Bulletin 15 Description

Bulletin 15 is a listing of prequalified materials that are eligible for use on Department construction projects. The purpose of Bulletin 15 is to provide contractors, consultants, Department personnel, manufacturers, suppliers, and others with easy access to a listing of products whose manufacturers have demonstrated the capability to perform in accordance with Department specifications and to be accepted by certification on PennDOT construction projects. Contractors are ultimately responsible to the Department for the performance of all materials and products supplied to, installed or placed on, and/or incorporated into Department construction projects, notwithstanding the listing of any such materials and products in Bulletin 15.

Bulletin 15 is available to the public in two formats: as a searchable database and as a pdf document.

Bulletin 15 listings are organized in the format of Publication 408, Specifications. A Bulletin 15 listing includes an assigned supplier code, the supplier name and address, the product name/type/use, and reference number. The reference number (Ref. No.) is the Product Evaluation control number under which the item was tested and approved (the first four digits are the year of submission). The absence of a reference number indicates that the item was approved prior to the implementation of the current numbering system. For some precast and prestressed items, the date of the approval letter from the Structural Materials Section is provided. For traffic items, the Traffic Division "Certificate of Approval (COA)" number or date is provided.

Bulletin 15 listings will indicate if a Producer is on a reduced Level of Certification (i.e. at a certification level other than Level 1). Producers are assigned a Level of Certification, based on their ability to comply with the specifications. Material provided by Producers listed in Bulletin 15 is approved for use only in its intended application(s).

Bulletin 15 listings will also indicate by notation if a product has received either a Provisional Approval or a Conditional Approval. These approval categories usually involve products that require further monitoring. The Department has the right to remove any provisionally approved or conditionally approved manufacturer and/or product from Bulletin 15 immediately.

- Provisionally approved products are typically products approved under provisional specifications.
- Conditionally approved products are products approved under manufacturer’s specifications. PennDOT may supplement or modify the manufacturer’s specifications as needed using special provisions.
The following entities are eligible to apply for Bulletin 15 approval:

- Manufacturers
- Steel Epoxy Coaters or Galvanizers
- Wood Treaters
- Steel, Aluminum or Timber Fabricators
- Machine Shops
- Paint Shops
- Precast/Prestressed Concrete Producers
- Cement Plants or Terminals
- Pozzolan Providers
- Bituminous Terminals or Refineries
- Bridge & Structural Products

- Structural Steel Coatings
- Geotextiles
- ITS Devices
- Pavement Markings
- Pipe
- Roadside Safety Hardware
- Sign Sheeting
- Sound Barriers
- Traffic Signals
- Work Zone Devices
The Product Evaluation Application requires company information, product description and technical information, and Quality Control plan information. The Product Evaluation Application also requires specialized testing and certification for some manufacturers/companies, as summarized in the table below:

<table>
<thead>
<tr>
<th>Manufacturer / Company</th>
<th>Requirement for Application Submission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Steel Coatings (SSC)</td>
<td>NEPCOAT Approved, NTPEP Tested</td>
</tr>
<tr>
<td>Geotextiles (GTX)</td>
<td>NTPEP Tested</td>
</tr>
<tr>
<td>High Density Polyethylene Pipe (HDPE)</td>
<td>NTPEP Tested</td>
</tr>
<tr>
<td>Pavement Marking Materials (PMM)</td>
<td>NTPEP Tested</td>
</tr>
<tr>
<td>Sign Sheeting Materials (SSM)</td>
<td>NTPEP Tested</td>
</tr>
<tr>
<td>Precast Concrete Products</td>
<td>NPCA or PCI Plant Certified</td>
</tr>
<tr>
<td>Prestressed Concrete Products</td>
<td>PCI Plant Certified</td>
</tr>
<tr>
<td>Reinforced Concrete Pipe</td>
<td>NPCA, ACPA, or Q-Cast Plant Certified</td>
</tr>
<tr>
<td>Roadside Hardware / Work Zone Devices</td>
<td>Crash Test Report &amp; FHWA Eligibility Letter</td>
</tr>
<tr>
<td>Sound Barriers</td>
<td>Noise Reduction Analysis</td>
</tr>
<tr>
<td>Structural Steel Fabrication with Welding</td>
<td>AISC Certified</td>
</tr>
<tr>
<td>Structural Paint Shops</td>
<td>AISC or SSPC Certified</td>
</tr>
</tbody>
</table>

During the product evaluation/approval process, index properties (including tolerances or ranges for these index properties) may be established for applicable products or product lines as a means to determine consistent compliance with the PennDOT specification requirements. The established index properties (and tolerances or ranges) will be considered inclusive of all associated sampling, material, and test method variability (i.e., ASTM/AASHTO precision estimates, manufacturing/product variability, shelf life effects, or any other deviations).

When established, these index properties (and tolerances or ranges) are to be used by manufacturers in determining acceptable QC test results for these index properties. PennDOT will also use these established index properties (and tolerances or ranges) for future quality assurance verification or acceptance testing.

Index properties (including tolerances or ranges) submitted by manufacturers are subject to review and acceptance by PennDOT LTS. Once the final index properties (and tolerances or ranges) have been established and approved by PennDOT, the manufacturer must adhere to producing consistent quality materials within these index property limits (tolerances or ranges). Proposed changes to the approved index properties may require the submission of a new Product Evaluation Application to PennDOT by the manufacturer.
Suppliers, distributors, or companies that outsource the manufacturing of their products, or private label products that are manufactured by other companies are typically not eligible to submit a Product Evaluation Application (for approval and listing in Bulletin 15) unless the outsourcing company performs all required quality control testing and verifications and assumes full responsibility for the performance of the product. Non-eligible companies may obtain products or material from any approved source listed in Bulletin 15, for resale to pre-qualified contractors.

Eligible firms who need assistance completing the application may contact NPETS Support via phone at (717) 425-5816 or e-mail at RA-pdBOPDNPETS@pa.gov
BULLETIN 15 (Publication 35)
Qualified Products List for Construction

Posted: 3/11/2020 3:33:39PM

Bulletin 15 Levels of Certification

Material provided by Producers listed in Bulletin 15 is approved for use only in its intended application(s). Producers will be assigned a Level of Certification, based on their ability to comply with the material specifications. Producers will initially be assigned a LEVEL 1 certification. Poor material performance or material quality issues may dictate a reevaluation of a producer’s certification level.

The Levels of Certification are defined as follows:

<table>
<thead>
<tr>
<th>Levels of Certification for Bulletin 15 Producers</th>
<th>Producer Material Shipment Procedure</th>
<th>Producer Additional Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1 - Standard Certification</td>
<td>Ship on Certification with Form CS-4171*</td>
<td>None</td>
</tr>
<tr>
<td>Level 2 - Standard Certification - Reduced</td>
<td>Ship on Certification with Form CS-4171*</td>
<td>See below</td>
</tr>
<tr>
<td>Level 3 - Lot Approval Certification</td>
<td>Ship only after Material Lot Approval using Modified Certification, with Form CS-4171*</td>
<td>See below</td>
</tr>
</tbody>
</table>
| Suspension or Removal                               | In accordance with the State’s Contractor Responsibility Program:  
- Producer may be suspended or removed from Bulletin 15 for any of the reasons stated in the Bulletin 15 Preface, regardless of Producer certification level.  
- Failure of Producer to advance above Certification Level 3 will result in PennDOT’s initiating action for suspension or removal from Bulletin 15. |                                    |

* Certain Bulletin materials require supplemental or alternate forms of certification, refer to the next section, Bulletin 15 Material Certification.

- **LEVEL 1 (Standard Certification)**
  - Initial Level of Certification typically issued to Bulletin 15 listed Producers.
  - Material is produced and tested in accordance with the Producer’s approved QC Plan.
  - No known material performance or quality issues exist that warrant a reduced level of certification.
  - Material is shipped on certification using Form CS-4171.
LEVEL 2 (Standard Certification - Reduced)
- Reduced Level of Certification issued to Bulletin 15 listed Producers who have exhibited minor/moderate material performance or quality issues.
- Producer is required to work with PennDOT on submission of an improvement plan that may include, but is not limited to, any or all of the following items: a revised QC Plan, a failure analysis/action plan to assess why failures are occurring and how to prevent these failures from occurring in the future, correlation testing between in-house and independent lab testing to assist with validating results.
- Material is produced and tested in accordance with the improvement plan approved by PennDOT.
- Material is shipped on certification using Form CS-4171.

LEVEL 3 (Lot Approval Certification)
- This Level of Certification is issued to Bulletin 15 listed Producers who have exhibited major material performance or quality issues.
- Producer is required to work with PennDOT on an improvement plan as defined in Level 2.
- Material cannot be shipped to projects using the standard CS-4171 certification process.
- Producer must arrange for independent, in-plant acceptance testing (IPAT) that will be conducted side-by-side with "in-house" Producer testing at the designated frequencies in the revised QC plan. IPAT will be at the Producer's expense. PennDOT's Laboratory Testing Section (LTS) must approve the Producer's proposed IPAT provider, before it begins.
- Any material lot to be used on a project must be tested and approved by the IPAT as meeting the required PennDOT specification prior to shipment to the project.
- Each material lot meeting the specification may be shipped to a project using a modified certification process as follows: submit, to both the Project Representative and LTS, Form CS-4171 along with a signed letter from the IPAT (on their official letterhead) indicating that the material lot meets testing and specification requirements.
- Correlate results from parallel "in-house" Producer testing and IPAT testing, and submit to the LTS on a monthly basis.
Bulletin 15 Material Certification

A completed Form CS-4171, “Certificate of Compliance” must be submitted, with each shipment of material to the project. Form CS-4171 must be properly signed by a legally responsible company official. Electronic submission of Form CS-4171 and the use of electronic signature (eSignature) on Form CS-4171 are available options.

Certain Bulletin materials require the submission of supplemental CS-4171 certification in addition to Form CS-4171, to provide traceability of materials in multi-step manufacturing processes.

- Epoxy coated or galvanized reinforcement steel requires the submission of supplemental certification Form CS-4171C (Epoxy Coating or Galvanizing Facility) and/or Form CS-4171F (Fabrication Facility).
- Structural steel, aluminum, or precast/prestressed concrete products, produced in a Bulletin 15 approved facility with an on-site state inspector or a state representative, must be stamped with an approved inspection stamp at the plant and certified with a Form CS-4171.

Certain Bulletin materials require a form of certification other than the Form CS-4171, as identified in the particular material specification.

- Section 701 and 702 materials require a properly completed vendor bill of lading.
- Certification of daily bituminous mixtures requires submission of Form CS-4171B
- Certification of locally approved non-Bulletin materials requires submission of Form CS-4171LA

Form CS-4171 is completed by the manufacturer, fabricator, or producer (Producer) of Bulletin material provided to the project. The Producer maintains the original Form CS-4171 and provides a copy of Form CS-4171 with each direct shipment to the project. Producers must maintain all component certifications for purchased Bulletin materials, at their place of business for a period of not less than 3 years from the date of the last shipment to the project. Certification files must be available for inspection by the Department.

When a Producer sells a Bulletin 15 material to a distributor/supplier (Shipper), the Producer provides a copy of Form CS-4171 with each delivery to the Shipper. When a Shipper provides Bulletin 15 material directly to the project, the Shipper completes and signs a new Form CS-4171 and provides a copy with each direct shipment to the project. The Shipper will maintain the copy of the Producer’s Form CS-4171 that they have received. Shippers must maintain a certification file for purchased Bulletin materials to provide an audit trail to the Producer. Certifications for purchased Bulletin materials must be maintained at their place of business for a period of not less than 3 years from the date of the last shipment to the project. Certification files must be available for inspection by the Department.

The Contractor must ensure that Form CS-4171 is received for each project shipment of Bulletin material. The Contractor must submit to the Representative a properly completed and signed copy of Form CS-4171 for each project shipment. The Contractor should not incorporate any Bulletin material in the work until certification arrives on the project, unless otherwise approved by the Representative. Payment for material will be withheld until proper certification documentation is received. The Contractor must retain Form CS-4171 for a period of not less than 3 years from the date of
the last project shipment and make files available for inspection and verification by the Department.

Contractors are responsible to the Department for the conformance to the specifications of all products and materials that the contractors select from Bulletin 15 and incorporate into the work on Department construction projects. Products may be monitored by the Department via inspection, sampling, and/or testing for quality assurance, verification, and acceptance purposes to ensure the quality of the material used is maintained.

Product sample failures will be evaluated at PennDOT’s monthly Bulletin 15 failure committee meeting. Supplier test history will be reviewed to determine whether corrective action or root cause analysis by the supplier is warranted. If so, companies will be contacted individually with specifics regarding the requested information or other action(s) required. Failure to make corrections and consistently provide material meeting our specifications can and will result in reduction in certification level and may ultimately lead to Bulletin 15 removal.
Plant Verification (PV) Samples

Producers and manufacturers of bituminous materials, cement, glass beads, roadway paint, and structural steel paint are required to submit Plant Verification (PV) samples to the Department. Producers are advised to keep a sufficient quantity of material from each production lot or batch to serve as retain sample(s) to perform additional testing as requested or directed by the Department.

In the event of a material PV Sample failure, the Department will require that the supplier’s retained sample be split and one split be re-tested by the supplier and the results forwarded to the Department for review and the other split be provided to the Department. The Department will in turn, perform re-testing on the provided retained sample and compare both sets of test results.

Based on the material use and type of test failure, the Department will determine if the failure represented by the Department testing is significant enough to result in unacceptable performance, unanticipated maintenance or reduced service life, or other conditions which may warrant rejection and replacement. Significant material failures such as these may result in the Department notifying the supplier to take any or all of the following actions:

1. Identify and isolate the failed material to ensure that the failed material is not shipped to any PennDOT projects.
2. If the failed PV lot has already been shipped, immediately notify all brokers and distributors to whom the material was sent of the failure with instructions to recall the failed lot of material which was supplied to any PennDOT projects.
3. Supply PennDOT with a project list and the accompanying documentation (Form CS-4171 Certificate of Compliance or bill of lading) for any of the failed material that was delivered to PennDOT projects by the facility.
4. Submit an action plan to the Department within 30 days of notification to demonstrate how material and processes are to be controlled in the future to ensure material consistently meets PennDOT specification requirements.
Bulletin 15 Removal Actions

A manufacturer and/or product(s) may be removed from Bulletin 15 for any of the following reasons:

- Any action or inaction that may affect the quality of the product, the integrity of the test results, or the implementation of the Quality Control plan.
- Failure of the product to meet appropriate specifications.
- Failure to submit or adhere to a Quality Control Plan.
- Falsification of information provided on the Certificate of Compliance Form CS-4171, CS4171B, CS-4171C, CS-4171F or CS4171LA.
- Failure to supply samples, test results, or other information requested by the Department.
- Failure to notify the Bulletins Administrator at (717) 783-9673 within ten (10) days of any change in company contact information (name, address, or phone number) or change in product information (name, formula, quality control plan, or manufacturing process).
- Commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property.
- Commission of fraud or a criminal offense or other improper conduct or knowledge or approval of, or acquiescence in these activities by an affiliate, officer, employee or other individual or entity associated with either obtaining, attempting to obtain or performing a public contract or subcontract. Acceptance of the benefits derived from the conduct shall be deemed evidence of knowledge, approval or acquiescence.
- Violation of Federal or State antitrust statutes.
- Violation of a State or Federal law regulating campaign contributions.
- Violation of a State or Federal environmental law.
- Violation of a State or Federal law regulating hours of labor, minimum wage standards or prevailing wage standards; discrimination in wages; or child labor violations.
- Violation of the Workers’ Compensation Act (77 P. S. § § 1-2626).
- Violation of a State or Federal law prohibiting discrimination in employment.
- Suspension or debarment by the Commonwealth or an agency thereof or an agency of another state or by an agency or department of the Federal
government.

- Three or more occurrences of being declared ineligible for a contract.

- Unsatisfactory performance including failure to comply with the terms of a Commonwealth contract or subcontract including:
  - Willful failure to perform in accordance with the terms of one or more contracts, or a history of failure to perform, or of unsatisfactory performance of one or more contracts.
  - Failure to complete the work in the time frame specified in the contract.
  - Being declared in default on prior work or project.
  - Failure to submit documents, information or forms as required by contract.
  - Making false statements or failing to provide information or otherwise to cooperate with the contracting agency, the Office of State Inspector General or other Commonwealth authorities.
  - Discrimination in violation of laws or regulations in the conduct of business.

- Providing false or misleading information to the Office of State Inspector General, Office of the Budget, the Department of the Auditor General, the Office of Attorney General, the Treasury Department, the Board of Claims, or other tribunal or court, the Department, or a representative of an agency as part of any investigation, audit, program review, certification, contract bids or proposals, applications or claims for payment. This information includes:
  - Financial statements.
  - Nondiscrimination forms.
  - Affidavits or statements of compliance with prevailing wage statutes.
  - Product descriptive literature and documents submitted in connection with claims for payment made or litigation against Commonwealth agencies.

- Other acts or omissions indicating a lack of skill, ability, capacity, quality control, business integrity or business honesty.
Section 106.02: Project-Specific Locally Approved Materials

106.02 Project-Specific Locally Approved Materials

In accordance with Publication 408, Section 106.02 (a) 2.c, the following Pub 408 Sections contain construction materials that are defined as Project-Specific, Locally Approved Materials.

PennDOT does not require manufacturers of Project-Specific, Locally Approved Materials to submit a Product Evaluation Application (CS-4170) for approval and listing of their material(s) in Bulletin 15. Project-Specific, Locally Approved Materials are not listed in Bulletin 15.

Contractors proposing to use materials that meet the specification requirements must list them on Form CS-200 (Source of Supply-Materials) and submit them for local approval by the Representative (i.e. at the District or project level). Refer to the corresponding Pub 408 Sections for specification and documentation requirements.

* Section 420.2(d): Asphalt Edge Restraints

* Section 659.2(b): Aggregate Surface Topping for HFST

* Section 802: Topsoil Furnished and Placed

* Section 806.2(a, b): Temporary & Permanent Rolled Erosion Control Products (RECPs)

* Section 860.2(a): Inlet Filter Bag

* Section 867: Compost Filter Sock

* Section 868: Compost Blanket and Compost Filter Berm
Section 218: Foamed Glass Aggregate

218.2(a) Foamed Glass Aggregate

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AERO1 15</td>
<td>Aero Aggregates LLC, 1500 Chester Pike, Eddystone, PA 19022</td>
<td><a href="https://aeroaggregates.com/">https://aeroaggregates.com/</a></td>
</tr>
</tbody>
</table>

Provisionally approved based on the following requirements:

1. AeroAggregates FG-G15 foamed glass aggregate must be used in accordance with the requirements contained within the Research Work Plan, Design & Construction Guidelines, and Project Specific Specification. To obtain a copy of these documents, contact New Products & Innovations Section (NPI) at 717-787-3137. These documents are considered part of the contract documents.

2. The Contractor shall notify NPI (717-787-3137) at least one week in advance of the proposed construction so that NPI may observe and document the placement and performance of the material.

3. A representative of the manufacturer shall be present on site during placement to ensure that the material is placed in accordance with the Research Work Plan, Design & Construction Guidelines, and Project Specific Specification.

4. NPI will monitor the use, application, and performance of AeroAggregates FG-G15 until at least two projects have been successfully completed for each of the following four usage scenarios:

*** 1) FGA used to mitigate settlement of embankments constructed over soft ground
*** 2) FGA used to mitigate new embankment loads over old buried utilities
*** 3) FGA used to mitigate lateral loads on retaining walls
*** 4) FGA used as backfill for MSE walls

5. Failure to comply with the requirements contained within the Research Work Plan, Design & Construction Guidelines, and Project Specific Specification may result in the AeroAggregate FG-G15 material being removed from Bulletin 15. AeroAggregates FG-G15 Technical Data Sheet
Section 219: Geofoam Lightweight Fill

219.2(a) Expanded Polystyrene (EPS) Geofoam Blocks

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS Geofoam Block - Type 1 (EPS22)</td>
<td>EPS22</td>
<td>2015-155Q</td>
</tr>
<tr>
<td>EPS Geofoam Block - Type 2 (EPS39)</td>
<td>EPS39</td>
<td>2015-155Q</td>
</tr>
</tbody>
</table>
## Section 220: Flowable Backfill

### 220.2(i) Air Entraining Admixtures

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>23700 Chagrin Blvd.  Cleveland, OH 44122</td>
<td>MasterCell 25 (Rheocell/Rheofill)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture For Flowable Fill [AEA]</td>
<td>MasterCell 30 (Rheocell 30)</td>
<td>As required by testing</td>
<td>CADD-2010-02-016</td>
</tr>
<tr>
<td>Plant</td>
<td>7100 Wright Rd.  Houston, TX 77041</td>
<td>MasterCell 30 (Rheocell 30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture For Flowable Fill [AEA]</td>
<td>Forta GoldenAir</td>
<td></td>
<td>2006-024Q</td>
</tr>
<tr>
<td>CELLC 15</td>
<td>Aerix Industries, 5902 McIntyre Street, Golden, CO 80403 <a href="http://www.aerixindustries.com/">http://www.aerixindustries.com/</a> Formerly Cellular Concrete, LLC</td>
<td>As required by testing</td>
<td></td>
<td>2002-139Q</td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture For Flowable Fill [AEA]</td>
<td>Eucon Easy Fill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>62 Whittemore Ave.  Cambridge, MA 02140-1692</td>
<td>Sika Lightcrete Powder</td>
<td></td>
<td>2013-205Q</td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture For Flowable Fill [AEA]</td>
<td>Darafill</td>
<td></td>
<td>1997-148</td>
</tr>
</tbody>
</table>

Last Revised: 7/24/2019
Section 220: Flowable Backfill

220.2(i) Air Entraining Admixtures

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Section 409: Superpave Mixture Design, Standard and RPS Construction of Plant-Mixed HMA Courses

409.2(g) Aramid Fibers for HMA

The use of this product will be in accordance with SSP #I-c00045 ITEM 9000 - HMA FIBER MODIFIED COURSE.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORTA 15</td>
<td>Forta Corporation, 100 Forta Drive, Grove City, PA 16127 <a href="http://www.forta-fi.com/">http://www.forta-fi.com/</a></td>
<td>2016-071Q</td>
</tr>
<tr>
<td></td>
<td>Aramid Fiber Blend</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FORTA-FI</td>
<td>2016-071Q</td>
</tr>
<tr>
<td></td>
<td>Aramid Fiber Blend</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FORTA-FI for HMA</td>
<td>2011-021A</td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aramid Fiber Blend</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACE Fiber</td>
<td>2016-175Q</td>
</tr>
</tbody>
</table>
## Section 411/413: Superpave Mixture Design

**411.2(g)/413.2(f) WMA Technologies (Additive(s), Modifier(s), or Processes)**

For WMA Technologies that can be blended at a refinery or terminal and supplied by an asphalt (Performance Graded Asphalt Binder Supplier), the asphalt supplier must complete an online Product Evaluation Application for each grade and WMA Technology to be evaluated for potential approval. Approved WMA asphalt material suppliers are listed in Section 702d Asphalt Cement.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AKZNO 15</td>
<td>AkzoNobel Surface Chemistry, 525 West Van Buren Street, Chicago, IL 60607-3835 <a href="https://www.akzonobel.com/">https://www.akzonobel.com</a></td>
<td>Rediset WMX</td>
<td></td>
</tr>
<tr>
<td>AKZO1 15</td>
<td>AkzoNobel Surface Chemistry, LLC, 525 West Van Buren Street, Chicago, IL 60607</td>
<td>Facility Plant 1390 Morris, IL</td>
<td>Chemical Additive with Anti-Strip Additives Rediset LQ-1102C 2017-072Q</td>
</tr>
<tr>
<td>ASTIN 15</td>
<td>Astec Industries, Inc., P.O. Box 72787, Chattanooga, TN 37407 <a href="http://www.astecindustries.com/">http://www.astecindustries.com</a></td>
<td>Mechanical Foaming Equipment/Process Double Barrel Green / GreenPac System</td>
<td></td>
</tr>
<tr>
<td>CECA 15</td>
<td>CECA, Subsidiary of Arkema, 89 Boulevard National, La Garenne-Colombes 92257</td>
<td>Chemical Additive</td>
<td>Cecabase RT 945 2011-153</td>
</tr>
<tr>
<td>CIS01 15</td>
<td>Cargill Industrial Specialties, 12201 South Torrence Avenue, Chicago, IL 60617 <a href="http://www.cargill.com/biindustrial">http://www.cargill.com/biindustrial</a></td>
<td>Chemical Additive with Anti-Strip Additives Anova 1501 2018-014Q</td>
<td></td>
</tr>
<tr>
<td>MAXEQ 15</td>
<td>Maxam Equipment, Inc., 1575 Universal Ave., Kansas City, MO 64120 <a href="http://maxamequipment.com/Products.htm">http://maxamequipment.com/Products.htm</a></td>
<td>Mechanical Foaming Equipment/Process AQUABlack Solutions WMA System</td>
<td></td>
</tr>
</tbody>
</table>

Provisionally Approved: Under provisional approval, the Department will monitor its use, application, and performance for a period of two years (11/30/2018 to 11/30/2020).
Section 411/413: Superpave Mixture Design

411.2(g)/413.2(f) WMA Technologies (Additive(s), Modifier(s), or Processes)  

For WMA Technologies that can be blended at a refinery or terminal and supplied by an asphalt (Performance Graded Asphalt Binder Supplier), the asphalt supplier must complete an online Product Evaluation Application for each grade and WMA Technology to be evaluated for potential approval. Approved WMA asphalt material suppliers are listed in Section 702d Asphalt Cement.

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Product Name</th>
<th>Name</th>
<th>Ref. No.</th>
<th>COA</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAWE 15</td>
<td>Ingevity (formerly WestRock/MeadWestvaco Corporation), 5255 Virginia Avenue, N. Charleston, SC 29406-3615 <a href="http://www.ingevity.com">http://www.ingevity.com</a></td>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>2017-059Q</td>
<td>MEWEA 15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evotherm DAT</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evotherm J1</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provisionally Approved: Under provisional approval, the Department will monitor its use, application, and performance for a period of two years (5/9/2017 to 5/9/2019).</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evotherm M1</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evotherm P25</td>
<td>2017-061Q</td>
<td>MEWEA 15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provisionally Approved: Under provisional approval, the Department will monitor its use, application, and performance for a period of two years (5/9/2017 to 5/9/2019).</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evotherm U3</td>
<td>2017-060Q</td>
<td>MEWEA 15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provisionally Approved: Under provisional approval, the Department will monitor its use, application, and performance for a period of two years (5/9/2017 to 5/9/2019).</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td>MEESEQ 15</td>
<td>Meeker Equipment Company, Inc., P.O. Box 925, Louisville, KY 19446-0661 <a href="http://www.meekerequipment.com/">http://www.meekerequipment.com/</a></td>
<td>Mechanical Foaming Equipment/Process</td>
<td>2018-198Q</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warm Mix System</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td>PQCOR 15</td>
<td>PQ Corporation, Valley Forge, P.O. Box 840, Valley Forge, PA 19482 <a href="http://pqcrop.com/">http://pqcrop.com/</a></td>
<td>Foaming Additive/Process</td>
<td>2018-198Q</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Advera WMA</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reliable Asphalt Warm Mix System</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Provisionally Approved: Under provisional approval, the Department will monitor its use, application, and performance for a period of two years (9/19/2018 to 9/19/2020).</td>
<td></td>
<td>-----</td>
</tr>
</tbody>
</table>
Section 411/413: Superpave Mixture Design

### 411.2(g)/413.2(f) WMA Technologies (Additive(s), Modifier(s), or Processes) Last Revised: 5/23/2019

For WMA Technologies that can be blended at a refinery or terminal and supplied by an asphalt (Performance Graded Asphalt Binder Supplier), the asphalt supplier must complete an online Product Evaluation Application for each grade and WMA Technology to be evaluated for potential approval. Approved WMA asphalt material suppliers are listed in Section 702d Asphalt Cement.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Facility</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Science, Division of ArrMaz, 6502 South Yale Avenue, Tulsa, OK 74136</td>
<td>Vanceboro, NC</td>
<td>AD-here ULTRA 1</td>
<td>2017-134Q</td>
</tr>
<tr>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>This is the same product as formerly named AD-here LOF 65-00 with Cebase RT 945</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>AD-here ULTRA TS</td>
<td>2017-133Q</td>
<td></td>
</tr>
<tr>
<td>This is the same product formerly named as AD-here 62-40 with Cebase RT 945.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sasol Wax North America Corporation, 102 Cutting Blvd., Richmond, CA 94804</td>
<td><a href="http://www.sasolwax.us.com/">http://www.sasolwax.us.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic Additive</td>
<td>SASW- 15</td>
<td>Organic Additive</td>
<td>2012-085M</td>
</tr>
<tr>
<td>Sonneborn Refined Products, 600 Parsippany Road, Suite 100, Parsippany, NJ 07054</td>
<td><a href="http://www.sonnewarmix.com">http://www.sonnewarmix.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic Additive</td>
<td>Organic Additive</td>
<td>SonneWarmix</td>
<td>2016-015</td>
</tr>
<tr>
<td>Sasobit</td>
<td>Organic Additive</td>
<td>SonneWarmix RT</td>
<td>2016-005Q</td>
</tr>
<tr>
<td>Organic Additive with Anti-Strip Additives</td>
<td>Sonnegreen as</td>
<td>2017-164</td>
<td></td>
</tr>
<tr>
<td>Organic Additive with Anti-Strip Additives</td>
<td>Provisional Approval: When this WMA Technology is used, the manufacturer is required to notify the PennDOT Laboratory Testing Section at (717) 346-1548. Notification shall include the following information: ECMS Project No., State Route, County, and Bulletin 41 WMA Producer. Under provisional approval, the Department will monitor its use, application, and performance for a period of two years (10/1/2018 to 10/1/2020).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic Additive with Anti-Strip Additives</td>
<td>Sonnegreen as II</td>
<td>2016-114Q</td>
<td></td>
</tr>
<tr>
<td>Stansteel Asphalt Plant Products, 12700 Shelbyville Road, Louisville, KY 40243</td>
<td><a href="http://www.stansteel.com">http://www.stansteel.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Foaming Equipment/Process</td>
<td>Mechanical Foaming Equipment/Process</td>
<td>Accu-Sheer Warm Mix Asphalt System</td>
<td>-----</td>
</tr>
</tbody>
</table>
**Section 411/413: Superpave Mixture Design**

### 411.2(g)/413.2(f) WMA Technologies (Additive(s), Modifier(s), or Processes)  
**Last Revised: 5/23/2019**

For WMA Technologies that can be blended at a refinery or terminal and supplied by an asphalt (Performance Graded Asphalt Binder Supplier), the asphalt supplier must complete an online Product Evaluation Application for each grade and WMA Technology to be evaluated for potential approval. Approved WMA asphalt material suppliers are listed in Section 702d Asphalt Cement.

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terex Roadbuilding, P.O. Box 1985, Oklahoma City, OK 73101-1985</td>
<td>Mechanical Foaming Equipment/Process</td>
<td>Warm Mix Asphalt System</td>
<td>.....</td>
</tr>
<tr>
<td>Zydex Industries, Zydex House, 61 Gotri-Sevasi Road, Sevasi, Vadodara 391101</td>
<td>Mechanical Foaming Equipment/Process</td>
<td>ZycoTherm</td>
<td>2015-126M</td>
</tr>
<tr>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>Zycotherm-SP</td>
<td>2018-073Q</td>
<td></td>
</tr>
<tr>
<td>Zydex Industries, Zydex House, 61 Gotri-Sevasi Road, Sevasi, Vadodara 391101</td>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>Zycotherm-SP</td>
<td>2018-073Q</td>
</tr>
<tr>
<td>Surface Tech LLC, 111 SW 5th Ave., Suite 1940, Portland, OR 97204</td>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>Zycotherm-SP</td>
<td>2018-073Q</td>
</tr>
</tbody>
</table>

### 411.2(k) Aramid Fibers for WMA  
**Last Revised: 3/10/2017**

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forta Corporation, 100 Forta Drive, Grove City, PA 16127</td>
<td>Aramid Fiber Blend</td>
<td>FORTA-FI</td>
</tr>
<tr>
<td>Surface Tech LLC, 111 SW 5th Ave., Suite 1940, Portland, OR 97204</td>
<td>Aramid Fiber Blend</td>
<td>ACE Fiber</td>
</tr>
</tbody>
</table>
Section 419: Stone Matrix Asphalt Mixture

419.2(d)2 Cellulose Fiber Stabilizer
Any brand of cellulose fiber that prevents mixture draindown may be used in SMA mixes.

419.2(d)5 Crumb Rubber Stabilizer

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIB-1 15</td>
<td>Liberty Tire Recycling, LLC, 490 Ohio Street, Lockport, NY 14094 <a href="http://libertytire.com/Home.aspx">http://libertytire.com/Home.aspx</a></td>
<td><img src="image1.jpg" alt="Image" /></td>
</tr>
<tr>
<td></td>
<td>Crumb Rubber (CR) TR 20 Minus</td>
<td>2013-099Q</td>
</tr>
<tr>
<td></td>
<td>Crumb Rubber (CR) WTG 20</td>
<td>2013-098Q</td>
</tr>
<tr>
<td>LIB-2 15</td>
<td>Liberty Tire Recycling, LLC, 100 Talbot Avenue, Braddock, PA 15104 <a href="http://libertytire.com/Home.aspx">http://libertytire.com/Home.aspx</a></td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td></td>
<td>Crumb Rubber (CR) 20 WMA</td>
<td>2013-097Q</td>
</tr>
<tr>
<td>MAHAN 15</td>
<td>Mahantango Enterprises, Inc., Rr #2, P. O. Box 680, Liverpool, PA 17045 <a href="http://www.mahantango.com/">http://www.mahantango.com/</a></td>
<td><img src="image3.png" alt="Image" /></td>
</tr>
<tr>
<td></td>
<td>Crumb Rubber (CR) MAH-1A</td>
<td>1994-031</td>
</tr>
<tr>
<td>NRIND 15</td>
<td>Edge Rubber, 1711 Opportunity Avenue, Chambersburg, PA 17201 <a href="http://www.edgerubber.com">http://www.edgerubber.com</a></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
<tr>
<td>Plant</td>
<td><img src="image5.png" alt="Image" /></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly NRI Industries</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crumb Rubber (CR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crumb Rubber (CR) 58702 Ground Rubber</td>
<td>1991-072</td>
</tr>
</tbody>
</table>
Section 420: Pervious Asphalt Pavement System

420.2(d) Asphalt Edge Restraints
Project-Specific, Locally Approved Material.

In accordance with Publication 408, Section 106.02(a)2.c, a material specified for use in this Section is defined as a Project-Specific, Locally Approved Material.

PennDOT does not require manufacturers of Project-Specific, Locally Approved Materials to submit a Product Evaluation Application for approval and listing of their material(s) in Bulletin 15. Project-Specific, Locally Approved Materials are not listed in Bulletin 15.

Contractors proposing to use materials that meet the specification requirements must list them on Form CS-200 (Source of Supply-Materials) and submit them for local approval by the Representative (i.e. at the District or project level). Refer to Publication 408, Section 420.2(d) for specification requirements. Submit for local approval by the Representative all required information for the material, as indicated in the specification.

Also refer to the Project Specific, Locally Approved Materials section (Section 106) of Bulletin 15 for a complete listing of Publication 408 Sections that fall within this category.
Section 466: Asphalt Paving Fabric

466.2(a) Geotextile Paving Fabric

Paving Fabrics (AASHTO M 288) are saturated during installation with asphalt cement for use between pavement layers. Paving fabrics and grids act as a stress relieving membrane within the pavement structure and are intended for full width applications.

For placing Heavy Duty Membranes over transverse and longitudinal joints and random cracks in existing concrete pavements, see Section 467.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADFORS15</td>
<td>Saint-Gobain ADFORS, 1795 Baseline Road, Grand Island, NY 14303</td>
<td><a href="http://www.adfors.com/us/road-reinforcement">http://www.adfors.com/us/road-reinforcement</a></td>
</tr>
<tr>
<td>Plant</td>
<td>14770 East Avenue Albion, NY 14411</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fiberglass Reinforced Paving Grid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer's specifications: GlasGrid 8511 Manufacturer’s Specifications</td>
<td></td>
</tr>
<tr>
<td>PROP2 15</td>
<td>Propex Operating Company, LLC, 4019 Industry Drive, Chattanooga, TN 37416</td>
<td><a href="http://www.propexglobal.com/">http://www.propexglobal.com/</a></td>
</tr>
<tr>
<td>Plant</td>
<td>428 Rollins Industrial Blvd. Ringgold, GA 30736</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Geotextile Paving Fabric, Type II</td>
<td></td>
</tr>
<tr>
<td>TCGEO15</td>
<td>TenCate Geosynthetics, 365 South Holland Drive, Pendergrass, GA 30567</td>
<td><a href="http://www.tencate.com/">http://www.tencate.com/</a></td>
</tr>
<tr>
<td>Plant</td>
<td>Pendergrass, GA &amp; Cornelia, GA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fiberglass Reinforced Paving Grid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer's specifications: TenCate Mirafi PGM-G4 Manufacturer’s Specifications</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Geotextile Paving Fabric, Type II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Pendergrass, GA)</td>
<td></td>
</tr>
</tbody>
</table>
Section 467: Heavy Duty Membranes

467.2(a) Heavy Duty Membranes

Heavy Duty Membranes are placed over transverse and longitudinal joints and random cracks in existing concrete pavements before placing the pavement overlay. Heavy Duty Membranes are not intended for full width applications and are not evaluated against AASHTO M 288 paving fabric requirements.

For AASHTO M 288 paving fabrics, see section MISC Geotextile Paving Fabric (Asphalt).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Membrane Width</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>121 Industrial Park Road Halls, TN 38040</td>
<td>Heavy Duty Membrane</td>
<td>GeoTac</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>9/15/1986</td>
<td>12&quot;, 18&quot;, 20&quot;, 24&quot;, 36&quot;, and 48&quot;</td>
<td>PROP1</td>
</tr>
<tr>
<td>PROP1</td>
<td>Propex Operating Company, LLC, 4019 Industrial Drive, Chattanooga, TN 37416</td>
<td>9/15/1986</td>
<td>12&quot;, 18&quot;, 24&quot;, and 36&quot;</td>
<td>1980-099</td>
</tr>
<tr>
<td>Plant</td>
<td>4019 Industrial Drive Chattanooga, TN 37416</td>
<td>Heavy Duty Membrane</td>
<td>Petrotac</td>
<td></td>
</tr>
</tbody>
</table>
Section 470: Asphalt Seal Coat

470.2 Asphalt Seal Coat

Refer to Bulletin 15, Section 702 for sources of asphalt material specified in Publication 408, Section 470.2(a).

Refer to Bulletin 14 for sources of coarse aggregate specified in Publication 408, Section 470.2(b).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Reference Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRI-3 15 Facility</td>
<td>All States Asphalt, LLC, 325 Amherst Road, P.O. Box 91, Sunderland, MA 01375</td>
<td><a href="http://www.asmg.com">http://www.asmg.com</a></td>
<td>2/12/2010</td>
</tr>
<tr>
<td></td>
<td>901 River Road Deerfield, MA 01342 (Formerly Tri State Materials)</td>
<td>CRMB for Rubberized Asphalt Seal Coat (RASC)</td>
<td></td>
</tr>
</tbody>
</table>
## Section 501: Reinforced or Plain Cement Concrete Pavements

### 501.2(s) Fiberglass Dowel Sleeve

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dowel Bar Sleeve, Reinforced Plastic</td>
<td></td>
</tr>
<tr>
<td>CPULT 15</td>
<td>Creative Pultrusions, 214 Industrial Lane, P.O. Box 6, Alum Bank, PA 15521-0006 <a href="http://www.creativepultrusions.com/">http://www.creativepultrusions.com/</a></td>
<td>1992-199</td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Sleeve, Reinforced Plastic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pultex 1500 (Fiberglass reinforced)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Sleeve, Reinforced Plastic</td>
<td></td>
</tr>
</tbody>
</table>
### Section 503: Protective Coating for Cement Concrete Pavement

#### 503.2 Boiled Linseed Oil (AASHTO M233)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAYT1 15</td>
<td>Dayton Superior Corporation, 4226 Kansas Avenue, Kansas City, KS 66106</td>
<td><a href="http://www.daytonsuperior.com/">http://www.daytonsuperior.com/</a> Anti-Spall (J-33) Formerly: Day Chem Anti-Spall</td>
</tr>
<tr>
<td>DEGEN 15</td>
<td>Degen Oil &amp; Chemical Company, 200 Kellogg Street, P.O. Box 5240, Jersey City, NJ 07305</td>
<td>1998-173</td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799</td>
<td><a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a> Eucoid Linseed Oil Treatment</td>
</tr>
<tr>
<td>MEDW1 15</td>
<td>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338</td>
<td>1992-265</td>
</tr>
<tr>
<td>PRUET 15</td>
<td>Pruett-Schaffer Chemical Company, 3327 Stafford Street, Pittsburgh, PA 15204</td>
<td><a href="http://www.pruett-schaffer.com/">http://www.pruett-schaffer.com/</a> Anti-Spalling Compound</td>
</tr>
<tr>
<td>RTPTC 15</td>
<td>RIGHT/POINTE, LLC, 234 Harvestore Drive, Dekalb, IL 60115</td>
<td><a href="http://www.rightpointe.com/">http://www.rightpointe.com/</a> Anti-Spall 50/50</td>
</tr>
<tr>
<td>ZIMME 15</td>
<td>E.E. Zimmerman Company, 1370 Old Freeport Rd., Suite 2A, P.O. Box 111254, Pittsburgh, PA 15238</td>
<td><a href="http://www.eezimmermanco.com/contact.asp">http://www.eezimmermanco.com/contact.asp</a> Anti-Spalling Compound Concrete Sealer</td>
</tr>
</tbody>
</table>
Section 516: Concrete Pavement Patching

516.2 Concrete Pavement Patching

Refer to Publication 408, Section 516.2 for the various materials comprising concrete pavement patching.

