T-RECS<br>ECP-2 10oz<br>ECP-3<br>ECSC-3 | ECC-2<br>ECC-2B<br>ECC-3<br>ECP-2<br>T-RECS<br>ECP-2 10oz<br>ECP-3<br>ECSC-3 | ECC-2<br>ECC-2B<br>ECC-3<br>ECP-2<br>T-RECS<br>ECP-2 10oz<br>ECP-3<br>ECSC-3 | ECC-2<br>ECC-2B<br>ECC-3<br>ECP-2<br>T-RECS<br>ECP-2 10 oz<br>ECP-3<br>ECSC-3 |
| ErosionControlBlanket.com<br>P.O. Box 69<br>Riverton, Manitoba R0C 2R0<br>CANADA                                                                                    | S31UVD<br>S31                                                                                                    | S31UVD<br>S31                                                                                                                   | S32UVD<br>S32                                                                                                    | S32UVD<br>S32                                                                                                               | P42<br>S32UVD<br>S32                                                         | P42<br>S32UVD<br>S32                                                         | P42                                                                          | P42                                                                           |
| US Erosion Control<br>Products<br>1034 Albany Ave W.<br>Pearson, GA 31642                                                                                           |                                                                                                                  |                                                                                                                                 |                                                                                                                  |                                                                                                                             |                                                                              |                                                                              | US-1S,<br>US-2S,<br>US-2S/C,<br>US-2C,                                       | US-2P10,<br>US-2P12,                                                          |

\* Products listed in this category are generally temporary (bio- or photo-degradable). Exceptions are noted.

\*\* Products listed in this category are generally permanent (non-bio- or non-photo-degradable). Exceptions are noted.

TYPE E - Generally includes, but is not limited to, Woven Paper Net, Jute Net.

TYPE F - Generally includes, but is not limited to, Fiberglass Roving (single or double).

TYPE G - Generally includes, but is not limited to, Straw with Net, Curled Wood Mat.

TYPE H - Generally includes, but is not limited to, Synthetic Net.

## Qualified Product Lists - continued

### Geotextiles:

**SPECIFICATION:** Form 816, Sections 2.19.02, 7.51, 7.55 and M.08.01-26

**PREAPPROVAL CRITERIA:** Certified Test Report According to AASHTO M 288

The following list denotes those geotextiles, which are approved for use on ConnDOT projects. The categories listed are in accordance with the AASHTO M 288 specification. Geotextile selection shall be based on the following definitive information and the applicable design criteria.

1. **Subsurface Drainage** - Geotextiles within this category shall be used for, but not limited to the following applications: pavement edge drains; interceptor drains; wall drains; recharge basins and relief wells. The geotextile shall be designed to allow the passage of water normal to its surface while retaining in situ soil without clogging. Class A drainage applications for fabrics are where installation stresses are more severe than Class B applications; i.e., very coarse, sharp, angular aggregate is used; a heavy degree of compaction (95% or greater by AASHTO method T 99) is specified; or depth of trench is greater than 3.00 m. Class B drainage applications are those where the fabric is used with smooth graded surfaces having no sharp angular projections no sharp angular aggregate is used; compaction requirements are light (less than 95% by AASHTO method T 99); and trenches are less than 3.00 m in depth.
2. **Sediment Control** - Geotextiles within this category shall be used as a barrier-fence designed to remove suspended particles from the water that passes through it. "Wire Supported" signifies that fabric is supported with a mesh made of wire or plastic.
3. **Erosion Control** - Geotextiles within this category shall be used for, but not limited to the following applications: cut and fill slope protection; protection of various small drainage structures and ditches, wave protection for causeways and shoreline roadway embankments and scour protection for structures such as bridges and abutments. The geotextile shall be designed to allow the passage of water while retaining in situ soil without clogging. Class A erosion control applications are those where the fabrics are used under conditions where installation stresses are more severe than Class B, i.e., aggregate placement height should be less than 1.00 m and aggregate weights should not exceed 115.00 kg. Class B erosion control applications are those where the fabric is used in structures or under conditions where the fabric is protected by a sand cushion or by "zero drop height" placement of aggregate.
4. **Separation** - Geotextiles within this category shall be used for but are not limited to the following applications: separation of dissimilar materials such as subgrades and pavement base courses and zones in embankments, foundations and select fill materials. When soil stabilization is the primary concern, the Design Engineer is cautioned that a detailed process must be followed, taking into consideration not only the separation properties of the geotextile, but its reinforcement function as well. The geotextile shall be designed to allow the passage of water while retaining in situ soil without clogging.

**Qualified Product Lists - continued**

**Geotextiles:**

**SPECIFICATION:** Form 816, Sections 2.19.02, 7.51, 7.55 and M.08.01-26

**PREAPPROVAL CRITERIA:** Certified Test Report According to AASHTO M 288

|                                                                                                                                                              | SUBSURFACE DRAINAGE                                                                   |                                                                                                            | SEDIMENT CONTROL |                              | EROSION CONTROL                                                         |                                                                                                     | SEPARATION                                                     |                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------|------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------------------------------------|
|                                                                                                                                                              | Class A                                                                               | Class B                                                                                                    | Wire Supported   | Self Supported               | Class A                                                                 | Class B                                                                                             | High Surviv.                                                   | Medium Surviv.                                                                               |
| American Engineering Fabrics, Inc.<br>1 Coffin Ave.<br>New Bedford, MA 02746<br><a href="http://www.boomenviro.com">www.boomenviro.com</a>                   | AEF:<br>880<br>1080<br>1280<br>600W<br>650W<br>200W<br>300W                           | AEF:<br>480<br>480HS<br>680<br>880<br>1080<br>1280<br>600W<br>650W<br>200W<br>300W<br>100W<br>130W<br>150W | AEF:<br>180W     | AEF:<br>100W<br>150W<br>180W | AEF:<br>880<br>1080<br>1280<br>650W<br>300W                             | AEF:<br>480<br>480HS<br>680<br>880<br>1080<br>1280<br>650W<br>300W<br>100W<br>180W                  | AEF:<br>1080<br>1280<br>300W                                   | AEF:<br>880<br>1080<br>1280<br>600W<br>200W<br>300W                                          |
| Propex Geosolutions<br>6025 Lee Highway,<br>Suite 425<br>PO Box 22788<br>Chattanooga, TN 37422<br><a href="http://www.geotextile.com">www.geotextile.com</a> | Geotex<br>104F<br>135ST<br>102F<br>200ST<br>401<br>701<br>801<br>1071<br>1291<br>1701 | Geotex<br>200ST<br>311<br>351<br>401<br>451<br>501<br>601<br>701<br>801<br>1071<br>1291<br>1701            |                  | Geotex<br>117F<br>2130       | Geotex<br>104F<br>200ST<br>315ST<br>102F<br>801<br>1071<br>1291<br>1701 | Geotex<br>104F<br>200ST<br>315ST<br>102F<br>351<br>401<br>451<br>601<br>801<br>1071<br>1291<br>1701 | Geotex<br>315ST<br>2x2HF<br>701<br>801<br>1071<br>1291<br>1701 | Geotex<br>200ST<br>315ST<br>2x2HF<br>451<br>501<br>601<br>701<br>801<br>1071<br>1291<br>1701 |

\* Product is satisfactory only where the affected soil contains less than 50% material, by weight, passing the number 200 sieve.

**Qualified Product Lists - continued**

**Geotextiles:**

**SPECIFICATION:** Form 816, Sections 2.19.02, 7.51, 7.55 and M.08.01-26

**PREAPPROVAL CRITERIA:** Certified Test Report According to AASHTO M 288

|                                                                                                                                                    | SUBSURFACE DRAINAGE       |                                                                    | SEDIMENT CONTROL     |                      | EROSION CONTROL                            |                                                                                                          | SEPARATION       |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------------------------------------------|----------------------|----------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------|-----------------------------|
|                                                                                                                                                    | Class A                   | Class B                                                            | Wire Supported       | Self Supported       | Class A                                    | Class B                                                                                                  | High Surviv.     | Medium Surviv.              |
| Belton Industries, Inc.<br>P.O. Box 127<br>Belton, SC 29627<br><a href="http://www.boomenviro.com">www.boomenviro.com</a>                          | 768<br>769<br>977<br>1475 | 307<br>308<br>751<br>768<br>769<br>977<br>1475                     | 940                  | 307<br>940           | 769<br>1475                                | 307<br>769<br>940<br>1475                                                                                | 1475             | 768<br>977<br>1475          |
| Indian Valley Industries Inc.<br>60-100 Corliss Avenue<br>Johnson City, NY 13790<br><a href="http://www.ivindustries.com">www.ivindustries.com</a> |                           |                                                                    | CT-3611              | CT-3611              |                                            | CT-3611                                                                                                  |                  |                             |
| Carthage Mills<br>4243 Hunt Road<br>Cincinnati, OH 45242<br><a href="http://www.carthagemills.com">www.carthagemills.com</a>                       | FX-75NW<br>Carthage-6%    | FX-35HS<br>FX-40HS<br>FX-35NW<br>FX-40NW<br>FX-75NW<br>Carthage-6% | FX-11                | FX-11                | FX-75NW<br>FX-55 *<br>FX-66<br>Carthage-6% | FX-35HS<br>FX-40HS<br>FX-35NW<br>FX-40NW<br>FX-33<br>FX-44<br>FX-75NW<br>FX-55 *<br>FX-66<br>Carthage-6% | FX-66<br>FX-75NW | FX-55 *<br>FX-66<br>FX-75NW |
| DGI Industries<br>P.O. Box 16522<br>Hooksett, NH 03442<br><a href="http://www.dgiindustries.com">www.dgiindustries.com</a>                         |                           |                                                                    | CT138036<br>CT213036 | CT138036<br>CT213036 |                                            |                                                                                                          |                  |                             |
| Evergreen Technologies Inc. (Div. of Tensar)<br>200 Miller Sellers Dr.<br>Evergreen, AL 36401                                                      | TG650                     | TG650<br>TG500<br>TG420 *                                          | TG420                | TG550                | TG700                                      | TG700<br>TG500<br>TG420 *                                                                                | TG650            | TG650<br>TG500              |
| First Line Corp.<br>P.O. Box 68<br>Pearson, GA 31642                                                                                               |                           |                                                                    | CSF 330              | CSF 330              |                                            |                                                                                                          |                  |                             |

\* Product is satisfactory only where the affected soil contains less than 50% material, by weight, passing the number 200 sieve.

**Qualified Product Lists - continued**

**Geotextiles:**

**SPECIFICATION:** Form 816, Sections 2.19.02, 7.51, 7.55 and M.08.01-26

**PREAPPROVAL CRITERIA:** Certified Test Report According to AASHTO M 288

|                                                                                                              | SUBSURFACE DRAINAGE                       |                                                                      | SEDIMENT CONTROL         |                          | EROSION CONTROL                                       |                                                                                  | SEPARATION                                                               |                                                                                                   |
|--------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------|--------------------------|--------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|                                                                                                              | Class A                                   | Class B                                                              | Wire Supported           | Self Supported           | Class A                                               | Class B                                                                          | High Surviv.                                                             | Medium Surviv.                                                                                    |
| A.H. Harris & Sons Inc.<br>P.O. Box 311058<br>367 Alumni Road<br>Newington, CT 06131                         |                                           |                                                                      | Harris<br>Siltfence      | Harris<br>Siltfence      |                                                       |                                                                                  |                                                                          |                                                                                                   |
| Hoechst Celanese Corp.<br>P.O. Box 5650<br>Spartanburg, SC<br>29304-5650                                     |                                           |                                                                      | Trevira:<br>011/140      |                          |                                                       | Trevira:<br>011/140                                                              |                                                                          | Trevira:<br>011/200                                                                               |
| LINQ Industrial<br>Fabrics, Inc.<br>4550 W. Fifth North St.<br>Summerville, SC 29483<br>Attn: Warren Johnson | 180EX<br>225EX<br>250EX<br>275EX<br>350EX | 180EX<br>125EX<br>130EX<br>150EX<br>225EX<br>250EX<br>275EX<br>350EX | 180<br>102<br>104<br>105 | 180<br>102<br>104<br>105 | 180EX<br>225EX<br>250EX<br>275EX<br>350EX<br>GTF 400E | 180EX<br>125EX<br>130EX<br>150EX<br>225EX<br>250EX<br>275EX<br>350EX<br>GTF 400E | 180EX<br>225EX<br>250EX<br>275EX<br>GTF 300 *<br>350#X<br>Typar:<br>3631 | 180EX<br>GTF 200S<br>GTF 200 *<br>GTF 300 *<br>130EX<br>150EX<br>225EX<br>250EX<br>275EX<br>350EX |
| Mutual Industries Inc.<br>707 West Grange Street<br>Philadelphia, PA 19120                                   |                                           |                                                                      | MISF 1830<br>MISF 1855   | MISF 1830<br>MISF 1855   |                                                       |                                                                                  |                                                                          |                                                                                                   |
| OnSite Systems, Inc.<br>P.O. Box 241166<br>Charlotte, NC 28224                                               |                                           |                                                                      | WCF 120                  | WCF 120                  | WCF 200                                               | WCF 150<br>WCF 200                                                               | WCF 300                                                                  | WCF 200<br>WCF 300                                                                                |
| BBA Fiberweb Inc.<br>70 Old Hickory Blvd.<br>Old Hickory, TN 37138                                           |                                           | Typar:<br>3401G                                                      | Typar:<br>3401G          | Typar:<br>3401G          |                                                       | Typar:<br>3401G                                                                  | Typar:<br>3631G                                                          | Typar:<br>3401G                                                                                   |
| SKAPS INDUSTRIES<br>335 ATHENA DRIVE<br>ATHENS, GA 30601                                                     | M706<br>GT170<br>GT180                    | GT131<br>GT135<br>GT140<br>GT142<br>M706                             | GT135<br>W100            | W100                     | SW200*<br>Sw315*<br>GT180<br>M706                     | GT135<br>GT140<br>GT142<br>SW200*<br>SW315*                                      | M760<br>SW315*<br>GT170<br>GT180                                         | M706<br>GT140<br>GT142<br>SW200*<br>SW315*<br>GT180                                               |

\* Product is satisfactory only where the affected soil contains less than 50% material, by weight, passing the number 200 sieve.

**Qualified Product Lists - continued**

**Geotextiles:**

**SPECIFICATION:** Form 816, Sections 2.19.02, 7.51, 7.55 and M.08.01-26

**PREAPPROVAL CRITERIA:** Certified Test Report According to AASHTO M 288

|                                                                                                                                                                          | SUBSURFACE DRAINAGE                                             |                                                                                   | SEDIMENT CONTROL                              |                                                                             | EROSION CONTROL                                                             |                                                                                      | SEPARATION                                                     |                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------|
|                                                                                                                                                                          | Class A                                                         | Class B                                                                           | Wire Supported                                | Self Supported                                                              | Class A                                                                     | Class B                                                                              | High Surviv.                                                   | Medium Surviv.                                                            |
| TenCate Geosynthetics<br>North America<br>(formally TC Mirafi)<br>365 South Holland Drive<br>Pendergrass, GA 30567<br><a href="http://www.mirafi.com">www.mirafi.com</a> | <del>FW 401</del><br>FW 404<br>FW 500<br>FW 700<br>170N<br>180N | <del>FW 401</del><br>FW 404<br>FW 500<br>FW 700<br>140N<br>140NL<br>135N<br>140NC | <del>FW 401</del><br>FW 500<br>100X<br>FW 700 | <del>FW 401</del><br>FW 404<br>FW 500<br>FW 700<br>100X<br>Enviro-<br>Fence | <del>FW 401</del><br>FW 404<br>FW 500<br>FW 700<br>180N<br>500X *<br>600X * | <del>FW 401</del><br>FW 404<br>FW 500<br>FW 700<br>140N<br>140NL<br>500X *<br>600X * | HP 370<br>FW 404<br>FW 500<br>FW 700<br>600X *<br>170N<br>180N | <del>FW 401</del><br>FW 500<br>FW 700<br>140N<br>500X *<br>550X<br>600X * |
| TenCate Geosynthetics<br>North America<br>(formally TC Mirafi)<br>365 South Holland Drive<br>Pendergrass, GA 30567<br><a href="http://www.mirafi.com">www.mirafi.com</a> | Polyfelt<br>PW44<br>PW70                                        | Polyfelt<br>PW44<br>PW70<br>TN45<br>TN40<br>TN38                                  | Polyfelt<br>PW70                              | Polyfelt<br>PW44<br>PW70                                                    | Polyfelt<br>PW44<br>PW70<br>PP10 *<br>PP15 *                                | Polyfelt<br>PW44<br>PW70<br>TN45<br>TN38<br>PP10 *<br>PP15 *                         | Polyfelt<br>PP35<br>PW44<br>PW70<br>PP15 *                     | Polyfelt<br>PW70<br>TN45<br>PP10 *<br>PP15 *                              |
| TNS Advanced<br>Technologies Inc.<br>681 DeYoung Road<br>Greer, SC 29651                                                                                                 | R070<br>R080                                                    | R031<br>R035<br>R040<br>R042                                                      | R035                                          | W 280                                                                       | R080                                                                        | R035<br>R040<br>R042                                                                 | R070<br>R080                                                   | R042                                                                      |
| Webtec, Inc.<br>P.O. Box 240302<br>Charlotte, NC 28224                                                                                                                   | Terratex:<br>EP<br>NO8                                          | Terratex:<br>SD<br>NO4<br>EP<br>NO8<br>SO4                                        | Terratex:<br>SC<br>SC-90                      | Terratex:<br>SC<br>SC-90                                                    | Terratex:<br>GS *<br>NO8                                                    | Terratex:<br>SD<br>NO4<br>GS-150 *<br>GS *<br>NO8                                    | Terratex:<br>HD *<br>EP                                        | Terratex:<br>GS *<br>NO8<br>HD *<br>EP                                    |

\* Product is satisfactory only where the affected soil contains less than 50% material, by weight, passing the number 200 sieve.