The product listing below is conditionally approved as an alternate system to Concrete Pavement Patching as specified in Publication 408, Section 516.2.

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Product Name</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTML1 15</td>
<td>Fort Miller Company, Inc., P.O. Box 98, Schuylerville, NY 12871-0098</td>
<td>Precast Concrete Pavement Slab</td>
<td>2009-124</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Super-Slab Precast Concrete Pavement System (PCPS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Full Depth Concrete Pavement Repair, Precast: Item 9516-2034 - 10&quot; Depth and Item 9516-3036 - 12&quot; Depth</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conditionally approved as an alternate Type A patch per Fort Miller Company's specifications. Fort Miller Company is a licensor, fabricator, and trademark owner of Super-Slab.</td>
<td></td>
</tr>
<tr>
<td>NORPR 15</td>
<td>Northeast Precast, 92 Reese Road, Millville, NJ 08332</td>
<td>Precast Concrete Pavement Slab</td>
<td>2017-221</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Super-Slab Precast Concrete Pavement Panel Fabricator</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Full Depth Concrete Pavement Repair, Precast: Item 9000-0516 - 13&quot; Depth</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conditionally approved as an alternate Type A patch per the Super-Slab licensor's (Fort Miller Company) specifications.</td>
<td></td>
</tr>
</tbody>
</table>

516.2(k) Anchor Material

See Standard Drawing RC-26M (Publication 72M)

Note: Adhesive anchors are not to be used for permanent installations which have the anchor in tension due to external loading regardless of whether the anchor is in a horizontal or vertical position. External loading can be from moment, moment and shear or direct tension to cause tension in the anchor. Tension due to a torqued bolt is not an external load.

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Product Name</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHTC 15</td>
<td>Adhesives Technology Corporation, 450 East Copans, Pompano Beach, FL 33064</td>
<td>Dowel Bar Adhesive</td>
<td>2016-242Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ASF-1000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>1992-013B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ULTRABOND 1300</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>2016-017Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ULTRABOND 365CC</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>2018-040Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ULTRABOND HS-1CC</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>2002-048Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ULTRABOND HS-200</td>
<td></td>
</tr>
</tbody>
</table>
## Section 516: Concrete Pavement Patching

### 516.2(k) Anchor Material

Last Revised: 2/7/2019

Note: Adhesive anchors are not to be used for permanent installations which have the anchor in tension due to external loading regardless of whether the anchor is in a horizontal or vertical position. External loading can be from moment, moment and shear or direct tension to cause tension in the anchor. Tension due to a torqued bolt is not an external load.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCMAT 15</td>
<td>Cornerstone Construction Material, LLC, 1618 East Elm Street, Harrisonville, MO 64701 <a href="http://ccmaterial.com">http://ccmaterial.com</a></td>
<td>2017-236Q</td>
</tr>
<tr>
<td>Facility</td>
<td>101 East Walnut Street Archie, MO 64725</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>CE308 Epoxy Anchoring Gel</td>
</tr>
<tr>
<td>DEWA 15</td>
<td>DEWALT Anchors, 701 E. Joppa Road, Towson, MD 21286</td>
<td>2017-253Q</td>
</tr>
<tr>
<td>Facility</td>
<td>Willich, Germany</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>AC100+ Gold</td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com">http://www.euclidchemical.com</a></td>
<td>2003-098Q</td>
</tr>
<tr>
<td>Facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>Dural 452 Gel</td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>Dural Fast Set Epoxy Gel</td>
</tr>
<tr>
<td>HILT- 15</td>
<td>Hilti, Inc., 5400 South 122nd East Ave., P.O. Box 21148, Tulsa, OK 74121 <a href="https://www.hilti.com">https://www.hilti.com</a></td>
<td>2001-100Q</td>
</tr>
<tr>
<td>Facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>HIT-RE 500 Anchoring Epoxy</td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>HVU Adhesive Capsule</td>
</tr>
<tr>
<td>HILT1 15</td>
<td>Hilti, Inc., 7250 Dallas Parkway, Suite 1000, Plano, TX 75024 <a href="https://www.hilti.com">https://www.hilti.com</a></td>
<td>2014-106QA</td>
</tr>
<tr>
<td>Plant</td>
<td>Kaufering, Germany</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>HIT-HY 10 PLUS Adhesive Anchor System</td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>HIT-HY 150 Injection Adhesive</td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>HIT-RE 100 Adhesive Anchor</td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>HIT-RE 500 V3 Adhesive Anchor System</td>
</tr>
<tr>
<td>ITW-R 15</td>
<td>ITW Commercial Construction North America, 155 Harlem Avenue, Glenview, IL 60025 <a href="http://www.itwredhead.com">http://www.itwredhead.com</a></td>
<td>2017-289Q</td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>Red Head C6+</td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td>Red Head G5+</td>
</tr>
</tbody>
</table>
Section 516: Concrete Pavement Patching

516.2(k) Anchor Material

Note: Adhesive anchors are not to be used for permanent installations which have the anchor in tension due to external loading regardless of whether the anchor is in a horizontal or vertical position. External loading can be from moment, moment and shear or direct tension to cause tension in the anchor. Tension due to a torqued bolt is not an external load.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dowel Bar Adhesive</td>
<td>Red Head A7+</td>
<td>2016-241</td>
</tr>
<tr>
<td>Dowel Bar Adhesive</td>
<td>Sure-Poxy 116</td>
<td>1992-169</td>
</tr>
<tr>
<td>Dowel Bar Adhesive</td>
<td>Sure-Poxy 117</td>
<td>1990-371</td>
</tr>
<tr>
<td>MEDW0 15</td>
<td>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338 <a href="http://www.wrmeadows.com/">http://www.wrmeadows.com/</a></td>
<td></td>
</tr>
<tr>
<td>Dowel Bar Adhesive</td>
<td>Rezi-Weld Gel Paste (Construction Epoxy)</td>
<td>1993-280</td>
</tr>
<tr>
<td>Dowel Bar Adhesive</td>
<td>Liquid Roc 300 Twin Tube Polyester Resin</td>
<td>1994-199</td>
</tr>
<tr>
<td>Dowel Bar Adhesive</td>
<td>#1257 Epoxy Anchoring Adhesive</td>
<td>1993-270</td>
</tr>
<tr>
<td>SIKA0 15 Facility</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td></td>
</tr>
<tr>
<td>Dowel Bar Adhesive</td>
<td>Sikadur DOT SP 3/4 DBA (Epoxy as Injection Gel)</td>
<td>1989-236</td>
</tr>
<tr>
<td>Dowel Bar Adhesive</td>
<td>Sikadur Injection Gel</td>
<td>1989-236</td>
</tr>
<tr>
<td>SIKA1 15 Plant</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td></td>
</tr>
<tr>
<td>Dowel Bar Adhesive</td>
<td>Sikadur DOT SP 3/4 DBA (Epoxy as Injection Gel)</td>
<td>1989-236</td>
</tr>
<tr>
<td>Dowel Bar Adhesive</td>
<td>Sikadur Injection Gel</td>
<td>1989-236</td>
</tr>
</tbody>
</table>
## Section 516: Concrete Pavement Patching

### 516.2(k) Anchor Material

**Note:** Adhesive anchors are not to be used for permanent installations which have the anchor in tension due to external loading regardless of whether the anchor is in a horizontal or vertical position. External loading can be from moment, moment and shear or direct tension to cause tension in the anchor. Tension due to a torqued bolt is not an external load.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIMST 15</td>
<td>Dowel Bar Adhesive (Formerly known as Acrylic-Tie)</td>
<td></td>
</tr>
<tr>
<td>SOCOM 15</td>
<td>Socom, Sogaris 196, 94656 Runngis Cdx, France</td>
<td>Dowel Bar Adhesive EPO 9030 Acrylic Adhesive 2004-181Q</td>
</tr>
</tbody>
</table>

### 516.2(m) Prefinished Cellular Polystyrene

**Last Revised:** 5/30/2018

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
### Section 523: Ultra-Thin Portland Cement Concrete Overlay

#### 523.2(a) Virgin Polypropylene Fibers

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORTA 15</td>
<td>Forta Corporation, 100 Forta Drive, Grove City, PA 16127 <a href="http://www.forta-fi.com/">http://www.forta-fi.com/</a></td>
<td>2010-201Q</td>
</tr>
<tr>
<td>Virgin Polypropylene Fibers</td>
<td>Forta Econo Net</td>
<td>2010-201Q</td>
</tr>
</tbody>
</table>

**Last Revised: 3/15/2017**
Section 525: Concrete Pavement Partial-Depth Repair

525.2(c) Rapid-Set Concrete Patching Material

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMD1 15 Plant</td>
<td>Western Material and Design, LLC, P.O. Box 268, Lee's Summit, MO 64063 <a href="https://wmdus.com/">https://wmdus.com/</a></td>
<td>WMD1 15</td>
<td>Rapid-Setting Concrete FasTrac 246 Concrete RSCP-2017-01-004 2018-197Q</td>
</tr>
</tbody>
</table>

Cannot be used with aggregate extenders. Meets the requirements of R1, R2, and R3 material in ASTM C928.
Section 527: Dowel Retrofit

527.2(c) Preformed Cellular Polystyrene
See Section 525.2(g) for approved preformed cellular polystyrene products.

527.2(d) Rapid Set Concrete Patching Material
See Section 525.2(c) for approved rapid set concrete patching material products.
# Section 529: Full Depth Individual Precast/Prestressed Concrete Pavement Slabs

## 529.2 Precast Concrete Pavement Slab

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Precast Concrete Pavement Slab</td>
<td>Super-Slab Precast Concrete Pavement System (PCPS)</td>
<td>2009-124</td>
</tr>
<tr>
<td></td>
<td>Full Depth Concrete Pavement Repair, Precast: Item 9516-2034 - 10&quot; Depth and Item 9516-3036 - 12&quot; Depth</td>
<td>Conditionally approved as an alternate Type A patch per Fort Miller Company’s specifications. Fort Miller Company is a licensor, fabricator, and trademark owner of Super-Slab.</td>
<td></td>
</tr>
<tr>
<td>NORPR15</td>
<td>Northeast Precast, 92 Reese Road, Millville, NJ 08332 <a href="http://www.northeastprecast.com/">http://www.northeastprecast.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precast Concrete Pavement Slab</td>
<td>Super-Slab Precast Concrete Pavement Panel Fabricator</td>
<td>2017-221</td>
</tr>
<tr>
<td></td>
<td>Full Depth Concrete Pavement Repair, Precast: Item 9000-0516 - 13&quot; Depth</td>
<td>Conditionally approved as an alternate Type A patch per the Super-Slab licensor’s (Fort Miller Company) specifications.</td>
<td></td>
</tr>
</tbody>
</table>
Section 530: Long-Life Concrete Pavement (LLCP)

530.2(b)1 High Performance Dowel Bar

530.2(e)1.c Long-Life Dowel Bar

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAR-1 15</td>
<td>Jarden Zinc Products, 2500 Old Stage Road, Greeneville, TN 37744</td>
<td><a href="http://www.jardenzinc.com/">http://www.jardenzinc.com/</a></td>
</tr>
<tr>
<td>Plant Statesville, NC</td>
<td>Rolled Zinc Alloy Tubular Dowel Bar</td>
<td>LifeDowel</td>
</tr>
</tbody>
</table>
## Section 548: Unbonded Concrete Overlay of Concrete-Surfaced Pavements

### 548.2(a) Non-Woven Geotextile Interlayer

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

Last Revised: 6/7/2018
Section 601: Pipe Culverts

601.2(a)3a Round and Elliptical Reinforced Concrete (RC) Pipe

Companies maintaining an American Concrete Pipe Association Q-Cast certification or NPCA Pipe certification do not require in-plant inspection for standard design concrete pipe (any diameter).

All special design pipe will receive in-plant inspection and an inspection stamp, regardless of the manufacturer’s certification status. Special design pipe are identified as those pipe for which the Department has not provided a standard design in BD-636. Special design pipe are identified in BD-636 by a double asterisk (**). Pipe produced by Q-Cast or NPCA certified companies will be stenciled or stamped with the respective logos.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Pipe Certification</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAGLE 15</td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
<td>NPCA</td>
<td>-----</td>
</tr>
<tr>
<td>RC Pipe (End Section)</td>
<td></td>
<td>NPCA</td>
<td>----</td>
</tr>
<tr>
<td>RC Pipe (Round)</td>
<td></td>
<td></td>
<td>----</td>
</tr>
<tr>
<td>HANS2 15</td>
<td>Forterra, 7925 Empire Parkway, Macedonia, OH 44056-2144 <a href="http://www.forterrabp.com">http://www.forterrabp.com</a></td>
<td>ACPA Q-Cast</td>
<td>----</td>
</tr>
<tr>
<td>Formerly Hanson Pipe &amp; Precast</td>
<td></td>
<td>ACPA Q-Cast</td>
<td>----</td>
</tr>
<tr>
<td>RC Pipe (Elliptical)</td>
<td></td>
<td></td>
<td>----</td>
</tr>
<tr>
<td>RC Pipe (Round)</td>
<td></td>
<td></td>
<td>----</td>
</tr>
<tr>
<td>HANS3 15</td>
<td>Forterra, 1500 Haul Rd., Columbus, OH 43207 <a href="http://www.forterrabp.com">http://www.forterrabp.com</a></td>
<td>NPCA</td>
<td>----</td>
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<tr>
<td>Formerly Hanson Pipe &amp; Precast</td>
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<td>NPCA</td>
<td>----</td>
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<tr>
<td>RC Pipe (Elliptical)</td>
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<td>----</td>
</tr>
<tr>
<td>RC Pipe (Round)</td>
<td></td>
<td></td>
<td>----</td>
</tr>
<tr>
<td>HYDR1 15</td>
<td>Hydro Conduit Corporation dba Rinker Materials/Concrete Pipe Division, 2000 Gregg Station Road, Oakdale, PA 15071 <a href="http://www.rinkerpipe.com">http://www.rinkerpipe.com</a></td>
<td>ACPA Q-Cast</td>
<td>----</td>
</tr>
<tr>
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<td></td>
<td>ACPA Q-Cast</td>
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</tr>
<tr>
<td>RC Pipe (Elliptical)</td>
<td></td>
<td></td>
<td>----</td>
</tr>
<tr>
<td>RC Pipe (End Section)</td>
<td></td>
<td></td>
<td>----</td>
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<tr>
<td>RC Pipe (Round)</td>
<td></td>
<td></td>
<td>----</td>
</tr>
<tr>
<td>HYDR2 15</td>
<td>Hydro Conduit Corporation dba Rinker Materials/Concrete Pipe Division, 800 Industrial Drive, Middletown, DE 19709 <a href="http://www.rinkerpipe.com">http://www.rinkerpipe.com</a></td>
<td>ACPA Q-Cast</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACPA Q-Cast</td>
<td>----</td>
</tr>
<tr>
<td>RC Pipe (Elliptical)</td>
<td></td>
<td></td>
<td>----</td>
</tr>
<tr>
<td>RC Pipe (End Section)</td>
<td></td>
<td></td>
<td>----</td>
</tr>
<tr>
<td>RC Pipe (Round)</td>
<td></td>
<td></td>
<td>----</td>
</tr>
</tbody>
</table>
# Section 601: Pipe Culverts

## 601.2(a)3a Round and Elliptical Reinforced Concrete (RC) Pipe

Companies maintaining an American Concrete Pipe Association Q-Cast certification or NPCA Pipe certification do not require in-plant inspection for standard design concrete pipe (any diameter).

All special design pipe will receive in-plant inspection and an inspection stamp, regardless of the manufacturer’s certification status. Special design pipe are identified as those pipe for which the Department has not provided a standard design in BD-636. Special design pipe are identified in BD-636 by a double asterisk (**). Pipe produced by Q-Cast or NPCA certified companies will be stenciled or stamped with the respective logos.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Pipe Certification</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDR3 15</td>
<td>Hydro Conduit Corporation dba Rinker Materials/Concrete Pipe Division, 4200 Universal Drive, Diamond, OH 44412 <a href="http://www.rinkerpipe.com/">http://www.rinkerpipe.com/</a></td>
<td>ACPA Q-Cast</td>
<td>HYDR3 15</td>
</tr>
<tr>
<td>RC Pipe (Elliptical)</td>
<td>Only manufactures elliptical pipe with a major axis of 45” (1150mm) or greater</td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
<tr>
<td>RC Pipe (Round)</td>
<td>Only manufactures round pipe with a diameter of 48” (1200mm) or greater</td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
<tr>
<td>OLDP1 15</td>
<td>Oldcastle Infrastructure, Inc., a CRH Company, 1900 Pennsylvania Ave., Croydon, PA 19021 <a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
<td>ACPA Q-Cast</td>
<td>OLDP1 15</td>
</tr>
<tr>
<td>RC Pipe (End Section)</td>
<td></td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
<tr>
<td>RC Pipe (Round)</td>
<td></td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
<tr>
<td>OLDP3 15</td>
<td>Oldcastle Infrastructure, Inc., a CRH Company, 1920 12th Street, Williamstown, NJ 08094 <a href="https://oldcastleinfrastructure.com/">https://oldcastleinfrastructure.com/</a></td>
<td>ACPA Q-Cast</td>
<td>OLDP3 15</td>
</tr>
<tr>
<td>Plant 1920 12th Street (Rt. 54) Folsom, NJ 08037</td>
<td></td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
<tr>
<td>RC Pipe (Elliptical)</td>
<td>Except for the two projects noted below, pipe fabricated on or after August 16, 2019 is NOT approved for use on PennDOT projects. The special-design pipes for ECMS 106881 in Fayette County and PO4300631228 in Susquehanna County will be allowed to be completed and shipped for these two projects.</td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
<tr>
<td>RC Pipe (End Section)</td>
<td>Except for the two projects noted below, pipe fabricated on or after August 16, 2019 is NOT approved for use on PennDOT projects. The special-design pipes for ECMS 106881 in Fayette County and PO4300631228 in Susquehanna County will be allowed to be completed and shipped for these two projects.</td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
<tr>
<td>RC Pipe (Round)</td>
<td>Except for the two projects noted below, pipe fabricated on or after August 16, 2019 is NOT approved for use on PennDOT projects. The special-design pipes for ECMS 106881 in Fayette County and PO4300631228 in Susquehanna County will be allowed to be completed and shipped for these two projects.</td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
</tbody>
</table>
Section 601: Pipe Culverts

601.2(a)3a Round and Elliptical Reinforced Concrete (RC) Pipe

Companies maintaining an American Concrete Pipe Association Q-Cast certification or NPCA Pipe certification do not require in-plant inspection for standard design concrete pipe (any diameter).

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Pipe Certification</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLP-2 15</td>
<td>Oldcastle Infrastructure, Inc., a CRH Company, 3900 Glover Road, Easton, PA 18040</td>
<td>NPCA</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Formerly Oldcastle Precast</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RC Pipe (Elliptical)</td>
<td>NPCA</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>RC Pipe (End Section)</td>
<td>NPCA</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>RC Pipe (Round)</td>
<td>NPCA</td>
<td>-----</td>
</tr>
<tr>
<td>UPPCP 15</td>
<td>Upper Peninsula Concrete Pipe, P. O. Box 313, Escanaba, MI 49829</td>
<td>NPCA</td>
<td>-----</td>
</tr>
<tr>
<td>VIANN 15</td>
<td>Vianini Pipe Inc., P. O. Box 678, Somerville, NJ 08876</td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>RC Pipe (Elliptical)</td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>RC Pipe (End Section)</td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>RC Pipe (Round)</td>
<td>ACPA Q-Cast</td>
<td>-----</td>
</tr>
</tbody>
</table>

601.2(a)3a Reinforced Concrete (RC) Pipe (Related Items)

Plasticizing admixtures under this section may only be used in the production of reinforced concrete pipes.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS-1 15</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td>2013-024Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Allentown, PA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plasticizing Admixture for Dry-Cast Manufacturing Only (S-PA)</td>
<td>MasterCast 900 (RheoFIT 900)</td>
</tr>
</tbody>
</table>

Recommended Dosage: 2 to 12 oz/cwt
Section 601: Pipe Culverts

601.2(a)3a Reinforced Concrete (RC) Pipe (Related Items)  
Last Revised: 3/6/2020
Plasticizing admixtures under this section may only be used in the production of reinforced concrete pipes.

<table>
<thead>
<tr>
<th>Product / Name Ref. No.</th>
<th>Product Name</th>
<th>Product Name Ref. No.</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONAM 15</td>
<td>Concrete Accessory Manufacturing, 211 East Dowland Street, Ludington, MI 49431</td>
<td>RC Pipe (Related Item)</td>
<td>Camlock Spacers (Pub. 280)</td>
<td>1994-250</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RC Pipe (Related Item)</td>
<td>Quik-Fit Stirrup Mat (Pub. 280)</td>
<td>1994-249</td>
</tr>
<tr>
<td>ENGWP 15</td>
<td>Engineered Wire Products, Inc., 1200 N. Warpole Street, P. O. Box 313, Upper Sandusky, OH 43351</td>
<td>RC Pipe (Related Item)</td>
<td>“S” Stirrup Assemblies</td>
<td>2003-198Q</td>
</tr>
<tr>
<td></td>
<td>(Liberty Steel USA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRAC7 15</td>
<td>GCP Applied Technologies Inc., 6051 West 65th St., Bedford Park, Chicago, IL 60638</td>
<td>Plasticizing Admixture</td>
<td>DQuantec PL-466 (formerly DBM-S)</td>
<td>1992-285</td>
</tr>
<tr>
<td></td>
<td>Formerly: W. R. Grace and Company</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HAALA 15</td>
<td>Haala Industries, Inc., 1201 Hwy 4 South, Sleepy Eye, MN 56085</td>
<td>Reinforced Concrete Pipe Cages</td>
<td>Fabricator of Welded Steel Cages for Reinforced Flared End Sections</td>
<td>2016-245Q</td>
</tr>
<tr>
<td>KRETE 15</td>
<td>Krete Industries, P. O. Box 343, Butler, WI 53007</td>
<td>Plasticizing Admixture</td>
<td>KreteMix 100 (formerly Krete Econo Plast)</td>
<td>1992-343</td>
</tr>
<tr>
<td>SIKA3 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Plasticizing Admixture for Dry-Cast Manufacturing Only (S-PA)</td>
<td>SikaMix PL-100</td>
<td>2016-282Q</td>
</tr>
</tbody>
</table>

601.2(a)4.a Metal Pipes - Ductile Iron Pipe  
Last Revised: 6/27/2017
Steel Products Procurement Act applies. Note: Approved pipe manufacturers listed in this section also may provide end sections and slope pipe fittings.

<table>
<thead>
<tr>
<th>Product / Name Ref. No.</th>
<th>Product Name</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMECI 15</td>
<td>American Cast Iron Pipe Company, 1501 31st Avenue North, Birmingham, AL 35207</td>
<td>Ductile Iron Pipe</td>
<td>2010-186Q</td>
</tr>
</tbody>
</table>
Section 601: Pipe Culverts

601.2(a)4.a Metal Pipes - Ductile Iron Pipe

Steel Products Procurement Act applies. Note: Approved pipe manufacturers listed in this section also may provide end sections and slope pipe fittings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCWD1</td>
<td>McWane Ductile - New Jersey</td>
</tr>
<tr>
<td>15</td>
<td>183 Sitgraves Street,</td>
</tr>
<tr>
<td></td>
<td>Philipsburg, NJ 08865</td>
</tr>
<tr>
<td>USP&amp;F</td>
<td>U.S. Pipe and Foundry Company</td>
</tr>
<tr>
<td>15</td>
<td>1101 E. Pearl St., Burlington</td>
</tr>
<tr>
<td></td>
<td>NJ 08016</td>
</tr>
<tr>
<td>USPF1</td>
<td>United States Pipe and Foundry</td>
</tr>
<tr>
<td>15</td>
<td>Company, Two Chase Corporate</td>
</tr>
<tr>
<td></td>
<td>Drive, Suite 200, Birmingham,</td>
</tr>
<tr>
<td></td>
<td>AL 35244</td>
</tr>
</tbody>
</table>

601.2(a)4.b Metal Pipes - Corrugated Steel Pipe, Metallic Coated

Steel Products Procurement Act applies. Note: Approved pipe manufacturers listed in this section also may provide end sections and slope pipe fittings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON03</td>
<td>Contech Engineered Solutions,</td>
</tr>
<tr>
<td>15</td>
<td>a QUIKRETE Company, 5</td>
</tr>
<tr>
<td>Plant</td>
<td>Concourse Parkway, Suite 1900,</td>
</tr>
<tr>
<td></td>
<td>Atlanta, GA 30328</td>
</tr>
<tr>
<td>CON05</td>
<td>Contech Engineered Solutions,</td>
</tr>
<tr>
<td>15</td>
<td>a QUIKRETE Company, 5</td>
</tr>
<tr>
<td>Plant</td>
<td>Concourse Parkway, Suite 1900,</td>
</tr>
<tr>
<td></td>
<td>Atlanta, GA 30328</td>
</tr>
<tr>
<td>CON07</td>
<td>Contech Engineered Solutions,</td>
</tr>
<tr>
<td>15</td>
<td>a QUIKRETE Company, 5</td>
</tr>
<tr>
<td>Plant</td>
<td>Concourse Parkway, Suite 1900,</td>
</tr>
<tr>
<td></td>
<td>Atlanta, GA 30328</td>
</tr>
<tr>
<td>CON08</td>
<td>Contech Engineered Solutions,</td>
</tr>
<tr>
<td>15</td>
<td>a QUIKRETE Company, 5</td>
</tr>
<tr>
<td>Plant</td>
<td>Concourse Parkway, Suite 1900,</td>
</tr>
<tr>
<td></td>
<td>Atlanta, GA 30328</td>
</tr>
</tbody>
</table>
### Section 601: Pipe Culverts

**601.2(a)4.b Metal Pipes - Corrugated Steel Pipe, Metallic Coated**

Steel Products Procurement Act applies. Note: Approved pipe manufacturers listed in this section also may provide end sections and slope pipe fittings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Raleigh, NC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Steel Pipe, Metallic Coated</td>
<td>-----</td>
</tr>
<tr>
<td>CON12 15</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 <a href="http://www.conteches.com/">http://www.conteches.com/</a></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Greencastle, PA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Steel Pipe, Metallic Coated</td>
<td>-----</td>
</tr>
<tr>
<td>CULVE 15</td>
<td>Culverts, Inc., 330 Pittsburgh Ave., P.O. Box 271, Coraopolis, PA 15108 <a href="http://www.culvertsinc.com/Pages/default.aspx">http://www.culvertsinc.com/Pages/default.aspx</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Steel Pipe, Metallic Coated</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Related Hardware</td>
<td>Band Angle</td>
</tr>
<tr>
<td></td>
<td>Related Hardware</td>
<td>Pipe Bands</td>
</tr>
<tr>
<td></td>
<td>Corrugated Steel Pipe, Metallic Coated</td>
<td>-----</td>
</tr>
<tr>
<td>LANE2 15</td>
<td>Lane Enterprises, Inc., 682 Quaker Valley Road, Bedford, PA 15522 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Steel Pipe, Metallic Coated</td>
<td>-----</td>
</tr>
<tr>
<td>LANE3 15</td>
<td>Lane Enterprises, Inc., 8271 Mercer St., P.O. Box 345, Pulaski, PA 16143 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Steel Pipe, Metallic Coated</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Corrugated Steel Pipe, Metallic Coated</td>
<td>-----</td>
</tr>
</tbody>
</table>
## Section 601: Pipe Culverts

### 601.2(a)4.b Metal Pipes - Corrugated Steel Pipe, Metallic Coated

Steel Products Procurement Act applies. Note: Approved pipe manufacturers listed in this section also may provide end sections and slope pipe fittings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP-S 15</td>
<td>LMP Steel &amp; Wire Company, 2000 East First Street, Maryville, MO 64468</td>
<td>1991-120AB</td>
</tr>
</tbody>
</table>

### 601.2(a)4.c Metal Pipes - Corrugated Aluminum Alloy Pipe

Steel Products Procurement Act applies. Note: Approved pipe manufacturers listed in this section also may provide end sections and slope pipe fittings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON03 15 Plant</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 <a href="http://www.conteches.com/">http://www.conteches.com/</a> Conyers, GA</td>
<td>----</td>
</tr>
<tr>
<td>CON08 15 Plant</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 <a href="http://www.conteches.com/">http://www.conteches.com/</a> Palmer, MA</td>
<td>----</td>
</tr>
<tr>
<td>CULVE 15</td>
<td>Culverts, Inc., 330 Pittsburgh Ave., P.O. Box 271, Coraopolis, PA 15108 <a href="http://www.culvertsinc.com/Pages/default.aspx">http://www.culvertsinc.com/Pages/default.aspx</a></td>
<td>----</td>
</tr>
</tbody>
</table>
## Section 601: Pipe Culverts

### 601.2(a)4.c Metal Pipes - Corrugated Aluminum Alloy Pipe

**Steel Products Procurement Act applies. Note: Approved pipe manufacturers listed in this section also may provide end sections and slope pipe fittings.**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANE3 15</td>
<td>Lane Enterprises, Inc., 8271 Mercer St., P.O. Box 345, Pulaski, PA 16143 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td>Corrugated Aluminum Alloy Pipe</td>
</tr>
</tbody>
</table>

### 601.2(a)4.d Metal Pipes - Coated Corrugated Galvanized Steel Pipe

**Steel Products Procurement Act applies. Note: Approved pipe manufacturers listed in this section also may provide end sections and slope pipe fittings.**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON03 15</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 <a href="http://www.conteches.com/">http://www.conteches.com/</a></td>
<td>Coated Corrugated Galvanized Steel Pipe</td>
</tr>
<tr>
<td>CON08 15</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 <a href="http://www.conteches.com/">http://www.conteches.com/</a></td>
<td>Coated Corrugated Galvanized Steel Pipe</td>
</tr>
</tbody>
</table>
### Section 601: Pipe Culverts

#### 601.2(a)4.d Metal Pipes - Coated Corrugated Galvanized Steel Pipe

Steel Products Procurement Act applies. Note: Approved pipe manufacturers listed in this section also may provide end sections and slope pipe fittings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON12 15</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 <a href="http://www.conteches.com/">http://www.conteches.com/</a> Greencastle, PA</td>
<td>----</td>
</tr>
<tr>
<td>CULVE 15</td>
<td>Culverts, Inc., 330 Pittsburgh Ave., P.O. Box 271, Coraopolis, PA 15108 <a href="http://www.culvertsinc.com/Pages/default.aspx">http://www.culvertsinc.com/Pages/default.aspx</a></td>
<td>----</td>
</tr>
</tbody>
</table>

#### 601.2(a)6.a Thermoplastic Pipes - Group I

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
# Section 601: Pipe Culverts

## 601.2(a)6.a Thermoplastic Pipes - Group I

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON10 15</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 <a href="http://www.conteches.com/">http://www.conteches.com/</a></td>
<td>Type S</td>
<td>15 in. size pipe can only be used for maintenance.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Snap-Tite Culvert Liner with SDR of 32.5 is for use on rehabilitation projects for lining existing corrugated metal pipes, reinforced concrete pipes, and concrete culverts. For fill heights of greater than 15', a project-by-project design approval is required.
# Section 601: Pipe Culverts

## 601.2(a)6.a Thermoplastic Pipes - Group I

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Oklahoma City, OK</td>
<td>Polyvinyl Chloride (PVC) F 1803 Closed Profile Gravity Pipe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly PW Eagle</td>
<td>Polyvinyl Chloride (PVC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ROYAL 15</td>
<td>Polyvinyl Chloride (PVC)</td>
<td>Type S</td>
<td>15&quot;, 18&quot;, 21&quot;, 24&quot;</td>
<td>2002-012Q</td>
</tr>
<tr>
<td>Pipe</td>
<td></td>
<td>30&quot;, 36&quot; (corrugated)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15" size pipe for maintenance uses only.

15" size pipe for maintenance only.

## 601.2(a)6.b Thermoplastic Pipes - Group II

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe</td>
<td>High Density Polyethylene (HDPE)</td>
<td>Type S</td>
<td></td>
</tr>
</tbody>
</table>

15" size pipe for maintenance only.

## 601.2(a)6.c Thermoplastic Pipes - Group III

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.
Section 601: Pipe Culverts

601.2(a)6.c Thermoplastic Pipes - Group III

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Section 601: Pipe Culverts

601.2(a)6.c Thermoplastic Pipes - Group III

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Poly Smooth-Line</td>
<td>2001-014Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Solid Poly-Drain</td>
<td>2000-040Q</td>
<td></td>
</tr>
<tr>
<td>DRAPR 15</td>
<td>Drainage Products, Inc., (Haviland Drainage Products), Main Street, Box 97, Haviland, OH 45851 <a href="http://haviland-drainage.com">http://haviland-drainage.com</a></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>18&quot;, 21&quot;, 24&quot;, 30&quot;</td>
<td>2000-124Q</td>
</tr>
</tbody>
</table>
Section 601: Pipe Culverts

601.2(a)6.c Thermoplastic Pipes - Group III

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Therm Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>JME-1 15</td>
<td>JM Eagle, 15661 Delano Road, Cochranton, PA 16314-0000</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>15&quot;</td>
<td>2015-042QA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15&quot; size pipe for maintenance only.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>16&quot;</td>
<td>2015-042QB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>24&quot;</td>
<td>2015-042QC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>30&quot;</td>
<td>2015-042QD</td>
</tr>
<tr>
<td>LANE6 15</td>
<td>Lane Enterprises, Inc., 34 Strohm Road, Shippensburg, PA 17257</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shippensburg, PA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td></td>
<td></td>
<td>1996-190</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>24&quot;</td>
<td>2016-068Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>18&quot;</td>
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<tr>
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<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>24&quot;</td>
</tr>
</tbody>
</table>
Section 601: Pipe Culverts

601.2(a)6.c Thermoplastic Pipes - Group III  
Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.  
Last Revised: 5/17/2018

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>15” size pipe for maintenance only.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>30”</td>
<td>2010-099Q</td>
</tr>
</tbody>
</table>

601.2(a)6.d Thermoplastic Pipes - Group IV  
Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.  
Type D: This pipe shall consist of an essentially smooth waterway braced circumferentially or spirally with projections or ribs joined to an essentially smooth outer wall. Both walls shall be fused to, or continuous with, the internal supports.  
Last Revised: 1/1/2018

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type D</td>
<td>42”, 48”</td>
<td>1997-128</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>42”</td>
<td>2000-003Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>48”</td>
<td>2001-199Q</td>
</tr>
</tbody>
</table>
Section 601: Pipe Culverts

### 601.2(a)6.d Thermoplastic Pipes - Group IV

**Type S:** This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

**Type D:** This pipe shall consist of an essentially smooth waterway braced circumferentially or spirally with projections or ribs joined to an essentially smooth outer wall. Both walls shall be fused to, or continuous with, the internal supports.