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Qualified Product Lists - continued

Impact Attenuation Systems:

**SPECIFICATION:** Form 816 Section 18.00 thru 18.07

**PREAPPROVAL CRITERIA:** Crash Tested in accordance with National Cooperative Highway Research (NCHRP) Report 350 - Recommended Procedures for the Safety Performance Evaluation of Highway Features Test Level 3 criteria and written approval from FHWA for use on National Highway System roads.

**Comments:** For all attenuators, see the [ConnDOT Highway Design Manual](#) for guidance.

| System                                   | Manufacturer or Distributor                  | Energy Absorbing | Trans. to Rigid System Required | Available Widths  | Available Lengths                   | Deck Structure Required | Bi-direct Capable | Redirect Capable | Comments                                                       |
|------------------------------------------|----------------------------------------------|------------------|---------------------------------|-------------------|-------------------------------------|-------------------------|-------------------|------------------|----------------------------------------------------------------|
| <b>TYPE A IMPACT ATTENUATION SYSTEMS</b> |                                              |                  |                                 |                   |                                     |                         |                   |                  |                                                                |
| FITCH UNIVERSAL MODULE BARRELS           | Distributed by TRANSPO 1-800-321-7870        | No               | No                              | 6.5' to unlimited | 18' to 40'                          | No                      | Yes               | No               | Primarily used as a temporary barrier. System is fully gating. |
| ENERGITE III (BARRELS)                   | Distributed by TRANSPO 1-800-321-7870        | No               | No                              | 6.5 to unlimited  | 18' to 40'                          | No                      | Yes               | No               | Primarily used as a temporary barrier. System is fully gating. |
| BIG SANDY                                | TraFFix Devices Inc. 1-949-361-5663 ext. 219 | No               | No                              | 80"               | TI-1 approx 14'<br>TI-3 approx. 29' | No                      | Yes               | No               | Primarily used as a temporary barrier. System is fully gating. |

Qualified Product Lists - continued

Impact Attenuation Systems:

**SPECIFICATION:** Form 816 Section 18.00 thru 18.07

**PREAPPROVAL CRITERIA:** Crash Tested in accordance with National Cooperative Highway Research (NCHRP) Report 350 - Recommended Procedures for the Safety Performance Evaluation of Highway Features Test Level 3 criteria and written approval from FHWA for use on National Highway System roads.

**Comments:** For all attenuators, see the [ConnDOT Highway Design Manual](#) for guidance.

| System                                                | Manufacturer or Distributor                        | Energy Absorbing | Trans. to Rigid System Required | Available Widths                              | Available Lengths                                                           | Deck Structure Required | Bi-direct Capable                                                                          | Redirect Capable                                   | Comments                                                                                                            |
|-------------------------------------------------------|----------------------------------------------------|------------------|---------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------|-------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| <b>TYPE B IMPACT ATTENUATION SYSTEMS (TANGENTIAL)</b> |                                                    |                  |                                 |                                               |                                                                             |                         |                                                                                            |                                                    |                                                                                                                     |
| SKT-SP Standard Steel Post Systems                    | Distributed by Road Systems Inc.<br>1-915-263-2435 | Yes              | Yes                             | 2'                                            | 12'-6" to length of need point, remainder is standard strong post guiderail | No                      | Yes, only if head of system is placed outside clear zone for opposing direction of traffic | Yes, starting at the third post & energy absorbing | *Use in a median where the opposing travel way is > 30' away. Site grading required and install at 29" rail height. |
| ET-PLUS Steel Post System                             | Manufactured by Trinity Products<br>1-800-321-2755 | Yes              | Yes                             | 2'                                            | 50'                                                                         | No                      | Yes, only if head of system is placed outside clear zone for opposing direction of traffic | Yes, starting at the third post                    | *Use in a median where the opposing travel way is > 30' away. Site grading required.                                |
| BEAT                                                  | Distributed by Road Systems Inc.<br>1-915-263-2435 | Yes              | Yes                             | 6" Box Beam with Impact Head at a 50:1 Offset | 14'                                                                         | No                      | No                                                                                         | Yes, starting at the third post                    | Roadside Box Beam Terminal, Energy Absorbing                                                                        |
| WU-BET                                                | Manufactured by Trinity Products<br>1-800-321-2755 | Yes              | Yes                             | 6" Box Beam with Impact Head at a 50:1 Offset | 48'-2"                                                                      | No                      | No                                                                                         | Yes, starting at the third post                    | Roadside Box Beam Terminal, Energy Absorbing                                                                        |

Qualified Product Lists - continued

Impact Attenuation Systems:

**SPECIFICATION:** Form 816 Section 18.00 thru 18.07

**PREAPPROVAL CRITERIA:** Crash Tested in accordance with National Cooperative Highway Research (NCHRP) Report 350 - Recommended Procedures for the Safety Performance Evaluation of Highway Features Test Level 3 criteria and written approval from FHWA for use on National Highway System roads.

**Comments:** For all attenuators, see the [ConnDOT Highway Design Manual](#) for guidance.

| System                                            | Manufacturer or Distributor                        | Energy Absorbing | Trans. to Rigid System Required | Available Widths | Available Lengths                                                           | Deck Structure Required | Bi-direct Capable | Redirect Capable                                   | Comments                                                             |
|---------------------------------------------------|----------------------------------------------------|------------------|---------------------------------|------------------|-----------------------------------------------------------------------------|-------------------------|-------------------|----------------------------------------------------|----------------------------------------------------------------------|
| <b>TYPE B IMPACT ATTENUATION SYSTEMS (FLARED)</b> |                                                    |                  |                                 |                  |                                                                             |                         |                   |                                                    |                                                                      |
| SRT – 350 Steel Post System                       | Manufactured by Trinity Products<br>1-800-321-2755 | No               | Yes                             | 18"              | 37.5'                                                                       | No                      | No                | Yes, starting at the third post                    | W-beam terminal Site grading required and install at 29" rail height |
| FLEAT-SP Standard Steel Post System               | Distributed by Road Systems Inc.<br>1-915-263-2435 | Yes              | Yes                             | 2'               | 12'-6" to length of need point, remainder is standard strong post guiderail | No                      | No                | Yes, starting at the third post & energy absorbing | W-beam terminal Site grading required and install at 29" rail height |

Qualified Product Lists - continued

Impact Attenuation Systems:

**SPECIFICATION:** Form 816 Section 18.00 thru 18.07

**PREAPPROVAL CRITERIA:** Crash Tested in accordance with National Cooperative Highway Research (NCHRP) Report 350 - Recommended Procedures for the Safety Performance Evaluation of Highway Features Test Level 3 criteria and written approval from FHWA for use on National Highway System roads.

**Comments:** For all attenuators, see the [ConnDOT Highway Design Manual](#) for guidance.

| System                                                 | Manufacturer or Distributor                           | Energy Absorbing | Trans. to Rigid System Required | Available Widths                              | Available Lengths | Deck Structure Required | Bi-direct Capable | Redirect Capable                | Comments                                          |
|--------------------------------------------------------|-------------------------------------------------------|------------------|---------------------------------|-----------------------------------------------|-------------------|-------------------------|-------------------|---------------------------------|---------------------------------------------------|
| <b>TYPE B IMPACT ATTENUATION SYSTEMS (MEDIAN/GORE)</b> |                                                       |                  |                                 |                                               |                   |                         |                   |                                 |                                                   |
| BRAKEMASTER                                            | Distributed by<br>TRANSPO<br>1-800-321-7870           | Yes              | Yes                             | 2'                                            | 32'-8"            | Yes                     | Yes               | Yes, starting at the third post | Site grading required                             |
| C-A-T                                                  | Manufactured by<br>Trinity Products<br>1-800-321-2755 | Yes              | Yes                             | 2.3'                                          | 30'-3"            | No                      | Yes               | Yes, starting at the third post | *Median width 20' or more. Site grading required. |
| ADIEM 350                                              | Manufactured by<br>Trinity Products<br>1-800-321-2755 | No               | No                              | 2.33'                                         | 30'               | Yes                     | Yes               | Yes                             | Use to shield fixed objects 2' wide.              |
| BEAT-MT                                                | Distributed by<br>Road Systems Inc.<br>1-915-263-2435 | Yes              | Yes                             | 8" Box Beam with impact head at a 50:1 offset | 32'-3"            | No                      | Yes               | Yes, starting at the third post | Median Box Beam Terminal                          |
| WY-BET (MD)                                            | Manufactured by<br>Trinity Products<br>1-800-321-2755 | Yes              | Yes                             | 8" Box Beam with impact head at a 50:1 offset | 48'-2"            | No                      | Yes               | Yes, starting at the third post | Median Box Beam Terminal                          |

Qualified Product Lists - continued

Impact Attenuation Systems:

**SPECIFICATION:** Form 816 Section 18.00 thru 18.07

**PREAPPROVAL CRITERIA:** Crash Tested in accordance with National Cooperative Highway Research (NCHRP) Report 350 - Recommended Procedures for the Safety Performance Evaluation of Highway Features Test Level 3 criteria and written approval from FHWA for use on National Highway System roads.

**Comments:** For all attenuators, see the [ConnDOT Highway Design Manual](#) for guidance.

| System                                                | Manufacturer or Distributor                           | Energy Absorbing | Trans. to Rigid System Required | Available Widths | Available Lengths | Deck Structure Required | Bi-direct Capable | Redirect Capable | Comments                                                                          |
|-------------------------------------------------------|-------------------------------------------------------|------------------|---------------------------------|------------------|-------------------|-------------------------|-------------------|------------------|-----------------------------------------------------------------------------------|
| <b>TYPE B IMPACT ATTENUATION SYSTEMS (NON-GATING)</b> |                                                       |                  |                                 |                  |                   |                         |                   |                  |                                                                                   |
| QUADGUARD Family                                      | Distributed by<br>TRANSCO<br>1-800-321-7870           | Yes              | No                              | 2' to 7.5'       | 5.7' To 38.7'     | Yes                     | Yes               | Yes              | Primarily used to shield fixed objects. Available widths are measured at back up. |
| TAU II                                                | Distributed by<br>Barrier Systems<br>1-856-424-8186   | Yes              | Yes                             | 2'               | 5.3' To 28'       | Yes                     | Yes               | Yes              | Primarily used to shield fixed objects. Available widths are measured at back up. |
| TRACC                                                 | Manufactured by<br>Trinity Products<br>1-800-321-2755 | Yes              | No                              | 2.6'             | 21'               | Yes                     | Yes               | Yes              | Unit is shipped completely assembled.                                             |

Qualified Product Lists - continued

Impact Attenuation Systems:

**SPECIFICATION:** Form 816 Section 18.00 thru 18.07

**PREAPPROVAL CRITERIA:** Crash Tested in accordance with National Cooperative Highway Research (NCHRP) Report 350 - Recommended Procedures for the Safety Performance Evaluation of Highway Features Test Level 3 criteria and written approval from FHWA for use on National Highway System roads.

**Comments:** For all attenuators, see the [ConnDOT Highway Design Manual](#) for guidance.

| System                                                                | Manufacturer or Distributor                     | Energy Absorbing | Trans. to Rigid System Required                      | Available Widths | Available Lengths | Deck Structure Required | Bi-direct Capable | Redirect Capable | Comments                                                                                                        |
|-----------------------------------------------------------------------|-------------------------------------------------|------------------|------------------------------------------------------|------------------|-------------------|-------------------------|-------------------|------------------|-----------------------------------------------------------------------------------------------------------------|
| <b>TYPE B IMPACT ATTENUATION SYSTEMS (HIGH INCIDENT) - NON-GATING</b> |                                                 |                  |                                                      |                  |                   |                         |                   |                  |                                                                                                                 |
| REACT 350 Family                                                      | Distributed by<br>TRANSCO<br>1-800-321-7870     | Yes              | No (transition to W-beam available)                  | 3' to 10'        | 15' to 30'        | Yes                     | Yes               | Yes              | Primarily used in locations where a high # of accidents have occurred on high speed (NHS) high volume roadways. |
| SCI 100GM Family                                                      | Distributed by<br>Onsite Inc.<br>1-860-669-3988 | Yes              | No, if under 24'-9" and no reverse direction traffic | 24" to 11'       | 13'-6" to 50'     | Yes                     | Yes               | Yes              | Primarily used in locations where a high # of accidents have occurred on high speed (NHS) high volume roadways. |

Qualified Product Lists - continued

Impact Attenuation Systems:

**SPECIFICATION:** Form 816 Section 18.00 thru 18.07

**PREAPPROVAL CRITERIA:** Crash Tested in accordance with National Cooperative Highway Research (NCHRP) Report 350 - Recommended Procedures for the Safety Performance Evaluation of Highway Features Test Level 3 criteria and written approval from FHWA for use on National Highway System roads.

**Comments:** For all attenuators, see the [ConnDOT Highway Design Manual](#) for guidance.

| System                                         | Manufacturer or Distributor                        | Energy Absorbing | Trans. to Rigid System Required | Available Widths | Available Lengths | Deck Structure Required | Bi-direct Capable | Redirect Capable | Comments                             |
|------------------------------------------------|----------------------------------------------------|------------------|---------------------------------|------------------|-------------------|-------------------------|-------------------|------------------|--------------------------------------|
| <b>TYPE C OR NC IMPACT ATTENUATION SYSTEMS</b> |                                                    |                  |                                 |                  |                   |                         |                   |                  |                                      |
| CIAS                                           | Ram Welding Co.<br>Naugatuck, CT<br>1-203-729-2289 | Yes              | Back Up Support Required        | 6.5'             | 18.25'            | Yes                     | No                | Yes              | Non-proprietary wide crash cushion   |
| NCIAS                                          | Ram Welding Co.<br>Naugatuck, CT<br>1-203-729-2289 | Yes              | Back Up Support Required        | 3'               | 30'               | Yes                     | No                | Yes              | Non-proprietary narrow crash cushion |

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**Qualified Product Lists - continued**

**Penetrating Sealer Protective Compound - Clear or Pigmented:**

**SPECIFICATION:** Form 816, M.03.02 & M.03.01-11

**PREAPPROVAL CRITERIA:** Independent laboratory test results per NCHRP 244  
for northern climates

**TYPES OF SEALER** - Each product will be assigned a category based on its physical characteristics, as follows:

P - Pigmented. Not necessarily white. Overcoat for clear.

C - Clear. Intended for use on structure wing walls, beam seats, inside faces of parapets, or as called for by the engineer. Requires pigmented sealant overcoat.

W - White. Intended for use on Jersey barrier or when called for by the engineer.

| <b>BRAND NAME</b>                                                                                                                                             | <b>TYPE</b> | <b>SUPPLIER/LOCATION</b>                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------|
| Tamms Industries<br>3835 State Route 72<br>Kirkland, IL 60146                                                                                                 | C           | Baracade 16 (Formerly SMS-250 and Chemstop SMS-250)                              |
| Bay Oil Company<br>38 Plainfield Street<br>Chicopee, MA 01013                                                                                                 | C           | BayGuard Salt Protector No. 244                                                  |
| Vexcon Chemicals<br>7240 State Road<br>Philadelphia, PA 19135<br><a href="http://www.vexcon.com">www.vexcon.com</a>                                           | C,P         | Certi-Vex Enfio Smooth VOC<br>Certi-Vex Enfio Tex VOC<br>Certi-Vex Powerseal 40% |
| Sivento, Inc.<br>65 Challenger Road<br>Ridgefield Park, NJ 07660                                                                                              | C           | CHEM-TRETE BSM 40 VOC<br>Dynasytan BH-N                                          |
| ProSoCo, Inc.<br>3741 Greenway Circle<br>Lawrence, KS 66046<br><a href="http://www.prosoco.com">www.prosoco.com</a>                                           | C           | Consolideck Saltguard WB                                                         |
| Princeton Chemical, Inc.<br>P.O. Box 132<br>Lincoln, RI 02865                                                                                                 | C           | Crete-Shield                                                                     |
| Degussa Building Systems<br>889 Valley Park Drive<br>Shakopee, MN 55379<br><a href="http://www.DegussaBuildingSystems.com">www.DegussaBuildingSystems.com</a> | C,P         | Enviroseal 20<br>Enviroseal 40<br>Masterseal SL40 VOC                            |
| Watson-Bowman & Acme<br>95 Pineview Drive<br>Amherst, NY 14228                                                                                                | C,P         | WABO HorseySet WDE                                                               |
| Modac Products Co.<br>600 Reed Road<br>Broomall, PA 19008<br><a href="http://www.modacproducts.com">www.modacproducts.com</a>                                 | C,P         | Modac F                                                                          |
| Advanced Chemical Technologies<br>100 W. Wilshire Blvd.<br>Oklahoma City, OK 73116<br><a href="http://www.advchemtech.com">www.advchemtech.com</a>            | C           | Sil-Act ATS-42                                                                   |
| Nox-crete Products Group<br>P.O. Box 8102<br>Omaha, NE 68108<br><a href="http://www.NOX-CRETE.com">www.NOX-CRETE.com</a>                                      | C           | Stifel-S                                                                         |

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**Qualified Product Lists - continued:**

**Reflective Sheeting Type I**

**SPECIFICATION:** Standard Specifications Section M.18.09.01 and a Materials Certificate Submission conforming to Standard Specifications Section 1.06.07.