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plant 173 Industrial Park North  Muncy, PA 17756</td>
<td>Type S</td>
<td>42&quot;</td>
<td>2000-003Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type S</td>
<td>48&quot;</td>
<td>2001-193Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type S</td>
<td>60&quot;</td>
<td>2003-069Q</td>
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<td></td>
<td></td>
<td>N-12</td>
<td>42&quot;, 48&quot;</td>
<td>1997-128</td>
</tr>
</tbody>
</table>

Last Revised: 1/11/2018
## Section 601: Pipe Culverts

### 601.2(a)6.d Thermoplastic Pipes - Group IV

**Type S:** This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

**Type D:** This pipe shall consist of an essentially smooth waterway braced circumferentially or spirally with projections or ribs joined to an essentially smooth outer wall. Both walls shall be fused to, or continuous with, the internal supports.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADS-3 15</td>
<td>Advanced Drainage Systems Inc., 4640 Trueman Blvd, Hilliard, OH 43026</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>36&quot;</td>
<td>1995-322</td>
</tr>
<tr>
<td>Plant</td>
<td>Ludlow, MA</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>42&quot;</td>
<td>2000-003Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type D</td>
<td>42&quot;</td>
<td>1997-128</td>
</tr>
<tr>
<td>ADS-8 15</td>
<td>Advanced Drainage Systems, Inc., 4640 Trueman Blvd., Hilliard, OH 43026</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>36&quot;</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Findlay South Plant #37 12370 County Road 172 Findlay, OH 45840 Formerly Hancor, Inc. (HANC0 15)</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>54&quot;, 60&quot;</td>
<td>1998-017</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Sure-Lok Annular Corrugated, PE</td>
<td>42&quot;, 48&quot;</td>
<td>1997-134</td>
</tr>
</tbody>
</table>
Section 601: Pipe Culverts

601.2(a)6.d Thermoplastic Pipes - Group IV

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

Type D: This pipe shall consist of an essentially smooth waterway braced circumferentially or spirally with projections or ribs joined to an essentially smooth outer wall. Both walls shall be fused to, or continuous with, the internal supports.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADS10 15</td>
<td>Advanced Drainage Systems, Inc., 4640 Trueman Blvd., Hilliard, OH 43026</td>
<td>Type S</td>
<td>36&quot;</td>
<td>-----</td>
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</tr>
<tr>
<td></td>
<td>Formerly Hancor, Inc. (HANC1 15)</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>54&quot;, 60&quot;</td>
<td>1998-017</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>High Density Sure-Lok Annular Corrugated, PE</td>
<td>42&quot;, 48&quot;</td>
<td>1997-134</td>
<td></td>
</tr>
<tr>
<td>BAUGH 15</td>
<td>Baughman Tile Company, 8516 Township Rd. #137, Paulding, OH 45879</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>36&quot;</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>42&quot;, 48&quot;</td>
<td>2010-035QAC</td>
</tr>
<tr>
<td>DRA PR 15</td>
<td>Drainage Products, Inc., (Haviland Drainage Products), Main Street, Box 97, Haviland, OH 45851</td>
<td>Type S</td>
<td>36&quot;, 42&quot;</td>
<td>2000-124Q</td>
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</tbody>
</table>

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Section 601: Pipe Culverts

601.2(a)6.d Thermoplastic Pipes - Group IV

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

Type D: This pipe shall consist of an essentially smooth waterway braced circumferentially or spirally with projections or ribs joined to an essentially smooth outer wall. Both walls shall be fused to, or continuous with, the internal supports.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>JME-1 15</td>
<td>JM Eagle, 15661 Delano Road, Cochranton, PA 16314-0000</td>
<td>Type S</td>
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<td>2015-043QA</td>
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<td>High Density Polyethylene (HDPE)</td>
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<td>Pipe</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE)</td>
<td>Type S</td>
<td>42&quot;</td>
<td></td>
<td>2015-043QB</td>
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<tr>
<td></td>
<td>Pipe</td>
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<tr>
<td>LANE6 15</td>
<td>Lane Enterprises, Inc., 34 Strohm Road, Shippensburg, PA 17257</td>
<td>Type S</td>
<td>36&quot;</td>
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<td>1996-272</td>
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<tr>
<td>Plant</td>
<td><a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
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</tr>
<tr>
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<td>High Density Polyethylene (HDPE)</td>
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<td></td>
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</tr>
<tr>
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<td>High Density Polyethylene (HDPE)</td>
<td>Type S</td>
<td>42&quot;, 48&quot;</td>
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<td>2004-047</td>
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<td>High Density Polyethylene (HDPE)</td>
<td>Type S</td>
<td>60&quot;</td>
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<td>2016-054Q</td>
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<td>Pipe</td>
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<tr>
<td>LANE7 15</td>
<td>Lane Enterprises, Inc., 510 Kents Lane, Wytheville, VA 24382</td>
<td>Type S</td>
<td>36&quot;</td>
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<td>2010-100Q</td>
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<tr>
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<td><a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
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</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE)</td>
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</tr>
<tr>
<td></td>
<td>Pipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

601.2(a)6.e Thermoplastic Pipes - Group V

Type C: This pipe shall have a full circular cross section, with a corrugated surface both inside and outside. Corrugations may be either annular or helical.
# Section 601: Pipe Culverts

## 601.2(a)6.e Thermoplastic Pipes - Group V

Type C: This pipe shall have a full circular cross section, with a corrugated surface both inside and outside. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>173 Industrial Park North Muncy, PA 17756</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Old Route 30 West Wooster, OH 44691</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Ludlow, MA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section 601: Pipe Culverts

#### 601.2(a)6.e Thermoplastic Pipes - Group V

Type C: This pipe shall have a full circular cross section, with a corrugated surface both inside and outside. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADS-4 15 Plant</td>
<td>Advanced Drainage Systems Inc., 4640 Trueman Blvd, Hilliard, OH 43026</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type C 15&quot;, 18&quot;, 24&quot;</td>
<td>1995-322</td>
<td></td>
</tr>
<tr>
<td>ADS-8 15 Plant</td>
<td>Advanced Drainage Systems, Inc., 4640 Trueman Blvd., Hilliard, OH 43026</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>15&quot; size pipe for maintenance use only.</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>ADS10 15 Plant</td>
<td>Advanced Drainage Systems, Inc., 4640 Trueman Blvd., Hilliard, OH 43026</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>15&quot; size pipe for maintenance use only.</td>
<td>----</td>
<td></td>
</tr>
</tbody>
</table>
Section 601: Pipe Culverts

### 601.2(a)6.e Thermoplastic Pipes - Group V

Type C: This pipe shall have a full circular cross section, with a corrugated surface both inside and outside. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANE6 15 Plant Lane Enterprises, Inc., 34 Strohm Road, Shippensburg, PA 17257 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shippensburg, PA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15” size pipe for maintenance use only.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type C</td>
<td>24”</td>
<td>2010-098Q</td>
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</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>18”, 21”, 24”, 21”, 24”, 21”, 24”</td>
<td>2016-086Q</td>
<td></td>
</tr>
</tbody>
</table>

### 601.2(a)6.f Thermoplastic Pipes - Group VI

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>173 Industrial Park North Muncy, PA 17756</td>
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</tr>
<tr>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>18”, 21”, 24”, 21”, 24”, 21”, 24”</td>
<td>432-04-01</td>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>18”, 24”, 30”, 36”, 42”, 48”, 60”</td>
<td>432-04-01</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>18”, 24”, 30”, 36”, 42”, 48”, 60”</td>
<td>2015-039QA</td>
<td>-----</td>
</tr>
</tbody>
</table>
Section 601: Pipe Culverts

601.2(a)6.f Thermoplastic Pipes - Group VI

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>173 Industrial Park North Muncy, PA 17756</td>
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<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
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</tr>
<tr>
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<td>Revised Profile</td>
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<td></td>
<td>N-12 Model No. 24850020IB</td>
<td>Type S</td>
<td>24”</td>
<td>2013-064MA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Polypropylene (PP) Pipe 36” HP Storm (3665 0020 IBPL)</td>
<td>Type S</td>
<td>36”</td>
<td>2017-020Q</td>
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<tr>
<td></td>
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<td>Polypropylene (PP) Pipe 42” HP Storm (4265 0020 IBPL)</td>
<td>Type S</td>
<td>42”</td>
<td>2017-012Q</td>
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<td>Polypropylene (PP) Pipe 48” HP Storm (4865 0020 IBPL)</td>
<td>Type S</td>
<td>48”</td>
<td>2017-011Q</td>
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<td>Polypropylene (PP) Pipe 60” HP Storm (6065 0020 IBPL)</td>
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<td>60”</td>
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<td></td>
<td>Old Route 30 West Wooster, OH 44691</td>
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<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
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<td></td>
<td></td>
<td>Polypropylene (PP) Pipe 18” HP Storm (1865 0020 IBPL)</td>
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<td>18”</td>
<td>2017-021Q</td>
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<tr>
<td></td>
<td></td>
<td>Polypropylene (PP) Pipe 24” HP Storm (2465 0020 IBPL)</td>
<td>Type S</td>
<td>24”</td>
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<tr>
<td></td>
<td></td>
<td>Polypropylene (PP) Pipe 30” HP Storm (3065 0020 IBPL)</td>
<td>Type S</td>
<td>30”</td>
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<tr>
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<td>Ludlow, MA</td>
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<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
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### Section 601: Pipe Culverts

#### 601.2(a)6.f Thermoplastic Pipes - Group VI

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td></td>
<td>Buena Vista, VA</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
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<td>Logan Township, NJ</td>
<td>N-12 Model Numbers 18850020IB &amp; 24850020IB</td>
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<tr>
<td></td>
<td>Findlay South Plant #37 12370 County Road 172 Findlay, OH 45840 <em>Formerly Hancor, Inc. (HANCO 15)</em></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
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<td>Polypropylene (PP) Pipe 18&quot; HP Storm (1865 0020 IBPL)</td>
<td>Type S</td>
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<td>Polypropylene (PP) Pipe 21&quot; HP Storm (2165 0020 IBPL)</td>
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<td>Polypropylene (PP) Pipe 24&quot; HP Storm (2465 0020 IBPL)</td>
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<td>Polypropylene (PP) Pipe 36&quot; HP Storm (3665 0020 IBPL)</td>
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<td>Polypropylene (PP) Pipe 42&quot; HP Storm (4265 0020 IBPL)</td>
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<td>Polypropylene (PP) Pipe 48&quot; HP Storm (4865 0020 IBPL)</td>
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<td>Polypropylene (PP) Pipe 60&quot; HP Storm (6065 0020 IBPL)</td>
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<td>39 Precision Drive North Springfield, VT</td>
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Section 601: Pipe Culverts

601.2(a)6.f Thermoplastic Pipes - Group VI

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

Last Revised: 12/11/2017

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
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<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
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<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
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<td>2010-035QB</td>
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<tr>
<td>JME-1 15</td>
<td>JM Eagle, 15661 Delano Road, Cochranton, PA 16314-0000</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
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</table>
Section 601: Pipe Culverts

601.2(a)6.f Thermoplastic Pipes - Group VI

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Plant</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
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<td>Type S</td>
<td>60”</td>
<td>2016-055Q</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>24”</td>
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<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>18”</td>
<td>2016-197Q</td>
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</tbody>
</table>

| Plant | High Density Polyethylene (HDPE) Pipe | HD100 | Type S | 18” | 2014-057Q |
| | High Density Polyethylene (HDPE) Pipe | HD100 | Type S | 24” | 2014-058Q |

601.2(a)6.g Thermoplastic Pipes - Group VII

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>Plant</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>18”</td>
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</table>

Last Revised: 12/11/2017

Last Revised: 1/15/2020

Last Revised: 1/15/2020
## Section 601: Pipe Culverts

### 601.2(a)6.g Thermoplastic Pipes - Group VII

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical. Last Revised: 1/15/2020

<table>
<thead>
<tr>
<th>Plant</th>
<th>Product</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
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<tr>
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<tr>
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<td>Revised Profile - Provisionally Approved.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>N-12 Model No. XX850020IBC2 (XX = diameter)</td>
<td>Type S</td>
<td>18&quot;, 21&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;, 54&quot;, 60&quot;</td>
<td>2010-266Q</td>
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<td>All sizes Provisionally Approved.</td>
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<td>LANE6 15 Plant</td>
<td>Lane Enterprises, Inc., 34 Strohm Road, Shippensburg, PA 17257</td>
<td><a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>30&quot;</td>
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</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>48&quot;</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
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<td>Type S</td>
<td>42&quot;</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>18&quot;</td>
<td>2016-291Q</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100Gold</td>
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<td>60&quot;</td>
<td>2016-198</td>
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</table>
## Section 601: Pipe Culverts

### 601.2(a)6.g Thermoplastic Pipes - Group VII

Type S: This pipe shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
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<td>2014-220Q</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>24&quot;</td>
<td>2014-221Q</td>
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Last Revised: 1/15/2020
Section 603: Metal Plate Culverts

603.2(a) Metal Plate Pipes, Metal Plate Pipe Arches, and Metal Plate Arches

Strike Off Letters (SOL) and Drawings for Approved Bridge and Structure Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON06 15 Plant</td>
<td>Contech Engineered Solutions LLC, a QUIKRETE Company, 9025 Centre Pointe Drive, West Chester, OH 45069 <a href="http://www.conteches.com/">http://www.conteches.com/</a></td>
<td>CON06</td>
<td>15</td>
</tr>
<tr>
<td>Metal Plate Culvert (Fabricator)</td>
<td>Aluminum Plate Pipe</td>
<td>1994-246</td>
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</tr>
<tr>
<td>Metal Plate Culvert (Fabricator)</td>
<td>Aluminum Structural Plate Box Culverts</td>
<td>483-19-05</td>
<td>2013-224</td>
</tr>
<tr>
<td>Metal Plate Culvert (Fabricator)</td>
<td>Steel Structural Plate for Culverts</td>
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<td></td>
</tr>
<tr>
<td><strong>Provisionally Approved.</strong> This material has been downgraded to provisional approval status until the manufacturer provides fill height tables to Bridge Design &amp; Technology Division. Approval date of letter: 10/26/2007</td>
<td></td>
<td></td>
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</tr>
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</table>

| LANE3 15 | Lane Enterprises, Inc., 8271 Mercer St., P.O. Box 345, Pulaski, PA 16143 [http://www.lane-enterprises.com/](http://www.lane-enterprises.com/) | LANE3 | 15 |
| Metal Plate Culvert (Fabricator) | Aluminum Structural Plate Box Culverts | 431-12-09 | 2012-110 |
| Metal Plate Culvert (Fabricator) | Aluminum Structural Plate for Culverts | 2006-041Q |
| **Provisionally Approved.** This material has provisional approval status until the manufacturer provides fill height tables to Bridge Design & Technology Division. |
| Metal Plate Culvert (Fabricator) | Steel Structural Plate for Culverts | ----- |
Section 604: Combination Storm Sewer and Underdrain

### 604.2(a)1 Nonmetal Pipes

**Type CP**: This pipe with perforations shall have a full circular cross section, with a corrugated surface both inside and outside. Corrugations may be either annular or helical.

**Type SP**: This pipe with perforations shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>AASHTO Pipe Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>12&quot;, 15&quot;, 18&quot;, 24&quot;, 30&quot;</td>
<td>1995-322</td>
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<tr>
<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>36&quot;</td>
<td>1995-322</td>
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<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
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<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
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<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>18&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;, 60&quot;</td>
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<tr>
<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
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<td>432-04-01</td>
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<td>Group VP Perforated Pipe (Polyethylene)</td>
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Revised Profile

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<th>Plant</th>
<th>Name</th>
<th>AASHTO Pipe Type</th>
<th>Pipe Size</th>
<th>SOL</th>
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<tr>
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<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
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<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
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<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
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<td>Group VP Perforated Pipe (Polyethylene)</td>
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Revised Profile

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<th>Plant</th>
<th>Name</th>
<th>AASHTO Pipe Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
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<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>12&quot;, 15&quot;, 18&quot;, 24&quot;, 30&quot;</td>
<td>1995-322</td>
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</tr>
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</table>
### Section 604: Combination Storm Sewer and Underdrain

**604.2(a)1 Nonmetal Pipes**

Type CP: This pipe with perforations shall have a full circular cross section, with a corrugated surface both inside and outside. Corrugations may be either annular or helical.

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>AASHTO Pipe Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
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<tr>
<td></td>
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<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
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<td>Type CP</td>
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<td></td>
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<td>Type SP</td>
<td>18&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;</td>
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<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Type CP</td>
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<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
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<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Type CP</td>
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</table>
Section 604: Combination Storm Sewer and Underdrain

604.2(a)1 Nonmetal Pipes

Type CP: This pipe with perforations shall have a full circular cross section, with a corrugated surface both inside and outside. Corrugations may be either annular or helical.

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>AASHTO Pipe Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Findlay South Plant #37 12370 County Road 172 Findlay, OH 45840 Formerly Hancor, Inc. (<a href="#">HANC0 15</a>)</td>
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<td></td>
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<tr>
<td></td>
<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>36&quot;, 42&quot;, 48&quot;</td>
<td>432-04-01</td>
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<td></td>
<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>18&quot;, 24&quot;, 30&quot;</td>
<td>432-04-01</td>
<td></td>
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<tr>
<td></td>
<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Type CP</td>
<td>12&quot;, 15&quot;, 18&quot;, 24&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                | 1 William Donnelly Parkway Waverly, NY 14892 Formerly Hancor, Inc. ([HANC1 15](#)) |                   |           |           |          |
|                | Group IIIP Perforated Pipe (Polyethylene)                            | Type SP          | 12", 15", 18", 24" |          |          |
|                | Group VIP Perforated Pipe (Polyethylene)                             | Type SP          | 18", 24" | 432-04-01 |          |
|                | Group VP Perforated Pipe (Polyethylene)                              | Type CP          | 12", 15", 18", 24" |          |          |

|                | Group IIIP Perforated Pipe (Polyethylene)                            | Type SP          | 24", 30" | 2001-015-016Q |          |
|                | Group VIP Perforated Pipe (Polyethylene)                             | Type SP          | 18", 24" | 432-04-01 |          |

| CON10 15 Plant | Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 [http://www.conteches.com/](http://www.conteches.com/) |                   |           |           |          |
|                | Springfield, IL                                                      |                   |           |           |          |
|                | Group IP Perforated Pipe (Polyvinyl Chloride)                        | Type SP          | 12", 15", 18", 24", 36" | 2000-327Q |          |
Section 604: Combination Storm Sewer and Underdrain

### 604.2(a)1 Nonmetal Pipes

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>AASHTO Pipe Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRAPR 15</td>
<td>Drainage Products, Inc., (Haviland Drainage Products), Main Street, Box 97, Haviland, OH 45851</td>
<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>12&quot;, 15&quot;, 18&quot;, 24&quot;, 30&quot;</td>
<td>2000-125Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>18&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;</td>
<td>432-04-01</td>
</tr>
<tr>
<td>HYDR2 15</td>
<td>Hydro Conduit Corporation dba Rinker Materials/Concrete Pipe Division, 800 Industrial Drive, Middletown, DE 19709</td>
<td>Reinforced Concrete (RC) Pipe</td>
<td>Elliptical</td>
<td>14&quot;x23&quot; to 58&quot;x91&quot;</td>
<td>2013-104Q</td>
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<td></td>
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<td>Reinforced Concrete (RC) Pipe</td>
<td>Round</td>
<td>12&quot; to 84&quot;</td>
<td>2013-104Q</td>
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<td>LANE6 15</td>
<td>Lane Enterprises, Inc., 34 Strohm Road, Shippensburg, PA 17257</td>
<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>12&quot;, 15&quot;, 30&quot;</td>
<td>1997-182</td>
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<td>Plant</td>
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<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>18&quot;</td>
<td>2016-194Q</td>
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<td>Group IIIP Perforated Pipe (Polyethylene) HD100</td>
<td>Type SP</td>
<td>24&quot;</td>
<td>2016-305Q</td>
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<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
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<td>Group IVP Perforated Pipe (Polyethylene) HD100</td>
<td>Type SP</td>
<td>42&quot;, 48&quot;</td>
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<td>Group IVP Perforated Pipe (Polyethylene) HD100</td>
<td>Type SP</td>
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<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
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<td>Group VIP Perforated Pipe (Polyethylene) HD100</td>
<td>Type SP</td>
<td>48&quot;</td>
<td>2016-196Q</td>
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<td>Group VIP Perforated Pipe (Polyethylene) HD100</td>
<td>Type SP</td>
<td>18&quot;</td>
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<td>Group VIP Perforated Pipe (Polyethylene) HD100</td>
<td>Type SP</td>
<td>24&quot;</td>
<td>2016-308</td>
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</table>
Section 604: Combination Storm Sewer and Underdrain

604.2(a)1 Nonmetal Pipes

Type CP: This pipe with perforations shall have a full circular cross section, with a corrugated surface both inside and outside. Corrugations may be either annular or helical.

Type SP: This pipe with perforations shall have a full circular cross section, with an outer corrugated pipe wall and a smooth inner liner. Corrugations may be either annular or helical.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>AASHTO Pipe Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
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<tr>
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<td>Group IIIP Perforated Pipe (Polyethylene) HD100 Pipe, Type SP, 18&quot;</td>
<td>Type SP</td>
<td>18&quot;</td>
<td>2014-255Q</td>
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<td></td>
<td>Group IIIP Perforated Pipe (Polyethylene) HD100 Pipe, Type SP, 24&quot;</td>
<td>Type SP</td>
<td>24&quot;</td>
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<tr>
<td>OLDP1 15</td>
<td>Oldcastle Infrastructure, Inc., a CRH Company, 1900 Pennsylvania Ave., Croydon, PA 19021 <a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
<td>Reinforced Concrete (RC) Pipe</td>
<td></td>
<td>12&quot; to 48&quot;</td>
<td>2013-086Q</td>
</tr>
</tbody>
</table>
Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Inlet Grates and Frames

Steel Products Procurement Act Applies Standard Drawing RC-45M (Publication 72M)

Trash Racks and Anti-Vortex Devices per Standard Drawing RC-71M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Grade Adjustment Riser - Structural Steel</td>
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</tr>
<tr>
<td></td>
<td>Type 1 or 2: RC45M</td>
<td></td>
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</tr>
<tr>
<td>BERMF 15</td>
<td>Bear Ridge Machine &amp; Fabrication, Inc., 10 Eleanor Avenue, Frackville, PA 17931 <a href="http://brmf.net/">http://brmf.net/</a></td>
<td>2002-113Q</td>
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<td></td>
<td>Grade Adjustment Riser - Structural Steel</td>
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<tr>
<td></td>
<td>Type 1 or 2: RC45M</td>
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<tr>
<td></td>
<td>Grade - Welded Steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade - Welded Steel Bicycle Safe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BREWF 15</td>
<td>S. R. Bressler Welding &amp; Fabrication, 558 Lake Drive, Curwensville, PA 16833 <a href="http://www.srbressler.com/">http://www.srbressler.com/</a></td>
<td>2013-119QI</td>
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<tr>
<td></td>
<td>2’x4’ Type S Top</td>
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</tr>
<tr>
<td></td>
<td>Frame - Welded Steel Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frame - Welded Steel Inlet Angle</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade Adjustment Riser - Structural Steel</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Type 1 or 2: RC45M</td>
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<td></td>
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<tr>
<td></td>
<td>Grade - Type D-H Steel</td>
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<td></td>
<td>Grade - Welded Steel</td>
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<td></td>
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<tr>
<td></td>
<td>Grade - Welded Steel Bicycle Safe</td>
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<tr>
<td></td>
<td>Vane Grate - Welded Steel</td>
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<tr>
<td>CONCR 15</td>
<td>Concrete Concepts, Inc., 1095 Thompson Avenue, P.O. Box 272, McKees Rocks, PA 15136 <a href="https://bryanmaterialsgroup.com/">https://bryanmaterialsgroup.com/</a></td>
<td>2019-082Q</td>
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<td>Anti-Vortex Device</td>
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<tr>
<td></td>
<td>Trash Rack</td>
<td></td>
<td>2019-082Q</td>
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</table>

May be used outside of the travel lanes, at the edge of outside shoulders, swales, wide median swales, and infield areas. Not approved for HS-25 loading.
Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Inlet Grates and Frames

Steel Products Procurement Act Applies Standard Drawing RC-45M (Publication 72M)

Trash Racks and Anti-Vortex Devices per Standard Drawing RC-71M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EJ, 301 Spring Street, P.O. Box 439, East Jordan, MI 49727-0439</td>
<td><a href="http://ejco.com/">http://ejco.com/</a></td>
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<td></td>
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<tr>
<td></td>
<td>Frame - Cast Iron, HS25 Loading</td>
<td>5355Z 3 1/4&quot; Tall Catch Basin Frame (Type M: 535511, Type C: 535513)</td>
<td>2008-113Q</td>
</tr>
<tr>
<td></td>
<td>* Approved MM-USA marking as Identifiable Steel</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Frame - Cast Iron, HS25 Loading</td>
<td>5356Z 8&quot; Tall Catch Basin Frame, 3 Flanges, Along Curb, Type C (535611)</td>
<td>2008-113Q</td>
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<tr>
<td></td>
<td>* Approved MM-USA marking as Identifiable Steel</td>
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<tr>
<td></td>
<td>Frame - Cast Iron, HS25 Loading</td>
<td>5356Z 8&quot; Tall Catch Basin Frame, 4 Flanges, Type M (535613)</td>
<td>2008-113Q</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>Frame - Cast Iron, HS25 Loading</td>
<td>5357ZPT 10 1/8&quot; Tall Catch Basin Frame, Bolting with 3 Flanges, Along Curb (535713)</td>
<td>2008-113Q</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>Frame - Cast Iron, HS25 Loading</td>
<td>5357ZPT 10-1/8&quot; Tall Catch Basin Frame, Bolting with 4 Flanges, Type M (535711)</td>
<td>2008-113Q</td>
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<td>Grate - Cast Iron, HS25 Loading</td>
<td>5355M4 Diagonal Two Piece Grate (535541)</td>
<td>1986-011</td>
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<td>Grate - Cast Iron, HS25 Loading</td>
<td>5355M5 Two Piece Vane Grate (535544, 535545)</td>
<td>1986-011</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>Grate - Cast Iron, HS25 Loading</td>
<td>5355M6 ADA Style Two Piece Grate (535548, 535549)</td>
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<td>Grate - Cast Iron, HS25 Loading</td>
<td>5355M8 One Piece Bicycle Safe Grate (535570, 535571)</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<tr>
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<td>Grate - Cast Iron, HS25 Loading</td>
<td>5355M1 Diagonal One Piece Grate (535531)</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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</table>
Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Inlet Grates and Frames

Steel Products Procurement Act Applies Standard Drawing RC-45M (Publication 72M)

Trash Racks and Anti-Vortex Devices per Standard Drawing RC-71M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EJ, 301 Spring Street, P.O. Box 439, East Jordan, MI 49727-0439</td>
<td>EJI-3 15 Facility Syracuse Fabrication 132 County Route 59 Phoenix, NY 13135</td>
<td>EJCO.com</td>
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<tr>
<td>Frame - Welded Steel Inlet</td>
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<tr>
<td>* Approved MM-USA marking as Identifiable Steel</td>
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<tr>
<td>Frame - Welded Steel Inlet Angle</td>
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<tr>
<td>Grade Adjustment Riser - Structural Steel Type 1 or 2: RC45M</td>
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<td>Grate - Type D-H Steel</td>
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<td>Grate - Welded Steel Bicycle Safe</td>
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<td>Welded Rebar Cage (Type C Inlet Top)</td>
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<td>Welded Rebar Cage (Type C-Alt Inlet Top)</td>
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<td>Welded Rebar Cage (Type DH Inlet Top)</td>
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<tr>
<td>Welded Rebar Cage (Type M Inlet Top)</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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</table>
Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Inlet Grates and Frames

Steel Products Procurement Act Applies Standard Drawing RC-45M (Publication 72M)

Trash Racks and Anti-Vortex Devices per Standard Drawing RC-71M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>EJ-4 15</td>
<td>Formerly QUIRN</td>
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<tr>
<td>Facility</td>
<td>St Clair Fabrication  300 Wade Road, Suite A St. Clair, PA 17970</td>
<td>2013-176QC</td>
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<td>Grate - Type D-H Steel</td>
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<td>Grate - Welded Steel Bicycle Safe</td>
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<td>Welded Rebar Cage (Type S Inlet Top)</td>
<td>2013-176QB</td>
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<td>Welded Rebar Cage (Type C Inlet Top)</td>
<td>2013-176QA</td>
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<td>Welded Rebar Cage (Type C-Alt Inlet Top)</td>
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<td>JERDW 15</td>
<td>Jerdon Welding, 409 Wiconisco Street, P.O. Box 322, Wiconisco, PA 17097</td>
<td>2001-041Q</td>
<td>2001-041Q</td>
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<tr>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Types 1 or 2: RC45M</td>
<td>2001-041Q</td>
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<td>LANE2 15</td>
<td>Lane Enterprises, Inc., 682 Quaker Valley Road, Bedford, PA 15522 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td>2002-050Q</td>
<td>2002-050Q</td>
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<td>Anti-Vortex Device</td>
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<td>Trash Rack</td>
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<tr>
<td>LANE3 15</td>
<td>Lane Enterprises, Inc., 8271 Mercer St., P.O. Box 345, Pulaski, PA 16143 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td>2002-049Q</td>
<td>2002-049Q</td>
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<td></td>
<td>Anti-Vortex Device</td>
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<tr>
<td>LANE4 15</td>
<td>Lane Enterprises, Inc, 377 Crooked Lane, King of Prussia, PA 19406 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
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<td>Trash Rack</td>
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</table>
Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Inlet Grates and Frames

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Trash Racks and Anti-Vortex Devices per Standard Drawing RC-71M (Publication 72M)

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<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>800 Brown Street Everson, PA 15631</td>
<td>1987-416</td>
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<td>Formerly listed as MLP Steel, LLC (MLP-1 15)</td>
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<td>1987-416</td>
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<tr>
<td>Frame - Welded Steel Inlet Angle</td>
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<tr>
<td>Grate - Type D-H Steel</td>
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<td>Grate - Welded Steel Bicycle Safe</td>
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<td>Vane Grate - Welded Steel</td>
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</tbody>
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May be used outside of the travel lanes, at the edge of outside shoulders, swales, wide median swales, and infield areas. Not approved for HS-25 loading.

MANNWF_15 Mann Welding & Fabrication LLC, 2755 Schukraft Road, Quakertown, PA 18951

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-Vortex Device</td>
<td></td>
<td>2014-061Q</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trash Rack</td>
<td></td>
<td>2014-061Q</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MCCAR 15 McCarroll Precast, Inc., 1129 Old 115, Dallas, PA 18612

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Date</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Frame - Welded Steel Inlet</td>
<td></td>
<td>10/15/1996</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade Adjustment Riser - Structural Steel Types 1 or 2: RC45M</td>
<td>10/15/1996</td>
<td></td>
<td></td>
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<tr>
<td>Welded Rebar Cage (Type S Inlet Top)</td>
<td></td>
<td>10/15/1996</td>
<td></td>
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</tr>
<tr>
<td>Welded Rebar Cage (Type C Inlet Top)</td>
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<td>10/15/1996</td>
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</tr>
<tr>
<td>Welded Rebar Cage (Type C-Alt Inlet Top)</td>
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<td>10/15/1996</td>
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<tr>
<td>Welded Rebar Cage (Type DH Inlet Top)</td>
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<td>10/15/1996</td>
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<tr>
<td>Welded Rebar Cage (Type M Inlet Top)</td>
<td></td>
<td>10/15/1996</td>
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</table>
Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Inlet Grates and Frames

Steel Products Procurement Act Applies [Standard Drawing RC-45M (Publication 72M)]

Trash Racks and Anti-Vortex Devices per [Standard Drawing RC-71M (Publication 72M)]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILES 15 Miles Foundry, 301 Bedford Street, Clarks Summit, PA 18411</td>
<td>Frame - Welded Steel Inlet</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Types 1 or 2: RC45M</td>
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</tr>
<tr>
<td></td>
<td>Grate - Type D-H Steel</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Grate - Welded Steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grate - Welded Steel Bicycle Safe</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grate and Frame - Cast Iron, HS20 Loading</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Use outside of travel lanes only.

<table>
<thead>
<tr>
<th>MLP-1 15 MLP Steel, LLC, 18 Mount Pleasant Road, Scottsdale, PA 15683 [<a href="http://www.mlpsteel.com/">http://www.mlpsteel.com/</a>]</th>
<th>Frame - Welded Steel Inlet</th>
<th>1987-416</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frame - Welded Steel Inlet Angle</td>
<td>1987-416</td>
</tr>
<tr>
<td></td>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Types 1 or 2: RC45M</td>
</tr>
<tr>
<td></td>
<td>Grate - Type D-H Steel</td>
<td>1987-416</td>
</tr>
<tr>
<td></td>
<td>Grate - Welded Steel</td>
<td>1987-416</td>
</tr>
<tr>
<td></td>
<td>Grate - Welded Steel Bicycle Safe</td>
<td>1987-416</td>
</tr>
<tr>
<td></td>
<td>Vane Grate - Welded Steel</td>
<td>1987-416</td>
</tr>
</tbody>
</table>

Name change to Laurel Custom Grating, LLC (LCG-1 15)

May be used outside of the travel lanes, at the edge of outside shoulders, swales, wide median swales, and infield areas. Not approved for HS-25 loading.
Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Inlet Grates and Frames

Steel Products Procurement Act Applies Standard Drawing RC-45M (Publication 72M)

Trash Racks and Anti-Vortex Devices per Standard Drawing RC-71M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>Anti-Vortex Device</td>
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<td>7/11/1983</td>
<td>2017-058Q</td>
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<tr>
<td>Frame - Welded Steel Inlet</td>
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<td>7/11/1983</td>
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<tr>
<td>Frame - Welded Steel Inlet Angle</td>
<td></td>
<td>7/11/1983</td>
<td>-----</td>
</tr>
<tr>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Types 1 or 2: RC45M</td>
<td>7/11/1983</td>
<td>-----</td>
</tr>
<tr>
<td>Grate - Type D-H Steel</td>
<td></td>
<td>7/11/1983</td>
<td>-----</td>
</tr>
<tr>
<td>Grate - Welded Steel</td>
<td></td>
<td>7/11/1983</td>
<td>-----</td>
</tr>
<tr>
<td>Grate - Welded Steel Bicycle Safe</td>
<td></td>
<td>7/11/1983</td>
<td>-----</td>
</tr>
<tr>
<td>Trash Rack</td>
<td></td>
<td>7/11/1983</td>
<td>2017-058Q</td>
</tr>
<tr>
<td>Vane Grate - Welded Steel</td>
<td></td>
<td>7/11/1983</td>
<td>-----</td>
</tr>
</tbody>
</table>

Morgan's Welding Inc. (Neenah Enterprises, Inc.), 1941 Camp Swatara Road, Myerstown, PA 17067 [http://www.nfco.com/](http://www.nfco.com/)

May be used outside of the travel lanes, at the edge of outside shoulders, swales, wide median swales, and infield areas. Not approved for HS-25 loading. Morgan's Welding Structural Steel Vane Grate PennDOT Approved Drawing

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welded Rebar Cage (Type S Inlet Top)</td>
<td></td>
<td>7/11/1983</td>
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</tr>
<tr>
<td>Welded Rebar Cage (Type C Inlet Top)</td>
<td></td>
<td>7/11/1983</td>
<td>-----</td>
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<tr>
<td>Welded Rebar Cage (Type C-Alt Inlet Top)</td>
<td></td>
<td>7/11/1983</td>
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</tr>
<tr>
<td>Welded Rebar Cage (Type DH Inlet Top)</td>
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<td>7/11/1983</td>
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</tr>
<tr>
<td>Welded Rebar Cage (Type M Inlet Top)</td>
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<td>7/11/1983</td>
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</table>
Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Inlet Grates and Frames

Steel Products Procurement Act Applies Standard Drawing RC-45M (Publication 72M)

Trash Racks and Anti-Vortex Devices per Standard Drawing RC-71M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>NEENA 15</td>
<td>Neenah Foundry Company, Box 729, 2121 Brooks Ave., Neenah, WI 54956</td>
<td>NEENA 15</td>
<td></td>
</tr>
<tr>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Grate #3573-0007, Type Q, Type 1 or 2: RC45M</td>
<td>1996-273</td>
<td></td>
</tr>
<tr>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Grate #3573-3000, Type L, Type 1 or 2: RC45M</td>
<td>1998-010</td>
<td></td>
</tr>
<tr>
<td>Grade - Welded Steel Bicycle Safe</td>
<td>Grate #3573-0007, Type Q</td>
<td>1996-273</td>
<td></td>
</tr>
<tr>
<td>Grade - Welded Steel Bicycle Safe</td>
<td>Grate #3573-3000, Type L</td>
<td>1998-010</td>
<td></td>
</tr>
<tr>
<td>Grade and Frame - ADA Acceptable</td>
<td>Grate #3573-0007, Type Q</td>
<td>1996-273</td>
<td></td>
</tr>
<tr>
<td>Grade and Frame - Cast Iron, HS20 Loading</td>
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</tr>
<tr>
<td>Use outside of travel lanes only.</td>
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</tr>
<tr>
<td></td>
<td>Provides HS25 Grate</td>
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<tr>
<td></td>
<td>Grate and Frame - Cast Iron, HS25 Loading</td>
<td>Frame #3573-2000, Type C</td>
<td>1996-188</td>
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<tr>
<td></td>
<td>Grate and Frame - Cast Iron, HS25 Loading</td>
<td>Frame #3574-2000, Type M</td>
<td>1996-189</td>
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<tr>
<td></td>
<td>Grate and Frame - Cast Iron, HS25 Loading</td>
<td>Grate #3573-0002</td>
<td>1996-187</td>
</tr>
<tr>
<td></td>
<td>Grate and Frame - Cast Iron, HS25 Loading</td>
<td>Grate #3573-0007, Type Q</td>
<td>1996-273</td>
</tr>
<tr>
<td></td>
<td>Grate and Frame - Cast Iron, HS25 Loading</td>
<td>Grate #3573-0008</td>
<td>1996-274</td>
</tr>
<tr>
<td></td>
<td>Grate and Frame - Cast Iron, HS25 Loading</td>
<td>Grate #3573-3000, Type L</td>
<td>1998-010</td>
</tr>
</tbody>
</table>

STAAR 15 | STAAR Distributing, LLC, 560 Myrtle Street, Reynoldsville, PA 15851 | STAAR Distributing, LLC, 560 Myrtle Street, Reynoldsville, PA 15851 |  |
| 130A Satterlee Road DuBois, PA 15801 | ----- | ----- |  |
| Frame - Type C, Welded Structural Steel | ----- | ----- | 2016-012Q |
| Frame - Type M, Welded Structural Steel | ----- | ----- | 2016-013Q |
| Grate - Type D-H Steel | ----- | ----- | 2016-011Q |
| Grate - Welded Steel | ----- | ----- | 2016-009Q |
| Grate - Welded Steel Bicycle Safe | ----- | ----- | 2016-010Q |
Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Inlet Grates and Frames

Steel Products Procurement Act Applies [Standard Drawing RC-45M (Publication 72M)]

Trash Racks and Anti-Vortex Devices per [Standard Drawing RC-71M (Publication 72M)]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDFSV 15</td>
<td>TDF Services, Inc., P.O. Box 111, Oakmont, PA 15139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frame - Welded Steel Inlet</td>
<td></td>
<td>2000-005Q</td>
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</tr>
<tr>
<td>Grade Adjustment Riser - Structural Steel</td>
<td></td>
<td>2000-005Q</td>
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</tr>
<tr>
<td>Types 1 or 2: RC45M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grate - Welded Steel</td>
<td></td>
<td>2000-005Q</td>
<td></td>
</tr>
<tr>
<td>Grate - Welded Steel Bicycle Safe</td>
<td></td>
<td>2000-005Q</td>
<td></td>
</tr>
</tbody>
</table>

| WINEC 15 | Wine Concrete Products, Inc., 1000 Big Sewickley Creek Road, Sewickley, PA 15143 | | |
| Frame - Welded Steel Inlet | Type C: RC-45M | 2018-258Q | |
| Frame - Welded Steel Inlet | Type M: RC-45M | 2018-259Q | |
| Frame - Welded Steel Inlet Angle | Type C Light Angle: RC-45M | 2018-250Q | |
| Frame - Welded Steel Inlet Angle | Type DH Level: RC-45M | 2018-251Q | |
| Frame - Welded Steel Inlet Angle | Type DH Sloped: RC-45 | 2018-252Q | |
| Frame - Welded Steel Inlet Angle | Type M Light Angle: RC-45M | 2018-249Q | |
| Frame - Welded Steel Inlet Angle | Type S Light Angle: RC-45M | 2018-253Q | |
| Grade Adjustment Riser - Structural Steel | Type 1: RC-45M | 2018-211Q | |
| Grade Adjustment Riser - Structural Steel | Type 2: RC-45M | 2018-212Q | |

* Approved MM-USA marking as Identifiable Steel
Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Junction Box Frames
Steel Products Procurement Act Applies.

JB-1 & JB-2, Light Duty (For locations with pedestrian type loadings only): Standard Drawing RC-81M (Publication 72M)

JB-11 & JB-12, Heavy Duty: Standard Drawing RC-82M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>FADD5 15</td>
<td>Faddis Concrete Products, 2206 Horseshoe Pike, Honey Brook, PA 19344 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td>FADD5 15</td>
</tr>
<tr>
<td>Facility</td>
<td>210 Hinterleiter Road Kutztown, PA 19530</td>
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<tr>
<td>JB-1 Frame</td>
<td>2015-194Q</td>
<td></td>
</tr>
<tr>
<td>JB-11 Frame</td>
<td>2015-196Q</td>
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<tr>
<td>JB-12 Frame</td>
<td>2015-197Q</td>
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</tr>
<tr>
<td>JB-2 Frame</td>
<td>2015-195Q</td>
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<tr>
<td>FISHW 15</td>
<td>Fisher Welding &amp; Fabrication, 923 Deturksville Road, P.O. Box 28, Pine Grove, PA 17963 <a href="http://www.rfisherwelding.com/">http://www.rfisherwelding.com/</a></td>
<td>FISHW 15</td>
</tr>
<tr>
<td>Facility</td>
<td>1993-213</td>
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<tr>
<td>JB-1 Frame</td>
<td>1993-213</td>
<td></td>
</tr>
<tr>
<td>JB-11 Frame</td>
<td>1993-213</td>
<td></td>
</tr>
<tr>
<td>JB-12 Frame</td>
<td>1993-213</td>
<td></td>
</tr>
<tr>
<td>JB-2 Frame</td>
<td>1993-213</td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>JB-1 Frame</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>JB-11 Frame</td>
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<td>JB-12 Frame</td>
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<td></td>
</tr>
<tr>
<td>JB-2 Frame</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>PEIW 15</td>
<td>Peirce Welding &amp; Fabricating, 170 Airport Rd., P.O. Box 369, Bethel, PA 19507 <a href="http://www.peircewelding.com/index.html">http://www.peircewelding.com/index.html</a></td>
<td>PEIW 15</td>
</tr>
<tr>
<td>Facility</td>
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<tr>
<td>JB-1 Frame</td>
<td>2001-190Q</td>
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<tr>
<td>JB-11 Frame</td>
<td>2001-190Q</td>
<td></td>
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<tr>
<td>JB-12 Frame</td>
<td>2001-190Q</td>
<td></td>
</tr>
<tr>
<td>JB-2 Frame</td>
<td>2001-190Q</td>
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Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

605.2(a) Junction Box Frames
Steel Products Procurement Act Applies.