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**Sheet Signs - Aluminum**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3200 Series<br>3290 White<br>3271 Yellow<br>3272 Red<br>3275 Blue<br>3277 Green<br>3279 Brown                                                                                                                                |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3260 Series<br>3260 White<br>3261 Yellow<br>3262 Red<br>3264/3284 Orange<br>3265 Blue<br>3267 Green<br>3269 Brown                                                                                                            |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 1484 Orange<br>CW84                                                                                                                                                                                                          |
| Avery Dennison<br>Reflective Films Division<br>7542 N. Natchez Ave<br>Niles, IL 60714                                       | Avery Dennison:<br>T-1500/T-1600 Series<br>T-1000/T-1600 White<br>T-1501/T-1601 Yellow<br>T-1504/T-1604 Orange<br>T-1505/T-1605 Blue<br>T-1507/T-1607 Green<br>T-1408/T-1608 Red (i.e. Stop Sign Red)<br>T-1509/T-1609 Brown |
| Nippon Carbide Industries Inc.<br>3136 East Victoria Street<br>Rancho Dominguez, CA 90221                                   | Nikkalite:<br>7100/8100 Series<br>7112/8112 White<br>7105/8105 Red<br>7177/8177 Orange<br>7104/8104 Yellow<br>7106/8106 Blue<br>7108/8108 Green<br>7109/8109 Brown                                                           |

**Qualified Product Lists - continued:**

**Reflective Sheeting Type II**

**SPECIFICATION:** Standard Specifications Section M.18.09.01 and a Materials Certificate submission conforming to Standard Specifications Section 1.06.07.

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**Sheet Signs - Aluminum**

| <b>Supplier</b>                                                                           | <b>Product</b>                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avery Dennison<br>Reflective Films Division<br>7542 N. Natchez Ave<br>Niles, IL 60714     | Avery Dennison:<br>T-2500/T-2600 Series<br>T-2500/T-2600 White<br>T-2501/T-2601 Yellow<br>T-2504/T-2604 Orange<br>T-2505/T-2605 Blue<br>T-2507/T-2607 Green<br>T-2508/T-2608 Red (i.e. Stop Sign Red)<br>T-2509/T-2609 Brown |
| Nippon Carbide Industries Inc.<br>3136 East Victoria Street<br>Rancho Dominguez, CA 90221 | Nikkalite:<br>17000/18000 Series<br>17012/18012 White<br>17035/18035 Red<br>17037/15037 Orange<br>17004/18004 Yellow<br>17006/18006 Blue<br>17008/18008 Green<br>18009 Brown                                                 |

**Qualified Product Lists - continued**

**Reflective Sheeting Type III**

**SPECIFICATION:** Standard Specifications Section M.18.09.01 and a Materials Certificate submission conforming to Standard Specifications Section 1.06.07.

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**Extruded Signs - Aluminum**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3800 Series<br>3870 Silver (White)<br>3871 Yellow<br>3872 Red<br>3875 Blue<br>3877 Green<br>3879 Brown                                                                                    |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3930 White<br>3931 Yellow<br>3934 Orange<br>3937 Green<br>3940 White<br>3945 Blue<br>3947 Green                                                                                           |
| Avery Dennison<br>Reflective Films Division<br>7542 N. Natchez Ave<br>Niles, IL 60714                                       | T-5500 Series<br>T-5500 White<br>T-5501 Yellow<br>T-5504 Orange<br>T-5505 Blue<br>T-5507 Green<br>T-5508 Red (i.e. Stop Sign Red)<br>T-5509 Brown                                         |
| Nippon Carbide Industries Inc.<br>3136 East Victoria Street<br>Rancho Dominguez, CA 90221                                   | Nikkalite Brand Ultralite Grade II:<br>800/500 Series<br>N812/N512 White<br>N804/N504 Yellow<br>N805/N505 Red<br>N806/N506 Blue<br>N807/N507 Orange<br>N808/N508 Green<br>N809/N509 Brown |

**Qualified Product Lists - continued**

**Reflective Sheeting Type III**

**SPECIFICATION:** Standard Specifications Section M.18.09.01 and a Materials Certificate submission conforming to Standard Specifications Section 1.06.07.

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**Sheet Signs - Aluminum (Overhead)**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avery Dennison<br>7542 N. Natchez Ave<br>Niles, IL 60714                                                                    | Avery Dennison:<br>T-5500/T-6500 Series<br>T-5500/T-6500 White<br>T-5501/T-6501 Yellow<br>T-5504/T-6504 Orange<br>T-5505/T-6505 Blue<br>T-5507/T-6507 Green<br>T-5508/T-6508 Red<br>T-5509/T-6509 Brown |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 2800/3800 Series<br>2870/3870 Silver (White)<br>2871/3871 Yellow<br>2872/3872 Red<br>2875/3875 Blue<br>2877/3877 Green<br>2879/3879 Brown                                                               |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3930 White<br>3931 Yellow<br>3934 Orange<br>3937 Green<br>3940 White<br>3945 Blue<br>3947 Green                                                                                                         |
| Nippon Carbide Industries Inc.<br>3136 East Victoria Street<br>Rancho Dominguez, CA 90221                                   | Nikkalite Brand Ultralite Grade II:<br>800/500 Series<br>N812/N512 White<br>N804/N504 Yellow<br>N805/N505 Red<br>N806/N506 Blue<br>N807/N507 Orange<br>N808/N508 Green<br>N809/N509 Brown               |

**Qualified Product Lists - continued**

**Reflective Sheeting Type III**

**SPECIFICATION:** Standard Specifications Section M.18.09.01 and a Materials Certificate submission conforming to Standard Specifications Section 1.06.07.

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**Construction Signs Encapsulated Lens Substrate includes aluminum, plywood, plastic, masonite and roll-up signs.**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3M Company Traffic Safety Systems Div.<br>Building 225-5S-08 Post Office Box 33225<br>St. Paul, MN 55133-3225               | 2820/3820 White<br>2821/3821 Yellow<br>2824/3824 Orange                                                                                                      |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3930 White 3940 White<br>3931 Yellow<br>3934 Orange<br>3937 Green 3947 Green<br>3945 Blue                                                                    |
| Avery Dennison<br>Reflective Films Division<br>7542 N. Natchez Ave<br>Niles, IL 60714                                       | T-5500/T-6500 White<br>T-5501/T-6501 Yellow<br>T-5504/T-6504 Orange<br>T-5505/T-6505 Blue<br>T-5507/T-6507 Green<br>T-5508/T-6508 Red<br>T-5509/T-6509 Brown |

**Traffic Cone**

| <b>Supplier</b>                                                                                       | <b>Product</b>                         |
|-------------------------------------------------------------------------------------------------------|----------------------------------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3810 White<br>3930 White<br>3940 White |

**Construction barricade substrate includes aluminum, plastic, high impact Styrene.**

| <b>Supplier</b>                                                                                       | <b>Product</b>                                                      |
|-------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3810 White 3930 White 3940 White<br>3814 Orange 3934 Orange         |
| Avery Dennison<br>Reflective Films Division<br>7542 N. Natchez Ave<br>Niles, IL 60714                 | T-5500/T-6500 Series<br>T-5500/T-6500 White<br>T-5504/T-6504 Orange |
| Nippon Carbide Industries Inc.<br>3136 East Victoria Street<br>Rancho Dominguez, CA 90221             | N812/N512 White<br>N807/N507 Orange                                 |

**Qualified Product Lists - continued**

**Reflective Sheeting Type III**

**SPECIFICATION:** Standard Specifications Section M.18.09.01 and a Materials Certificate submission conforming to standard Specifications Section 1.06.07.

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**Opposing Traffic Lane Divider (Flexible Sheeting)**

| <b>Supplier</b>                                                                                                             | <b>Product</b>             |
|-----------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3814 Orange<br>3934 Orange |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3930 White<br>3940 White   |

**Glare Screens**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                   |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3810 White 3930 White<br>3811 Yellow 3931 Yellow |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3930 White<br>3940 White                         |

**Posts and Tubular Markers**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                              |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3810 White 3930 White<br>3811 Yellow 3931 Yellow<br>3814 Orange 3934 Orange |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3930 White<br>3940 White                                                    |

**Qualified Product Lists - continued**

**Reflective Sheeting Type IV**

**SPECIFICATION:** Standard Specifications Section M.18.09.01 and a Materials Certificate submission conforming to standard Specifications Section 1.06.07.

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**Construction Signs Encapsulated Lens Substrate includes aluminum, plywood, plastic, masonite and roll-up signs.**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Avery Dennison<br>Reflective Films Division<br>7542 N. Natchez Ave<br>Niles, IL 60714                                       | T-6500 Series<br>T-6500 White<br>T-6501 Yellow<br>T-6504 Orange<br>T-6505 Blue<br>T-6507 Green<br>T-6508 Red<br>T-6509 Brown |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3930 White/3940 White<br>3945 Blue<br>3937 Green/3947 Green<br>3924S Fluorescent Orange<br>3934 Orange<br>3931 Yellow        |

**Construction barricade substrate includes aluminum, plastic, and high impact Styrene.**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Avery Dennison<br>Reflective Films Division<br>7542 N. Natchez Ave<br>Niles, IL 60714                                       | T-6500 Series<br>T-6500 White<br>T-6504 Orange                                                                        |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3924S Fluorescent Orange<br>3930 White 3940 White<br>3931 Yellow<br>3934 Orange<br>3937 Green 3947 Green<br>3945 Blue |

**Qualified Product Lists - continued**

**Reflective Sheeting Type V**

**SPECIFICATION:** Standard Specifications Section M.18.09.01 and a Materials Certificate submission conforming to Standard Specifications Section 1.06.07.

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**Delineators - Aluminum**

| <b>Supplier</b>                                                          | <b>Product</b> |
|--------------------------------------------------------------------------|----------------|
| Reflexite North America<br>Post Office Box 1200<br>New Britain, CT 06050 | AR 1000 Yellow |
|                                                                          | AR 1000 White  |
|                                                                          | AP 1000 White  |
|                                                                          | AP 1000 Yellow |
|                                                                          | AP 1000 Red    |

**Reflective Sheeting Type VI**

**SPECIFICATION:** Standard Specifications Section M.18.09.01 and a Materials Certificate submission conforming to Standard Specifications Section 1.06.07.

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**Construction Signs Encapsulated Lens Substrate includes Aluminum, plywood, plastic, masonite and roll up signs.**

| <b>Supplier</b>                                                          | <b>Product</b>                                                         |
|--------------------------------------------------------------------------|------------------------------------------------------------------------|
| Reflexite North America<br>Post Office Box 1200<br>New Britain, CT 06050 | Orange Roll-Up Sign<br>Fluorescent Orange Super Bright<br>Roll-Up Sign |

**Traffic Cone**

| <b>Supplier</b>                                                          | <b>Product</b>                        |
|--------------------------------------------------------------------------|---------------------------------------|
| Reflexite North America<br>Post Office Box 1200<br>New Britain, CT 06050 | 2010 Series<br>2010 White Cone Collar |

**Qualified Product Lists - continued**

**Reflective Sheeting - Bright Wide Angle Retroreflective**

**SPECIFICATION:** Form 816 Section M.18.09.02

**PREAPPROVAL CRITERIA:** Conformance to the following ConnDOT specification through Certified Test Reports.

**1. Test Methods:**

Test Conditions: Unless otherwise specified herein, all applied and unapplied test samples and specimens shall be conditioned at the standard conditions of 73 ± 3°F (23 ± 3°C) and 50 ± 5% relative humidity for 24 hours prior to testing.

Test Panels: Unless otherwise specified herein, when tests are to be performed using test panels, the specimens of retro reflective material shall be applied to smooth aluminum cut from ASTM B-209 Alloy 5052-H36, 5052-H38, 5154-H38 or 6061-T6 sheets in 0.020 inch (0.51 mm), 0.040 inch (1.0 mm) or 0.063 inch (1.6 mm) thickness. The aluminum shall be degreased and lightly acid etched before the specimens are applied. The specimens shall be applied to the panels in accordance with the recommendations of the retro reflective sheeting manufacturer.

**2. Color Requirements:**

| Color  | TABLE I<br>Color Specification Limits* (Daytime) |       |       |       |       |       |       |       | Reflectance<br>Limit Y (%) |      |
|--------|--------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|----------------------------|------|
|        | 1                                                |       | 2     |       | 3     |       | 4     |       | Min.                       | Max. |
|        | X                                                | Y     | X     | Y     | X     | Y     | X     | Y     |                            |      |
| White  | 0.305                                            | 0.305 | 0.355 | 0.355 | 0.335 | 0.375 | 0.285 | 0.325 | 40                         | -    |
| Yellow | 0.487                                            | 0.423 | 0.545 | 0.454 | 0.465 | 0.534 | 0.427 | 0.483 | 24                         | 45   |
| Red    | 0.690                                            | 0.310 | 0.595 | 0.315 | 0.569 | 0.341 | 0.655 | 0.345 | 3                          | 15   |
| Blue   | 0.078                                            | 0.171 | 0.150 | 0.220 | 0.210 | 0.160 | 0.137 | 0.038 | 1                          | 10   |
| Green  | 0.030                                            | 0.398 | 0.166 | 0.364 | 0.286 | 0.446 | 0.201 | 0.794 | 3                          | 9    |

\*The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 standard color-metric system measured with standard illuminant D65.

Color Test - Conformance to color requirements of Table I shall be determined by instrumental method in accordance with ASTM E 1164 on sheeting applied to aluminum test panels. The values shall be determined on a HunterLab Labscan 6000 0/45 Spectrocolorimeter with option CMR 559 [or approved equal 0.45 (45/0) instrument with circumferential viewing (illumination)]. Computations shall be done in accordance with ASTM E 308 for the 2-degree observer.

**3. Coefficient of Retro reflection, RA:** The coefficients of retro reflection shall not be less than the minimum values specified in Table II. Testing shall be in accordance with ASTM E 810. The observation angles shall be 0.2, 0.33, 0.5 and 1.0 degrees. Coefficients of retro reflection RA shall be specified in units of candelas per foot-candle per square foot (candelas per lux per square meter).

The datum mark (arrow) imprinted on the face of the sheeting shall be the datum mark for test purposes. The testing shall be performed at 0 degrees rotation unless otherwise noted. For the 0-degree rotation angle, the direction of the datum mark shall be parallel to the observation plane. For the 90 degree rotation angle the datum mark is perpendicular to the plane. It is recommended that signs be constructed with datum mark in a vertical position to maximize wide entrance angle performance.

**Qualified Product Lists - continued**

For colored, transparent overlay films and for screen printed transparent color areas on white sheeting, the ratios of the RA for the white to the RA for the color, when measured at 0.2 degree observation, -4 degree entrance, and 0 degree rotation, shall be 5:1 to 15:1 for red, not less than 5:1 for blue and not less than 5:1 for green when processed in accordance with the sheeting manufacturer's recommendations.

**TABLE II**  
Minimum Coefficient of Retro reflection RA  
Candelas per foot-candle per square foot  
(Candelas per lux per square meter)

| Observation Angle ° | Entrance Angle ° | Rotation Angle ° | White | Yellow | Red | Blue | Green |
|---------------------|------------------|------------------|-------|--------|-----|------|-------|
| 0.20                | -4               | 0                | 430   | 350    | 110 | 20   | 45    |
| 0.33                | -4               | 0                | 300   | 250    | 75  | 15   | 33    |
| 0.50                | -4               | 0                | 250   | 200    | 60  | 10   | 25    |
| 1.00                | -4               | 0                | 80    | 65     | 20  | 4    | 10    |
| 0.20                | 30               | 0                | 235   | 190    | 60  | 11   | 24    |
| 0.33                | 30               | 0                | 150   | 130    | 30  | 7    | 18    |
| 0.50                | 30               | 0                | 170   | 140    | 40  | 7    | 19    |
| 1.00                | 30               | 0                | 50    | 40     | 13  | 2.5  | 5     |
| 0.20                | 40               | 90               | 150   | 125    | 40  | 6    | 15    |
| 0.33                | 40               | 90               | 85    | 75     | 25  | 4    | 8     |
| 0.50                | 40               | 90               | 35    | 30     | 10  | 1.5  | 3.5   |
| 1.00                | 40               | 90               | 20    | 17     | 6   | 0.7  | 2.0   |

4. **Gloss:** The retro reflective sheeting shall have an 85-degree specular gloss of not less than 50 when tested in accordance with ASTM D523.

5. **Color Processing:** The retro reflective sheeting shall permit cutting and color processing with compatible transparent and opaque process colors in accordance with the sheeting manufacturer's recommendations at temperatures of 59 to 100°F (15 to 38°C) and relative humidity of 20% to 80%. The sheeting shall be heat resistant and permit force curing without staining of applied or unapplied sheeting at temperatures recommended by the sheeting manufacturer.