JB-1 & JB-2, Light Duty (For locations with pedestrian type loadings only): Standard Drawing RC-81M (Publication 72M)

JB-11 & JB-12, Heavy Duty: Standard Drawing RC-82M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>WINEC 15</td>
<td>Wine Concrete Products, Inc., 1000 Big Sewickley Creek Road, Sewickley, PA 15143</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JB-1 Frame</td>
<td>2018-254Q</td>
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<td></td>
<td>* Approved MM-USA marking as Identifiable Steel</td>
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</tr>
<tr>
<td></td>
<td>JB-11 Frame</td>
<td>2018-256Q</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<tr>
<td></td>
<td>JB-12 Frame</td>
<td>2018-257Q</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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</tr>
<tr>
<td></td>
<td>JB-2 Frame</td>
<td>2018-255Q</td>
</tr>
<tr>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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605.2(a) Junction Boxes, Steel or Cast Iron


<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FISHW 15</td>
<td>Fisher Welding &amp; Fabrication, 923 Deturksville Road, P.O. Box 28, Pine Grove, PA 17963 <a href="http://www.rfisherwelding.com/">http://www.rfisherwelding.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>JB-25, Welded Steel Plate Junction Box</td>
<td>1993-213</td>
</tr>
<tr>
<td></td>
<td>JB-26, Steel Junction Box</td>
<td>1993-213</td>
</tr>
<tr>
<td></td>
<td>JB-27, Steel Junction Box</td>
<td>1993-213</td>
</tr>
</tbody>
</table>
## Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

### 605.2(a) Junction Boxes, Steel or Cast Iron


<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOPE1 15</td>
<td><strong>Hope Electrical Products Co., Inc, 3 Fairfield Crescent, West Caldwell, NJ 07006</strong></td>
<td></td>
</tr>
<tr>
<td>JB-25, Cast Iron Junction Box</td>
<td>H62-180808SC, Type H6200 - Internal Recessed Flanged Box</td>
<td>2016-089Q</td>
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<tr>
<td>JB-26, Cast Iron Junction Box</td>
<td>H70-121212SC, Type H7000 - Flanged Recessed Cover Box</td>
<td>2016-088Q</td>
</tr>
<tr>
<td>JB-27, Cast Iron Junction Box</td>
<td>H70-181224SC, Type H7000 - Flanged Recessed Cover Box</td>
<td>2016-090Q</td>
</tr>
<tr>
<td>MORGAN 15</td>
<td><strong>Morgan's Welding Inc. (Neenah Enterprises, Inc.), 1941 Camp Swatara Road, Myerstown, PA 17067</strong> <a href="http://www.nfco.com/">http://www.nfco.com/</a></td>
<td></td>
</tr>
<tr>
<td>JB-25, Welded Steel Plate Junction Box</td>
<td></td>
<td>2001-191Q</td>
</tr>
<tr>
<td>JB-26, Steel Junction Box</td>
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<td>2001-191Q</td>
</tr>
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<td>JB-27, Steel Junction Box</td>
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<td>2001-191Q</td>
</tr>
<tr>
<td>PEIWF 15</td>
<td><strong>Peirce Welding &amp; Fabricating, 170 Airport Rd., P.O. Box 369, Bethel, PA 19507</strong> <a href="http://www.peircewelding.com/index.html">http://www.peircewelding.com/index.html</a></td>
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</tr>
<tr>
<td>JB-25, Welded Steel Plate Junction Box</td>
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<td>2001-191Q</td>
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<td>JB-26, Steel Junction Box</td>
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<td>2001-191Q</td>
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<td>JB-27, Steel Junction Box</td>
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<td>2001-191Q</td>
</tr>
<tr>
<td>QUABF 15</td>
<td><strong>Quality Bridge and Fab, Inc., 3608 Sharon Road, West Middlesex, PA 16159</strong> <a href="http://www.qualitybridgeandfab.com/">http://www.qualitybridgeandfab.com/</a></td>
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</tr>
<tr>
<td>JB-25, Welded Steel Plate Junction Box</td>
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<td>2013-013QA</td>
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<td>JB-27, Steel Junction Box</td>
<td></td>
<td>2013-013QB</td>
</tr>
<tr>
<td>UTILT 15</td>
<td><strong>Utility Metals, P.O. Box 9054, Louisville, KY 40209-0054</strong> <a href="http://utilitymetals.com/">http://utilitymetals.com/</a></td>
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<tr>
<td>JB-25, Welded Steel Plate Junction Box</td>
<td></td>
<td>2001-179Q</td>
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<td>JB-26, Steel Junction Box</td>
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<td>1992-223A</td>
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<td>JB-27, Steel Junction Box</td>
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<td>1992-223B</td>
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</table>
# Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

## 605.2(b) Manhole Frames and Covers

Steel Products Procurement Act Applies Standard Drawing RC-39M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EJI-0 15</strong></td>
<td>EJ, 301 Spring Street, P.O. Box 439, East Jordan, MI 49727-0439 <a href="http://ejco.com/">http://ejco.com/</a></td>
<td></td>
</tr>
<tr>
<td>Cast Iron Hood</td>
<td>5357T1 Non-mountable, Non-Adjustable Curb Inlet Hood (535750)</td>
<td>2008-113Q</td>
</tr>
<tr>
<td>Cast Iron Manhole (Utility Hole) Frame</td>
<td>1892Z 4” Tall Frame with 4 Base Flange Holes (189211)</td>
<td>2008-113Q</td>
</tr>
<tr>
<td>Cast Iron Manhole (Utility Hole) Frame</td>
<td>SELFLEVEL</td>
<td>2017-261Q</td>
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<tr>
<td>Cast Iron Manhole Cover</td>
<td>1892A Solid Cover PennDOT RC-39 Standard (189221)</td>
<td>2008-113Q</td>
</tr>
<tr>
<td>Cast Iron Manhole Cover</td>
<td>1892A Solid Cover Storm, PennDOT RC-39 Standard (189224)</td>
<td>2008-113Q</td>
</tr>
<tr>
<td>Cast Iron Manhole Cover</td>
<td>1892AGS Solid Cover with Gasket (189223)</td>
<td>2008-113Q</td>
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<tr>
<td>Manhole Frame and Cover</td>
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<td>1986-011</td>
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**EJI-1 15**

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<th>Plant</th>
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<tr>
<td>Youngstown Fabrication</td>
<td>4150 Simon Road Youngstown, OH 44512</td>
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<tr>
<td>Formerly E. A. Quin (QUIRN)</td>
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<tr>
<td>Manhole Frame and Cover</td>
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**EJI-5 15**

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<tr>
<td>Ardmore Foundry</td>
<td>270 Redwing Road Ardmore, OK 73401</td>
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**NEENA 15**

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<tr>
<td>Manhole Frame and Cover</td>
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### Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

#### 605.2(b) Manhole Frames and Covers

Steel Products Procurement Act Applies [Standard Drawing RC-39M (Publication 72M)]

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<tr>
<td></td>
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<td>Cast Iron Manhole Cover USF NC Cover</td>
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<tr>
<td></td>
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<td>Cast Iron Manhole Cover USF RH Cover</td>
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#### 605.2(c) Manhole Steps

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<th>Product Name</th>
<th>Name</th>
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<td>Manhole Step Model I-11 NCR</td>
<td>1998-093A</td>
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<tr>
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<td>Manhole Step Model I-13</td>
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<td>Manhole Step Model LML-11 NCR</td>
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<td>Manhole Step Model LML-13</td>
<td>1996-095</td>
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<td></td>
<td></td>
<td>Manhole Step Model LML-13 NCR</td>
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<td>Manhole Step Model ML-10</td>
<td>1996-095</td>
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<td></td>
<td></td>
<td>Manhole Step Model ML-10 NCR</td>
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<tr>
<td></td>
<td></td>
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<td>Manhole Step Model SML-13 NCR</td>
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### Section 605: Endwalls, Inlets, Manholes, and Spring Boxes

#### 605.2(c) Manhole Steps

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<tr>
<td><strong>BOWCN 15</strong></td>
<td>Bowco Industries, Inc., 155 S. Hazel Dell Way, Canby, OR 97013</td>
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<tr>
<td>Manhole Step</td>
<td>Bowco Model 93810 (PP coated, orange)</td>
<td>1988-242</td>
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<tr>
<td>Manhole Step</td>
<td>Bowco Model 93813</td>
<td>1993-059</td>
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<tr>
<td>Manhole Step</td>
<td>Bowco Model 93813-TL</td>
<td>1993-059</td>
</tr>
<tr>
<td><strong>LANEC 15</strong></td>
<td>Lane International Corporation, 10758 S.W. Manhasset Drive, P. O. Box 925, Tualatin, OR 97062</td>
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</tr>
<tr>
<td>Manhole Step</td>
<td>10” Model P-10938</td>
<td>1992-026</td>
</tr>
<tr>
<td>Manhole Step</td>
<td>14” Model P-14850</td>
<td>1992-026</td>
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<tr>
<td><strong>MAIN 15</strong></td>
<td>M A Industries, Inc., Kelley &amp; Dividend Drive, P. O. Box 2322, Peachtree City, GA 30269</td>
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<tr>
<td>Manhole Step</td>
<td>Plastic Coated Manhole Step</td>
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<tr>
<td><strong>PAINS 15</strong></td>
<td>Pennsylvania Insert Corporation, P. O. Box 199, Bridge Street, Spring City, PA 19475</td>
<td></td>
</tr>
<tr>
<td>Manhole Step</td>
<td>Model 10-R</td>
<td>1993-246</td>
</tr>
<tr>
<td>Manhole Step</td>
<td>Model 10-S</td>
<td>1993-246</td>
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<tr>
<td>Manhole Step</td>
<td>Model 11-R</td>
<td>1993-246</td>
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<td>Manhole Step</td>
<td>Model 13-R</td>
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<tr>
<td>Manhole Step</td>
<td>Model 13-S</td>
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#### 605.2(d) Endwall Form (Polyethylene Stay-in-Place Form)

Approved product alternative to Section 605.2(d), for cast-in-place endwalls and precast endwalls, as listed in Section 714.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td><strong>STEP2 15</strong></td>
<td>Hartman Products, P.O. Box 7702, Pittsburgh, PA 15215</td>
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</tr>
<tr>
<td>Endwall Form</td>
<td>Hartman EW System</td>
<td>2001-160</td>
</tr>
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</table>

*The alternate “Hartman EW System for Endwalls” is Provisionally Approved under ECMS Provisional Special Provision c06052 ITEM 9605-2300 (ITEM 9605-0300) Endwall Stay-In-Place Form Systems.*
Section 606: Grade Adjustment of Existing Misc. Structures

### 606.2(a) Manhole and Inlet Extensions

Steel Products Procurement Act applies.

Inlet Extensions also are listed in Section 605.2(a) as Structural Steel Grade Adjustable Riser (Types 1 or 2: RC 45M)

For Standard Drawings of Precast Concrete and Structural Steel Grade Adjustment Rings/Risers, see RC-39M

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EJ-2 15</td>
<td>EJ, 301 Spring Street, P.O. Box 439, East Jordan, MI 49727-0439 <a href="http://ejco.com/">http://ejco.com/</a> 3331 Co Road 160 Millersburg, OH 44654</td>
<td></td>
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<tr>
<td>JERDW 15</td>
<td>Jerdon Welding, 409 Wiconisco Street, P.O. Box 322, Wiconisco, PA 17097</td>
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<td>2001-041Q</td>
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* Approved MM-USA marking as Identifiable Steel

Alternate Manhole Extension Designs are Provisionally Approved under:
- HIGH DENSITY POLYETHYLENE MANHOLE (Utility Hole) EXTENSIONS CMS Special Provision S00(PD06051A) and ECMS Special Provision P-C06051-A.
- RECYCLED RUBBER MANHOLE (Utility Hole) AND INLET EXTENSIONS CMS Special Provision S00(PD06061A) and ECMS Special Provision P-C06061-A.
Section 606: Grade Adjustment of Existing Misc. Structures

606.2(a) Manhole and Inlet Extensions

Steel Products Procurement Act applies.

Inlet Extensions also are listed in Section 605.2(a) as Structural Steel Grade Adjustable Riser (Types 1 or 2: RC 45M)

For Standard Drawings of Precast Concrete and Structural Steel Grade Adjustment Rings/Risers, see RC-39M

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1285 Drummers Lane, Suite 301 Wayne, PA 19087</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Approved Product Alternatives</td>
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<tr>
<td></td>
<td>Cross-Linked Expanded Polyethylene</td>
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</tr>
<tr>
<td></td>
<td>Conditional Approval</td>
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<tr>
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<td>Approved Product Alternatives</td>
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<tr>
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<td>Cross-Linked Expanded Polyethylene</td>
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<td>Pro-Ring 36 Series Manhole Ring</td>
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<td>Pro-Ring 40 Series Manhole Ring</td>
<td>2014-031</td>
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<tr>
<td></td>
<td>6704 Meadowlark Court, Lino Lakes, MN 55038</td>
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<td>HDPE Grade Adjustment Ring</td>
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<td>Alternate Utility Hole Extension Designs are Provisionally Approved under:</td>
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<td></td>
<td>HIGH DENSITY POLYETHYLENE MANHOLE (Utility Hole) EXTENSIONS CMS Special Provision S00(PD06051A) and ECMS Special Provision P-C06051-A.</td>
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<td></td>
<td>RECYCLED RUBBER MANHOLE (Utility Hole) AND INLET EXTENSIONS CMS Special Provision S00(PD06061A) and ECMS Special Provision P-C06061-A.</td>
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<tr>
<td>LCG-1 15 Plant</td>
<td>Laurel Custom Grating, LLC - An MLP Company, 18 Mount Pleasant Road, Scottdale, PA 15683 <a href="https://laurelcustomgrating.com/">https://laurelcustomgrating.com/</a></td>
<td>1987-146</td>
<td>LCG-1 15</td>
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<tr>
<td></td>
<td>18 Mount Pleasant Road, Scottdale, PA 15683</td>
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<td></td>
<td>Formerly listed as MLP Steel, LLC (MLP-1 15)</td>
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<tr>
<td></td>
<td>Inlet Extension</td>
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<td>18 Mount Pleasant Road, Everson, PA</td>
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Section 606: Grade Adjustment of Existing Misc. Structures

606.2(a) Manhole and Inlet Extensions

Steel Products Procurement Act applies.

Inlet Extensions also are listed in Section 605.2(a) as Structural Steel Grade Adjustable Riser (Types 1 or 2: RC 45M)

For Standard Drawings of Precast Concrete and Structural Steel Grade Adjustment Rings/Risers, see RC-39M

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
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<tr>
<td></td>
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<td>Utility Hole Adjustable Extension Ring</td>
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<tr>
<td>ROSST 15</td>
<td>Ross Technology Corporation, 104 North Maple Avenue, P.O. Box 646, Leola, PA 17540 <a href="http://www.rosstechnology.com/">http://www.rosstechnology.com/</a></td>
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<td>Inlet Extension</td>
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<td></td>
<td>Utility Hole Adjustable Extension Ring</td>
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<td>THOMA 15</td>
<td>J. Thomas, Ltd., 300 Richardson Drive, Lancaster, PA 17603 <a href="http://www.jthomaslimited.com">http://www.jthomaslimited.com</a></td>
<td>1982-100</td>
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<td>Utility Hole Adjustable Extension Ring</td>
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<td>UNDTE 15</td>
<td>Underground Technologies, LLC, 2546 Elliot Drive, Troy, MI 48083</td>
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Section 610: Pipe Underdrain and Pavement Base Drain

610.2(a)3 Corrugated Polyethylene (PE) Pipe (Sizes 4" to 15")

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>AASHTO Pipe Type</th>
<th>Pipe Size</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td></td>
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<td>Type CP</td>
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<td></td>
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<td>Corrugated PE Pipe, Perforated</td>
<td>ADS N-12</td>
<td>Type SP</td>
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<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
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<td>Corrugated PE Pipe, Perforated</td>
<td>Type SP</td>
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<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>N-12</td>
<td>Type SP</td>
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<td>Corrugated PE Pipe, Perforated</td>
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<td>Corrugated PE Pipe, Perforated</td>
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<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
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<td>Corrugated PE Pipe, Perforated</td>
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<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
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<td>Corrugated PE Pipe, Perforated</td>
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### Section 610: Pipe Underdrain and Pavement Base Drain

#### 610.2(a)3 Corrugated Polyethylene (PE) Pipe (Sizes 4" to 15")

<table>
<thead>
<tr>
<th>Product</th>
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<th>AASHTO Pipe Type</th>
<th>Pipe Size</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>ADS-8 15</td>
<td>Advanced Drainage Systems, Inc., 4640 Trueman Blvd., Hilliard, OH 43026</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Findlay South Plant #37 12370 County Road 172 Findlay, OH 45840</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Hancor, Inc. (HANC0 15)</td>
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</tr>
<tr>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
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<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
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<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>10&quot;, 12&quot;, 15&quot;</td>
<td>1995-284</td>
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<tr>
<td>ADS10 15</td>
<td>Advanced Drainage Systems, Inc., 4640 Trueman Blvd., Hilliard, OH 43026</td>
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<tr>
<td>Plant</td>
<td>1 William Donnelly Parkway Waverly, NY 14892</td>
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<td>Formerly Hancor, Inc. (HANC1 15)</td>
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<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>4&quot;, 6&quot;, 8&quot;</td>
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<td>Type CP</td>
<td>10&quot;, 12&quot;, 15&quot;</td>
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<td>BAUGH 15</td>
<td>Baughman Tile Company, 8516 Township Rd. #137, Paulding, OH 45879</td>
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<td></td>
<td><a href="http://www.baughmantile.com/">http://www.baughmantile.com/</a></td>
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<td>4&quot;, 6&quot;, 8&quot;, 10&quot;, 12&quot;, 15&quot;</td>
<td>2000-042Q</td>
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<tr>
<td>BLUDI 15</td>
<td>Blue Diamond Industries, LLC, 3399 Tates Creek Road, Suite 110, Lexington, KY 40502</td>
<td><a href="http://www.bdiaky.com/">http://www.bdiaky.com/</a></td>
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<td>DRAPR 15</td>
<td>Drainage Products, Inc., (Haviland Drainage Products), Main Street, Box 97, Haviland, OH 45851</td>
<td><a href="http://haviland-drainage.com">http://haviland-drainage.com</a></td>
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Section 610: Pipe Underdrain and Pavement Base Drain

610.2(a)3 Corrugated Polyethylene (PE) Pipe (Sizes 4" to 15")

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<tr>
<th>Product</th>
<th>Name</th>
<th>AASHTO Pipe Type</th>
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<tbody>
<tr>
<td>LANE6 15</td>
<td>Lane Enterprises, Inc., 34 Strohm Road, Shippensburg, PA 17257 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a> Shippensburg, PA</td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
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610.2(a)4 Polyvinyl Chloride (PVC) Pipe (Sizes 4" to 15")

<table>
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<th>Product</th>
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610.2(a)5 Acrylonitrile-Butadiene Styrene (ABS) Pipe

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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## Section 610: Pipe Underdrain and Pavement Base Drain

### 610.2(a)7 Corrugated Steel Pipe, Metallic Coated

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<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Pipe Size</th>
<th>Plant</th>
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</tr>
</thead>
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<tr>
<td>CON08</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328</td>
<td>6&quot;, 8&quot;, 10&quot;</td>
<td>Palmer, MA</td>
<td>1991-327</td>
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<tr>
<td>CON12</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328</td>
<td>6&quot;, 8&quot;, 10&quot;</td>
<td>Greencastle, PA</td>
<td>1991-327</td>
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<tr>
<td>CULVE</td>
<td>Culverts, Inc., 330 Pittsburgh Ave., P.O. Box 271, Coraopolis, PA 15108</td>
<td>-----</td>
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<tr>
<td>LANE2</td>
<td>Lane Enterprises, Inc., 682 Quaker Valley Road, Bedford, PA 15522</td>
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### 610.2(a)8 Corrugated Aluminum Alloy Pipe

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<td>Palmer, MA</td>
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<td>CULVE</td>
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<tr>
<td>LANE2</td>
<td>Lane Enterprises, Inc., 682 Quaker Valley Road, Bedford, PA 15522</td>
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### 610.2(a).9.a Prefabricated Pavement Base Drains

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<td>LANE2</td>
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## Section 610: Pipe Underdrain and Pavement Base Drain

### 610.2(a)9.a Prefabricated Pavement Base Drains

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<th>Name</th>
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<tr>
<td>Pavement Base Drain</td>
<td>AdvanEDGE Highway Edge Drain Pipe</td>
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<td>Pavement Base Drain</td>
<td>Sitedrain 6600</td>
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### Section 615: Subsurface Drain Outlets

**615.2 Subsurface Drain Outlets (Solid 4" to 15")**

70 PSI @ 5% (English) or 483 kPa @ 5% (Metric)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tr>
<td></td>
<td>Outlet Pipe N-12 (Landfield Grade) PE 6&quot;</td>
<td>1997-040</td>
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<tr>
<td></td>
<td>Outlet Pipe N-12 (Landfield Grade) PE 6&quot;</td>
<td>1997-040</td>
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<tr>
<td></td>
<td>Outlet Pipe N-12 (Landfield Grade) PE 8&quot;</td>
<td>2011-194Q</td>
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<td>Outlet Pipe N-12 (Landfield Grade) PE 6&quot;</td>
<td>1997-040</td>
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</table>
Section 616: End Sections and Slope Pipe Fittings

616.2(a) Concrete End Sections
For approved precast concrete end sections, see 601.2(a)3a.

616.2(b) Steel End Sections, Metallic Coated
Approved steel pipe manufacturers in Section 601.2(a)4b may also provide steel end sections and slope pipe fittings.

<table>
<thead>
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<tr>
<td>J&amp;J-D 15</td>
<td>J &amp; J Drainage Products Company, 110 N Pershing, PO Box 0829, Hutchinson, KS 67504-0829</td>
<td>Steel End Section</td>
<td>1990-262</td>
</tr>
<tr>
<td>JENBS 15</td>
<td>Jensen Bridge &amp; Supply Company, 400 Stoney Creek Drive, Sandusky, MI 48471</td>
<td>Steel End Section</td>
<td>2006-011Q</td>
</tr>
</tbody>
</table>

616.2(c) Aluminum Alloy End Sections
Approved aluminum pipe manufacturers in Section 601.2(a)4c may provide aluminum alloy end sections and slope pipe fittings.

|------------------|------|-----------|----------|

616.2(d) Steel Slope Pipe Fittings
Approved steel and aluminum pipe manufacturers in Sections 601.2(a)4b and 601.2(a)4c may provide end sections and slope pipe fittings.

616.2(f) Thermoplastic End Sections - Outlet Ends Only
Approved thermoplastic pipe manufacturers in Section 601.2(a)6 may provide thermoplastic end sections for the outlet end.

1. For end sections manufactured by the thermoplastic manufacturer, provide a CS-4171 Certificate of Compliance form for the end sections.

2. For end sections manufactured by a third party, the thermoplastic pipe manufacturer must supply letter certifying the end sections meet the pipe manufacturer's requirements and all required specifications with each shipment.
## Section 617: Slotted Drains

### 617.2 Slotted Drains

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tr>
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<td>Slotted Drain Polydren</td>
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<tr>
<td>ACOPP 15</td>
<td>ACO Polymer Products, Inc., 12080 Ravenna Road, P. O. Box 245, Chardon, OH 44024 <a href="http://acousa.com/">http://acousa.com/</a></td>
<td>2003-086Q</td>
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<td>Slotted Drain K100S Trenchdrain</td>
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<td>Slotted Drain S100K Powerdrain</td>
<td>2003-084Q</td>
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<td>Slotted Drain S300K Powerdrain</td>
<td>2003-085Q</td>
</tr>
<tr>
<td>CON12 15</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 <a href="http://www.conteches.com/">http://www.conteches.com/</a></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Slotted Drain</td>
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<tr>
<td>HUBI- 15</td>
<td>Hubbell Lenoir City, Inc., 3621 Industrial Park Drive, Lenoir City, TN 37771</td>
<td>1999-193Q</td>
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<tr>
<td></td>
<td>Slotted Drain Polycast</td>
<td></td>
</tr>
<tr>
<td>LANE3 15</td>
<td>Lane Enterprises, Inc., 8271 Mercer St., P.O. Box 345, Pulaski, PA 16143 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td>1980-017</td>
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<td>Slotted Drain</td>
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</table>
Section 619: Permanent Impact Attenuating Devices

AASHTO MASH 2016 Implementation Dates for Roadside Safety Hardware:
Type I - Anchored Backslope Terminal (Publication 72M, Drawing RC-54M) - Dec. 31, 2019
Type II - Energy Absorbing Terminals - Tangent: June 30, 2018
Type III - Non-Energy Absorbing Terminals - Dec. 31, 2019
Type IV - Gating Systems Used Where Two-Way Traffic is Present (Crash Cushion) - Dec. 31, 2018
Type V - Non-Gating Terminals Use Where Two-Way Traffic Is Present (Crash Cushion) - Dec. 31, 2018
Type VI - Gating, Non-Redirective Systems (Crash Cushion) - Dec. 31, 2018
Miscellaneous Systems

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

CS-4171 Certificate of Compliance Forms: Only a single CS-4171 Certificate of Compliance form is required for an end terminal or crash cushion kit. Although parts included with these kits are typically produced by multiple manufacturers, the Bulletin 15 listed manufacturer is responsible for verifying that all parts supplied with the kit meet the required specifications and match the NCHRP 350 or MASH 2016 crash tested system. Only the supplier code of the Bulletin 15 listed manufacturer should appear in Section 2 of CS-4171 form. Steel Mill certs stating melted and manufactured in the United States are required for each part containing steel. If the kit includes an MM-USA approved part, check both the 'Identifiable Steel' and 'Unidentifiable Steel' boxes in Section 6 of the CS-4171.

619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>FHWA Acc. Letter</th>
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<th>Ref. No.</th>
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<tr>
<td>BARRS 15 Lindsay Transportation Solutions, LLC (Barrier Systems by Lindsay), 180 River Road, Rio Vista, CA 94571</td>
<td>Gate Barrier System</td>
<td>ArmorGuard Gate</td>
<td>NCHRP 350</td>
<td>TL-3</td>
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<td>Type II, Energy Absorbing Flared Terminal</td>
<td>X-Tension</td>
<td>NCHRP 350</td>
<td>TL-3</td>
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<td>Type II, Energy Absorbing Tangent Terminal</td>
<td>X-Tension</td>
<td>NCHRP 350</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance)</td>
<td>Universal TAU-II</td>
<td>NCHRP 350</td>
<td>TL-2, TL-3</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance)</td>
<td>X-Tension Median Attenuator System (X-MAS)</td>
<td>NCHRP 350</td>
<td>TL-3</td>
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Note: NOT approved for contracts let after June 30, 2018. Lindsay Transportation Solutions - Installation Guide

Product also referred to as the X-Tension Median End Terminal. For use in narrow medians or gore areas where guide rail is installed and crossover impacts can occur. Lindsay Transportation Solutions - Installation Guide
Section 619: Permanent Impact Attenuating Devices

619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)

FHWA Acceptance Letters: Terminals/Crash Cushions Letters

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria

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<td><a href="http://www.barriersystemsinc.com/">http://www.barriersystemsinc.com/</a></td>
<td>X-TENuator</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-109</td>
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<td>Type VI, Gating Non-Redirective Crash Cushion System</td>
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<td>ABSORB 350</td>
<td>NCHRP 350</td>
<td>TL-2, TL-3</td>
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### Section 619: Permanent Impact Attenuating Devices

#### 619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)

**FHWA Acceptance Letters:** [Terminals/Crash Cushions Letters](#)

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): [Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria](#)

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Effective November 30, 2016, the Brakemaster 350 system and replacement parts will no longer be manufactured. Existing inventory of Brakemaster 350 systems/parts may still be used on projects. [Discontinuation Notice of Energy Absorption/Trinity Products](#)

Effective September, 2016, the QuadGuard LMC system will no longer be manufactured. Parts are being manufactured until December, 2016. Existing inventory of QuadGuard LMC systems/parts may still be used on projects. [Discontinuation Notice of Energy Absorption/Trinity Products](#)
Section 619: Permanent Impact Attenuating Devices

619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)

FHWA Acceptance Letters: Terminals/Crash Cushions Letters

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria

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<td>ENERG15</td>
<td>Energy Absorption Systems, Inc. (Trinity</td>
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<td>Industries, Inc. Company), 70 West</td>
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<tr>
<td></td>
<td>Madison Street, Suite 2350, Chicago, IL</td>
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<td>60602 [<a href="http://energyabsorption.com/">http://energyabsorption.com/</a>]</td>
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<td>Type VI, Gating Non-Redirective Crash</td>
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<td>Fitch Universal</td>
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<td>inventory of Fitch Universal systems/parts</td>
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<td>may still be used on projects. Discontinuation Notice of Energy Absorption/Trinity Products</td>
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<td>ENTWH15</td>
<td>Entwistle Company, Bigelow Street, Hudson</td>
<td>1995-178</td>
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<td>MA 01749 [<a href="http://entwistleco.com/">http://entwistleco.com/</a>]</td>
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<td>The Dragnet</td>
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<td>GREGV15</td>
<td>Gregory Industries, Inc., 4100 13th</td>
<td>MASH 2016</td>
<td>TL-5</td>
<td>B-267</td>
<td>SGM42</td>
<td>2017-271Q</td>
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<td>Street SW, P.O. Box 80508, Canton, OH</td>
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<td>TL-5 Steel High Containment Median</td>
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<td>Barrier Guardian 5 (G5)</td>
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<td>and manufacturer of the Guardian 5 median</td>
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<td>barrier designed by ArcelorMittal USA,</td>
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<td>LLC. Note: The Guardian 5 was TL-5 crash</td>
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<td>tested in accordance with MASH 2009 and</td>
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<td>meets the MASH 2016 crash testing criteria.</td>
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<td>Guidelines, Components, and FHWA</td>
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<td>Eligibility Letter for Guardian 5</td>
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### Section 619: Permanent Impact Attenuating Devices

**619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)**

FHWA Acceptance Letters: [Terminals/Crash Cushions Letters](#)

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): [Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested Level</th>
<th>FHWA Acc. Letter</th>
<th>Designator</th>
<th>Ref. No.</th>
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<td>Previously approved per NCHRP 350 under approval CC-85 with no changes to system.</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>SCI 100 GM (36 inch)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2014-029QC</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>SCI 100 GM (41-1/4 to 60 inch maximum)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2014-029QC</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>SCI 100 GM (Standard)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2014-029QC</td>
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<td><strong>GM Smart Cushion</strong></td>
<td>Plastic Safety Systems CrashGard</td>
<td>Type VI, Gating Non-Redirective Crash Cushion System</td>
<td>SCI 70 GM (30 inch)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>2014-029QA</td>
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<td>Type VI, Gating Non-Redirective Crash Cushion System</td>
<td>SCI 70 GM (36 inch)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>2014-029QA</td>
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<td>Type VI, Gating Non-Redirective Crash Cushion System</td>
<td>SCI 70 GM (41-1/4 to 60 inch maximum)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
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<td>2014-029QA</td>
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<td></td>
<td>Type VI, Gating Non-Redirective Crash Cushion System</td>
<td>SCI 70 GM (Standard)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>2014-029QA</td>
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</table>

Section 619: Permanent Impact Attenuating Devices

619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)

FHWA Acceptance Letters: Terminals/Crash Cushions Letters

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria

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<th>FHWA Acc. Letter</th>
<th>Designator</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>LINSY 15 Plant</td>
<td>Lindsay Transportation Solutions, LLC, 180 River Road, Rio Vista, CA 94571 <a href="http://www.lindsay.com/transportation-solutions">http://www.lindsay.com/transportation-solutions</a></td>
<td>Lindsay Transportation Solutions - Installation Guide</td>
<td>Effective February 9, 2018, the installation of new and repair of existing X-LITE flared end terminals has been suspended.</td>
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<tr>
<td>Type II, Energy Absorbing Flared Terminal</td>
<td>X-Lite (Flared)</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-120</td>
<td>SEW24</td>
<td>2013-138B</td>
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<td>Type II, Energy Absorbing Tangent Terminal</td>
<td>MAX-Tension TL-2</td>
<td>MASH 2016</td>
<td>TL-2</td>
<td>CC-134</td>
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<td>2018-023Q</td>
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<tr>
<td>Type II, Energy Absorbing Tangent Terminal</td>
<td>MAX-Tension TL-3</td>
<td>MASH 2016</td>
<td>TL-3 (62 mph)</td>
<td>CC-133</td>
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<td>2017-234Q</td>
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<tr>
<td>Type IV, Gating Two-Way Traffic System</td>
<td>MAX-Tension Median</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-141</td>
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<td>2018-022Q</td>
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<tr>
<td>Type V, Non-Gating Two-Way Traffic System</td>
<td>Universal TAU-M</td>
<td>MASH 2016</td>
<td>TL-2, TL-3</td>
<td>CC-146, CC-147</td>
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<td>2018-278Q</td>
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</table>

* Manual w/ Parts List, PE Stamped Drawings, and FHWA Eligibility Letter for MAX-Tension TL-2 & TL-3

* Manual w/ Parts List, PE Stamped Drawings, and FHWA Eligibility Letter for MAX-Tension TL-2 & TL-3

Effective February 9, 2018, the installation of new and repair of existing X-LITE flared end terminals has been suspended. Lindsay Transportation Solutions - Installation Guide

Installation Instructions w/ Parts List, Product Info, Approved Drawings for MAX-Tension Median

Approved for use on both concrete and asphalt pavements. Manual w/ Parts List, FHWA Eligibility Letters, Concrete & Asphalt Foundation Drawings for TAU-M
### Section 619: Permanent Impact Attenuating Devices

#### 619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)

FHWA Acceptance Letters: [Terminals/Crash Cushions Letters](#)

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): [Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested Level</th>
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<th>Designator</th>
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<tr>
<td>MORVA 15</td>
<td>Morgan Valley Manufacturing, 340 North Industrial Road, P. O. Box 746, Morgan, UT 84050</td>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring) SCI 100 GM (30 inch)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2011-208QA</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring) SCI 100 GM (36 inch)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2011-208QB</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring) SCI 100 GM (Standard)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2004-015</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring) SCI 70 GM (30 inch)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>2011-208QA</td>
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<tr>
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<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring) SCI 70 GM (36 inch)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>2011-208QB</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring) SCI 70 GM (41-1/4 to 60 inch maximum)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>2011-208QC</td>
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- Previously approved per NCHRP 350 under approval CC-85 with no changes to system.
## Section 619: Permanent Impact Attenuating Devices

### 619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)

**FHWA Acceptance Letters:** Terminals/Crash Cushions Letters

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): [Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria](#)

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<tr>
<td>Type II, Energy Absorbing Flared Terminal</td>
<td>FLEAT-350</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-46</td>
<td>SEW14a</td>
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<td>RSI Authorized Distributors: Gregory Industries (Canton, OH) and R.G. Steel Corp (Pulaski, PA)</td>
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<td>FLEAT-SP</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-86B</td>
<td>2009-037Q</td>
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<td>Type II, Energy Absorbing Flared Terminal</td>
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<td>RSI Authorized Distributors: Gregory Industries (Canton, OH) and R.G. Steel Corp (Pulaski, PA)</td>
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<td>Type II, Energy Absorbing Flared Terminal</td>
<td>MFLEAT</td>
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<td>SEW14c</td>
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<tr>
<td>RSI Authorized Distributors: Gregory Industries (Canton, OH), R.G. Steel Corp (Pulaski, PA), and Universal Industrial Sales (Pleasant Grove/Lindon, UT). Product Information Sheet, Parts Shared and Not Shared with MSKT, PE Stamped Drawing with Parts List and Assembly Notes, Inspection Checklist, FHWA Eligibility Letters, Distributor List, and Identifiable Steel (Impact Head) for MFLEAT</td>
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<td>Type II, Energy Absorbing Tangent Terminal</td>
<td>BEAT-SSCC</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-69B</td>
<td>SCI13a,b</td>
<td>2003-118</td>
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<tr>
<td>Note: NOT approved for contracts let after June 30, 2018. RSI Authorized Distributors: Gregory Industries (Canton, OH) and R.G. Steel Corp (Pulaski, PA)</td>
<td><strong>Identifiable Steel &amp; Parts Supplied by Road Systems, Inc.</strong></td>
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<tr>
<td>Type II, Energy Absorbing Tangent Terminal</td>
<td>MSKT-SP-MGS (MASH Sequentially Kinking Terminal)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-126, CC-128E, CC-128G (3-37b)</td>
<td>2017-294Q</td>
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<tr>
<td>RSI Authorized Distributors: Gregory Industries (Canton, OH) and R.G. Steel Corp (Pulaski, PA). The SKT Impact Head used on the MSKT-SP-MGS system contains an MM-USA plate and is approved as identifiable steel. For MSKT Drawing and Assembly Instructions (See page 5 for Bill of Materials listing for MSKT). Manual w/ Parts List, PE Stamped Drawings, and FHWA Eligibility Letters for MSKT-SP-MGS</td>
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<td>Type II, Energy Absorbing Tangent Terminal</td>
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<td>CC-40</td>
<td>1998-035</td>
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<td>Note: NOT approved for contracts let after June 30, 2018. Effective January 1, 2018, Road Systems Inc. will produce only the new SKT impact head that is accepted for use on both NCHRP-350 and MASH guardrail terminals. The 350 SKT head will be discontinued when inventories are depleted and only the new enhanced SKT head version known as the MSK guardrail terminal uses an impact head that has been crash tested and approved for use on the SKT-350 system per FHWA letter CC-130. Please note this does not convert the SKT-350 guiderail terminal to a MASH MSKT guiderail terminal. For details and images, view the notification letter below: <a href="#">NCHRP-350 SKT Impact Head Notification Letter (Nov. 15, 2017)</a></td>
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<td>SKT-SP</td>
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Section 619: Permanent Impact Attenuating Devices

619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)

FHWA Acceptance Letters: Terminals/Crash Cushions Letters

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria

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<th>Tested Height (in)</th>
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<tr>
<td>RSI Authorized Distributors: Gregory Industries (Canton, OH) and R.G. Steel Corp (Pulaski, PA)</td>
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<td>Note: Big Sandy MASH system tested to MASH 2016 criteria per FHWA Eligibility Letter CC-139 as same system tested to NCHRP 350 criteria.</td>
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<tr>
<td>Type III, Non-Energy Absorbing Terminal SRT-350</td>
<td>NCHRP 350</td>
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<td>Type IV, Gating Two-Way Traffic System CAT-350</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-33 SEW08</td>
<td>1989-060</td>
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* Manual w/ Parts List, PE Stamped Drawings, and FHWA Eligibility Letter for SoftStop

For proper assembly, installation, maintenance, repair and replacement of the SRT family of guide rail end treatment systems: [SRT-350 Assembly Instructions](http://www.highwayguardrail.com/).
### Section 619: Permanent Impact Attenuating Devices

**619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)**

FHWA Acceptance Letters: [Terminals/Crash Cushions Letters](#)

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): [Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested Level</th>
<th>FHWA Acc. Letter</th>
<th>Designator</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>* Manual w/ Parts List, PE Stamped Drawings, and FHWA Eligibility Letter for Softstop</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance) FASTRACC</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-54H</td>
<td>2010-251QB</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>* Approved MM-USA marking as Identifiable Steel</td>
<td></td>
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<td></td>
<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance) SHORTRACC</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-54A</td>
<td>2010-251QD</td>
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</tr>
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<td></td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td></td>
<td></td>
<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance) TRACC</td>
<td>NCHRP 350</td>
<td>TL-2, TL-3</td>
<td>CC-54</td>
<td>2010-251QA</td>
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<td></td>
<td>* Approved MM-USA marking as Identifiable Steel</td>
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<tr>
<td></td>
<td></td>
<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance) WIDETRACC</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-54D</td>
<td>2010-251QC</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>TRIN7 15</td>
<td>Trinity Highway Products, LLC, 2525 Stemmons Freeway, Dallas, TX 75207 <a href="https://trinityhighway.com/">https://trinityhighway.com/</a>, Plant Pell City, AL 35128</td>
<td>Type V, Non-Gating Two-Way Traffic System QuadGuard M10 (24&quot; Wide)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-112, CC-112c</td>
<td>2018-219Q</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>* Manual, Product Information, FHWA Eligibility Letters, and PE Stamped Drawings for QuadGuard M10</td>
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</tr>
</tbody>
</table>
Section 619: Permanent Impact Attenuating Devices

619.2 Permanent Impact Attenuating Devices (DM-2, Chapter 12)

FHWA Acceptance Letters: [Terminals/Crash Cushions Letters](#)

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved; Formerly Chapter 12, Appendix C in Pub 13M - Design Manual Part 2): [Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested Level</th>
<th>FHWA Acc. Letter</th>
<th>Designator</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>SCI 100 GM (36 inch)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2014-017QC</td>
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<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>SCI 100 GM (41-1/4 to 60 inch maximum)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2014-017QC</td>
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<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>SCI 100 GM (Standard)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2014-017QC</td>
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<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>SCI 70 GM (30 inch)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>2014-017QA</td>
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<td>SCI 70 GM (36 inch)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>2014-017QA</td>
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<td></td>
</tr>
<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>SCI 70 GM (41-1/4 to 60 inch maximum)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>2014-017QA</td>
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<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>SCI 70 GM (Standard)</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>2014-017QA</td>
<td></td>
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</tbody>
</table>

Previously approved per NCHRP 350 under approval CC-85 with no changes to system.

Previously approved per NCHRP 350 under approval CC-85 with no changes to system.

Previously approved per NCHRP 350 under approval CC-85 with no changes to system.

Previously approved per NCHRP 350 under approval CC-85 with no changes to system.

Previously approved per NCHRP 350 under approval CC-85 with no changes to system.

Previously approved per NCHRP 350 under approval CC-85 with no changes to system.

Previously approved per NCHRP 350 under approval CC-85 with no changes to system.

Previously approved per NCHRP 350 under approval CC-85 with no changes to system.

Previously approved per NCHRP 350 under approval CC-85 with no changes to system.