6. **Flexibility:** The retro reflective sheeting with the liner removed and conditioned as in 1.1 shall be sufficiently flexible to show no cracking when slowly bent, in one second's time, around 0.125-inch (3 mm) mandrel, with the adhesive contacting the mandrel, at test conditions. Talcum powder shall be spread on the adhesive to prevent sticking to the mandrel.

7. **Adhesive:** The protective liner attached to the adhesive shall be removed by peeling without soaking in water or other solutions, without breaking, tearing, or removing any adhesive from the backing. The protective liner shall be easily removed following accelerated storage for 4 hours at 158°F (70°C) under a weight of 2.5 pounds per square inch (0.175 kg/cm<sup>2</sup>). The adhesive backing of the retro reflective sheeting shall produce a bond to support a 1.75 pound (0.80 kg) weight for 5 minutes without the bond peeling for a distance of more than 2.0 inches (50 mm) when applied to a test panel prepared as in 1.2. Apply 4 inches (100 mm) of a 1 inch (25 mm) x 6 inch (150 mm) specimen to a test panel. Condition and then position the panel face down horizontally, suspend the weight from the free end of the sample and allow it to hang free at an angle of 90 degrees to the panel surface for 5 minutes.

8. **Impact Resistance:** The retro reflective sheeting applied according to the sheeting manufacturer's recommendations to a test panel of alloy 6061-T6, 0.040 inch (1 mm) by 3 inch (75 mm) by 5 inch (125 mm) and conditioned as in 1.1, shall show no cracking outside the impact area when the face of the panel is subjected to an impact of 100 inch-pounds (11.3 N.m) using a weight with a 0.625 inch (16 mm) diameter rounded tip dropped from a height necessary to generate an impact of 100 inch-pounds (11.3 N.m), at test temperatures of both 32°F (0°C) and 72°F (22°C).

**Qualified Product Lists - continued**

**9. Resistance to Accelerated Outdoor Weathering:** The retro reflective surface of the sheeting shall be weather resistant and show no appreciable cracking, blistering, crazing, or dimensional change after 2 years unprotected outdoor exposure, facing the equator and inclined 45 degrees from the vertical. Following weather exposure, panels shall be washed in a 5% HCL solution for 45 seconds, rinsed thoroughly with clean water, blotted with a soft cloth and brought to equilibrium at standard conditions. After cleaning, the coefficient of retro reflection shall not be less than the values in Table III when measured at 0-degree rotation and the colors shall conform to the requirements of Table I. The sample shall:

**9.1** Show no appreciable evidence of cracking, scaling, pitting, blistering, edge lifting or curling or more than 0.031 inch (800 um) shrinkage or expansion.

**9.2** Be measured only at angles of: 0.2-degree observation, -4 degree entrance, and 0-degree rotation; and 1.0-degree observation, -4 degree entrance, and 0-degree rotation. Where more than one panel of a color is measured, the coefficient of retro reflection shall be the average of all determinations.

**TABLE III**

Minimum Coefficient of Retro reflection RA after Accelerated Outdoor Weathering  
Candelas per foot-candle per square foot (candelas per lux per square meter)

| Color  | Observation Angle ° | Entrance Angle ° | Rotation Angle ° | Cd/fc/ft <sup>2</sup> (cd/lx/m <sup>2</sup> ) |
|--------|---------------------|------------------|------------------|-----------------------------------------------|
| White  | 0.2                 | -4               | 0                | 250                                           |
|        | 1.0                 | -4               | 0                | 45                                            |
| Yellow | 0.2                 | -4               | 0                | 200                                           |
|        | 1.0                 | -4               | 0                | 35                                            |
| Red    | 0.2                 | -4               | 0                | 60                                            |
|        | 1.0                 | -4               | 0                | 12                                            |
| Blue   | 0.2                 | -4               | 0                | 11                                            |
|        | 1.0                 | -4               | 0                | 1.3                                           |
| Green  | 0.2                 | -4               | 0                | 25                                            |
|        | 1.0                 | -4               | 0                | 3                                             |

**10. Resistance to Heat:** The retro reflective sheeting, applied to a test panel and conditioned as in 1.1, shall be measured in accordance with 3 at 0.2 degree observation and -4 degree entrance angles and 0 degree rotation and exposed to 170 ± 5°F (77 ± 3°C) for 24 hours in an air circulating oven. After heat exposure, the sheeting shall retain a minimum of 70% of the original coefficient of retro reflection when measured at room temperature.

**11. Resistance to Corrosion:** The retro reflective sheeting applied to a test panel and conditioned as in 1.1, shall show no loss of adhesion, appreciable discoloration or corrosion and after cleaning shall retain a minimum of 80% of the original coefficient of retro reflection when measured at 0.2 degree observation, -4 degree entrance and 0 degree rotation angles after 1000 hours exposure to a 5% concentration salt spray at 95°F (35°C) when tested in accordance with ASTM B 117.

**Reflective Sheeting - Bright Wide Angle Retroreflective**

**SPECIFICATION:** Form 816 Section M.18.09.02

**PREAPPROVAL CRITERIA:** See previous ConnDOT specification.

**Sheet Signs, Delineators, Extruded Signs - Aluminum**

| Supplier                                                                                                                    | Product     |
|-----------------------------------------------------------------------------------------------------------------------------|-------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3990 White  |
|                                                                                                                             | 3991 Yellow |
|                                                                                                                             | 3992 Red    |
|                                                                                                                             | 3995 Blue   |
|                                                                                                                             | 3997 Green  |

**Qualified Product Lists - continued**

**Reflective Sheeting Type VII**

**SPECIFICATION:** Form 816 Section M.18.09.01

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**No applications at this time.**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3970 White<br>3971 Yellow<br>3972 Red<br>3975 Blue<br>3977 Green<br>3924S Fluorescent Orange |

**Reflective Sheeting Type VIII**

**SPECIFICATION:** Form 816 Section M.18.09.01

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) 3-year Reflective Sheeting Test Deck.

**Sheet Signs - Aluminum Stop, 4-Way, Wrong Way, Do Not Enter, Guide Signs (7529)**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Avery Dennison<br>Reflective Products Division<br>7542 N. Natchez Ave<br>Niles, IL 60714                                    | 7000 Series<br>7500 White<br>7501 Yellow<br>7504 Orange<br>7505 Blue<br>7506 Green<br>7507 Red<br>7508 Brown<br>7529 Worboys Green |
| Nippon Carbide Industries Inc.<br>3136 East Victoria Street<br>Rancho Dominguez, CA 90221                                   | Nikkalite:<br>92802 White<br>92808 Green<br>92844 Fluorescent Yellow/Green<br>92847 Fluorescent Orange                             |
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3940 White<br>3945 Blue<br>3947 Green<br>3924S Fluorescent Orange                                                                  |

**Qualified Product Lists - continued**

**Reflective Sheeting Type IX**

**SPECIFICATION:** Form 816 Section M.18.09.01

**PREAPPROVAL CRITERIA:** Conformance to ASTM D4956 and participation in the National Transportation Product Evaluation Program (NTPEP) three-year evaluation for reflective sheeting.

**Sheet Signs - Aluminum Stop, 4-Way, Wrong Way, Do Not Enter**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3990 White<br>3991 Yellow<br>3992 Red<br>3995 Blue<br>3997 Green                                                                                        |
| Avery Dennison<br>Reflective Products Division<br>7542 N. Natchez Ave<br>Niles, IL 60714                                    | Omni-View<br>T-9500 White<br>T-9501 Yellow<br>T-9505 Blue<br>T-9507 Green<br>T-9508 Red<br>T-9513 Fluorescent Yellow/Green<br>W-9514 Fluorescent Orange |

**Traffic Drums - Plastic 42"/1 meter Traffic Cone**

| <b>Supplier</b>                                                                                                             | <b>Product</b>                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3M Company Traffic Safety Systems Div.<br>3M Center, Building 225-5S-08<br>Post Office Box 33225<br>St. Paul, MN 55133-3225 | 3910 Series<br>3910 White<br>3914 Fluorescent Orange<br>3924S Fluorescent Orange                                                                        |
| Avery Dennison<br>Reflective Products Division<br>7542 N. Natchez Ave<br>Niles, IL 60714                                    | WR-7100 Series<br>7100 White<br>7114 Fluorescent Orange                                                                                                 |
| Avery Dennison<br>Reflective Products Division<br>7542 N. Natchez Ave<br>Niles, IL 60714                                    | Omni-View<br>T-9500 White<br>T-9501 Yellow<br>T-9505 Blue<br>T-9507 Green<br>T-9508 Red<br>T-9513 Fluorescent Yellow/Green<br>W-9514 Fluorescent Orange |

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**QUALIFIED PRODUCT REFERENCES (WITH ACCEPTANCE CRITERIA)**

The categories listed below have products and or materials that have met the specific requirements of the Standard Specifications or project Special Provisions.