Previously approved per NCHRP 350 under approval CC-85 with no changes to system.
### Section 621: Metal Median Barrier

**621.2(a) Metal Median Barrier**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested Level</th>
<th>FHWA Acc. Letter</th>
<th>Designator</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREGV 15</td>
<td>Gregory Industries, Inc., 4100 13th Street SW, P.O. Box 80508, Canton, OH 44708</td>
<td><a href="http://www.gregorycorp.com/gccorp.htm">http://www.gregorycorp.com/gccorp.htm</a></td>
<td>MASH 2016</td>
<td>TL-5</td>
<td>B-267</td>
<td>SGM42</td>
<td>2017-271Q</td>
</tr>
</tbody>
</table>

Gregory Industries is the sole licensee and manufacturer of the Guardian 5 median barrier designed by ArcelorMittal USA, LLC. Note: The Guardian 5 was TL-5 crash tested in accordance with MASH 2009 and meets the MASH 2016 crash testing criteria. [PE Stamped Drawings, Intended Use Guidelines, Components, and FHWA Eligibility Letter for Guardian 5](http://www.gregorycorp.com/gccorp.htm)
Section 622: Concrete Glare Screen

622.2 Concrete Glare Screen
For Precast Concrete Glare Screens, see Section 714.2 for approved precasters of standard glare screens (RC-59M). Standard Drawing RC-59M (Publication 72M)
## Section 624: Right-of-Way Fence

### 624.2(b) Packaged Dry Concrete

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Last Revised: 7/7/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTS-1 15</td>
<td>CTS Cement Manufacturing Company, 12442 Knott Street, Garden Grove, CA 92841</td>
<td><a href="http://www.ctscement.com/">http://www.ctscement.com/</a></td>
</tr>
<tr>
<td></td>
<td>Packaged Dry Concrete</td>
<td>Rapid Set Concrete Mix</td>
</tr>
<tr>
<td>USCPR 15</td>
<td>US Concrete Products, 16 Green Meadow Drive, Suite 202, Timonium, MD 21093</td>
<td><a href="http://www.uscproducts.com/">http://www.uscproducts.com/</a></td>
</tr>
<tr>
<td>Plant</td>
<td>Baltimore, MD</td>
<td>Packaged Dry Concrete</td>
</tr>
</tbody>
</table>
## Section 626: Gabions

### 626.2(c) Gabion Basket

Steel Products Procurement Act applies.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CESHC 15</td>
<td>C. E. Sheperd Company, 2221 Canada Dry Street, Houston, TX 77023 <a href="http://www.ceshepherd.com/">http://www.ceshepherd.com/</a></td>
<td>1997-190</td>
</tr>
<tr>
<td></td>
<td>Galvanized Wire Gabion</td>
<td>1997-190</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Coated Gabion</td>
<td>1997-190</td>
</tr>
<tr>
<td>LANE3 15</td>
<td>Lane Enterprises, Inc., 8271 Mercer St., P.O. Box 345, Pulaski, PA 16143 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td>1988-014</td>
</tr>
<tr>
<td></td>
<td>Galvanized Wire Gabion</td>
<td>1988-014</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Coated Gabion</td>
<td>2000-273Q</td>
</tr>
<tr>
<td></td>
<td>Galvanized Wire Gabion</td>
<td>1968-012</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Coated Gabion</td>
<td>1968-012</td>
</tr>
<tr>
<td>TERR1 15</td>
<td>Terra Aqua Inc., 1415 North 32nd Street, Ft. Smith, AR 72904</td>
<td>1987-195B</td>
</tr>
<tr>
<td>Plant</td>
<td>Ft. Smith, AR</td>
<td>1987-195B</td>
</tr>
<tr>
<td></td>
<td>Galvanized Wire Gabion</td>
<td>1987-195B</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Coated Gabion</td>
<td>1987-195A</td>
</tr>
<tr>
<td>ULTGB 15</td>
<td>Ultimate Gabions, Inc., 500 Wood Street, P.O. Box 1002, Bristol, RI 02809</td>
<td>1998-026</td>
</tr>
<tr>
<td></td>
<td>Galvanized Wire Gabion</td>
<td>1998-026</td>
</tr>
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</table>
Section 627: Temporary Barrier

627.2 Temporary Barriers
For Precast Concrete Barriers, see Section 714.2 for approved precasters of standard PennDOT barriers (RC-57M & RC-58M) or licensed barriers and Glare Screens (RC-59M). Also see Section 901.2 for other approved temporary barriers. Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

Concrete Median Barrier: Standard Drawing of Concrete Median Barrier RC -57M (Publication 72M)

Single Face Concrete Barrier: Standard Drawing of Single Face Concrete Barrier RC-58M (Publication 72M)

Concrete Glare Screen: Standard Drawing RC-59M (Publication 72M)
## Section 636: Asphalt Concrete Curb

### 636.2(c) Filler (Drawn Polyester Fibers)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td></td>
<td>Filler for Asphalt Concrete Curb Mixes A-1 Polyester</td>
<td>1991-275</td>
</tr>
<tr>
<td></td>
<td>Asphalt Wearing Course FJ-4 (SU) Type 402 Polyester</td>
<td>1990-344B</td>
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<tr>
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<td>Filler for Asphalt Concrete Curb Mixes Type 402 Polyester</td>
<td>1990-344B</td>
</tr>
<tr>
<td>KAPEJ 15 Kapejo, Inc., P. O. Box 649, New Castle, DE 19720-0649</td>
<td>Asphalt Stockpile Patching Material Bonifiber B</td>
<td>1984-014</td>
</tr>
<tr>
<td></td>
<td>Asphalt Wearing Course FJ-4 (SU) Bonifiber B</td>
<td>1984-014</td>
</tr>
<tr>
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<td>Filler for Asphalt Concrete Curb Mixes Bonifiber B</td>
<td>1984-014</td>
</tr>
</tbody>
</table>
Section 643: Temporary Concrete Barrier, Structure Mounted

643.2(a) Temporary Concrete Barrier, Structure Mounted

For Precast Concrete Barriers, Structure Mounted, see Section 714.2 for approved precasters of standard PennDOT barriers (BC-719M). Also see Section 901.2 for other approved temporary structured mounted barriers. Standard Drawing of Temporary Concrete Barrier, Structure Mounted (Pub 219M, BC-719M)

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

643.2(c)6 Adhesive Bonding Material (use in accordance with BC-719M)

Use in accordance with BC-719M. Standard Drawing of Temporary Concrete Barrier, Structure Mounted (Pub 219M, BC-719M)

Provisional Approvals: Publication 408, Section 643.2(c)6.b.3 includes a requirement for independent Shock testing per ASTM E 488 with listed modifications and references to Standard Drawing BC-719M. The provisional approval status will remain until independent shock testing results are received and approved by PennDOT.

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Installation Type</th>
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<td>Adhesive Bonding Material</td>
<td>ULTRABOND HS-200</td>
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<td></td>
<td>Keligrount 101-P</td>
<td>C</td>
<td>1 ft.</td>
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<tr>
<td>Plant</td>
<td></td>
<td>Red Head A7+</td>
<td>B</td>
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</tbody>
</table>
Section 643: Temporary Concrete Barrier, Structure Mounted

643.2(c)6 Adhesive Bonding Material (use in accordance with BC-719M)

Use in accordance with BC-719M. Standard Drawing of Temporary Concrete Barrier, Structure Mounted (Pub 219M, BC-719M)

Provisional Approvals: Publication 408, Section 643.2(c)6.b.3 includes a requirement for independent Shock testing per ASTM E 488 with listed modifications and references to Standard Drawing BC-719M. The provisional approval status will remain until independent shock testing results are received and approved by PennDOT.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Installation Type</th>
<th>Spacing</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNITX 15</td>
<td>Dayton Superior Corporation - UNITEX, 3101 Gardner Ave., Kansas City, MO 64120</td>
<td>Propoxy 300 Fast</td>
<td>A, B</td>
<td>2004-056B</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>1 ft., 2 ft., 4 ft.</td>
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<tr>
<td></td>
<td>Proportionally Approved</td>
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</tr>
<tr>
<td>UNITX 15</td>
<td>Dayton Superior Corporation - UNITEX, 3101 Gardner Ave., Kansas City, MO 64120</td>
<td>Propoxy 300 Fast</td>
<td>C</td>
<td>2004-056B</td>
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<td></td>
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<td>1 ft.</td>
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</tr>
<tr>
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<td>Proportionally Approved</td>
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</tbody>
</table>
Section 659: High Friction Surface Treatment (HFST)

659.2(a) Binder Resin System (Binder)

There are other High Friction Surface Treatment Binder Resin products not listed below that are under evaluation. For a list of other resin systems that can be used on projects, contact the New Products and Innovations (NPI) Section via email at RA-pdBulletin15@pa.gov

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>CCMAT 15 Cornerstone</td>
<td>Binder Resin System</td>
<td>2014-086B</td>
</tr>
<tr>
<td>Facility CCMAT 15</td>
<td>CE330 Epoxy Binder</td>
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</tr>
<tr>
<td>Kwik Bond Polymers</td>
<td>Binder Resin System</td>
<td>2013-197A</td>
</tr>
<tr>
<td>Facility KWIK1 15</td>
<td>PPC HFST</td>
<td></td>
</tr>
<tr>
<td>Dayton Superior Corporation</td>
<td>Binder Resin System</td>
<td>2014-018</td>
</tr>
<tr>
<td>Facility UNITX 15</td>
<td>PRO-POXY Type III DOT</td>
<td></td>
</tr>
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</table>

659.2(b) Aggregate Surface Topping (Aggregate)

Project-Specific, Locally Approved Material.

In accordance with Publication 408, Section 106.02(a)2.c, a material specified for use in this Section is defined as a Project-Specific, Locally Approved Material.

PennDOT does not require manufacturers of Project-Specific, Locally Approved Materials to submit a Product Evaluation Application for approval and listing of their material(s) in Bulletin 15. Project-Specific, Locally Approved Materials are not listed in Bulletin 15.

Contractors proposing to use materials that meet the specification requirements must list them on Form CS-200 (Source of Supply-Materials) and submit them for local approval by the Representative (i.e. at the District or project level). Refer to Publication 408, Section 659.2(b) for specification requirements. Submit for local approval by the Representative all required information for the material, as indicated in the specification.

Also refer to the Project Specific, Locally Approved Materials section (Section 106) of Bulletin 15 for a complete listing of Publication 408 Sections that fall within this category.
Section 664: Modular Architectural Block System

664.2(a) Modular Architectural Blocks

Modular architectural block systems may be used for nonstructural landscape architecture applications according to the manufacturer drawings and recommendations. An acceptable landscape architectural site cannot have structures with foundations above the aggregate base within 8 feet of the back of the block system. System construction is restricted to a height of 4 feet above grade.

Approved Licensors:
- Allan Block Corporation (Allan Block), 1994-268;
- Anchor Wall Systems (Anchor Diamond), 1995-265;
- Risi Stone Systems (Dura Hold II), 1995-144, 1999-190Q;
- Versa-Lok Company (Versa-Lok), 2002-116

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOREN 15</td>
<td>Doren, Inc., R.D. #2, Route 18, P.O. Box 55, Wampum, PA 16157</td>
<td>Modular Architectural Block</td>
</tr>
<tr>
<td>FADD1 15</td>
<td>Faddis Concrete Products, 3515 Kings Highway, Downingtown, PA 19335</td>
<td>Modular Architectural Block</td>
</tr>
<tr>
<td>FIZZ2 15</td>
<td>Fizzano Brothers Concrete Products, Inc., 201 South Phoenixville Pike, Malvern, PA 19355</td>
<td>Modular Architectural Block</td>
</tr>
<tr>
<td>LANDS 15</td>
<td>Landis Block &amp; Concrete Inc., 711 N. County Line Road, Souderton, PA 18964</td>
<td>Modular Architectural Block</td>
</tr>
<tr>
<td>MIDAP 15</td>
<td>Mid Atlantic Precast Inc., 401 Railroad Street, Monongahela, PA 15063</td>
<td>Modular Architectural Block</td>
</tr>
<tr>
<td></td>
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</table>
### Section 678: Permanent Barricades

#### 678.2(a)1 Wood Posts (Pressure Treated)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>AMETS 15</td>
<td>American Timber and Steel Corp., 4832 Plank Road, P. O. Box 767, Norwalk, OH 44857-0767 <a href="http://www.americantimberandsteel.com/">http://www.americantimberandsteel.com/</a></td>
<td>1995-271</td>
</tr>
<tr>
<td>GRE-15 Plant</td>
<td>Great Southern Wood Preserving, P. O. Box 610, Abberville, AL 36310 <a href="http://greatsouthernwood.com/">http://greatsouthernwood.com/</a></td>
<td>2011-149Q</td>
</tr>
<tr>
<td>TAYLR15</td>
<td>Taylor-Ramsey Corporation, P.O. Box 11888, Lynchburg, VA 24506</td>
<td>1985-090</td>
</tr>
</tbody>
</table>
### Section 679: Slab Stabilization

(a) Cement Grout Stabilization; (b) Asphalt Grout Stabilization; (c) High Density Polyurethane

#### 679.2(a)5 Rapid Set Concrete Patching Materials - Type A

Type A: Cementitious, Non-Metallic, Non-Staining (ASTM C-928)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5STAR 15</td>
<td>Five Star Products, Inc., 750 Commerce Drive, Fairfield, CT 06825</td>
<td><a href="http://www.fivestarproducts.com/">http://www.fivestarproducts.com/</a></td>
<td>1979-039</td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>5 Star Highway Patch</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>5 Star Structural Concrete</td>
<td>1987-002</td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>5 Star Structural Concrete V/O</td>
<td>1990-214</td>
</tr>
<tr>
<td>AQUAF 15</td>
<td>Aquafin, Inc., 505 Blue Ball Road, #160, Elkton, MD 21921</td>
<td><a href="http://www.aquafin.net/">http://www.aquafin.net/</a></td>
<td>2010-276</td>
</tr>
<tr>
<td></td>
<td>Formerly Ceratech, Inc. (CETEC 15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>Pavemend SL</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer's specifications and usage guidelines.</td>
<td>Pavemend SL Technical Datasheet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>Pavemend SLQ</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer's specifications and usage guidelines.</td>
<td>Pavemend SLQ Technical Datasheet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>MasterEmaco N 424</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Previous Name: Emaco GP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>MasterEmaco T 1060</td>
<td>1986-028</td>
</tr>
<tr>
<td></td>
<td>Previous Name: 10-60 Rapid Mortar</td>
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<td></td>
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<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>MasterEmaco T 415</td>
<td>1993-148</td>
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<tr>
<td></td>
<td>Previous Name: Emaco T415 Repair Mortar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CGM-N 15</td>
<td>CGM Inc., 1463 Ford Road, Bensalem, PA 19020</td>
<td><a href="http://cgmbuildingproducts.com/">http://cgmbuildingproducts.com/</a></td>
<td>1987-082</td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>CGM Highway Patch</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>ChemSpeed 65</td>
<td></td>
</tr>
<tr>
<td>DAYT1 15</td>
<td>Dayton Superior Corporation, 4226 Kansas Avenue, Kansas City, KS 66106</td>
<td><a href="http://www.daytonsuperior.com/">http://www.daytonsuperior.com/</a></td>
<td>1985-185</td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>HD-50</td>
<td>RSCP-2014-01-007</td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>Pave Patch 3000</td>
<td>RSCP-2017-01-007</td>
</tr>
</tbody>
</table>

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Section 679: Slab Stabilization

679.2(a)5 Rapid Set Concrete Patching Materials -Type A

Type A: Cementitious, Non-Metallic, Non-Staining (ASTM C-928)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Euco-Speed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Express Repair</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Speed Crete 2028</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Speed Crete Green Line</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>VersaSpeed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>P Superbond</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(formerly ProSpec F-77)</td>
<td></td>
</tr>
<tr>
<td>L&amp;MCC 15</td>
<td>L&amp;M Construction Chemicals, Inc., 14851 Calhoun Road, Omaha, NE 68152 [<a href="http://www.lmcc.com/">http://www.lmcc.com/</a>]</td>
<td>Crystex</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Durapatch Hiway</td>
<td></td>
</tr>
<tr>
<td>MAPEIA15</td>
<td>MAPEI Corporation, 1144 East Newport Center Drive, Deerfield Beach, FL 33442 [<a href="http://www.mapei.com/US-EN/">http://www.mapei.com/US-EN/</a>]</td>
<td>Planitop 18</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Planitop 18 TG</td>
<td>RSCP-2018-01-001</td>
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</table>
## Section 679: Slab Stabilization

### 679.2(a)5 Rapid Set Concrete Patching Materials - Type A

Type A: Cementitious, Non-Metallic, Non-Staining (ASTM C-928)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUIKR 15 Plant</td>
<td>The Quikrete Companies, One Securities Centre, 3490 Piedmont Road, N.E. Suite 1300, Atlanta, GA 30305</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>QUIKRETE FastSet™ Concrete Mix</td>
<td>RSCP-2017-01-012</td>
<td>2000-288Q</td>
</tr>
<tr>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>QUIKRETE FastSet™ DOT Mix</td>
<td>RSCP-2017-01-008</td>
<td>2003-004Q</td>
</tr>
<tr>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>QUIKRETE FastSet™ Non-Shrink Grout (Product No. 1585-09)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>QUIKRETE Rapid Road Repair</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| SIKA 15 Plant | Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 |  |  |
| Cementitious, Non-Metallic, Non-Staining Material | SikaSet Road Patch |  |  |
| Cementitious, Non-Metallic, Non-Staining Material | Sikatop III |  |  |

| SIKA2 15 Plant | Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 |  |  |
| Cementitious, Non-Metallic, Non-Staining Material | SikaQuick 1000 | RSCP-2017-01-006 | 2003-036Q |
| Cementitious, Non-Metallic, Non-Staining Material | SikaQuick 2500 | RSCP-2016-01-011 | 2003-037Q |

| SPECH 15 | SpecChem, LLC, 1619 Walnut Street, Kansas City, MO 64108 |  |  |
| Cementitious, Non-Metallic, Non-Staining Material | Repcon 928 | RSCP-2018-01-004 | 2013-018Q |

Provisionally Approved
### Section 679: Slab Stabilization

#### 679.2(a)5 Rapid Set Concrete Patching Materials - Type A

Type A: Cementitious, Non-Metallic, Non-Staining (ASTM C-928)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>USGY1 15</td>
<td>U. S. Gypsum Company, Industrial Products, 125 South Franklin Street, Chicago, IL 60606-4678</td>
<td>Cementitious, Non-Metallic, Non-Staining Material Duracal</td>
<td>RSCP-2014-01-005</td>
</tr>
<tr>
<td>USGY1 15</td>
<td>U. S. Gypsum Company, Industrial Products, 125 South Franklin Street, Chicago, IL 60606-4678</td>
<td>Cementitious, Non-Metallic, Non-Staining Material Duracal-S</td>
<td></td>
</tr>
</tbody>
</table>

#### 679.2(a)5 Rapid Set Concrete Patching Materials - Type B

Type B: Magnesium Phosphate Cement Based Materials (ASTM C-928)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASBS 15</td>
<td>BASF Corporation Building Systems, 889 Valley Park Drive, Shakopee, MN 55379</td>
<td>Magnesium, Phosphate Cement-Based Material MasterEmaco T 545 (previous Set 45 Regular)</td>
<td>1974-016</td>
</tr>
<tr>
<td>BASBS 15</td>
<td>BASF Corporation Building Systems, 889 Valley Park Drive, Shakopee, MN 55379</td>
<td>Magnesium, Phosphate Cement-Based Material MasterEmaco T 545 HT (previous Set 45 Hot Weather)</td>
<td>1974-016</td>
</tr>
</tbody>
</table>

#### 679.2(a)5 Rapid Set Concrete Patching Materials - Type C

Type C: Polymer Mortar and Concrete (ASTM C-928)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHOS1 15</td>
<td>Phoscrete Corporation, 265 S Federal Hwy, Ste 320, Deerfield Beach, FL 33441-4161</td>
<td>Magnesium, Phosphate Cement-Based Material Phoscrete HC</td>
<td>RSCP-2015-01-002</td>
</tr>
</tbody>
</table>
Section 679: Slab Stabilization

679.2(a)5 Rapid Set Concrete Patching Materials - Type C
Type C: Polymer Mortar and Concrete (ASTM C-928)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HILT-15</td>
<td>Hilti, Inc., 5400 South 122nd East Ave., P.O. Box 21148, Tulsa, OK 74121</td>
<td><a href="https://www.hilti.com/">https://www.hilti.com/</a></td>
<td>1988-017</td>
</tr>
<tr>
<td></td>
<td>Polymer Mortar and Concrete RM 698 Epoxy Patch</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polymer Mortar and Concrete T17 Polymer Concrete</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

679.2(a)6 Alternate Mix Design - Cement Grout Stabilization
Concrete Mix Design (void filler beneath slab)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVES 15</td>
<td>Covestro, LLC, 1 Covestro Circle, Pittsburgh, PA 15205</td>
<td><a href="http://www.covestro.us/en">http://www.covestro.us/en</a></td>
</tr>
<tr>
<td></td>
<td>Formerly Bayer Material Science</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alternate to Concrete Mix Design (void filler beneath slab)</td>
<td>486 Star</td>
</tr>
<tr>
<td></td>
<td>Conditionally approved as an alternate per manufacturer's specifications</td>
<td></td>
</tr>
</tbody>
</table>

679.2(b)5 Rapid Set Concrete Patching Materials
See Section 679.2(a)5

679.2(c)5 Rapid Set Concrete Patching Materials
See Section 679.2(a)5
# Section 680: Waterproofing

## 680.2(b) Adhesive-Backed Preformed Membrane Sheet

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant 121 Industrial Park Road Halls, TN 38040</td>
<td>Bridge Deck, Rubberized Asphalt: GeoTac 2006-035Q, Non-Bridge Deck, Rubberized Asphalt: GeoTac 2006-035Q</td>
<td></td>
</tr>
<tr>
<td>Plant 121 Industrial Park Road Halls, TN 38040</td>
<td>Bridge Deck, Rubberized Asphalt: SealTight MEL-DEK 1993-275, Non-Bridge Deck, Rubberized Asphalt: SealTight MEL-ROL 1993-274</td>
<td></td>
</tr>
<tr>
<td>ROYST 15</td>
<td>Chase Corporation, 295 University Avenue, Westwood, MA 02090 <a href="http://www.chasecorp.com/">http://www.chasecorp.com/</a></td>
<td>Bridge Deck, Modified Bitumen: Royston Bridge Membrane 10A-65 2000-018Q, Certification Reduction Level 3 per Publication 408 Section 106.03(b)3 as of 11/27/2012</td>
</tr>
<tr>
<td>Facility 128 First Street Pittsburgh, PA 15238</td>
<td>Bridge Deck, Modified Bitumen: Royston Bridge Membrane 10A-65 Easy Pave 2000-019Q, Certification Reduction Level 3 per Publication 408 Section 106.03(b)3 as of 11/27/2012</td>
<td></td>
</tr>
<tr>
<td>Plant 2017-171Q, Non-Bridge Deck, Rubberized Asphalt: Right Roll 2017-172Q</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 680: Waterproofing

680.2(b) Adhesive-Backed Preformed Membrane Sheet

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOPRE 15</td>
<td>Soprema, Inc., 310 Quadral Drive, Wadsworth, OH 44281 [<a href="http://soprema.us/">http://soprema.us/</a>]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bridge Deck, Modified Bitumen</td>
<td>2001-043Q</td>
</tr>
<tr>
<td></td>
<td>Antirock (Alternate)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally approved as an alternate per manufacturer's specifications.</td>
<td></td>
</tr>
<tr>
<td>TENC2 15 Plant</td>
<td>TenCate Geosynthetics, 365 South Holland Drive, Pendergrass, GA 30567 [<a href="http://www.tencate.com/">http://www.tencate.com/</a>]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Bridge Deck, Modified Bitumen</td>
<td>2018-029Q</td>
</tr>
<tr>
<td></td>
<td>Mirafi MTK</td>
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</tr>
</tbody>
</table>
# Section 695: Detectable Warning Surface

## 695.2(a) Detectable Warning Surface (DWS)

Dome size and spacing as specified in Standard Drawing RC-67M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWS, Cast Iron</td>
<td>Iron Dome</td>
<td>2008-019Q</td>
</tr>
<tr>
<td>DWS, Polymer Composite</td>
<td>Replaceable Wet Set Composite</td>
<td>2007-049Q</td>
</tr>
<tr>
<td>DWS, Polymer Composite</td>
<td>Tactile Systems Composite Paver (Cast in Place)</td>
<td>2007-049Q</td>
</tr>
<tr>
<td>DWS, Polymer Concrete</td>
<td>Detectable Warning Wet Set Replaceable (with steel angles)</td>
<td>2007-116Q</td>
</tr>
<tr>
<td>Plant</td>
<td>PFC Composite Replaceable Panel</td>
<td>2009-057Q</td>
</tr>
<tr>
<td>DWS, Cast Iron</td>
<td>DURALAST 7005 Detectable Warning Plate</td>
<td>2007-020Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Access Tile Replaceable Cast in Place ACC-R</td>
<td>2007-052Q</td>
</tr>
<tr>
<td>DWS, Polymer Composite</td>
<td>Access Tile Replaceable Cast in Place ACC-R</td>
<td>2007-052Q</td>
</tr>
</tbody>
</table>
### Section 695: Detectable Warning Surface

**695.2(a) Detectable Warning Surface (DWS)**

Dome size and spacing as specified in [Standard Drawing RC-67M (Publication 72M)](#).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Aurora, NE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td>Provisionally Approved</td>
</tr>
<tr>
<td></td>
<td>EZ Set Tile (Cast in Place)</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Dublin, VA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td>alertcast Detectable Warning System</td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td>Provisionally Approved</td>
</tr>
<tr>
<td></td>
<td>alertcast Detectable Warning System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>24&quot; x 24&quot; Detectable Warning Plate (4984)</td>
<td>Provisionally Approved</td>
</tr>
<tr>
<td></td>
<td>DWS, Stainless Steel</td>
<td>MD Metapanel</td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Concrete</td>
<td>Step-Safe</td>
</tr>
</tbody>
</table>
Section 696: Temporary Impact Attenuating Devices (DM-2, Chapter 12)

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

696.2 Temporary Impact Attenuating Devices

FHWA Acceptance Letters: Terminals/Crash Cushions Letters

Temporary work zone devices manufactured after December 31, 2019, must meet the AASHTO MASH 2016 criteria. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

### Table: Temporary Impact Attenuating Devices

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested Level</th>
<th>FHWA Acc. Letter</th>
<th>Designator</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARRS 15</td>
<td>Lindsay Transportation Solutions, LLC</td>
<td>Universal TAU-II</td>
<td>NCHRP 350</td>
<td>TL-2, CC-75</td>
<td>SCT01a</td>
<td>2004-083Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Barrier Systems by Lindsay), 180 River</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Road, Rio Vista, CA 94571</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type V, Non-Gating Two-Way Traffic System</td>
<td>X-TENuator</td>
<td>NCHRP 350</td>
<td>TL-3 CC-109</td>
<td>SCI23</td>
<td>2011-069QB</td>
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</tr>
<tr>
<td></td>
<td>Type VI, Gating Non-Redirective Crash</td>
<td>ABSORB 350</td>
<td>NCHRP 350</td>
<td>TL-3 CC-56</td>
<td>SCI11b</td>
<td>2001-066</td>
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<tr>
<td></td>
<td>Cushion System</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Spincast Plastics, South Bend, IN</td>
<td>QuadGuard High Speed (HS)</td>
<td>NCHRP 350</td>
<td>TL-3 CC-35E</td>
<td>SCT02d</td>
<td>2001-223Q</td>
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</tr>
<tr>
<td></td>
<td>Type V, Non-Gating Two-Way Traffic System</td>
<td>QuadGuard II (Modified QuadGuard)</td>
<td>NCHRP 350</td>
<td>TL-2, CC-35l</td>
<td></td>
<td>2009-159QB</td>
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<td></td>
<td>Type V, Non-Gating Two-Way Traffic System</td>
<td>QUEST</td>
<td>NCHRP 350</td>
<td>TL-3 CC-57</td>
<td>SCI20</td>
<td>2005-052Q</td>
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<tr>
<td></td>
<td>Type V, Non-Gating Two-Way Traffic System</td>
<td>REACT 350</td>
<td>NCHRP 350</td>
<td>TL-3 CC-26B</td>
<td>SCI16a</td>
<td>1995-158</td>
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<tr>
<td>Cushion System</td>
<td>Type VI, Gating Non-Redirective Crash</td>
<td>Energite III Module</td>
<td>NCHRP 350</td>
<td>TL-3 CC-29</td>
<td>SCI06c</td>
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<td>Cushion System</td>
<td>Fitch Inertial</td>
<td>NCHRP 350</td>
<td>TL-3 CC-28</td>
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</tbody>
</table>

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved): Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria
## Section 696: Temporary Impact Attenuating Devices (DM-2, Chapter 12)

**696.2 Temporary Impact Attenuating Devices**

FHWA Acceptance Letters: [Terminals/Crash Cushions Letters](#)

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved): [Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria](#)

Temporary work zone devices manufactured after December 31, 2019, must meet the AASHTO MASH 2016 criteria. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Level</th>
<th>FHWA Acc. Letter</th>
<th>Designator</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>* Manual w/ Parts List, FHWA Eligibility Letter, PE Stamped Drawings for SCI 100 GM Smart Cushion</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Type V, Non-Gating Two-Way Traffic System SCI 70 GM</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-86A</td>
<td>SCI17b</td>
</tr>
<tr>
<td></td>
<td>Plant</td>
<td>505 Crown Point Ave Omaha, NE 67110</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Manual w/ Parts List, FHWA Eligibility Letters, Concrete &amp; Asphalt Foundation Drawings for TAU-M</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>MORVA 15</td>
<td>Morgan Valley Manufacturing, 340 North Industrial Road, P. O. Box 746, Morgan, UT 84050</td>
<td>Type V, Non-Gating Two-Way Traffic System SCI 100 GM</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2004-015</td>
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<td></td>
<td></td>
<td>* Manual w/ Parts List, FHWA Eligibility Letter, PE Stamped Drawings for SCI 100 GM Smart Cushion</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Type V, Non-Gating Two-Way Traffic System SCI 70 GM</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-86A</td>
<td>SCI17b</td>
</tr>
</tbody>
</table>
Section 696: Temporary Impact Attenuating Devices (DM-2, Chapter 12)

696.2 Temporary Impact Attenuating Devices

Summary of End Treatments Crash Tested to MASH 2016 Criteria (Installation Manuals, Parts List, Maintenance Procedures, and PE Stamped Drawings - PennDOT Approved): Section 619.2 & 696.2 Permanent and Temporary End Treatments Meeting MASH 2016 Criteria

Temporary work zone devices manufactured after December 31, 2019, must meet the AASHTO MASH 2016 criteria. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested Level</th>
<th>FHWA Acc. Letter</th>
<th>Designator</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td></td>
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<td>System was crash tested to AASHTO MASH crash tested per FHWA Eligibility Letter CC-139. <a href="http://www.traffixdevices.com/">Installation Instructions and FHWA Eligibility Letter for Big Sandy</a></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>System was crash tested to MASH criteria per FHWA Eligibility Letter CC-131. Manual, FHWA Eligibility Letter CC-131, and water freezing prevention documents for MASH Sentry Longitudinal Energy Dissipater (SLED) <a href="http://www.highwayguardrail.com/">Type VI Crash Cushion</a></td>
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<tr>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>* Manual w/ Parts List, FHWA Eligibility Letter, and PE Stamped Drawings for SCI 100 GM Smart Cushion</td>
<td></td>
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</tbody>
</table>
Section 701: Cement

### 701 Cement Plants & Terminals

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ARGO1 15</strong> Plant</td>
<td>Argos USA, 3015 Windward Plaza, Windward Fairways II, Suite 300, Alpharetta, GA 30005 <a href="https://www.argos.co/usa/">https://www.argos.co/usa/</a></td>
<td>1995-072</td>
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<tr>
<td><em>Formerly Essroc Materials, Inc. (ESS-3 15)</em></td>
<td><strong>Type I</strong> Portland Cement Type I/II</td>
<td>8/14/2012</td>
<td>1995-072</td>
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<tr>
<td><em>Formerly Essroc Materials, Inc. (ESS-5 15)</em></td>
<td><strong>Type II</strong> Portland Cement Type I/II</td>
<td>1995-072</td>
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</tr>
<tr>
<td><em>Formerly Essroc Materials, Inc. (ESS-5 15)</em></td>
<td><strong>Type III</strong> Portland Cement Type III</td>
<td>1995-072</td>
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<tr>
<td><em>Formerly Essroc Materials, Inc. (ESS-5 15)</em></td>
<td><strong>Type IL</strong> Argos Type IL Cement</td>
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<tr>
<td><strong>ARGO2 15</strong> Terminal</td>
<td>Argos USA, 3015 Windward Plaza, Windward Fairways II, Suite 300, Alpharetta, GA 30005 <a href="https://www.argos.co/usa/">https://www.argos.co/usa/</a></td>
<td>2010-183QB</td>
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<td><em>Formerly Essroc Materials, Inc. (ESS-5 15)</em></td>
<td><strong>Type I</strong></td>
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<tr>
<td><em>Formerly Essroc Materials, Inc. (ESS-5 15)</em></td>
<td><strong>Type II</strong></td>
<td>2010-183QB</td>
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</tr>
</tbody>
</table>

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Per AASHTO M85, Portland cement with up to 5% limestone addition.

Per AASHTO M85, Portland cement with up to 5% limestone addition.

Per AASHTO M85, Portland cement with up to 5% limestone addition.

Per AASHTO M85, Portland cement with up to 5% limestone addition.

Per AASHTO M85, Portland cement with up to 5% limestone addition.
# Section 701: Cement

## 701 Cement Plants & Terminals

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<th>Product</th>
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</thead>
<tbody>
<tr>
<td><strong>ARGO3 15 Terminal</strong></td>
<td>Argos USA, 3015 Windward Plaza, Windward Fairways II, Suite 300, Alpharetta, GA 30005</td>
<td>2010-149QA</td>
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<tr>
<td>Formerly Essroc Materials, Inc. (ESS-6 15)</td>
<td>Type I, Terminal for ARGO1 15, Ref. 1995-072 (Martinsburg, WV)</td>
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</tr>
<tr>
<td></td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Type I, Terminal for ARGO1 15, Ref. 1995-072 (Martinsburg, WV)</td>
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<tr>
<td></td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
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</tr>
<tr>
<td><strong>ARGO4 15 Terminal</strong></td>
<td>Argos USA, 3015 Windward Plaza, Windward Fairways II, Suite 300, Alpharetta, GA 30005</td>
<td>2010-235QA</td>
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<tr>
<td>Formerly Essroc Materials, Inc. (ESS10 15)</td>
<td>Type I, Terminal for ARGO1 15, Ref. 1995-072 (Martinsburg, WV)</td>
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<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
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<td>Type I, Terminal for ARGO6 15, Ref. 2017-230Q (Calera, AL)</td>
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<td>Per AASHTO M 85, Portland cement with up to 5% inorganic processing addition (bag house dust).</td>
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<tr>
<td><strong>ARGO6 15 Plant</strong></td>
<td>Argos USA, 3015 Windward Plaza, Windward Fairways II, Suite 300, Alpharetta, GA 30005</td>
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<tr>
<td>Roberta Plant 8039 Highway 25 Calera, AL 35040</td>
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</tr>
<tr>
<td></td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition and up to 5% inorganic processing addition (bag house dust).</td>
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</tr>
<tr>
<td></td>
<td>Type II</td>
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</tr>
<tr>
<td></td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition and up to 5% inorganic processing addition (bag house dust).</td>
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</table>
## Section 701: Cement

### 701 Cement Plants & Terminals

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<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
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<tr>
<td><strong>ARGO7 15</strong> Terminal</td>
<td>Argos USA, 3015 Windward Plaza, Windward Fairways II, Suite 300, Alpharetta, GA 30005</td>
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<td></td>
<td><strong>ARGO7 15</strong></td>
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<tr>
<td></td>
<td></td>
<td>Terminal 411 Oberlin Avenue SW Massillon, OH 44647</td>
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<td>Type I</td>
<td>Type I, Terminal for ARGO1 15, Ref. 1995-072 (Martinsburg, WV)</td>
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<tr>
<td></td>
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<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
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<td>Type II</td>
<td>Type I/II, Terminal for ARGO1 15, Ref. 1995-072 (Martinsburg, WV)</td>
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<tr>
<td></td>
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<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
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<tr>
<td><strong>ARMST 15</strong> Plant</td>
<td>Armstrong Cement and Supply, 100 Clearfield Road, Cabot, PA 16023-9521</td>
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<td>Type I</td>
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<td>Type I</td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</td>
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<td>Type II</td>
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<td>Type II</td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</td>
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<td></td>
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<td>Type II MH</td>
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<td></td>
<td>Type II MH</td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</td>
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<td></td>
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<td>Type III</td>
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<td>Type V</td>
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# Bulletin 15 (Publication 35)

## Qualified Products List for Construction

**Section 701: Cement**

### 701 Cement Plants & Terminals

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter</th>
<th>Date</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td></td>
<td><strong>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</strong></td>
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<td>Type I</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Type I Terminal for BUZZ1 15, Ref. 2011-222QA (Chattanooga, TN)</td>
<td>2012-023QA</td>
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<td><strong>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</strong></td>
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<tr>
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<td>Type II Terminal for BUZZ1 15, Ref. 2011-222QB (Chattanooga, TN)</td>
<td>2012-023QB</td>
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<td></td>
<td></td>
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<td><strong>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</strong></td>
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</tr>
<tr>
<td></td>
<td></td>
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<td>Type II MH</td>
<td>5/4/2009</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</strong></td>
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<td></td>
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<td>Type II MH</td>
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<td>Type III</td>
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<td><strong>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</strong></td>
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</tr>
<tr>
<td>BUZZ2 15</td>
<td>Buzzi Unicem USA, Chattanooga, 1201 Suck Creek Road, P. O. Box 4304, Chattanooga, TN 37405 <a href="http://www.buzziunicemusa.com/">http://www.buzziunicemusa.com/</a></td>
<td>Chattanooga, TN</td>
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<td><strong>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</strong></td>
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<td>Type II</td>
<td>2011-222QB</td>
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<td></td>
<td><strong>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</strong></td>
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<tr>
<td>CEMX1 15</td>
<td>CEMEX, Inc. (Effective 3/7/20, acquired by Eagle Materials/Kosmos Cement Company LLC - See KCC-2 15), 10100 Katy Freeway, Suite 300, Houston, TX 77043</td>
<td>Terminal 200-B Neville Island Pittsburgh, PA 15225</td>
<td>Type I</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
</tr>
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<td></td>
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<td></td>
<td><strong>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</strong></td>
<td></td>
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<tr>
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<td></td>
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<td>Type II</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
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<td>Type II MH</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
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<td>Type III</td>
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</table>
Section 701: Cement

701 Cement Plants & Terminals

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter</th>
<th>Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I</td>
<td>Terminal for CEMX8 15, Ref. 2018-231 (Knoxville, TN)</td>
<td>2018-231Q</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type I</td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition and up to 5% inorganic processing addition (bag house dust).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type I</td>
<td>Terminal for KCC-1 15, Ref. 2001-056Q (Louisville, KY)</td>
<td>2010-042Q</td>
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</tr>
<tr>
<td>Type II</td>
<td>This cement is supplied from the Kosmos Cement Company LLC plant in Louisville, KY (KCC-1 15).</td>
<td></td>
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<tr>
<td>Type II</td>
<td>Terminal for CEMX8 15, Ref. 2018-231 (Knoxville, TN)</td>
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<tr>
<td>Type II</td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition and up to 5% inorganic processing addition (bag house dust).</td>
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<tr>
<td>Type II</td>
<td>Terminal for KCC-1 15, Ref. 2001-056Q (Louisville, KY)</td>
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<tr>
<td>Type II MH</td>
<td>This cement is supplied from the Kosmos Cement Company LLC plant in Louisville, KY (KCC-1 15).</td>
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<tr>
<td>Type II MH</td>
<td>Terminal for CEMX8 15, Ref. 2018-231 (Knoxville, TN)</td>
<td>2018-231Q</td>
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<td></td>
</tr>
<tr>
<td>Type II</td>
<td>This cement is supplied from the Kosmos Cement Company LLC plant in Louisville, KY (KCC-1 15).</td>
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<td>Type III</td>
<td>Terminal for KCC-1 15, Ref. 2001-056Q (Louisville, KY)</td>
<td>2010-141QA</td>
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<td>Type III</td>
<td>This cement is supplied from the Kosmos Cement Company LLC plant in Louisville, KY (KCC-1 15).</td>
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<tr>
<td>CEMX4 15 Plant</td>
<td>CEMEX, Inc. (Effective 3/7/20, acquired by Eagle Materials/Kosmos Cement Company LLC - See KCC-1 15), 10100 Katy Freeway, Suite 300, Houston, TX 77043 Kosmos Cement Plant 15301 Dixie Highway Louisville, KY 40272</td>
<td>See KCC-1 15 - Kosmos Cement Company LLC</td>
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<td>Type II</td>
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<td>Type III</td>
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<td>1993-040</td>
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# Section 701: Cement

## 701 Cement Plants & Terminals

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<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMX6 15 Plant</td>
<td>Fairborn Cement Company (Eagle Materials, Inc.), 3811 Turtle Creek Blvd, Suite 1100, Dallas, TX 75219 <a href="http://www.eaglematerials.com">http://www.eaglematerials.com</a></td>
<td>2012-172QA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Formerly CEMEX, Inc.)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Plant 3250 Linebaugh Road  Xenia, OH 45385 (Formerly CEMEX, Inc.)</td>
<td>2012-172QB</td>
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<tr>
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<td>Type I</td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</td>
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<tr>
<td></td>
<td>Type II</td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</td>
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<tr>
<td></td>
<td>Type III</td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CEMEX, Inc. (Effective 3/7/20, acquired by Eagle Materials/Kosmos Cement Company LLC - See KCC-3 15), 10100 Katy Freeway, Suite 300, Houston, TX 77043 <a href="http://www.cemexusa.com/">http://www.cemexusa.com</a></td>
<td>2017-333Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Terminal 6212 Cement Plant Road  Knoxville, TN 37924</td>
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<tr>
<td></td>
<td>Type I</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
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<td>Type II</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
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<td></td>
<td>Type II MH</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
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<td>Type III</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
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<tr>
<td>CEMX7 15 Terminal</td>
<td>CEMEX, Inc. (Effective 3/7/20, acquired by Eagle Materials/Kosmos Cement Company LLC - See KCC-3 15), 10100 Katy Freeway, Suite 300, Houston, TX 77043 <a href="http://www.cemexusa.com/">http://www.cemexusa.com</a></td>
<td>2016-084Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Terminal 1007 Maccorkle SW Avenue  South Charleston, WV 25303</td>
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<td></td>
<td>See KCC-3 15 - Kosmos Cement Company LLC</td>
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<td>Type I</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
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<tr>
<td></td>
<td>Type II</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
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<td></td>
<td>Type II MH</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
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<td>Type III</td>
<td>Terminal for CEMX4 15, Ref. No. 2001-056</td>
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<tr>
<td>CEMX8 15 Plant</td>
<td>CEMEX, Inc., 10100 Katy Freeway, Suite 300, Houston, TX 77043 <a href="http://www.cemexusa.com/">http://www.cemexusa.com</a></td>
<td>2018-231Q</td>
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<td></td>
<td>6212 Cement Plant Road  Knoxville, TN 37924</td>
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<tr>
<td></td>
<td>Type I</td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition and up to 5% inorganic processing addition (bag house dust).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type II</td>
<td>Per AASHTO M 85, Portland cement with up to 5% limestone addition and up to 5% inorganic processing addition (bag house dust).</td>
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</table>

Last Revised: 3/11/2020
# Section 701: Cement

## 701 Cement Plants & Terminals

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>CRH-1 15</td>
<td>Ash Grove (Formerly CRH Canada Group Inc.), 2300 Steeles Avenue West, Concord, Ontario L4K 5X6 <a href="https://www.ashgrove.com/">https://www.ashgrove.com/</a></td>
<td>1/17/2020</td>
<td>2016-027Q</td>
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</tbody>
</table>

*Effective April 1, 2020, CRH Canada Group is now Ash Grove*

- **Type I**
  - Per AASHTO M85, Portland cement with up to 5% limestone addition.

- **Type III**
  - Per AASHTO M85, Portland cement with up to 5% limestone addition.

| CRH-2 15 | Ash Grove (Formerly CRH Canada Group Inc.), 2300 Steeles Avenue West, Concord, Ontario L4K 5X6 [https://www.ashgrove.com/](https://www.ashgrove.com/) | 2017-079Q | 2017-079Q |

*Effective April 1, 2020, CRH Canada Group is now Ash Grove*

- **Type I**
  - Per AASHTO M85, Portland cement with up to 5% limestone addition.

- **Type II**
  - Per AASHTO M85, Portland cement with up to 5% limestone addition.

| ESSEX 15 | Titan America, LLC, 188 Summerfield Court, Suite 201, Roanoke, VA 24019 | 2019-248Q | 2019-248Q |

*Effective April 1, 2020, CRH Canada Group is now Ash Grove*

- **Type I**
  - Terminal for TITAN 15, Ref. 2016-132 (Elefsina, Greece)


*Effective April 1, 2020, CRH Canada Group is now Ash Grove*
## Section 701: Cement

### 701 Cement Plants & Terminals

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<thead>
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<th>Product Ref. No.</th>
<th>Name</th>
<th>Letter Date</th>
<th>Date</th>
<th>Ref. No.</th>
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</thead>
</table>

- Type I
- Type II
- Type II MH
- Type III

- Per AASHTO M85, Portland cement with up to 5% limestone addition.
- Per AASHTO M85, Portland cement with up to 5% limestone addition.
### Section 701: Cement

#### 701 Cement Plants & Terminals

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOLI5 15 Plant</td>
<td>Holcim (US) Inc. d/b/a LafargeHolcim US, 8700 West Bryn Mawr Avenue, Chicago, IL 60631 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>2011-224QA</td>
<td>HOLI5 15</td>
</tr>
<tr>
<td></td>
<td>Plant Holcim Holly Hill Plant 2173 Gardner Boulevard Holly Hill, SC 29059</td>
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</tr>
<tr>
<td></td>
<td>Type I</td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type II</td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type II MH</td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
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<tr>
<td>HOLI6 15 Plant</td>
<td>Holcim (US) Inc. d/b/a LafargeHolcim US, 8700 West Bryn Mawr Avenue, Chicago, IL 60631 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>2012-090QA</td>
<td>HOLI6 15</td>
</tr>
<tr>
<td></td>
<td>Ste. Genevieve Plant 2942 US Highway 61 Bloomsdale, MO 63627</td>
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<tr>
<td></td>
<td>Type I</td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type II</td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type II MH</td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
<td></td>
</tr>
<tr>
<td>HOLI7 15 Terminal</td>
<td>Holcim U.S. Inc, Bloomsdale, MO 63627 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>2012-090Q</td>
<td>HOLI7 15</td>
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<tr>
<td></td>
<td>Wierton, WV</td>
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<td></td>
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<tr>
<td></td>
<td>Type I Terminal for HOLI6 15, Ref. 2012-090QA (Bloomsdale, MO)</td>
<td>2012-099Q</td>
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<tr>
<td></td>
<td>Type II</td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
<td></td>
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<tr>
<td></td>
<td>Type II MH</td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
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## Section 701: Cement

### 701 Cement Plants & Terminals

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<tr>
<th>Product</th>
<th>Name</th>
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<th>Ref. No.</th>
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<tbody>
<tr>
<td>HOLI9 15</td>
<td>Holcim (US) Inc. d/b/a LafargeHolcim US, 8700 West Bryn Mawr Avenue, Chicago, IL 60631 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>2014-093Q</td>
<td>HOLI9 15</td>
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<tr>
<td>Terminal Baltimore, MD</td>
<td>Type I</td>
<td>Terminal for HOLI9 15, Ref. No. 2011-224QA (Holly Hill, SC)</td>
<td>2014-093Q</td>
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<td>Type II</td>
<td>Terminal for HOLI9 15, Ref. No. 2011-224QB (Holly Hill, SC)</td>
<td>2014-093Q</td>
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<tr>
<td></td>
<td>Type II MH</td>
<td>Terminal for HOLI9 15, Ref. No. 2011-224QB (Holly Hill, SC)</td>
<td>2014-093Q</td>
</tr>
<tr>
<td>KCC-1 15</td>
<td>Kosmos Cement Company LLC, 15301 Dixie Highway, Louisville, KY 40272</td>
<td>2001-056Q</td>
<td>KCC-1 15</td>
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<tr>
<td>Plant 15301 Dixie Highway Louisville, KY 40272</td>
<td>Formerly CEMX4 15 - CEMEX, Inc.</td>
<td>2001-056Q</td>
<td>CEMX4 15</td>
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<td>Type I</td>
<td>Terminal for HOLI9 15, Ref. No. 2011-224QA (Holly Hill, SC)</td>
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<td>Type II</td>
<td>Terminal for HOLI9 15, Ref. No. 2011-224QB (Holly Hill, SC)</td>
<td>2014-093Q</td>
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<td>Type II MH</td>
<td>Terminal for HOLI9 15, Ref. No. 2011-224QB (Holly Hill, SC)</td>
<td>2014-093Q</td>
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</tbody>
</table>

- Per AASHTO M85, Portland cement with up to 5% limestone addition.
- Per AASHTO M85-07, Portland cement with up to 5% limestone addition.

### Product Details

- **Holcim (US) Inc. d/b/a LafargeHolcim US, 8700 West Bryn Mawr Avenue, Chicago, IL 60631**
- **Kosmos Cement Company LLC, 15301 Dixie Highway, Louisville, KY 40272**
# Section 701: Cement

## 701 Cement Plants & Terminals

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td><strong>KCC-2 15</strong></td>
<td>Kosmos Cement Company LLC, 15301 Dixie Highway, Louisville, KY 40272</td>
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<tr>
<td>Terminal</td>
<td>200-B Neville Island  Pittsburgh, PA 15225</td>
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<td>Formerly CEMX1 15 - CEMEX, Inc.</td>
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<tr>
<td>Type I</td>
<td>Terminal for KCC-1 15, Ref. No. 2001-056 (Louisville, KY)</td>
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<td></td>
<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
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<td>Type I</td>
<td>Terminal for KCC-1 15, Ref. No. 2001-056 (Louisville, KY)</td>
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<td>Type II</td>
<td>Terminal for KCC-1 15, Ref. No. 2001-056 (Louisville, KY)</td>
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<td>Type II</td>
<td>Terminal for KCC-1 15, Ref. No. 2001-056 (Louisville, KY)</td>
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<tr>
<td>Type II MH</td>
<td>Terminal for KCC-1 15, Ref. No. 2001-056 (Louisville, KY)</td>
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<tr>
<td>Type III</td>
<td>Terminal for KCC-1 15, Ref. No. 2001-056 (Louisville, KY)</td>
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<tr>
<td><strong>KCC-3 15</strong></td>
<td>Kosmos Cement Company LLC, 15301 Dixie Highway, Louisville, KY 40272</td>
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<tr>
<td>Terminal</td>
<td>1007 Maccorkle SW Avenue  South Charleston, WV 25303</td>
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<tr>
<td>Formerly CEMX7 15 - CEMEX, Inc.</td>
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<tr>
<td>Type I</td>
<td>Terminal for KCC-1 15, Ref. No. 2001-056 (Louisville, KY)</td>
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<tr>
<td>Type I</td>
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<td>Terminal for KCC-1 15, Ref. No. 2001-056 (Louisville, KY)</td>
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<td>Type II MH</td>
<td>Terminal for KCC-1 15, Ref. No. 2001-056 (Louisville, KY)</td>
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<td>Type III</td>
<td>Terminal for KCC-1 15, Ref. No. 2001-056 (Louisville, KY)</td>
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<tr>
<td>Plant</td>
<td>Bath, PA</td>
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<tr>
<td>Type I</td>
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<td>Type II</td>
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### Section 701: Cement

#### 701 Cement Plants & Terminals

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<th>Product</th>
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<th>Ref. No.</th>
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<tr>
<td>KEYS 15</td>
<td>Keystone Cement Company, Route 329, P.O. Box A, Bath, PA 18014</td>
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<td>Terminal</td>
<td>Adrian Terminal 719 Tarrtown Road Adrian, PA 16210</td>
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<tr>
<td>Type I</td>
<td>Terminal for KEYSP 15 (Bath, PA)</td>
<td>2017-267Q</td>
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<td>Type III</td>
<td>Terminal for KEYSP 15 (Bath, PA)</td>
<td>2017-267Q</td>
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<td>LAFR1 15</td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
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<tr>
<td>Terminal</td>
<td>Buffalo Cement Terminal 575 Ohio Street Buffalo, NY 14203</td>
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<td>Type I</td>
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<td>Type II</td>
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<tr>
<td>LAFR1015</td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
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<td>Plant</td>
<td>Ravena Cement Plant 1916 Route 9 W Ravena, NY 12143</td>
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<tr>
<td>LAFR1715</td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
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<tr>
<td>Terminal</td>
<td>Pittsburg Terminal 1529 Chartiers Avenue Pittsburgh, PA 15204</td>
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<td>Type I</td>
<td>Terminal for HOLI4 15 (Hagerstown, MD)</td>
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<td>Type II</td>
<td>Terminal for HOLI4 15 (Hagerstown, MD)</td>
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<td>Type III</td>
<td>Terminal for LAFR3 15 (Bath, Ontario)</td>
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# Section 701: Cement

## 701 Cement Plants & Terminals

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<th>Product Ref. No.</th>
<th>Name</th>
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<th>Date</th>
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<tbody>
<tr>
<td>LAFR2 15</td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052</td>
<td>3/11/2020</td>
<td>Terminal Cleveland Cement Terminal/Slag, 2500 Elm Street, Cleveland, OH 44113</td>
<td>1/17/2008</td>
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<td>LAFR3 15</td>
<td>LafargeHolcim Canada Inc., 6509 Airport Road, Mississauga, Ontario</td>
<td>3/11/2020</td>
<td>Plant 6501 Hwy 33 West, P.O. Box 160, Bath, Ontario K0H 1G0</td>
<td>2017-275Q</td>
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<tr>
<td>LAFR5 15</td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052</td>
<td>3/11/2020</td>
<td>Terminal Oswego Cement Terminal, 1 West Van Buren Street, Oswego, NY 13126</td>
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# Section 701: Cement

## 701 Cement Plants & Terminals

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<th>Name</th>
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<tr>
<td><strong>LAFR7 15</strong></td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>12/16/2009</td>
<td>2001-095Q, 2013-146Q</td>
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<td><strong>Plant</strong></td>
<td>Whitehall Cement Plant 5160 Main Street Whitehall, PA 18052</td>
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<td>2001-095Q</td>
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<td>Type II</td>
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<td>2013-146Q</td>
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<td>Type III</td>
<td>12/16/2009</td>
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<td>2008-021Q</td>
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<td><strong>Plant</strong></td>
<td>Joppa Cement Plant 2500 Portland Road Grand Chain, IL 62941</td>
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<td></td>
<td>Type I</td>
<td>1991-153</td>
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<tr>
<td><strong>LAFR9 15</strong></td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>1993-402</td>
<td>1993-402</td>
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<tr>
<td><strong>Terminal</strong></td>
<td>Belpre Cement Terminal 1684 State Route 618 Belpre, OH 45714</td>
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<td></td>
<td>Type I</td>
<td>1993-402</td>
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701 Cement Plants & Terminals

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<tr>
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<th>Name</th>
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<th>Ref. No.</th>
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<tbody>
<tr>
<td>LEH-1 15 Plant</td>
<td>Lehigh Cement Company, LLC, 675 Quaker Hill Road, Union Bridge, MD 21791 <a href="http://www.lehighhanson.com/">http://www.lehighhanson.com/</a> Union Bridge, MD</td>
<td>Type I</td>
<td>3/11/2008</td>
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<td></td>
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<td>Per AASHTO M85, Portland cement with up to 5% limestone addition.</td>
<td>3/11/2008</td>
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## Section 701: Cement

### 701 Cement Plants & Terminals

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<th>Product</th>
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<td>Type I</td>
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<td>LEH-7 15</td>
<td>Lehigh Cement Company, LLC, 3100 Mertens Avenue, Baltimore, MD 21224 <a href="http://www.lehighhanson.com/">http://www.lehighhanson.com/</a></td>
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<td>Terminal for LEH11 15, Ref. No. 2005-087Q (Picton, Ontario)</td>
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(Formerly Essroc ESS-8 15)
# Section 701: Cement

## 701 Cement Plants & Terminals

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<td>Plant 1 - Saylors Portland Cement - Limestone Source: Medford Fines (Martin Marietta Materials)</td>
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<td>Type II</td>
<td>Plant 3</td>
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<td>Type II</td>
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<td>Plant 1</td>
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<td>Type III</td>
<td>Plant 3</td>
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<td>Type IL</td>
<td>Plant 1</td>
<td>2018-244Q</td>
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<td></td>
<td><em>Per AASHTO M240, Portland cement with more than 5% but less than or equal to 15% limestone addition.</em></td>
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</table>
## Section 701: Cement

### 701 Cement Plants & Terminals

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<tbody>
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<tr>
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*Per AASHTO M85, Portland cement with up to 5% limestone addition.*

*Per AASHTO M240, Portland cement with more than 5% but less than or equal to 15% limestone addition.*

*Per AASHTO M85, Portland cement with up to 5% limestone addition.*

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*Per AASHTO M85, Portland cement with up to 5% limestone addition.*
## Section 701: Cement

### 701 Cement Plants & Terminals

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<td>LEH16 15 Terminal</td>
<td>Lehigh Cement Company, LLC, 8282 Middlebranch Road, Middlebranch, OH 44652</td>
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<td>LEH16 15 Terminal</td>
<td>Lehigh Cement Company, LLC, 8282 Middlebranch Road, Middlebranch, OH 44652</td>
<td>Terminal for LEH13 15, Ref No. 2017-354Q (Speed, IN)</td>
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**Type I**

- Per AASHTO M85, Portland cement with up to 5% limestone addition.

**Type II**

- Per AASHTO M85, Portland cement with up to 5% limestone addition.

- Per AASHTO M85, Portland cement with up to 5% limestone addition.

- Per AASHTO M85, Portland cement with up to 5% limestone addition.

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Section 701: Cement

701 Cement Plants & Terminals

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<td>LEHN0 15</td>
<td>Lehigh Northeast Cement Company, 313 Warren Street, Glen Falls, NY 12801</td>
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<td>Glen Falls, NY</td>
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<td>MEDC1 15</td>
<td>Medcem Madencilik, Atasehir Bulvari, Metropol Istanbul, C-2 Blok, 34758, Istanbul, Türkiye</td>
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<td>Akdere Köyü Bagalani Mevkii Silifke/MERSIN</td>
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<td>Siam Cement Company, Thailand</td>
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<td>RIVERT15</td>
<td>Riverside Construction Materials, 355 Newbold Road, Fairless Hills, PA 19030</td>
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<td>Terminal 7900 N. Radcliffe Street, Bristol, PA 19007</td>
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<td>Type I</td>
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<td>Terminal for MEDC1 15, Ref. No. 2019-121 (Mercin, Turkey)</td>
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<td>NOTE: Cement is shipped from the Medcem Madencilik Plant in Mersin, Turkey (MEDC1 15). Plant Verification (PV) samples are submitted by the Riverside Construction Materials terminal in Bristol, PA (RIVERT15).</td>
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Section 701: Cement

701 Cement Plants & Terminals

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</table>

| Plant    | Bowmanville, Ontario                                                 |             | 2013-248QA |
|          | Type I                                                               |             | 1997-097   |
|          | Per AASHTO M85, Portland cement with up to 5% limestone addition.   |             | 2013-248QB |
|          | Type II                                                              |             | 1997-097   |
|          | Per AASHTO M85, Portland cement with up to 5% limestone addition.   |             | 2013-248QB |
|          | Type II MH                                                           |             | 1997-097   |
|          | Per AASHTO M85, Portland cement with up to 5% limestone addition.   |             | 2013-248QB |
|          | Type III                                                            |             | 1997-097   |
## Section 701: Cement

### 701 Cement Plants & Terminals

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<td>Terminal for STMC2 15, Ref. No. 1997-097 (Bowmanville, Ontario)</td>
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<tr>
<td>Terminal Toledo, OH</td>
<td>Type I</td>
<td>Terminal for STMC2 15, Ref. No. 1997-097 (Bowmanville, Ontario)</td>
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<td>Terminal Cleveland, OH</td>
<td>Type I</td>
<td>Terminal for STMC2 15, Ref. No. 1997-097 (Bowmanville, Ontario)</td>
<td>2008-117QA</td>
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<tr>
<td>Plant Kamari Plant: Elefsina, Greece</td>
<td>Type I, II, II MH</td>
<td>Riverside Cement</td>
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<td></td>
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<td>Per AASHTO M85, Portland cement with up to 5% limestone addition. NOTE: Cement is shipped to a Riverside Construction Materials terminal in Bristol, PA (RIVERT15). Plant Verification samples are submitted by Riverside Construction Materials (RIVERT15).</td>
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## Section 702: Asphalt Material

### 702a Asphalt Cement

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<tr>
<td>ATLMC 15</td>
<td>Atlas Minerals and Chemicals, Inc., 1227 Valley Road, P.O. Box 38, Mertztown, PA 19539-0038 <a href="http://www.atlasmin.com/">http://www.atlasmin.com/</a></td>
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<td>SOLAR 15</td>
<td>Solar Compounds, 1201 West Blancke Street, Linden, NJ 07036 <a href="http://www.solarcompounds.com/">http://www.solarcompounds.com/</a></td>
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<tr>
<td>TRUM1 15 Refinery</td>
<td>Trumbull Asphalt, Division of Owens Corning, 7800 West 59th Street, Summit, IL 60501 <a href="http://www.owenscorning.com/trumbull/">http://www.owenscorning.com/trumbull/</a></td>
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<td>Zeigler Chemical Corporation, 600 Prospect Avenue, Piscataway, NJ 08854 <a href="http://zieglerchemical.com/">http://zieglerchemical.com/</a></td>
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### 702b Cutback Asphalt


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Last Revised: 5/6/2015

Last Revised: 4/25/2019
# Section 702: Asphalt Material

## 702b Cutback Asphalt


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|          | RC-70  | 1999-116Q |
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|          | WP-1   | 1999-116Q |
Section 702: Asphalt Material

702b Cutback Asphalt


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<td>Coopers Creek Chemical Corporation, 884 River Road, West Conshohocken, PA 19428-2699 [<a href="http://cooperscreekchemical.com/">http://cooperscreekchemical.com/</a>]</td>
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<td>HENCO 15</td>
<td>Henry Company, 336 Cold Stream Road, Kimberton, PA 19442 [<a href="http://us.henry.com/">http://us.henry.com/</a>]</td>
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Section 702: Asphalt Material

702b Cutback Asphalt


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MARA8 15 Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174 http://www.marathonpetroleum.com/

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<th>Floreffe PA Asphalt Terminal  1100 Glasshouse Road  Jefferson Hills, PA 15025</th>
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MARFR 15 Frank Martuccio Asphalt and Paving, Inc., 1059 Mercer Avenue, Hermitage, PA 16148

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### Section 702: Asphalt Material

#### 702b Cutback Asphalt


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Section 702: Asphalt Material

702b Cutback Asphalt


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<td>RUSS0 15</td>
<td>Russell Standard Corporation, 1210 Perry Highway, P.O. Box 509, Mercer, PA 16137 <a href="http://www.russellstandard.com/">http://www.russellstandard.com/</a></td>
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| RUSS3 15 | Russell Standard Corporation, Hammaker East, LTD, 118 Siloam Road, Chambersburg, PA 17201 [http://www.russellstandard.com/](http://www.russellstandard.com/) | RUSS3 15 |
| MC-30 |  |  |
| MC-400 |  |  |
| MC-70 |  |  |
| MC-800 |  |  |
| RC-250 |  |  |
| RC-70 |  |  |
| RC-800 |  |  |
| WP-1 |  |  |
Section 702: Asphalt Material

702b Cutback Asphalt


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Seaboard Asphalt Products Company, 3601 Fairfield Road, Baltimore, MD 21226 http://seaboardasphalt.com/
## Section 702: Asphalt Material

### 702b Cutback Asphalt


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## Section 702: Asphalt Material

### 702b Cutback Asphalt


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SUIT8 15 Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 [http://www.suit-kote.com/]

<table>
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<th>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 [<a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a>]</th>
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UAC-1 15 United Asphalt Company, P.O. Box 291, Cedar Brook, NJ 08018 [https://unitedasphalt.com/asphalt-cutbacks/]

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<tr>
<th>Plant</th>
<th>United Asphalt Company, P.O. Box 291, Cedar Brook, NJ 08018 [<a href="https://unitedasphalt.com/asphalt-cutbacks/">https://unitedasphalt.com/asphalt-cutbacks/</a>]</th>
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</thead>
<tbody>
<tr>
<td>237 North Grove Street Berlin, NJ 08009</td>
<td></td>
</tr>
<tr>
<td>RC-250</td>
<td>Del-Val RC-250 2019-024Q</td>
</tr>
<tr>
<td>RC-70</td>
<td>Del-Val RC-70 2019-023Q</td>
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<tr>
<td>RC-800</td>
<td>Del-Val RC-800 2019-025Q</td>
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Section 702: Asphalt Material

### 702b Cutback Asphalt


<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>UNRC0 15</td>
<td>United Refining Company, P.O. Box 780, Warren, PA 16365 <a href="http://www.urc.com/">http://www.urc.com/</a></td>
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</tr>
<tr>
<td></td>
<td>MC-30</td>
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</tr>
<tr>
<td></td>
<td>MC-400</td>
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</tr>
<tr>
<td></td>
<td>MC-70</td>
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</tr>
<tr>
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<td>MC-800</td>
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</tr>
<tr>
<td></td>
<td>RC-250</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>RC-70</td>
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</tr>
<tr>
<td></td>
<td>RC-800</td>
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</tr>
<tr>
<td></td>
<td>WP-1</td>
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</tr>
<tr>
<td>Terminal</td>
<td>Springdale Terminal Springdale, PA</td>
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</tr>
<tr>
<td></td>
<td>MC-30</td>
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</tr>
<tr>
<td></td>
<td>MC-400</td>
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</tr>
<tr>
<td></td>
<td>MC-70</td>
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<td>MC-800</td>
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<td>RC-250</td>
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<td>RC-70</td>
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<td></td>
<td>RC-800</td>
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<td></td>
<td>WP-1</td>
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Section 702: Asphalt Material

702b Cutback Asphalt


<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZECH0 15</td>
<td>Zeigler Chemical Corporation, 600 Prospect Avenue, Piscataway, NJ 08854</td>
<td><a href="http://zieglerchemical.com/">http://zieglerchemical.com/</a></td>
</tr>
<tr>
<td>MC-30</td>
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<tr>
<td>MC-400</td>
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<tr>
<td>MC-70</td>
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<tr>
<td>MC-800</td>
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<tr>
<td>RC-250</td>
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<td>RC-70</td>
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<tr>
<td>RC-800</td>
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<tr>
<td>WP-1</td>
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</tr>
</tbody>
</table>

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASP-1 15</td>
<td>Asphalt Paving Systems, 8th St. &amp; Reading Ave., P.O. Box 530, Hammonton, NJ 08037</td>
<td><a href="http://www.asphaltpavingsystems.com/">http://www.asphaltpavingsystems.com/</a></td>
</tr>
<tr>
<td>Formerly ASPPS 15</td>
<td></td>
<td>2017-098Q</td>
</tr>
<tr>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2s, HFMS-2s, HFRS-2, E-10, AE-T</td>
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</table>

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Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP
EM TYPE 5 = E-1 Prime
EM TYPE 6 = EDP
EM TYPE 7 = UTFCEM

NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

Product | Name | Ref. No.
--- | --- | ---
ASP-1 15 | Asphalt Paving Systems, 8th St. & Reading Ave., P.O. Box 530, Hammonton, NJ 08037 [http://www.asphaltpavingsystems.com/](http://www.asphaltpavingsystems.com/) | Formerly ASPPS 15
| EM Type 2: RS-2P, CRS-2P, HFRS-2P | ----
| EM Type 3: SS-1hP, CSS-1hP, CQS-1hP | ----
| EM Type 7: UTFCEM | ----

DOSK0 15 | Dosch-King Emulsions, Inc., 16 Troy Hills Road, Whippany, NJ 07981 [http://doscking.net/index.html](http://doscking.net/index.html)
| EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T | ----
| EM Type 2: RS-2P, CRS-2P, HFRS-2P | ----
| EM Type 3: SS-1hP, CSS-1hP, CQS-1hP | ----
| EM Type 7: UTFCEM | ----

| EM Type 4: AEP | ----
Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAP-1 15 Terminal PA</td>
<td>Kuhnsville Asphalt Products, 6661 Tilgham Street, Allentown, PA 18106 <a href="https://www.kvasphalt.com/">https://www.kvasphalt.com/</a></td>
<td>2019-080Q</td>
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<tr>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td></td>
</tr>
<tr>
<td>LNP0 15</td>
<td>Lindy Paving, Inc., P.O. Box 282, 4551 West State Street, Hillsville, PA 16132 <a href="http://www.pjdick.com/tpjwebsite.nsf/Lindy/Home">http://www.pjdick.com/tpjwebsite.nsf/Lindy/Home</a></td>
<td>2010-040Q</td>
</tr>
<tr>
<td></td>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td>Provisionally Approved</td>
</tr>
<tr>
<td>MARA8 15 Terminal</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174 <a href="http://www.marathonpetroleum.com/">http://www.marathonpetroleum.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Floreffe PA Asphalt Terminal 1100 Glasshouse Road Jefferson Hills, PA 15025</td>
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</tr>
<tr>
<td></td>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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</table>
Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2s, HFMS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>MARFR 15</td>
<td>Frank Martuccio Asphalt and Paving, Inc., 1059 Mercer Avenue, Hermitage, PA 16148</td>
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<tr>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2s, HFMS-2, HFMS-2, E-10, AE-T</td>
<td></td>
</tr>
<tr>
<td>MDL-1 15</td>
<td>Midland Asphalt Materials, Inc, 640 Young Street, Tonawanda, NY 14151-0388</td>
<td><a href="http://www.midlandasphalt.com/">http://www.midlandasphalt.com/</a></td>
</tr>
<tr>
<td></td>
<td>Formerly MDLAC 15</td>
<td></td>
</tr>
<tr>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2s, HFMS-2, HFMS-2, E-10, AE-T</td>
<td></td>
</tr>
<tr>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<tr>
<td></td>
<td>EM Type 4: AEP</td>
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</tr>
<tr>
<td></td>
<td>EM Type 5: E-1 Prime</td>
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<tr>
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<td>EM Type 6: EDP</td>
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<tr>
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<td>EM Type 7: UTFCEM</td>
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</tbody>
</table>
Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tr>
<td>Terminal Lyons, NY</td>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<tr>
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<td>EM Type 4: AEP</td>
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<tr>
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<td>EM Type 5: E-1 Prime</td>
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</tr>
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<td>EM Type 6: EDP</td>
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<tr>
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<td>EM Type 7: UTFCEM</td>
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Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td></td>
<td>Formerly Whitaker Road (WHITR 15)</td>
<td>2017-126Q</td>
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<tr>
<td></td>
<td>EM Non-Standard</td>
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</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer’s specifications. FastTack system includes an adhesion agent (MC), an emulsified asphalt and a breaking agent (Rupteur XC).</td>
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</tr>
<tr>
<td></td>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<tr>
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<td>EM Type 4: AEP</td>
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<td>EM Type 5: E-1 Prime</td>
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<td>EM Type 6: EDP</td>
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<td>EM Type 7: UTFCEM</td>
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</table>
## Section 702: Asphalt Material

### 702c Emulsified Asphalt

**EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T**

**EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P**

**EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP**

**EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM**


**NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.**

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<thead>
<tr>
<th>Product</th>
<th>Ref. No.</th>
<th>Name</th>
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<tr>
<td>Terminal</td>
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<td>Bloomsburg, PA</td>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
</tr>
<tr>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<tr>
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<td></td>
<td>EM Type 4: AEP</td>
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<tr>
<td></td>
<td></td>
<td>EM Type 5: E-1 Prime</td>
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<tr>
<td></td>
<td></td>
<td>EM Type 6: EDP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EM Type 7: UTFCEM</td>
</tr>
<tr>
<td>MOHIWK 15</td>
<td></td>
<td>Mohawk Asphalt Emulsions, 6 Freemans Bridge Road, Scotia, NY 12302</td>
</tr>
<tr>
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<td></td>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<tr>
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<td></td>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td>EM Type 7: UTFCEM</td>
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Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEAS15</td>
<td>New England Asphalt Services, dba Empire Emulsions, 508 Forest Road, Northford, CT 06742</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>Empire Emulsions  1297 Craigville Road  Chester, NY 10918</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td>2019-047Q</td>
</tr>
<tr>
<td>NEWYO15</td>
<td>New York Bituminous Products Corporation, 1297 Craigville Road, P.O. Box 577, Chester, NY 10918 <a href="http://www.nybit.com/">http://www.nybit.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
<td>--------</td>
</tr>
<tr>
<td>PECKH15</td>
<td>Peckham Materials Corporation, 2 Union Street Extension, Athens, NY 12015</td>
<td></td>
</tr>
<tr>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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Section 702: Asphalt Material

702c Emulsified Asphalt

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2,</td>
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<td>CSS-1, SS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10,</td>
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<td>(Also evaluated per PEQ 2018-033Q)</td>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td>EM Type 4: AEP</td>
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<td>EM Type 5: E-1 Prime</td>
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<td>EM Type 7: UTFCEM</td>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2,</td>
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<td>CSS-1, SS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10,</td>
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<td>AE-T</td>
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</table>

NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.
Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/AMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>RUSS3 15</td>
<td>Russell Standard Corporation, Hammaker East, LTD, 118 Siloam Road, Chambersburg, PA 17201 <a href="http://www.russellstandard.com/">http://www.russellstandard.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td>2008-172Q</td>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td>EM Type 4: AEP</td>
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<tr>
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<td>EM Type 5: E-1 Prime</td>
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</tr>
<tr>
<td></td>
<td>EM Type 7: UTFCEM</td>
<td></td>
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<tr>
<td>Terminal</td>
<td>Wheelertown Terminal Waterford, PA</td>
<td></td>
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<tr>
<td></td>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2s, HFRS-2, E-10, AE-T</td>
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</table>

NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.
Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2s, HFMS-2, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>RUSS6 15</td>
<td>Russell Standard Corporation, P.O. Box 802, Mars, PA 16046 <a href="http://www.russellstandard.com/">http://www.russellstandard.com/</a></td>
<td>RUSS7 15</td>
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<tr>
<td>Terminal</td>
<td>Mars, PA</td>
<td>Facility</td>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td>2018-112Q</td>
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<tr>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<tr>
<td>EM Type 4: AEP</td>
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<tr>
<td>EM Type 5: E-1 Prime</td>
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</tbody>
</table>
Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS8 15</td>
<td>Russell Standard Corporation, 3847 Pottsville Pike, Reading, PA 19605 <a href="http://www.russellstandard.com/">http://www.russellstandard.com/</a> Formerly Ergon Asphalt &amp; Emulsions, Inc. (ERG01 15)</td>
</tr>
<tr>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<tr>
<td></td>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td>EM Type 4: AEP</td>
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<tr>
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<td>EM Type 5: UTFCEM</td>
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<td>REF 2018-113Q</td>
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</table>

| SHSA 15  | Shelly & Sands Inc., 3570 South River Road, P. O. Box 1585, Zanesville, OH 43702 http://shellyandsands.com/ S&S Terminal 1731 Old State Route 7 Rayland, OH |
|          | EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T |
|          | EM Type 2: RS-2P, CRS-2P, HFRS-2P                                     |
|          | REF 2018-205Q                                                        |
Section 702: Asphalt Material

702c Emulsified Asphalt

Last Revised: 12/12/2019

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>SHSA2 15</td>
<td>Shelly &amp; Sands, Inc., 3570 South River Road, Zanesville, OH 43702 <a href="http://shellyandsands.com/">http://shellyandsands.com/</a></td>
<td>2018-205Q</td>
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<td>Facility</td>
<td>S &amp; S Emulsions 1731 Old SR #7 Rayland, OH 43943</td>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td>SPEEM 15</td>
<td>Specialty Emulsions, Inc., 1194 Zinns Quarry Road, York, PA 17404 <a href="http://specialtyemulsionsinc.com/">http://specialtyemulsionsinc.com/</a></td>
<td>2011-084Q</td>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td>Product name for NTT: EM-50-TT</td>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>SUIT1 15</td>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 <a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a></td>
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<tr>
<td>Facility</td>
<td>505 Como Park Blvd. Buffalo, NY</td>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td>EM Type 4: AEP</td>
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<tr>
<td>SUIT2 15</td>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 <a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a></td>
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<tr>
<td>Terminal</td>
<td>797 Carlton Drive Bentleyville, PA</td>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td>(Also evaluated per PEQ 2018-158Q &amp; PEQ 2018-159Q)</td>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>SUIT3 15 Facility</td>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160</td>
<td><a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a></td>
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Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>SUIT4 15</td>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 <a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a></td>
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</table>
Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160</td>
<td><a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a></td>
<td></td>
</tr>
</tbody>
</table>
Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUIT6 15</td>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 <a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a></td>
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<tr>
<td>Facility</td>
<td>New York State Route 19 Belmont, NY</td>
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<tr>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<tr>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td>EM Type 4: AEP</td>
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<td>EM Type 5: E-1 Prime</td>
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<td>EM Type 6: EDP</td>
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Section 702: Asphalt Material

702c Emulsified Asphalt

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>Facility</td>
<td>10965 McHenry Street Meadville, PA</td>
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<tr>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td>EM Type 5: E-1 Prime</td>
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<td>EM Type 6: EDP</td>
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<tr>
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<td>EM Type 7: UTFCEM</td>
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<td>Facility</td>
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<tr>
<td></td>
<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<tr>
<td>TSA-1 15</td>
<td>Tri-State Asphalt, LLC, PO Box 470, 1362 Bungalow Road, Morris, IL 60450 <a href="https://www.tsasphalt.com/">https://www.tsasphalt.com/</a></td>
<td>2018-241Q</td>
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<tr>
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<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
<td>2018-242Q</td>
</tr>
</tbody>
</table>

NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.
Section 702: Asphalt Material

702c Emulsified Asphalt

EM TYPE 1 = TACK, NTT/CNTT, RS-1/CRS-1, RS-2/CRS-2, MS-2/CMS-2, CMS-2s, SS-1/CSS-1, SS-1h/CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, and AE-T

EM TYPE 2 = RS-2P, CRS-2P, and HFRS-2P

EM TYPE 3 = SS-1hP, CSS-1hP, and CQS-1hP

EM TYPE 4 = AEP ~ EM TYPE 5 = E-1 Prime ~ EM TYPE 6 = EDP ~ EM TYPE 7 = UTFCEM


NOTE: NTT and CNTT non-tracking tack coats are listed with EM TYPE 1 emulsions.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, CSS-1, SS-1h, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td>2019-075Q</td>
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<tr>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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</tr>
<tr>
<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<tr>
<td>EM Type 4: AEP</td>
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<tr>
<td>EM Type 5: E-1 Prime</td>
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</tr>
<tr>
<td>EM Type 6: EDP</td>
<td>2018-248Q</td>
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<tr>
<td>EM Type 7: UTFCEM</td>
<td>2018-246Q</td>
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702d Performance Grade Asphalt Binder (PGAB)

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
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</table>
Section 702: Asphalt Material

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>Terminal</td>
<td>1622 South Clinton Street Baltimore, MD 21224</td>
</tr>
<tr>
<td></td>
<td>PG 58-28</td>
</tr>
<tr>
<td></td>
<td>PG 64-22</td>
</tr>
<tr>
<td></td>
<td>PG 64-22 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
</tr>
<tr>
<td></td>
<td>PG 76-22</td>
</tr>
<tr>
<td></td>
<td>PG 76-22 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
</tr>
<tr>
<td>Refinery</td>
<td>Associated Asphalt Paulsboro 4 Paradise Road Paulsboro, NJ 08066-1740</td>
</tr>
<tr>
<td></td>
<td>(Formerly AXON1 15)</td>
</tr>
<tr>
<td></td>
<td>PG 58-28</td>
</tr>
<tr>
<td></td>
<td>PG 58-28 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
</tr>
<tr>
<td></td>
<td>PG 64-22</td>
</tr>
<tr>
<td></td>
<td>PG 64-22 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
</tr>
<tr>
<td></td>
<td>PG 76-22</td>
</tr>
<tr>
<td></td>
<td>PG 76-22 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
</tr>
<tr>
<td>Terminal</td>
<td>Associated Asphalt Baltimore 1955 Chesapeake Avenue Baltimore, MD 21226</td>
</tr>
<tr>
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<td>PG 64-22</td>
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</table>
Section 702: Asphalt Material

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal</td>
<td>Associated Asphalt Baltimore 1800 Frankfurst Avenue Baltimore, MD 21226 (Formerly AXON3 15)</td>
<td>(Formerly AXON3 15)</td>
</tr>
<tr>
<td>PG 58-28</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>PG 58-28 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>Terminal for ASSA1 15, Ref. No. 2009-093Q</td>
<td>2012-042Q</td>
</tr>
<tr>
<td>PG 64-22</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>PG 64-22 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>Terminal for ASSA1 15, Ref. No. 2009-046Q</td>
<td>2012-045Q</td>
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<tr>
<td>PG 76-22</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>PG 76-22 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>Terminal for ASSA1 15, Ref. No. 2009-040Q</td>
<td>2012-046Q</td>
</tr>
</tbody>
</table>

| Terminal | Associated Asphalt Perth Amboy 920 High Street Perth Amboy, NJ 08861 (Formerly AXON4 15) | (Formerly AXON4 15) |
| PG 64-22 | ----- | ----- |
Section 702: Asphalt Material

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<thead>
<tr>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Formerly AXON7 15)</td>
<td>2019-221Q</td>
</tr>
<tr>
<td>ASSAS 15</td>
<td>2016-284Q</td>
</tr>
<tr>
<td>Refinery 4 Paradise Road Paulsboro, NJ 08066-1740</td>
<td>2019-215Q</td>
</tr>
<tr>
<td>Formerly: Axeon Specialty Products, LLC</td>
<td>2019-216Q</td>
</tr>
<tr>
<td>Use ASSA1 15 for supplier code</td>
<td>2008-075Q</td>
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Section 702: Asphalt Material

702d Performance Grade Asphalt Binder (PGAB)  

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Formerly: Axeon Specialty Products, LLC  
Nustar Energy LP Terminal Baltimore, MD  
Use ASSA3 15 for supplier code | - |
Formerly: Axeon Specialty Products, LLC  
Kinder Morgan Terminal Perth Amboy, NJ  
Use ASSA4 15 for supplier code | - |
Formerly: Axeon Specialty Products, LLC  
Gloucester City Terminal Gloucester City, NJ  
Use ASSA7 15 for supplier code | - |
Section 702: Asphalt Material

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<table>
<thead>
<tr>
<th>Product Name</th>
<th>Supplier Address</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIT-0 15</td>
<td>Bitumar USA, Inc., 6000 Pennington Avenue, Baltimore, MD 21226</td>
<td>2008-085Q</td>
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<tr>
<td></td>
<td></td>
<td>2019-038Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2018-281Q</td>
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<tr>
<td></td>
<td></td>
<td>2008-084Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2019-039Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2012-181QA</td>
</tr>
<tr>
<td>BIT-3 15</td>
<td>Bitumar USA, Inc., 6000 Pennington Avenue, Baltimore, MD 21226</td>
<td>2017-330Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>200 Development Drive  Inwood, WV 25428</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>ERIEM 15</td>
<td>Erie Materials, Inc., 4507 Tiffin Ave, P.O. Box 2308, Sandusky, OH 44870</td>
<td>2016-134Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>Sandusky, OH</td>
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<td></td>
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<td>2016-135Q</td>
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</table>