**Antistripping Additives**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Nelio J. Rodrigues; Phone (860) 258-0326  
Administrative Contact: James P. Connery

Acceptance Criteria: Form 816, M.04.03; AASHTO T182

**Asphalt Plug Expansion Joints - Movement Capacity 1 ½" or less**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Nelio J. Rodrigues; Phone (860) 258-0326  
Administrative Contact: James P. Connery

Acceptance Criteria: Special Provision; Prequalification Procedure.

**Bearings - Pot, Spherical or Disc**

RESPONSIBLE UNIT: Division of Bridge Design  
Technical Contact: Ralph Daily, Jr.; Phone (860) 594-3312  
Administrative Contact: James H. Norman

Acceptance Criteria: Recurring Special Provision

**Channelizing Devices - Traffic Cones and Drums Type 1 (purchased after 10/1/98)**

RESPONSIBLE UNIT: Division of Traffic Engineering  
Technical Contact: Charles S. Harlow; Phone (860) 594-2788  
Administrative Contact: Timothy M. Wilson,

- Acceptance Criteria:
1. Catalog cut check for compliance with state specifications.
  2. Manufacturer's self-certifying letter, stating NCHRP 350 testing requirements.

**Coating Systems for New Steel**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Jonathan T. Boardman; Phone (860) 258-0327  
Administrative Contact: James P. Connery

Acceptance Criteria: Prequalification Procedure NEPCOAT

**Elastomeric Concrete Expansion Joint Systems**

RESPONSIBLE UNIT: Division of Bridge Design  
Technical Contact: Ralph Daily, Jr.; Phone (860) 594-3312  
Administrative Contact: James H. Norman

Acceptance Criteria: Special Provision; Prequalification Procedure

**QUALIFIED PRODUCT REFERENCES (WITH ACCEPTANCE CRITERIA) - CONTINUED**

**Epoxy Injection Crack Repair**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Nelio J. Rodrigues; Phone (860) 258-0326  
Administrative Contact: James P. Connery

Acceptance Criteria: Special Provision; Prequalification Procedure

**Fast Setting High Strength Header Materials**

RESPONSIBLE UNIT: Division of Bridge Design  
Technical Contact: Ralph Daily, Jr.; Phone (860) 594-3312  
Administrative Contact: James H. Norman

Acceptance Criteria: Special Provision; Prequalification Procedure

**Field Coatings for Blast Cleaned Steel**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Jonathan T. Boardman; Phone (860) 258-0327  
Administrative Contact: James P. Connery

Acceptance Criteria: Prequalification Procedure NEPCOAT

**Field Touch-Up Paint**

RESPONSIBLE UNIT: Division of Bridge Design  
Technical Contact: Ralph Daily, Jr.; Phone (860) 594-3312  
Administrative Contact: James H. Norman

Acceptance Criteria: Special Provision; Prequalification Procedure

**Grouts - Non-Shrink Cementitious**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Nelio J. Rodrigues; Phone (860) 258-0326  
Administrative Contact: James P. Connery

Acceptance Criteria: Form 816, M.03.01-12

**High Strength Patch Materials for Concrete Bridge Decks**

RESPONSIBLE UNIT: Division of Bridge Design  
Technical Contact: Ralph Daily, Jr.; Phone (860) 594-3312  
Administrative Contact: James H. Norman

Acceptance Criteria: Special Provision; Prequalification Procedure

**Offset Blocks for W-beam Guide Rail - Plastic**

RESPONSIBLE UNIT: Division of Design Services  
Technical Contact: Monique Burns; Phone (860) 594-3292  
Administrative Contact: Leo L. Fontaine  
Acceptance Criteria: Recurring Special Provision; Prequalification

**QUALIFIED PRODUCT REFERENCES (WITH ACCEPTANCE CRITERIA) - CONTINUED**

**Pavement Joint and Crack Sealants**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Nelio J. Rodrigues; Phone (860) 258-0326  
Administrative Contact: James P. Connery

Acceptance Criteria: Form 816, M.04.02

**Pile Point Reinforcement - Prefabricated**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Jonathan T. Boardman; Phone (860) 258-0327  
Administrative Contact: James P. Connery

Acceptance Criteria: ASTM A27

**Pile Splicers - Prefabricated**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Jonathan T. Boardman; Phone (860) 258-0327  
Administrative Contact: James P. Connery

Acceptance Criteria: ASTM A36

**Polypropylene (5A) & Polyester Fibers (5B)**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Nelio J. Rodrigues; Phone (860) 258-0326  
Administrative Contact: James P. Connery

Acceptance Criteria: Form 816, M.04.03

**Portland Cement Concrete**

- Air-Entraining Admixtures**
- High Range Water-Reducing Admixtures**
- Portland Cement**
- Retarders**
- Water-Reducing Admixtures**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Nelio J. Rodrigues; Phone (860) 258-0326  
Administrative Contact: James P. Connery

Acceptance Criteria: Form 816, M.03.01-9

**Prefabricated Expansion Joints - Movement Capacity Over 4"**

RESPONSIBLE UNIT: Division of Bridge Design  
Technical Contact: Ralph Daily, Jr.; Phone (860) 594-3312  
Administrative Contact: James H. Norman

Acceptance Criteria: Special Provision; Prequalification Procedure

**QUALIFIED PRODUCT REFERENCES (WITH ACCEPTANCE CRITERIA) - CONTINUED**

**Prefabricated Geocomposite Drain**

RESPONSIBLE UNIT: Soils and Foundations Section  
Technical Contact: Leo L. Fontaine; Phone (860) 594-3180  
Administrative Contact: James A. Fallon

Acceptance Criteria: Special Provision; Prequalification Procedure

**Rebar Connectors**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Nelio J. Rodrigues; Phone (860) 258-0326  
Administrative Contact: James P. Connery

Acceptance Criteria: AASHTO 8.32.2.3

**Release Agents**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Nelio J. Rodrigues; Phone (860) 258-0326  
Administrative Contact: James P. Connery

Acceptance Criteria: Form 816, 4.06.03-6

**Retaining Walls**

RESPONSIBLE UNIT: Soils and Foundations Section  
Technical Contact: Leo L. Fontaine, Phone (860) 594-3180  
Administrative Contact: James A. Fallon

Acceptance Criteria: Special Provision

**Rebar Zinc Rich Coatings - Rehabilitation**

RESPONSIBLE UNIT: Division of Bridge Design  
Technical Contact: Ralph Daily, Jr.; Phone (860) 594-3312  
Administrative Contact: James H. Norman

Acceptance Criteria: Recurring Special Provision

**Shear Connectors - Welded Stud**

RESPONSIBLE UNIT: Division of Materials Testing  
Technical Contact: Jonathan T. Boardman; Phone (860) 258-0327  
Administrative Contact: James P. Connery

Acceptance Criteria: Form 816, M.06.02-12; Prequalification AMS D1.5

**Silicone Expansion Joint System**

RESPONSIBLE UNIT: Division of Bridge Design  
Technical Contact: Ralph Daily, Jr.; Phone (860) 594-3312  
Administrative Contact: James H. Norman

Acceptance Criteria: Special Provision; Prequalification Procedure

**QUALIFIED PRODUCT REFERENCES (WITH ACCEPTANCE CRITERIA) - CONTINUED**

**Stormwater Treatment (Oil/Grit Separators)**

RESPONSIBLE UNIT: Office of Environmental Compliance  
Technical Contact: Paul Corrente; Phone (860) 594-2932  
Administrative Contact: Timothy M. Wilson,

Acceptance Criteria: Special Provision; Prequalification Procedure

**Truncated Domes (ADAAG Detectable Warnings)**

RESPONSIBLE UNIT: Division of Highway Design  
Technical Contact: Monique G. Burns Phone (860) 594-3292  
Administrative Contact: Leo L. Fontaine

Acceptance Criteria: Special Provision; Prequalification

**Variable Depth Patch**

RESPONSIBLE UNIT: Division of Bridge Design  
Technical Contact: Ralph Daily, Jr.; Phone (860) 594-3312  
Administrative Contact: James H. Norman

Acceptance Criteria: Special Provision; Prequalification Procedure

**QUALIFIED PRODUCTS FOR USE ON MUNICIPAL OR OTHER NON-CONNDOT SYSTEMS ONLY:**

A list of products considered to be acceptable but which are not used in the Department for reasons relating to cost, appearance, logistics, or other reasons not directly related to product performance.

**PRODUCTS/TECHNOLOGIES**

**ACCEPTANCE CRITERIA**

Extruded Concrete Curb

Municipal Standards

Sign Post - Solid Filled Tubular  
Fiberglass

1. Composite Post 40

Strength Analysis

Corrugated PVC Pipe Smooth

Interior - Sanitary

1. Contech A-2000 Sewer Pipe

Municipal Standards