Last Revised: 12/9/2019
Section 702: Asphalt Material

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>GARD3 15</td>
<td>Gardner Asphalt Supply, LLC, 4161 E 7th Ave, Tampa, FL 33605</td>
<td>2018-173Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>Seaford Terminal 25938 Nanticoke Street Seaford, DE 19973</td>
<td>2018-173Q</td>
</tr>
<tr>
<td>GORM1 15</td>
<td>The Gorman Group, LLC, 200 Church Street, Albany, NY 12202</td>
<td>2016-151Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>Gorman Terminals Rensselaer, NY</td>
<td>2016-151Q</td>
</tr>
<tr>
<td>HAWG1 15</td>
<td>Glenn O. Hawbaker, Inc., 1952 Waddle Road, State College, PA 16803</td>
<td>2015-048Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>Pleasant Gap, PA</td>
<td>2015-048Q</td>
</tr>
<tr>
<td>MARA1 15</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174</td>
<td>-----</td>
</tr>
<tr>
<td>Refinery</td>
<td>11631 US Route 23 Catlettsburg, KY</td>
<td>-----</td>
</tr>
<tr>
<td>MARA1015</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174</td>
<td>-----</td>
</tr>
<tr>
<td>Terminal</td>
<td>21st Street at Nevada St Wellsville, OH 43968</td>
<td>-----</td>
</tr>
</tbody>
</table>
Section 702: Asphalt Material

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARA2 15</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174 <a href="http://www.marathonpetroleum.com/">http://www.marathonpetroleum.com</a></td>
<td>-----</td>
</tr>
<tr>
<td>Refinery</td>
<td>301 S. Fort St Detroit, MI 48217</td>
<td>PG 52-28</td>
</tr>
<tr>
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<td></td>
<td>-----</td>
</tr>
<tr>
<td>MARA3 15</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174 <a href="http://www.marathonpetroleum.com/">http://www.marathonpetroleum.com</a></td>
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</tr>
<tr>
<td>Refinery</td>
<td>2408 Gambrinus Avenue, SW Canton, OH 44706</td>
<td>PG 52-28</td>
</tr>
<tr>
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<tr>
<td></td>
<td></td>
<td>PG 58-28</td>
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<tr>
<td></td>
<td></td>
<td>PG 64-22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td>MARA6 15</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174 <a href="http://www.marathonpetroleum.com/">http://www.marathonpetroleum.com</a></td>
<td>-----</td>
</tr>
<tr>
<td>Terminal</td>
<td>11001 Brower Road North Bend, OH 45052</td>
<td>PG 76-22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td>MARA7 15</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174 <a href="http://www.marathonpetroleum.com/">http://www.marathonpetroleum.com</a></td>
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</tr>
<tr>
<td>Terminal</td>
<td>2000 Central Furnace Court Cleveland, OH 44115</td>
<td>PG 52-28</td>
</tr>
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<td>PG 58-28</td>
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<td></td>
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<td>PG 64-22</td>
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<td>PG 76-22</td>
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<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARA8 15</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174 [<a href="http://www.marathonpetroleum.com/">http://www.marathonpetroleum.com/</a>]</td>
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</tr>
<tr>
<td>Terminal</td>
<td>Fioreffe PA Asphalt Terminal 1100 Glasshouse Road Jefferson Hills, PA 15025</td>
<td></td>
</tr>
<tr>
<td>PG 52-28</td>
<td></td>
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</tr>
<tr>
<td>PG 56-28</td>
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<td>PG 64-22</td>
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<td>PG 76-22</td>
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<tr>
<td>Terminal</td>
<td>Lyons, NY</td>
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<td>PG 64-22</td>
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<td>Provisionally Approved</td>
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<tr>
<td>PG 76-22</td>
<td></td>
<td></td>
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<tr>
<td>NJAT1 15</td>
<td>CL Consulting and Management Corp, 625 Mt. Hope Road, Wharton, NJ 07885</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>New Jersey Asphalt Terminals 534 South Front Street Elizabeth, NJ 07202</td>
<td></td>
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<td>PG 64-22</td>
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<td>2015-156Q</td>
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<tr>
<td>PG 76-22</td>
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<td>2015-157Q</td>
</tr>
<tr>
<td>PARCO 15</td>
<td>Parco Athens, 2 Union Street, Athens, NY 12015</td>
<td></td>
</tr>
<tr>
<td>PG 64-22</td>
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</tr>
<tr>
<td>PG 76-22</td>
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<tr>
<td>Terminal</td>
<td>PARCO - Athens Terminal 2 Union Street Extension Athens, NY 12015</td>
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<td>PG 64-22</td>
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</tbody>
</table>
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<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>PARCOB15</td>
<td>Peckham Industries, Inc., 20 Haarlem Ave, White Plains, NY 10603</td>
<td>2016-240Q</td>
</tr>
<tr>
<td>Terminal PARCO - Bronx 939 East 138th Street Bronx, NY 10454</td>
<td>PG 64-22</td>
<td></td>
</tr>
<tr>
<td>Terminal PARCO - West Athens Terminal 763 Schoharie Turnpike Athens, NY 12015</td>
<td>PG 64-22</td>
<td></td>
</tr>
<tr>
<td>Terminal PARCO - Bridgeport Terminal 1 Seaview Avenue Bridgeport, CT 06607</td>
<td>PG 64-22</td>
<td></td>
</tr>
<tr>
<td>Refinery Paulsboro Refining Company, LLC 800 Billingsport Road Paulsboro, NJ 08066</td>
<td>PG 58-28</td>
<td></td>
</tr>
<tr>
<td>Note: Please use PBFH2 15 as the supplier code</td>
<td>PG 64-22</td>
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</tr>
<tr>
<td>PBFH0 15 Terminal</td>
<td>PBF Holding, LLC, 1 Sylvan Way, Second Floor, Parsippany, NJ 07054</td>
<td>2014-159Q</td>
</tr>
<tr>
<td>PBF Logistics Terminal, LLC 3400 S. 67th Street Philadelphia, PA 19153</td>
<td>PG 58-28</td>
<td></td>
</tr>
<tr>
<td>PG 58-28 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>2016-008Q</td>
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<tr>
<td>PG 64-22</td>
<td>2016-007Q</td>
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</tr>
<tr>
<td>PG 64-22 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>2016-007Q</td>
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<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal</td>
<td>Owens Corning Roofing and Asphalt, LLC  1249 Newark Turnpike  Kearny, NJ 07032</td>
<td>2017-080Q</td>
</tr>
<tr>
<td>Refinery</td>
<td>Paulsboro Refining Company, LLC  800 Billingsport Road  Paulsboro, NJ 08066</td>
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</tr>
<tr>
<td>Note: Formerly PAUR- 15</td>
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</tr>
<tr>
<td></td>
<td>PG 58-28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 64-22</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>PG 64-22</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>1955 Chesapeake Avenue  Baltimore, MD 21226</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 58-28</td>
<td></td>
</tr>
<tr>
<td>SHSA1 15</td>
<td>Shelly &amp; Sands Inc., 3570 South River Road, P. O. Box 1585, Zanesville, OH 43702 <a href="http://shellyandsands.com/">http://shellyandsands.com/</a></td>
<td>2019-124Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>S&amp;S Terminal  1731 Old State Route 7  Rayland, OH</td>
<td></td>
</tr>
</tbody>
</table>
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<tbody>
<tr>
<td></td>
<td>PG 52-28</td>
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<tr>
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<td>PG 58-28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 64-22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 76-22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 58-28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 64-22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 76-22</td>
<td></td>
</tr>
<tr>
<td>SUIT7 15 Facility</td>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 <a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 52-28</td>
<td>2013-0202Q</td>
</tr>
<tr>
<td></td>
<td>PG 58-28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 58-28 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>2013-202Q</td>
</tr>
<tr>
<td></td>
<td>PG 64-22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 64-22 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>2011-071QB</td>
</tr>
<tr>
<td></td>
<td>PG 76-22</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 76-22 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>2013-201Q</td>
</tr>
</tbody>
</table>
Section 702: Asphalt Material

702d Performance Grade Asphalt Binder (PGAB)

PGAB Grades not listed in Bulletin# 25 (Specifications for Asphalt/Bituminous Materials) are Restricted Use Non-Standard Grades. Materials Testing Laboratory must be contacted prior at (717) 787-2707 to use.


<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10965 McHenry Street Meadville, PA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 58-28</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>PG 64-22</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>PG 76-22</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>3900 River Road Tonawanda, NY 14150</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 58-28</td>
<td>2016-124Q</td>
</tr>
<tr>
<td></td>
<td>PG 64-22</td>
<td>2016-122Q</td>
</tr>
<tr>
<td></td>
<td>PG 76-22</td>
<td>2016-123Q</td>
</tr>
<tr>
<td>TRI-1 15 Terminal</td>
<td>All States Asphalt, LLC, 325 Amherst Road, P.O. Box 91, Sunderland, MA 01375 <a href="http://www.asmg.com">http://www.asmg.com</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 West Van Buren Street Oswego, NY 13126</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Tri State Materials</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 64-22</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td>TRI-2 15 Terminal</td>
<td>All States Asphalt, LLC, 325 Amherst Road, P.O. Box 91, Sunderland, MA 01375 <a href="http://www.asmg.com">http://www.asmg.com</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>301 Normanskill Street Albany, NY 12202</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Tri State Materials</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 58-28</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>PG 64-22</td>
<td>----</td>
</tr>
</tbody>
</table>
### Section 702: Asphalt Material

#### 702d Performance Grade Asphalt Binder (PGAB)

PGAB Grades not listed in Bulletin# 25 (Specifications for Asphalt/Bituminous Materials) are Restricted Use Non-Standard Grades. Materials Testing Laboratory must be contacted prior at (717) 787-2707 to use.


<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRUM15</td>
<td>Trumbull Asphalt, Division of Owens Corning, 7800 West 59th Street, Summit, IL 60501 <a href="http://www.owenscorning.com/trumbull/">http://www.owenscorning.com/trumbull/</a></td>
</tr>
<tr>
<td>Refinery</td>
<td>Kearny, NJ</td>
</tr>
<tr>
<td>PG 64-22</td>
<td></td>
</tr>
</tbody>
</table>

| PG 52-28| |
| PG 58-28| |
| PG 58-28 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives| 2012-021QA |
| PG 58-28 Modified with SonneWarmix RT Warm Mix Technology| 2017-229Q |
| PG 64-22| |
| PG 64-22 Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives| 2012-021QB |
| PG 64-22 Modified with SonneWarmix RT Warm Mix Technology| 2017-228Q |

| Terminal| Springdale Terminal Springdale, PA |
| PG 64-22| |

| Terminal| Watco Terminal and Port Services Dravosburg, PA |
| PG 58-28| |
| PG 64-22| |

| PG 64-22| |
| PG 76-22| |
Section 704: Cement Concrete

704 Producers of Ready Mix Concrete

See Bulletin 42, Publication 42
## Section 705: Joint Material

### 705.1 Premolded Expansion Joint Filler

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Product Name</th>
<th>Name</th>
<th>Ref. No.</th>
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<tr>
<td></td>
<td>Cork</td>
<td>CEJ 6510</td>
<td></td>
</tr>
<tr>
<td>HUNTN 15</td>
<td>Hunton Fiber, P.O. Box 578, Grasonville, MD 21638</td>
<td><a href="http://english.hunton.no/index.php">http://english.hunton.no/index.php</a></td>
<td>2000-047Q</td>
</tr>
<tr>
<td></td>
<td>Fiber</td>
<td>Nor-Board</td>
<td></td>
</tr>
<tr>
<td>JDRSC 15</td>
<td>J.D. Russell Company, P.O. Box 36795, 4075 N. Hwy Dr., Tucson, AZ 85740</td>
<td><a href="http://jdrusselco.com/">http://jdrusselco.com/</a></td>
<td>2000-243Q</td>
</tr>
<tr>
<td></td>
<td>Preformed Rubber</td>
<td>Reflex</td>
<td></td>
</tr>
<tr>
<td>KNICE 15</td>
<td>Knight - Celotex, One Northfield Plaza, Suite 400, Northfield, AZ 60093</td>
<td><a href="https://knightcelotexfiberboard.wordpress.com/">https://knightcelotexfiberboard.wordpress.com/</a></td>
<td>1994-217</td>
</tr>
<tr>
<td></td>
<td>Fiber</td>
<td>Conflex Bituminous</td>
<td></td>
</tr>
<tr>
<td>MEDW0 15</td>
<td>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338</td>
<td><a href="http://www.wrmeadows.com/">http://www.wrmeadows.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cork</td>
<td>Sealtight Cork</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fiber</td>
<td>Sealtight Fibre</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preformed Rubber</td>
<td>Sealtight Sponge</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>2100 Monroe Street  P. O. Box 7550 York, PA 17404-0550</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cork</td>
<td>Sealtight Cork</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fiber</td>
<td>Sealtight Fibre</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preformed Rubber</td>
<td>Sealtight Sponge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Preformed Rubber</td>
<td>Geno 40 #1624</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fiber</td>
<td>Right-Joint</td>
<td></td>
</tr>
<tr>
<td>STEIC 15</td>
<td>Steico SE, Otto-Lilienthal-Ring 30, Feldkirchen, Germany</td>
<td></td>
<td>2017-088Q</td>
</tr>
<tr>
<td></td>
<td>Fiber</td>
<td>Form Flex Expansion Joint</td>
<td></td>
</tr>
</tbody>
</table>
Section 705: Joint Material

705.1 Premolded Expansion Joint Filler

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEMIN 15</td>
<td>Temple - Inland, 303 S. Temple Drive, Diboll, TX 75941</td>
<td>Fiberflex</td>
</tr>
</tbody>
</table>

705.2(b) Longitudinal Joint Material

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAYT 15</td>
<td>Simplex Construction Supplies, Inc. (formerly Dayton Superior Corporation), 2150B South Route 45-52, Kankakee, IL 60901 <a href="https://www.simplex-usa.com/">https://www.simplex-usa.com/</a></td>
<td>Hook Bolt and Coupler</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wiggle Bolt and Coupler</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wiggle Bolt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wiggle Bolt and Coupler</td>
</tr>
<tr>
<td>UNIQU 15</td>
<td>Unique Industries, P.O. Box 683, 13488 Highway 25 North, Calera, AL 35040 <a href="http://www.uiind.com/">http://www.uiind.com/</a></td>
<td></td>
</tr>
<tr>
<td>WADY- 15</td>
<td>Wady Industries, Inc., 510 E. Grove St., Maquoketa, IA 52060</td>
<td>Wiggle Bolt (Slip Form)</td>
</tr>
</tbody>
</table>

705.3 Load Transfer Assemblies (Force-Transfer Units) for Reinforced and Plain Cement Concrete Pavements

Last Revised: 6/18/2019
### Section 705: Joint Material

**705.3 Load Transfer Assemblies (Force-Transfer Units) for Reinforced and Plain Cement Concrete Pavements**

A Load Transfer Assembly includes contraction/expansion wire baskets and dowel bars. An approved supplier of Load Transfer Assemblies can supply the baskets without the dowels. Standard

**Drawing of Load Transfer Assemblies RC-20M (Publication 72M)**

Steel Products Procurement Act applies. Manufacturers approved for 6:1 skewed and non-skewed joints with Type B coating, unless otherwise noted.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMTH1 15</td>
<td>CMT Highway, LLC, 2197 Yankee Avenue, Durant, IA 52747 <a href="http://cmthighway.com/">http://cmthighway.com/</a></td>
<td>2017-316Q</td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Fabricator</td>
<td>2017-316Q</td>
</tr>
<tr>
<td></td>
<td>Load Transfer Assembly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Fabricator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Block Heavy &amp; Highway Products Company (BH&amp;HP 15)</td>
<td>2000-344Q</td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Fabricator</td>
<td>2000-344Q</td>
</tr>
<tr>
<td></td>
<td>Load Transfer Assembly</td>
<td></td>
</tr>
<tr>
<td>DAYT5 15</td>
<td>Simplex Construction Supplies, Inc. (formerly Dayton Superior Corporation), 2150B South Route 45-52, Kankakee, IL 60901 <a href="https://www.simplex-usa.com/">https://www.simplex-usa.com/</a></td>
<td>1996-160</td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Fabricator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Load Transfer Assembly</td>
<td></td>
</tr>
<tr>
<td>MDSP2 15</td>
<td>Meadow Burke Products, 6467 S. Falkenburg Road, Riverview, FL 33578 <a href="http://meadowburke.com/">http://meadowburke.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Fabricator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Load Transfer Assembly</td>
<td></td>
</tr>
</tbody>
</table>
Section 705: Joint Material

705.3 Load Transfer Assemblies (Force-Transfer Units) for Reinforced and Plain Cement Concrete Pavements

A Load Transfer Assembly includes contraction/expansion wire baskets and dowel bars. An approved supplier of Load Transfer Assemblies can supply the baskets without the dowels. Standard Drawing of Load Transfer Assemblies RC-20M (Publication 72M)

Steel Products Procurement Act applies. Manufacturers approved for 6:1 skewed and non-skewed joints with Type B coating, unless otherwise noted.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIMP1 15</td>
<td>Simplex Construction Supplies, Inc., 2150B South Route 45-52, Kankakee, IL 60901</td>
<td><a href="https://www.simplex-usa.com/">https://www.simplex-usa.com/</a></td>
</tr>
<tr>
<td>TYEB 15</td>
<td>TyE Bar, LLC, 1050 Ohio Avenue, Glassport, PA 15045</td>
<td><a href="http://www.tyerebar.com/">http://www.tyerebar.com/</a></td>
</tr>
<tr>
<td>VIMC-15</td>
<td>Vimco, Inc., 300 Hansen Access Road, King of Prussia, PA 19406</td>
<td><a href="http://vimcoinc.com/">http://vimcoinc.com/</a></td>
</tr>
<tr>
<td>WADY-15</td>
<td>Wady Industries, Inc., 510 E. Grove St., Maquoketa, IA 52060</td>
<td></td>
</tr>
</tbody>
</table>

705.4(a) Silicone Joint Sealing Material

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRAF0 15</td>
<td>Crafo, Inc., 6165 W. Detroit Street, Chandler, AZ 85226</td>
<td><a href="http://www.crafo.com/">http://www.crafo.com/</a></td>
</tr>
</tbody>
</table>

*Posted: 3/11/2020  3:33:39PM*
Section 705: Joint Material

### 705.4(a) Silicone Joint Sealing Material

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOW-4 15</td>
<td>The Dow Chemical Company, 2200 W. Salzburg Road, P. O. Box 994, Midland, MI 48686 <a href="http://www.dow.com/">http://www.dow.com/</a></td>
<td>1996-002</td>
</tr>
</tbody>
</table>

#### 705.4(b) Rubberized Joint Sealing Material (ASTM D6690-Type II and IV)

Use ASTM D6690-Type II for sealing asphalt pavement joints and ASTM D6690-Type IV for all other joint sealing applications.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crafco, Inc. (Deery Brand), 912 Salt Springs Road, Youngstown, OH 44509 <a href="http://www.deeryamerican.com/">http://www.deeryamerican.com/</a></td>
<td>Deery 102</td>
<td>2008-129A</td>
</tr>
</tbody>
</table>

Last Revised: 2/13/2018

Last Revised: 7/2/2019
### Section 705: Joint Material

#### 705.4(b) Rubberized Joint Sealing Material (ASTM D6690-Type II and IV)

Use ASTM D6690-Type II for sealing asphalt pavement joints and ASTM D6690-Type IV for all other joint sealing applications.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAXPR 15</td>
<td>Maxwell Products, Inc., 650 South Delong Street, Salt Lake City, UT 84104 <a href="http://maxwellproducts.com">http://maxwellproducts.com</a></td>
<td>2015-106Q</td>
</tr>
<tr>
<td></td>
<td>Type II, ASTM D6690</td>
<td>Elastoflex 61</td>
</tr>
<tr>
<td>MCASP 15</td>
<td>McAsphalt Industries Limited, 8800 Sheppard Avenue, East, Scarborough, Ontario Canada <a href="http://www.mcasphalt.com">http://www.mcasphalt.com</a></td>
<td>2008-130QA</td>
</tr>
<tr>
<td></td>
<td>Type II, ASTM D6690</td>
<td>Beram 195</td>
</tr>
<tr>
<td></td>
<td>Type IV, ASTM D6690</td>
<td>Beram 195 LM</td>
</tr>
<tr>
<td>MEDW0 15</td>
<td>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338 <a href="http://www.wrmeadows.com">http://www.wrmeadows.com</a></td>
<td>2008-131Q</td>
</tr>
<tr>
<td></td>
<td>Type II, ASTM D6690</td>
<td>3405 (Sealtight)</td>
</tr>
<tr>
<td></td>
<td>Type IV, ASTM D6690</td>
<td>3405-M</td>
</tr>
<tr>
<td></td>
<td>Type II, ASTM D6690</td>
<td>Dura-Fill 3405</td>
</tr>
<tr>
<td></td>
<td>Type IV, ASTM D6690</td>
<td>Dura-Fill 3405 LM (K)</td>
</tr>
<tr>
<td>RTPT2 15</td>
<td>RIGHT/POINTE, LLC, 234 Harvestore Drive, Dekalb, IL 60115 <a href="http://www.rightpointe.com">http://www.rightpointe.com</a></td>
<td>2016-300Q</td>
</tr>
<tr>
<td>Facility</td>
<td>Sharpsville, PA</td>
<td>RP 3405</td>
</tr>
<tr>
<td></td>
<td>Type II, ASTM D6690</td>
<td>RP Type 4 ELT</td>
</tr>
<tr>
<td></td>
<td>Formerly #3405 Regular</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type IV, ASTM D6690</td>
<td>RP Type 4 ELT</td>
</tr>
<tr>
<td></td>
<td>Formerly #3405 Modified</td>
<td></td>
</tr>
<tr>
<td>RTPTC 15</td>
<td>RIGHT/POINTE, LLC, 234 Harvestore Drive, Dekalb, IL 60115 <a href="http://www.rightpointe.com">http://www.rightpointe.com</a></td>
<td>2008-161QB</td>
</tr>
<tr>
<td></td>
<td>Type II, ASTM D6690</td>
<td>RP 3405</td>
</tr>
<tr>
<td></td>
<td>Formerly #3405 Regular</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type IV, ASTM D6690</td>
<td>RP Type 4 ELT</td>
</tr>
<tr>
<td></td>
<td>Formerly #3405 Modified</td>
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</tr>
</tbody>
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#### 705.4(c) Rubberized Joint Sealing Material (ASTM D6690-Type I)

Last Revised: 7/2/2019
### Section 705: Joint Material

#### 705.4(c) Rubberized Joint Sealing Material (ASTM D6690-Type I)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>Crafco, Inc., 1680 East Race Street, Allentown, PA 18103</td>
<td>Roadsaaver 211</td>
<td>2008-128Q</td>
</tr>
<tr>
<td>Crafco, Inc. (Deery Brand), 912 Salt Springs Road, Youngstown, OH 44509</td>
<td>Deery 103</td>
<td>2008-129B</td>
</tr>
<tr>
<td></td>
<td>Level and Go Repair Mastic</td>
<td>2002-129</td>
</tr>
<tr>
<td>Maxwell Products, Inc., 650 South Delong Street, Salt Lake City, UT 84104</td>
<td>Elastoflex 410</td>
<td>2016-185Q</td>
</tr>
<tr>
<td>McAsphalt Industries Limited, 8800 Sheppard Avenue, East, Scarborough, Ontario Canada</td>
<td>Beram 190</td>
<td>2008-130QB</td>
</tr>
<tr>
<td>P &amp; T Products, Inc., 472 Industrial Parkway, Sandusky, OH 44870</td>
<td>Dura-Fill 1190</td>
<td>2008-124QB</td>
</tr>
<tr>
<td>RIGHT/POINTE, LLC, 234 Harvestore Drive, Dekalb, IL 60115</td>
<td>RP 1190</td>
<td>2016-301Q</td>
</tr>
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<td>Facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly #1190</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RP Gray Sealant</td>
<td>2017-195Q</td>
</tr>
<tr>
<td></td>
<td>RP Gray Sealant is gray in color and composed of non-asphaltic resins; therefore, it must not be mixed or combined with other approved crack sealant products.</td>
<td></td>
</tr>
<tr>
<td>RIGHT/POINTE, LLC, 234 Harvestore Drive, Dekalb, IL 60115</td>
<td>RP 1190</td>
<td>2010-209Q</td>
</tr>
<tr>
<td></td>
<td>Formerly #1190</td>
<td></td>
</tr>
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Section 705: Joint Material

705.4(c) Rubberized Joint Sealing Material (ASTM D6690-Type I)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Movement Class</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

705.4(d)1.a Preformed Neoprene Compression Seals and Strip Seals

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Movement Class</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Section 705: Joint Material

705.4(d)1.a Preformed Neoprene Compression Seals and Strip Seals

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Movement Class</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strip Seal Gland</td>
<td>SE-500</td>
<td>5.0 in.</td>
<td>2009-197Q</td>
</tr>
<tr>
<td>Bridge Seal</td>
<td>WA-175</td>
<td>0.5 in.</td>
<td>2010-222QA</td>
</tr>
<tr>
<td>Bridge Seal</td>
<td>WA-200</td>
<td>1.0 in.</td>
<td>2010-222QB</td>
</tr>
<tr>
<td>Bridge Seal</td>
<td>WA-250</td>
<td>1.5 in.</td>
<td>2010-222QC</td>
</tr>
<tr>
<td>Bridge Seal</td>
<td>WA-300</td>
<td>2.0 in.</td>
<td>2010-222QD</td>
</tr>
<tr>
<td>Bridge Seal</td>
<td>WA-350</td>
<td>2.0 in.</td>
<td>2010-222QE</td>
</tr>
<tr>
<td>Bridge Seal</td>
<td>WA-400</td>
<td>3.0 in.</td>
<td>2009-087Q</td>
</tr>
<tr>
<td>Bridge Seal</td>
<td>WA-400</td>
<td>4.0 in.</td>
<td>2009-152Q</td>
</tr>
<tr>
<td>Bridge Seal</td>
<td>WA-400</td>
<td>5.0 in.</td>
<td>2009-153Q</td>
</tr>
<tr>
<td>Bridge Seal</td>
<td>WA-400</td>
<td>8.0 in.</td>
<td>2013-169Q</td>
</tr>
<tr>
<td>Bridge Seal</td>
<td>WA-400</td>
<td>8.0 in.</td>
<td>2013-169Q</td>
</tr>
</tbody>
</table>

705.4(d)1.b Lubricant Adhesive

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lubricant Adhesive</td>
<td>DSB 1520 Lubricant Adhesive</td>
<td>1992-101</td>
</tr>
<tr>
<td>Lubricant Adhesive</td>
<td>Adhesive Lubricant 105</td>
<td>-----</td>
</tr>
<tr>
<td>Lubricant Adhesive</td>
<td>Lube Plus 4070</td>
<td>1995-100</td>
</tr>
</tbody>
</table>
# Section 705: Joint Material

## 705.4(d)1.b Lubricant Adhesive

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>266 Humberline Drive  Toronto, Ontario, Canada M9W 5X1</td>
<td></td>
</tr>
<tr>
<td>Lubricant Adhesive</td>
<td>Manufactured for D.S. Brown by Royal Adhesives &amp; Sealants.</td>
<td></td>
</tr>
</tbody>
</table>

## 705.4(e) Preformed Closed Cell Polyethylene Joint Filler

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preformed Closed Cell Polyethylene Joint Filler</td>
<td>Ceramar 1&quot;</td>
<td></td>
</tr>
<tr>
<td>Preformed Closed Cell Polyethylene Joint Filler</td>
<td>Ceramar 1/2&quot;</td>
<td></td>
</tr>
<tr>
<td>Preformed Closed Cell Polyethylene Joint Filler</td>
<td>Ceramar 2&quot;</td>
<td></td>
</tr>
<tr>
<td>Preformed Closed Cell Polyethylene Joint Filler</td>
<td>Ceramar 3/4&quot;</td>
<td></td>
</tr>
</tbody>
</table>

## 705.4(g) Asphalt Rubber Sealing Compound

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>Asphalt Rubber Type 2, Part No. 34232</td>
<td></td>
</tr>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>PolyFlex 601</td>
<td></td>
</tr>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>PolyFlex Type 2, Part No. 34518</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formerly Deery American Corporation (DEERY 15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>Deery 5078</td>
<td></td>
</tr>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>PolyFlex 601</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAXPR 15</td>
<td>Maxwell Products, Inc., 650 South Delong Street, Salt Lake City, UT 84104 <a href="http://maxwellproducts.com">http://maxwellproducts.com</a></td>
<td>2016-186Q</td>
</tr>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>Elastoflex 650</td>
<td></td>
</tr>
</tbody>
</table>
Section 705: Joint Material

705.4(g) Asphalt Rubber Sealing Compound

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>Beram Asphalt Rubber (AR)</td>
<td></td>
</tr>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>Dura_Fill 5078</td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>Sharpsville, PA</td>
<td></td>
</tr>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>RP 5078</td>
<td></td>
</tr>
<tr>
<td>Formerly #5078</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTPTC 15</td>
<td>RIGHT/POINTE, LLC, 234 Harvestore Drive, Dekalb, IL 60115 <a href="http://www.rightpointe.com/">http://www.rightpointe.com/</a></td>
<td>2010-112Q</td>
</tr>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>RP 5078</td>
<td></td>
</tr>
<tr>
<td>Formerly #5078</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalt Rubber Sealing Compound</td>
<td>Ultraceal 1197</td>
<td></td>
</tr>
</tbody>
</table>

705.4(alternate) Precompressed, Silicone-and-Foam Hybrid Joint Sealing Material

The product listing below is conditionally approved as an alternate system to Joint Sealant Material as specified in Publication 408, Section 705.4.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Precompressed, Silicone-and-Foam Hybrid</td>
<td>BEJS (Bridge Expansion Joint System)</td>
<td></td>
</tr>
<tr>
<td>Conditionally approved per the manufacturer's specifications and usage guidelines</td>
<td><a href="http://www.emseal.com/">BEJS Tech Data, Install Data, and Checklist</a></td>
<td></td>
</tr>
</tbody>
</table>

705.5(b) Gaskets for Circular Pipe Joints

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 705: Joint Material

### 705.5(b) Gaskets for Circular Pipe Joints

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Flexible Plastic Gasket (Hydrocarbon Blend)</td>
<td>ConSeal CS-102</td>
</tr>
<tr>
<td></td>
<td>Flexible Plastic Gasket (Hydrocarbon Blend)</td>
<td>ConSeal CS-202</td>
</tr>
<tr>
<td>CUSTM 15</td>
<td>Custom Rubber Extrusions, 100 Romito Street, P.O. Box 1079, Ravenna, OH 44266</td>
<td>1996-019</td>
</tr>
<tr>
<td></td>
<td>Elastomeric Gasket</td>
<td>Neoprene and Isoprene Gaskets</td>
</tr>
<tr>
<td>FORSH 15</td>
<td>Forsheda Pipe Seal Corporation, 2200 South McDuffie St., Anderson, SC 29624</td>
<td>1990-238A</td>
</tr>
<tr>
<td></td>
<td>Elastomeric Gasket</td>
<td>Forsheda F-114</td>
</tr>
<tr>
<td></td>
<td><strong>Prelubricated Utility Hole Joint Seal</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elastomeric Gasket</td>
<td>Forsheda F-138</td>
</tr>
<tr>
<td></td>
<td><strong>Prelubricated Utility Hole Joint Seal</strong></td>
<td></td>
</tr>
<tr>
<td>HAMLT 15</td>
<td>Hamilton Kent, 77 Carlingview Drive, Etobicoke, Ontario M9W 5E6 Canada</td>
<td>1997-192</td>
</tr>
<tr>
<td></td>
<td>Elastomeric Gasket</td>
<td>Tylox (O-Rings)</td>
</tr>
<tr>
<td></td>
<td>Elastomeric Gasket</td>
<td>Tylox Superseal Gasket</td>
</tr>
<tr>
<td></td>
<td>Elastomeric Gasket</td>
<td>O-Ring Concrete Pipe Gasket</td>
</tr>
<tr>
<td></td>
<td>Elastomeric Gasket</td>
<td>RFS Prelubricated Concrete Pipe Gasket</td>
</tr>
<tr>
<td></td>
<td>Elastomeric Gasket</td>
<td>Delta Seal Rubber Profile Gasket</td>
</tr>
<tr>
<td>RU-VA 15</td>
<td>Ru Van, Inc., 1175 Diamond Ave., Evansville, IN 47711</td>
<td>1990-042</td>
</tr>
<tr>
<td></td>
<td>Flexible Plastic Gasket (Hydrocarbon Blend)</td>
<td>RU-30 Butyl Sealant</td>
</tr>
<tr>
<td></td>
<td>Formerly Bidco Sealants (BIDC-15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flexible Plastic Gasket (Hydrocarbon Blend)</td>
<td>Bidco C-56 Preformed Joint Sealant</td>
</tr>
</tbody>
</table>
## Section 705: Joint Material

### 705.5(b) Gaskets for Circular Pipe Joints

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERTI 15</td>
<td>Elastomeric Gasket Ecoproof Bell Gasket</td>
<td>2007-008Q</td>
</tr>
<tr>
<td></td>
<td>Elastomeric Gasket Rubberman O-Ring Gasket</td>
<td>1997-072</td>
</tr>
<tr>
<td></td>
<td>Elastomeric Gasket Star Seal</td>
<td>1997-056</td>
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</table>

### 705.5(c)2 Waterstops (Polyvinyl Chloride)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DURAJ 15</td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 12 RT</td>
<td>2017-244Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 18 RT</td>
<td>2017-244Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 27</td>
<td>2017-244Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 29A RT</td>
<td>2017-244Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 29RT</td>
<td>2017-244Q</td>
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<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 36 RT</td>
<td>2017-244Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 3A</td>
<td>2017-244Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 4</td>
<td>1999-219Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 4B</td>
<td>1999-219Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 5</td>
<td>2017-244Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type 7</td>
<td>2017-244Q</td>
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<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Durajoint Type DB-2</td>
<td>2017-244Q</td>
</tr>
<tr>
<td>GRES 15</td>
<td>Polyvinyl Chloride Waterstop Model 698</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Model 701</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Model 703</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Model 705</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Model 709</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Waterstop Model 748</td>
<td>-----</td>
</tr>
</tbody>
</table>
Section 705: Joint Material

705.5(c)2 Waterstops (Polyvinyl Chloride)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOUMP 15</td>
<td>Southern Metal &amp; Plastic Products, 3400 Tree Court Ind. Blvd., St. Louis, MO 63122</td>
<td><a href="http://sometals.com/">http://sometals.com/</a></td>
</tr>
<tr>
<td>WATER 15</td>
<td>Waterstop &amp; Accessories, 3400 Tree Court Indus. Blvd., St. Louis, MO 63122</td>
<td></td>
</tr>
<tr>
<td>Polyvinyl Chloride Waterstop</td>
<td>RB6-316 (type C1)</td>
<td>2000-009Q</td>
</tr>
<tr>
<td>Polyvinyl Chloride Waterstop</td>
<td>RSB6-316 (type C2)</td>
<td>2000-009Q</td>
</tr>
<tr>
<td>Polyvinyl Chloride Waterstop</td>
<td>TWB6-18 (type E2)</td>
<td>2000-009Q</td>
</tr>
</tbody>
</table>

705.6 Graphite Lubricant

The graphite lubricants are only approved for use on projects with let dates prior to October 4, 2019. Graphite lubricants were removed from Publication 408, 2016 with Change No. 7.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAUFM 15</td>
<td>Kaufman Products, Inc., 3811 Curtis Ave., Baltimore, MD 21226-1131</td>
<td><a href="http://www.kaufmanproducts.net/">http://www.kaufmanproducts.net/</a></td>
</tr>
<tr>
<td>VEXCN 15</td>
<td>Vexcon Chemicals, Inc., 7240 State Road, Philadelphia, PA 19135</td>
<td><a href="http://www.vexcon.com/">http://www.vexcon.com/</a></td>
</tr>
<tr>
<td>Graphite Lubricant</td>
<td>Sure-Slip Graphite Paste</td>
<td>1992-340</td>
</tr>
<tr>
<td>Graphite Lubricant</td>
<td>Certi-Vex Sure Slide</td>
<td>2011-247Q</td>
</tr>
</tbody>
</table>

705.7(b)/705.6(b) Mortar For Masonry and Horizontal Joints Between Precast Components in Utility I

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUZZ1 15</td>
<td>Buzzi Unicem USA Stockertown, 501 Hercules Drive, P. O. Box 69, Stockertown, PA 18083</td>
<td><a href="http://www.buzziunicemusa.com/">http://www.buzziunicemusa.com/</a></td>
</tr>
<tr>
<td>Plant</td>
<td>Stockertown, PA</td>
<td></td>
</tr>
<tr>
<td>Mortar (Masonry Joints and Horizontal Joints Between Manholes (Utility Holes)/Inlet Components)</td>
<td>Type N</td>
<td>2017-218Q</td>
</tr>
</tbody>
</table>
### Section 705: Joint Material

#### 705.7(b)/705.6(b) Mortar For Masonry and Horizontal Joints Between Precast Components in Utility Holes and Inlets

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEMX6 15</td>
<td>Type N</td>
</tr>
<tr>
<td>LEH-9 15</td>
<td>Type N</td>
</tr>
</tbody>
</table>

#### 705.8(a)/705.7(a) Caulking Compound (Pipe and Horizontal Joints Between Precast Components in Manholes (Utility Holes)/Inlet Components)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCCAS 15</td>
<td>Sealing Mastic (Asbestos Free)</td>
</tr>
<tr>
<td>SEABD 15</td>
<td>MP-52</td>
</tr>
</tbody>
</table>

#### 705.8(b)/705.7(b) Caulking Compound (Other)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASBS 15</td>
<td>MasterSeal NP 1</td>
</tr>
</tbody>
</table>

Previous Name: Sonolastic NP 1
## Section 705: Joint Material

### 705.8(b)/705.7(b) Caulking Compound (Other)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOW-4 15</strong>&lt;br&gt;The Dow Chemical Company, 2200 W. Salzburg Road, P. O. Box 994, Midland, MI 48686 <a href="http://www.dow.com/">http://www.dow.com/</a>&lt;br&gt;Formerly Dow Corning Corporation</td>
<td>DOWSIL 790 Silicone Sealant</td>
<td>1993-235</td>
</tr>
<tr>
<td><strong>PECR 15</strong>&lt;br&gt;Pecora Corporation, 165 Wambold Road, Harleysville, PA 19438 <a href="http://pecora.com/">http://pecora.com/</a>&lt;br&gt;Caulking (Other)</td>
<td>Dynatrol I-XL Polyurethane</td>
<td>2000-283Q</td>
</tr>
<tr>
<td></td>
<td>NR-300 Urexpan Polyurethane</td>
<td>2000-282Q</td>
</tr>
<tr>
<td></td>
<td>Pecora 864 Silicone</td>
<td>2000-286Q</td>
</tr>
<tr>
<td><strong>SCHMH 15</strong>&lt;br&gt;Schnee-Morehead, Inc., 111 North Nursery Road, P.O. Box 171305, Irving, TX 75017-1305 <a href="http://schneemorehead.com/">http://schneemorehead.com/</a>&lt;br&gt;Caulking (Other)</td>
<td>SM7108 Permathane</td>
<td>1999-003Q</td>
</tr>
<tr>
<td></td>
<td>Sikaflex 1a</td>
<td>1982-035</td>
</tr>
<tr>
<td><strong>SIKA1 15</strong>&lt;br&gt;Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a>&lt;br&gt;1682 Marion Williamsport Road E Marion, OH 43302</td>
<td>Sikaflex 1a</td>
<td>1982-035</td>
</tr>
<tr>
<td></td>
<td>Sikaflex 1a</td>
<td>1982-035</td>
</tr>
</tbody>
</table>
## Section 705: Joint Material

### 705.8(b)/705.7(b) Caulking Compound (Other)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Caulking (Other)</td>
<td>Sikafl ex 1a</td>
</tr>
<tr>
<td></td>
<td>Caulking (Other)</td>
<td>Sikasil WS-290 (Type S Grade NS CL 100/50)</td>
</tr>
<tr>
<td></td>
<td>Caulking (Other)</td>
<td>Sikasil WS-295 (Type S Grade NS CL 50)</td>
</tr>
<tr>
<td></td>
<td>Caulking (Other)</td>
<td>Tremco Dymonic FC</td>
</tr>
</tbody>
</table>

### 705.9/705.8 Joint Backing Material

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALCOT 15</td>
<td>Alcot Plastics Ltd., 31 Malcolm Rd., Guelph, ON Canada N1K 1A7 <a href="https://alcotplastics.com/">https://alcotplastics.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joint Backing Material</td>
<td>Alcot Standard Backer Rod</td>
</tr>
<tr>
<td></td>
<td>Joint Backing Material</td>
<td>Cold Application Only</td>
</tr>
<tr>
<td>INDUS 15</td>
<td>Industrial Thermo Polymers Limited, 153 Van Kirk Drive, Brampton, Ontario, Canada</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Joint Backing Material</td>
<td>Blue-Grey, Closed Cell PE Foam</td>
</tr>
<tr>
<td></td>
<td>Joint Backing Material</td>
<td>Hot Rod XL (Black Cross Linked)</td>
</tr>
<tr>
<td></td>
<td>Joint Backing Material</td>
<td>Cera-Rod (Heat Resistant)</td>
</tr>
<tr>
<td></td>
<td>Joint Backing Material</td>
<td>Deck-O-Foam (Cold Application Only)</td>
</tr>
<tr>
<td></td>
<td>Joint Backing Material</td>
<td>HBR Backer Rod (Cold Application Only)</td>
</tr>
<tr>
<td></td>
<td>Joint Backing Material</td>
<td>HBR XL Backer Rod (Cold or Hot Applied)</td>
</tr>
<tr>
<td></td>
<td>Joint Backing Material</td>
<td>Sof Rod (Cold Application Only)</td>
</tr>
</tbody>
</table>
Section 706: Concrete Bonding Compound

Type I - Non-load bearing applications, bonding hardened concrete (28 days or older) to hardened concrete surfaces
Type II - Non-load bearing applications, bonding freshly mixed concrete to hardened concrete
Type III - For bonding skid-resistant materials to hardened concrete and as a binder in epoxy mortars or epoxy concretes used on traffic bearing surfaces
Type V - Load bearing applications, bonding fresh concrete to hardened concrete

Grade 1 - Low viscosity;
Grade 2 - Medium viscosity;
Grade 3 - Non-sagging consistency

Class A - For use below 40F, to the lowest allowable temperature defined by manufacturer
Class B - For use between 40F and 60F
Class C - For use above 60F, to the highest allowable temperature defined by manufacturer

706.1 Epoxy Bonding Compound (ASTM C881)  Last Revised: 7/17/2018

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Epoxy Class</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type I, Grade 1</td>
<td>CRACKBOND LR-321</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MV = Medium Viscosity; Formerly ULTRABOND 2100</td>
<td>C</td>
<td>2009-095Q</td>
</tr>
<tr>
<td></td>
<td>Type I, Grade 2</td>
<td>CRACKBOND 2100 MV</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type I, Grade 1</td>
<td>MasterInject 1380</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Previous Name: Concresive 1380</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type I, Grade 1</td>
<td>MasterInject 1500</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Previous Name: Concresive Std. LVI</em></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Type I, Grade 3</td>
<td>MasterEmaco ADH 327</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Previous Name: Concresive Paste LPL</em></td>
<td></td>
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<tr>
<td></td>
<td>Type I, Grade 3</td>
<td>MasterEmaco ADH 327 RS</td>
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<td><em>Previous Name: Concresive Paste SPL</em></td>
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</table>
Section 706: Concrete Bonding Compound

706.1 Epoxy Bonding Compound (ASTM C881) Last Revised: 7/17/2018

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Epoxy Class</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type I &amp; II, Grade 2</td>
<td>Dural 452 MV</td>
<td>B, C</td>
<td>2003-100Q</td>
</tr>
<tr>
<td>Type I &amp; II, Grade 3</td>
<td>Dural 452 MV</td>
<td>B, C</td>
<td>2003-099Q</td>
</tr>
<tr>
<td>Type I, Grade 1</td>
<td>Duralflex Gel (formerly Flexocrete)</td>
<td></td>
<td>1980-032</td>
</tr>
<tr>
<td>Type I, Grade 1</td>
<td>Euco 452 LV</td>
<td></td>
<td>1986-310A</td>
</tr>
<tr>
<td>Type II, Grade 2</td>
<td>Euco 452 MV</td>
<td></td>
<td>1986-310B</td>
</tr>
<tr>
<td>Type III, Grade 1</td>
<td>Dural 340 NS</td>
<td>C</td>
<td>2001-192QA</td>
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<tr>
<td>Type III, Grade 1</td>
<td>Dural 340 SL</td>
<td>B, C</td>
<td></td>
</tr>
<tr>
<td>Type III, Grade 1</td>
<td>Duralflex Gel (formerly Flexocrete Gel)</td>
<td></td>
<td>1980-031</td>
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<tr>
<td>Type III, Grade 1</td>
<td>Flexolith</td>
<td>A, B, C</td>
<td>1994-231</td>
</tr>
<tr>
<td>Type III, Grade 3</td>
<td>Dural 452 Gel</td>
<td>C</td>
<td>2001-192QB</td>
</tr>
<tr>
<td>Type III, Grade 3</td>
<td>Flexocrete</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Type V, Grade 2</td>
<td>Dural 452 MV</td>
<td>B, C</td>
<td>2003-100QB</td>
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</tbody>
</table>

| HLMTE 15 | Hallemite, 80 Cypress Street, P. O. Box 840, Warwick, RI 02888 | | |
| Type I, Grade 1 | Hallemite 182LV (injection) | | 1997-197 |
| Type II, Grade 2 | Hallemite 140 | | 1997-195 |

| Type I, Grade 1 | Sure-Poxy HM, Class B | B | 1992-366 |
| Type I, Grade 1 | Sure-Poxy HMLV 112 | | 1988-290 |
| Type I, Grade 3 | Sure-Poxy 116 | | 1992-189 |
| Type I, Grade 3 | Sure-Poxy HM Gel | | 1990-352 |
| Type II, Grade 2 | Sure-Poxy HM | | 1981-050 |
| Type III, Grade 1 | Sure-Poxy LM-LV | | 1981-049 |
## 706.1 Epoxy Bonding Compound (ASTM C881)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<th>Ref. No.</th>
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<tr>
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<td>Type I, Grade 1</td>
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<td>Type I, Grade 3</td>
<td>Rezi-Weld Gel Paste</td>
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<td>Type II, Grade 2</td>
<td>Rezi-Weld 1000</td>
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<td></td>
<td>Type III, Grade 1</td>
<td>Rezi-Weld LV</td>
<td>1990-230</td>
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<td>Type I, Grade 1</td>
<td>Mark-25.3</td>
<td>2000-172Q</td>
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<td></td>
<td>Type II, Grade 1</td>
<td>Mark-184</td>
<td>2000-174Q</td>
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<td>Type II, Grade 1</td>
<td>Mark-25.3</td>
<td>2000-172Q</td>
</tr>
<tr>
<td>SIKAO 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
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<tr>
<td></td>
<td>Type I &amp; II, Grade 2</td>
<td>Sikadur 32 Hi Mod</td>
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</tr>
<tr>
<td></td>
<td>Type I, Grade 1</td>
<td>Sikadur 35 Hi Mod LV</td>
<td></td>
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<td>Type I, Grade 1</td>
<td>Sikadur 52 Injection Resin</td>
<td>1986-228</td>
</tr>
<tr>
<td></td>
<td>Type I, Grade 3</td>
<td>Sikadur Injection Gel</td>
<td>1987-165</td>
</tr>
<tr>
<td></td>
<td>Type III, Grade 1</td>
<td>Sikadur 21 Lo Mod LV</td>
<td></td>
</tr>
<tr>
<td>SIKAO 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
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<tr>
<td></td>
<td>Type I, Grade 1</td>
<td>Sikadur 35 Hi Mod LV</td>
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<tr>
<td></td>
<td>Type I, Grade 1</td>
<td>Sikadur 52 Injection Resin</td>
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<tr>
<td></td>
<td>Type I, Grade 2</td>
<td>Sikadur 32 Hi Mod</td>
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<tr>
<td></td>
<td>Type I, Grade 3</td>
<td>Sikadur Injection Gel</td>
<td>1987-165</td>
</tr>
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<td></td>
<td>Type II, Grade 2</td>
<td>Sikadur 32 Hi Mod</td>
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</tr>
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<td></td>
<td>Type III, Grade 1</td>
<td>Sikadur 21 Lo Mod LV</td>
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## Section 706: Concrete Bonding Compound

### 706.1 Epoxy Bonding Compound (ASTM C881)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>Type I, Grade 1</td>
<td>Pro-Poxy 100</td>
<td>1991-290A</td>
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<td></td>
<td>Type I, Grade 3</td>
<td>Pro-Poxy 300</td>
<td>1991-290C</td>
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<td></td>
<td>Type II, Grade 1</td>
<td>Pro-Poxy 50</td>
<td>B, C</td>
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<td></td>
<td>Type II, Grade 2</td>
<td>Pro-Poxy 200</td>
<td>2018-012Q</td>
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### 706.2 Other Bonding Compound (ASTM C882)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type II, Grade 3, Class A &amp; B</td>
<td>ASF-1000</td>
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<tr>
<td></td>
<td>Other Bonding Compound</td>
<td>Cretelox</td>
</tr>
<tr>
<td>DAYT1 15</td>
<td>Dayton Superior Corporation, 4226 Kansas Avenue, Kansas City, KS 66106 <a href="http://www.daytonsuperior.com/">http://www.daytonsuperior.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Bonding Compound</td>
<td>Day-Chem Ad Bond (J-40)</td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Bonding Compound</td>
<td>Duralprep AC</td>
</tr>
<tr>
<td></td>
<td>Other Bonding Compound</td>
<td>SurePoxy HM EPL</td>
</tr>
<tr>
<td></td>
<td>For placement of fresh to hardened concrete only in the period 4 to 24 hours after application of bonding agent.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Bonding Compound</td>
<td>10 Minute Concrete Mender</td>
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</tbody>
</table>
## Section 706: Concrete Bonding Compound

### 706.2 Other Bonding Compound (ASTM C882)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIKA0 15 Facility</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>201 Polito Avenue Lyndhurst, NJ 07071</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Bonding Compound</td>
<td>Armatec 110</td>
</tr>
<tr>
<td>SIKA1 15 Plant</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1682 Marion Williamsport Road E Marion, OH 43302</td>
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<tr>
<td></td>
<td>Other Bonding Compound</td>
<td>Armatec 110</td>
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Last Revised: 5/11/2017
## Section 709: Reinforcement Steel
Steel Products Procurement Act applies.

Click to view for companies listed in this section [Rebar Mill Symbols](#)

### 709.1 Fabricator of Reinforcement Bars
All approved epoxy coated and galvanized rebar fabricators can fabricate black rebar unless otherwise noted.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMAG 15</td>
<td>Armagost Steel Corporation, 1249 South Main Street, Dubois, PA 15801</td>
<td>2002-080Q</td>
</tr>
<tr>
<td>Facility</td>
<td>CMC Rebar Illinois 780 Eastgate Industrial Parkway Kankakee, IL 60901</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar (Formerly listed under the TOLTC 15 supplier code)</td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>CMC Rebar North Carolina 2528 North Chester Street Gastonia, NC 28052</td>
<td></td>
</tr>
</tbody>
</table>
Section 709: Reinforcement Steel

709.1 Fabricator of Reinforcement Bars

All approved epoxy coated and galvanized rebar fabricators can fabricate black rebar unless otherwise noted.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMCRK 15</td>
<td>Commercial Metals Company (CMC), 6565 North MacArthur Blvd., Suite 800, Irving, TX 75039 <a href="https://www.cmc.com/">https://www.cmc.com/</a></td>
<td>2010-190Q</td>
</tr>
<tr>
<td>Facility</td>
<td>CMC Rebar Knoxville 1919 Tennessee Avenue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Knoxville, TN 37921</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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</tr>
<tr>
<td></td>
<td>(Formerly Gerdau Ameristeel - GERD3 15)</td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>CMC Rebar Muncie 1610 South Macedonia Avenue</td>
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</tr>
<tr>
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<td>Muncie, IN 47302</td>
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<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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<tr>
<td>Facility</td>
<td>CMC Rebar Perth Amboy 333 Riverview Drive</td>
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</tr>
<tr>
<td></td>
<td>Perth Amboy, NJ 08861</td>
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<td>Fabricator, Black Bar Only</td>
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<td>(Formerly Gerdau Ameristeel - GERD1215)</td>
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<tr>
<td>Facility</td>
<td>CMC Rebar Sayreville 1 Crossman Road North</td>
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<td>Sayreville, NJ 08872</td>
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<tr>
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<td>Fabricator, Black Bar Only</td>
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</tr>
<tr>
<td></td>
<td>Cutting / Shearing of Black Bar to Length</td>
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</tr>
<tr>
<td>Facility</td>
<td>CMC Rebar York 1700 7th Avenue York, PA 17403</td>
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<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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<td>(Formerly Gerdau Ameristeel - GERD6 15)</td>
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<tr>
<td>CMCTN 15</td>
<td>Commercial Metals Company (CMC), 6565 North MacArthur Blvd., Suite 800, Irving, TX 75039 <a href="https://www.cmc.com/">https://www.cmc.com/</a></td>
<td>2010-190Q</td>
</tr>
<tr>
<td>Facility</td>
<td>CMC Steel Tennessee 1919 Tennessee Avenue</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Knoxville, TN 37921</td>
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<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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<tr>
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<td>(Formerly Gerdau Ameristeel - GERD3 15)</td>
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</table>
### Section 709: Reinforcement Steel

#### 709.1 Fabricator of Reinforcement Bars

All approved epoxy coated and galvanized rebar fabricators can fabricate black rebar unless otherwise noted.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
</tr>
<tr>
<td></td>
<td>Fabricator, Stainless Steel Bar</td>
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<td>Threading of Reinforcement Bar</td>
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<td>Threading of Reinforcement Bar</td>
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<tr>
<td></td>
<td>Tru-Splice Precast Insert System</td>
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<td>1997-049Q</td>
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<td>2012-166Q</td>
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<tr>
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<td>1997-049Q</td>
</tr>
<tr>
<td>DAYT515</td>
<td>Simplex Construction Supplies, Inc. (formerly Dayton Superior Corporation), 2150B South Route 45-52, Kankakee, IL 60901 <a href="https://www.simplex-usa.com/">https://www.simplex-usa.com/</a></td>
</tr>
<tr>
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<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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<td>1994-117</td>
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<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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<td>1998-045</td>
</tr>
<tr>
<td>DIMFAB15</td>
<td>Dimension Fabricators, 2000 7th Street, Glenville, NY 12302 <a href="https://www.dimensionfabricators.com/">https://www.dimensionfabricators.com/</a></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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<tr>
<td></td>
<td>2016-165Q</td>
</tr>
<tr>
<td>FISHW15</td>
<td>Fisher Welding &amp; Fabrication, 923 Deturksville Road, P.O. Box 28, Pine Grove, PA 17963 <a href="http://www.rfisherwelding.com/">http://www.rfisherwelding.com/</a></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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<tr>
<td></td>
<td>2013-154Q</td>
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<tr>
<td>HARMA15</td>
<td>HarMac, A Division of A.H. Harris Sayreville, 301 Hartle Street, Sayreville, NJ 08872 <a href="https://ahharris.com/">https://ahharris.com/</a></td>
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<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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<td>2007-090Q</td>
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<tr>
<td>KENG15</td>
<td>Kenglo Construction Supply Company, P. O. Box 54, Route 403 South, Strongstown, PA 15957</td>
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<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
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<td>2010-054Q</td>
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Section 709: Reinforcement Steel

### 709.1 Fabricator of Reinforcement Bars

All approved epoxy coated and galvanized rebar fabricators can fabricate black rebar unless otherwise noted.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>Metal Partners International, 47 E. Chicago Avenue, Suite 314, Naperville, IL 60540</td>
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<td></td>
<td>20 Davidson Lane New Castle, DE 19720-2214</td>
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</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Galvanized Bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Stainless Steel Bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Only approved to cut straight stainless steel reinforcement bars to required length. Not approved to bend stainless steel reinforcement bars at any angle.</td>
<td></td>
</tr>
<tr>
<td>SALS 15</td>
<td>Salit Specialty Rebar, 3235 Lockport Road, Niagara Falls, NY 14305 <a href="http://stainlessrebar.com/">http://stainlessrebar.com/</a></td>
<td>2008-178Q</td>
</tr>
<tr>
<td></td>
<td>Formerly Dayton Superior Corporation (DAYT 15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
</tbody>
</table>
## Section 709: Reinforcement Steel

### 709.1 Fabricator of Reinforcement Bars

All approved epoxy coated and galvanized rebar fabricators can fabricate black rebar unless otherwise noted.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Galvanized Bar</td>
<td>2008-174Q</td>
</tr>
<tr>
<td>SPIFA 15</td>
<td>Spiral Fab, Inc., 10034 State Road 156, Vevay, IN 47043 <a href="http://spiral-fab.com/">http://spiral-fab.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spiral Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>2000-112Q</td>
</tr>
<tr>
<td>TITUS 15</td>
<td>Titusville Fabricating, 191 Howard St., Franklin, PA 16323</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>1996-073</td>
</tr>
<tr>
<td></td>
<td>Fabricator, Galvanized Bar</td>
<td>2007-011Q</td>
</tr>
<tr>
<td>Facility</td>
<td>CMC Rebar Illinois 780 Eastgate Industrial Parkway Kankakee, IL 60901 (formerly: Toltec Steel Services, Inc.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>2001-229Q</td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>2008-040Q</td>
</tr>
<tr>
<td>TRISR 15</td>
<td>Tri State Rebar Company, 1558 Mt. Pleasant Road, Amcel Center Suite 72, Mount Pleasant, PA 15666 <a href="http://tristateresbar.com/contacts.html">http://tristateresbar.com/contacts.html</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>1990-308</td>
</tr>
<tr>
<td>TYEBR 15</td>
<td>TyE Bar, LLC, 1050 Ohio Avenue, Glassport, PA 15045 <a href="http://www.tyerebar.com/">http://www.tyerebar.com/</a></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>1050 Ohio Avenue Glassport, PA 15045</td>
<td>2015-084Q</td>
</tr>
</tbody>
</table>
Section 709: Reinforcement Steel

709.1 Fabricator of Reinforcement Bars

All approved epoxy coated and galvanized rebar fabricators can fabricate black rebar unless otherwise noted.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHICO 15</td>
<td>L. C. Whitford Company, 164 North Main Street, P.O. Box 663, Wellsville, NY 14895 [<a href="http://www.lcwhitford.com/">http://www.lcwhitford.com/</a>]</td>
<td>2007-043Q</td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
</tbody>
</table>

709.1(a) Billet Steel Bars

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTM 15</td>
<td>Byer Steel, 200 West North Bend Road, Cincinnati, OH 45216 [<a href="http://www.byersteelminded.com/">http://www.byersteelminded.com/</a>]</td>
<td>2001-162</td>
</tr>
<tr>
<td></td>
<td><em>Formerly A. B. Steel Mills, Inc.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td>ALTSC 15</td>
<td>Alton Steel Inc., # 5 Cut Street, Alton, IL 62002 [<a href="http://altonsteel.com/">http://altonsteel.com/</a>]</td>
<td>1999-226Q</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
<tr>
<td>ARM-1 15</td>
<td>Bayou Steel Group (Formerly: Arcelormittal Harriman), 2404 S. Roane St., Harriman, TN 37748 [<a href="http://bayousteelgroup.com/">http://bayousteelgroup.com/</a>]</td>
<td>2001-213Q</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td>CMCFL 15 Facility</td>
<td>Commercial Metals Company (CMC), 6565 North MacArthur Blvd., Suite 800, Irving, TX 75039 [<a href="https://www.cmc.com/">https://www.cmc.com/</a>]</td>
<td>1986-166</td>
</tr>
<tr>
<td></td>
<td>CMC Steel Florida 16770 Rebar Road Jacksonville, FL 32234</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>(Formerly Gerdau Ameristeel - GERD4 15)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>(Formerly Gerdau Ameristeel - GERD4 15)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMC Steel New Jersey 1 North Crossman Road Sayreville, NJ 08872</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>(Formerly Gerdau Ameristeel - GERD1115)</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>(Formerly Gerdau Ameristeel - GERD1115)</em></td>
<td></td>
</tr>
</tbody>
</table>
## Section 709: Reinforcement Steel

### 709.1(a) Billet Steel Bars

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CMC Steel South Carolina 310 New State Road Cayce, SC 29033</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMC Steel Tennessee 1919 Tennessee Avenue Knoxville, TN 37921</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed (Formerly Gerdau Ameristeel - GERD3 15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain (Formerly Gerdau Ameristeel - GERD3 15)</td>
<td></td>
</tr>
<tr>
<td>EVRAZ 15 Facility</td>
<td>Evraz, Inc. NA/Rocky Mountain Steel, 2100 S. Freeway, Pueblo, CO 81004</td>
<td><a href="http://www.evrazna.com/Products/tabid/55/Default.asp">http://www.evrazna.com/Products/tabid/55/Default.asp</a></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Coiled Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain (Prior Ref No. 1986-354)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
</tbody>
</table>
### Section 709: Reinforcement Steel

#### 709.1(a) Billet Steel Bars

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td>1986-120</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td>1986-160</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Coiled Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bar Sizes 3-5 Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td>1991-180</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td>1998-165</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td>1991-367</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
</tbody>
</table>
# Section 709: Reinforcement Steel

## 709.1(a) Billet Steel Bars

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Last Revised: 5/13/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td>1992-258</td>
</tr>
<tr>
<td>OPTS1 15 Plant</td>
<td>Optimus Steel, P.O. Box 3869, Beaumont, TX 77704 <a href="https://optimus-steelusa.com/">https://optimus-steelusa.com/</a></td>
<td>2014-238QA</td>
</tr>
<tr>
<td></td>
<td>100 Old Highway 90 West, Vidor, TX 77662 <strong>(Formerly Gerdau Ameristeel - GERD1715)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Coiled Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bar sizes 3 to 5 only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Dynamics, Engineered Bar Products Division 8000 N. County Road 225 East Pittsboro, IN 46167</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Dynamics, Roanoke Bar Division 102 Westside Boulevard NW Roanoke, VA 24017</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
<td></td>
</tr>
</tbody>
</table>

## 709.1(b) Rail Steel Bars

## 709.1(c) Epoxy Coaters of Steel Bars

Approved epoxy coaters: Epoxy coaters may only use approved epoxy powders and patching materials from manufacturers listed in Section 709.1(c). Properly equipped epoxy coaters listed in Section 709.1(c) may also coat mechanical splice couplers and systems in section 1002.2(c).

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Last Revised: 6/18/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCCM 15</td>
<td>ABC Coating Company of Michigan, 1503 Burlingame S.W., Wyoming, MI 49509</td>
<td>1994-144</td>
</tr>
</tbody>
</table>
# Section 709: Reinforcement Steel

## 709.1(c) Epoxy Coaters of Steel Bars

Approved epoxy coaters: Epoxy coaters may only use approved epoxy powders and patching materials from manufacturers listed in Section 709.1(c). Properly equipped epoxy coaters listed in Section 709.1(c) may also coat mechanical splice couplers and systems in section 1002.2(c).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CMC Rebar Illinois  780 Eastgate Industrial Parkway  Kankakee, IL 60901</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater (Formerly listed under the TOLTC 15 supplier code)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMC Rebar North Carolina  2528 North Chester Street  Gastonia, NC 28052</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMC Steel New Jersey  1 North Crossman Road  Sayreville, NJ 08872</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater (Formerly Gerdau Ameristeel - GERD1115)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMC Rebar Knoxville  1919 Tennessee Avenue  Knoxville, TN 37921</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater (Formerly Gerdau Ameristeel - GERD3 15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMC Rebar Muncie  1610 South Macedonia Avenue  Muncie, IN 47302</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater (Formerly Gerdau Ameristeel - GERD1415)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CMC Rebar Sayreville  1 Crossman Road North  Sayreville, NJ 08872</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater (Formerly Gerdau Ameristeel - GERD1115)</td>
<td></td>
</tr>
</tbody>
</table>
Section 709: Reinforcement Steel

709.1(c) Epoxy Coaters of Steel Bars

Approved epoxy coaters: Epoxy coaters may only use approved epoxy powders and patching materials from manufacturers listed in Section 709.1(c). Properly equipped epoxy coaters listed in Section 709.1(c) may also coat mechanical splice couplers and systems in section 1002.2(c).

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Commercial Metals Company (CMC), 6565 North MacArthur Blvd., Suite 800, Irving, TX 75039 [<a href="https://www.cmc.com/">https://www.cmc.com/</a>]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMCTN 15</td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>CMC Steel Tennessee  1919 Tennessee Avenue  Knoxville, TN 37921</td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater</td>
</tr>
<tr>
<td></td>
<td>(Formerly Gerdau Ameristeel - GERD3 15)</td>
</tr>
<tr>
<td>Ref. No.</td>
<td>1988-337</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Corrosion Control, Inc., 10 Quarry Road, Auburn, NY 13021 [<a href="http://www.corrosioncontrolinc.com/">http://www.corrosioncontrolinc.com/</a>]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORCI 15</td>
<td></td>
</tr>
<tr>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td>Ref. No.</td>
<td>2004-085Q</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Simplex Construction Supplies, Inc. (formerly Dayton Superior Corporation), 2150B South Route 45-52, Kankakee, IL 60901 [<a href="https://www.simplex-usa.com/">https://www.simplex-usa.com/</a>]</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAYT5 15</td>
<td></td>
</tr>
<tr>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td>Ref. No.</td>
<td>1996-160</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Lane Enterprises, Inc., 1244 Claremont Road, Carlisle, PA 17013 [<a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a>]</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANE5 15</td>
<td></td>
</tr>
<tr>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td>Ref. No.</td>
<td>1989-223</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Miamisburg Coating, 925 N. Main St., Miamisburg, OH 45342</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCOAT 15</td>
<td></td>
</tr>
<tr>
<td>Approved Epoxy Coater of Mechanical Splice Couplers Only</td>
<td></td>
</tr>
<tr>
<td>Ref. No.</td>
<td>2013-242Q</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Midwest Pipe Coating, 925 Kennedy Ave., Schererville, IN 46375 [<a href="http://midwestpiperebar.com/">http://midwestpiperebar.com/</a>]</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIDWP 15</td>
<td></td>
</tr>
<tr>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td>Ref. No.</td>
<td>1984-128</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Simcote, Inc., Ohio Division, 250 North Greenwood, Marion, OH 43302 [<a href="http://simcote.com/">http://simcote.com/</a>]</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIMCT 15</td>
<td></td>
</tr>
<tr>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td>Ref. No.</td>
<td>1985-022</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Simplex Construction Supplies, Inc., 2150B South Route 45-52, Kankakee, IL 60901 [<a href="https://www.simplex-usa.com/">https://www.simplex-usa.com/</a>]</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIMP1 15</td>
<td></td>
</tr>
<tr>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td>Ref. No.</td>
<td>1996-160</td>
</tr>
</tbody>
</table>
Section 709: Reinforcement Steel

709.1(c) Epoxy Coaters of Steel Bars

Approved epoxy coaters: Epoxy coaters may only use approved epoxy powders and patching materials from manufacturers listed in Section 709.1(c). Properly equipped epoxy coaters listed in Section 709.1(c) may also coat mechanical splice couplers and systems in section 1002.2(c).

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Compatible Repair Coating</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITUS 15</td>
<td>Titusville Fabricating, 191 Howard St., Franklin, PA 16323</td>
<td>Approved Epoxy Coater</td>
</tr>
</tbody>
</table>

709.1(c)1 Epoxy Powder and Patching Material Manufacturers

In accordance with Standard Special Provision C-a00022-A, which is effective for projects let after 12/4/15; the patching or repair material must be compatible with the coating, inert in concrete, and feasible for repairs at the applicator, fabricator, or in the field.

Table A: Approved Epoxy Coating Powders and Compatible Patching/Repair Materials

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Compatible Repair Coating</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M-07 15 Plant</td>
<td>3M Company, 3M Center, Building 0223-02-E-25, St. Paul, MN 55144</td>
<td>Scotchkote 413 ScotchKote 323 R [SIECO] ScotchKote 413 Valspar Greenbar Touch Up Coating Kit [VALSP3]</td>
</tr>
</tbody>
</table>
Section 709: Reinforcement Steel

709.1(c)1 Epoxy Powder and Patching Material Manufacturers

In accordance with Standard Special Provision C-a00022-A, which is effective for projects let after 12/4/15; the patching or repair material must be compatible with the coating, inert in concrete, and feasible for repairs at the applicator, fabricator, or in the field.

Table A: Approved Epoxy Coating Powders and Compatible Patching/Repair Materials

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Compatible Repair Coating</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3MC-1 15 Plant 3M Company, 1840 Oxford Street East, London, Ontario Canada N5v 3r</td>
<td>Epoxy Powder Material (Manufacturer)</td>
<td>ScotchKote 413</td>
<td>ScotchKote 323 R [SIECO]</td>
</tr>
<tr>
<td></td>
<td>Morden, Manitoba ROG 1JO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AKZNC 15 Akzo Nobel Coatings, Inc., 20 Culvert Street, Nashville, TN 37210</td>
<td>Epoxy Powder Nap-Gard 7-2750, 7-2750FC, 7-2750SG</td>
<td>Nap-Gard 7-1868 [SPEPC]</td>
<td>Nap-Gard 7-2750, 7-2750FC, 7-2750SG</td>
</tr>
<tr>
<td></td>
<td>Resicoat RB-600 HKF30R</td>
<td></td>
<td>BarPatch 803 [ARMIN], Hi-Build Epoxoline Series 66HS [TNEMEC]</td>
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<td>Resicoat RB-600 HKF30R-F</td>
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<td>BarPatch 803 [ARMIN], Hi-Build Epoxoline Series 66HS [TNEMEC]</td>
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<tr>
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<td>Resicoat RB-600 HKF30R-P</td>
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<td>Valspar Greenbar Touch Up Coating Kit [VALSP3]</td>
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<td>Resicoat RB-600 HKF30R-LG</td>
<td></td>
<td>Valspar Greenbar Touch Up Coating Kit [VALSP3]</td>
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<tr>
<td>AXACS 15 Axalta Coating Systems, LLC, 9800 Genard Road, Houston, TX 77041 Formerly DuPont (DUPT3)</td>
<td>Epoxy Powder Nap-Gard 7-2750, 7-2750FC, 7-2750SG</td>
<td>Nap-Gard 7-1868 [SPEPC]</td>
<td>Nap-Gard 7-2750, 7-2750FC, 7-2750SG</td>
</tr>
<tr>
<td></td>
<td>Nap-Gard 7-2750, 7-2750FC, 7-2750SG</td>
<td></td>
<td>Valspar Greenbar Touch Up Coating Kit [VALSP3]</td>
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<tr>
<td>VALSP215 The Sherwin-Williams Company (Formerly Valspar Corporation), 10300 Claude Freeman Drive, Charlotte, NC 28262</td>
<td>Epoxy Powder Material (Manufacturer)</td>
<td>Greenbar 720A009</td>
<td>Valspar Greenbar Touch Up Coating Kit [VALSP3]</td>
</tr>
<tr>
<td>VALSP415 The Sherwin-Williams Company (Formerly Valspar Corporation), 13129 Harland Drive Ne, Covington, GA 30014</td>
<td>Epoxy Powder</td>
<td>Greenbar 720A009</td>
<td>Valspar Greenbar Touch Up Coating Kit [VALSP3]</td>
</tr>
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709.1(c)2.b Coating Repair Material Manufacturers

Last Revised: 9/4/2019
## Section 709: Reinforcement Steel

### 709.1(c)2.b Coating Repair Material Manufacturers

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Compatible Epoxy Powder</th>
<th>Ref. No.</th>
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<tr>
<td>ARMIN 15</td>
<td>Repair/Patching Material BarPatch 803</td>
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<tr>
<td>SIECO 15</td>
<td>Repair/Patching Material ScotchKote 323R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPEPC 15</td>
<td>Repair/Patching Material Nap-Gard 7-1868 Dark Green</td>
<td></td>
<td></td>
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<tr>
<td>SPEPC 15</td>
<td>Fast Cure Repair Nap-Gard 7-2750</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TNEMEC 15</td>
<td>Facility Repair/Patching Material 123 W. 23rd Avenue North Kansas City, MO 64116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TNEMEC 15</td>
<td>Hi-Build Epoxoline Series 66HS</td>
<td></td>
<td></td>
</tr>
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</table>
**Section 709: Reinforcement Steel**

### 709.1(c)2.b Coating Repair Material Manufacturers

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<tr>
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<tr>
<td>VALSP315</td>
<td>The Sherwin-Williams Company (Formerly Valspar Corporation), 5400 Avenue Of The Cities, Moline, IL 61265</td>
<td>- Repair/Patching Material: Valspar Greenbar Touch Up Coating Kit Greenbar 720A009 [VALSP1, 2, 4]</td>
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<td>2012-235Q</td>
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<td>- Repair/Patching Material: Valspar Greenbar Touch Up Coating Kit Nap-Gard 7-2750, 7-2750FC, 7-2750SG</td>
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<td>2016-184Q</td>
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<td>- Repair/Patching Material: Valspar Greenbar Touch Up Coating Kit ScotchKote 413 [3M-07]</td>
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### 709.1(d) Low-Alloy Steel Bars

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<tr>
<td>CMCSC 15</td>
<td>Commercial Metals Company (CMC), 6565 North MacArthur Blvd., Suite 800, Irving, TX 75039</td>
<td>Low-Alloy Steel, Deformed</td>
<td>2005-015Q</td>
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<tr>
<td>Facility</td>
<td>CMC Steel South Carolina 310 New State Road Cayce, SC 29033</td>
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<tr>
<td>EVRAZ 15</td>
<td>Evraz, Inc. NA/Rocky Mountain Steel, 2100 S. Freeway, Pueblo, CO 81004</td>
<td>Low-Alloy Steel, Coiled Only Bar Sizes 3-5 Only</td>
<td>2013-130Q</td>
</tr>
<tr>
<td>NUCR1 15</td>
<td>Nucor Steel, Darlington Division, 300 Steel Mill Road, Darlington, SC 29540</td>
<td>Low-Alloy Steel, Deformed</td>
<td>2005-092Q</td>
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</table>
# Section 709: Reinforcement Steel

## 709.1(d) Low-Alloy Steel Bars

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<tr>
<td>OPTS1 15</td>
<td>Optimus Steel, P.O. Box 3869, Beaumont, TX 77704 <a href="https://optimus-steelusa.com/">https://optimus-steelusa.com/</a></td>
<td>----</td>
</tr>
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</table>

- **Low-Alloy Steel, Deformed**
- **Low-Alloy Steel, Coiled Only**
- **Bar sizes 3 to 5 only**

## 709.1(e) Galvanized Bars

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>HUBBL 15</td>
<td>O. W. Hubbell and Sons, P.O. Box 37, New York Mills, NY 13417 <a href="http://www.whyrust.com">http://www.whyrust.com</a></td>
<td>2015-005Q</td>
</tr>
<tr>
<td>JAR-1 15</td>
<td>Jarden Zinc Products, 2500 Old Stage Road, Greeneville, TN 37744 <a href="http://www.jardenzinc.com/">http://www.jardenzinc.com/</a></td>
<td>2009-084</td>
</tr>
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</table>

- **Galvanized Bar**
- **Lifejacket Dowels**
  - American Steel Tubing: bonding zinc to bar
  - Southeast Tubular Products: bonding zinc to bar
  - Conditionally approved as an alternate per manufacturer's specifications.
### Section 709: Reinforcement Steel

#### 709.1(e) Galvanized Bars

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</tr>
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<tbody>
<tr>
<td>SAGV1 15</td>
<td>South Atlantic Galvanizing, 3025 Steel Way Drive, P.O. Box 1380, Graham, NC 27253 <a href="http://www.southatlanticllc.com/">http://www.southatlanticllc.com/</a></td>
<td>7/6/2017</td>
<td>2014-016Q</td>
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#### 709.1(f) Stainless Steel Bars

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<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Terminal Talley Metals Hartsville, SC</td>
<td></td>
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<tr>
<td></td>
<td>Stainless Steel Bar</td>
<td></td>
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<tr>
<td></td>
<td>Enduramet 32 (UNS 24100)</td>
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#### 709.1(g) Uncoated Corrosion-Resistant Bars

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<tr>
<td></td>
<td>Uncoated Corrosion-Resistant Bar</td>
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<tr>
<td></td>
<td>ChromX 9100 (ASTM A1035, CS, Grade 100)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cascade Steel is a licensed partner of MMFX Technologies, a Commercial Metals Company. Product formerly known as MMFX2 Microcomposite Steel.</td>
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### 709.3 Steel Welded Wire Fabric

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</tbody>
</table>
Section 709: Reinforcement Steel

709.3 Steel Welded Wire Fabric

All supplied project material MUST include documentation (Mill Certifications) from the "Steel Mill". A "Steel Mill" is defined as where the iron ore, pig iron, or scrap metal was originally melted to form the hot rolled steel prior to being drawn into wire. The documentation must include physical test results and a statement that the material was "melted and manufactured in the USA". Required certification documentation for Department funded projects (Sections 709.3 & 709.4)

A "Wire-Mill" is defined as a facility that cold draws the steel rods into wire.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>CONCT 15</td>
<td>Concrete Pipe Products Corporation, Ten Thomas St., Chenango Bridge, NY 13901</td>
<td>Wire-Mill</td>
<td>1990-323</td>
</tr>
<tr>
<td>DOWNY 15</td>
<td>Downey, B. L., Company, Inc., 2125 Gardner Road, Broadview, IL 60153</td>
<td>Epoxy Coater</td>
<td>1996-248</td>
</tr>
<tr>
<td>FOXVS 15</td>
<td>Fox Valley Steel &amp; Wire Company, 111 North Douglas Street, Hortonville, WI 54944</td>
<td>Wire-Mill</td>
<td>2000-339Q</td>
</tr>
</tbody>
</table>
Section 709: Reinforcement Steel

### 709.3 Steel Welded Wire Fabric

All supplied project material MUST include documentation (Mill Certifications) from the "Steel Mill". A "Steel Mill" is defined as where the iron ore, pig iron, or scrap metal was originally melted to form the hot rolled steel prior to being drawn into wire. The documentation must include physical test results and a statement that the material was "melted and manufactured in the USA". Required certification documentation for Department funded projects (Sections 709.3 & 709.4).

A "Wire-Mill" is defined as a facility that cold draws the steel rods into wire.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Mill / Non-Mill</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Plant</td>
<td>Jacksonville, FL</td>
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<tr>
<td>Formerly Ivy Steel and Wire (IS&amp;W6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welded Wire Fabric Manufacturer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>MO</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formerly Ivy Steel and Wire (IS&amp;W5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cold Drawn Wire Fabricator</td>
<td>Bright Basic Wire</td>
<td>Wire-Mill</td>
<td>1996-191</td>
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<tr>
<td>Welded Wire Fabric Manufacturer</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>INST7 15</td>
<td>Insteel Wire Products, 501 Forrest Road, Hazle Township, PA 198202</td>
<td><a href="http://www.insteel.com/">http://www.insteel.com/</a></td>
<td>1993-221</td>
</tr>
<tr>
<td>Plant</td>
<td>501 Forrest Rd Humbolt Industrial Park Hazle Township, PA 18202</td>
<td></td>
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</tr>
<tr>
<td>Formerly Ivy Steel and Wire (IS&amp;W4)</td>
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<td></td>
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<tr>
<td>Welded Wire Fabric Manufacturer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INST9 15</td>
<td>Insteel Wire Products, 1373 Boggs Drive, Mount Airy, NC 27030</td>
<td><a href="http://www.insteel.com/">http://www.insteel.com/</a></td>
<td>2013-144Q</td>
</tr>
<tr>
<td>Plant</td>
<td>3325 Route 1099 Hickman, KY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Galvanizer</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Welded Wire Fabric Manufacturer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOWSW 15</td>
<td>Iowa Steel &amp; Wire, 1500 West Van Buren, Centerville, IA 52544</td>
<td></td>
<td>2000-230Q</td>
</tr>
<tr>
<td>KEYSW 15</td>
<td>Keystone Steel &amp; Wire Company, 7000 S. W. Adams Street, Peoria, IL 61641</td>
<td><a href="http://keystonesteel.com/">http://keystonesteel.com/</a></td>
<td>2009-069Q</td>
</tr>
</tbody>
</table>

Cold Drawn Wire Fabricator | Steel Mill & Wire-Mill | | |
Section 709: Reinforcement Steel

709.3 Steel Welded Wire Fabric

All supplied project material MUST include documentation (Mill Certifications) from the "Steel Mill". A "Steel Mill" is defined as where the iron ore, pig iron, or scrap metal was originally melted to form the hot rolled steel prior to being drawn into wire. The documentation must include physical test results and a statement that the material was "melted and manufactured in the USA". Required certification documentation for Department funded projects (Sections 709.3 & 709.4)

A "Wire-Mill" is defined as a facility that cold draws the steel rods into wire.

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Mill / Non-Mill</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>NELWS 15</td>
<td>Nelson Wire and Steel, 1015 New Salem Road, New Salem, PA 15468 <a href="http://www.nucor.com/">Formerly Nucor Wire Products (NUCW)-</a></td>
<td>Welded Wire Fabric Manufacturer</td>
<td>2006-216Q</td>
</tr>
<tr>
<td>TATAN 15</td>
<td>Tatano Wire &amp; Steel, 224 Jackson Street, Box 247, Houston, PA 15342</td>
<td>Welded Wire Fabric Manufacturer</td>
<td>1995-017</td>
</tr>
</tbody>
</table>
Section 709: Reinforcement Steel

709.3 Steel Welded Wire Fabric

All supplied project material MUST include documentation (Mill Certifications) from the "Steel Mill". A "Steel Mill" is defined as where the iron ore, pig iron, or scrap metal was originally melted to form the hot rolled steel prior to being drawn into wire. The documentation must include physical test results and a statement that the material was "melted and manufactured in the USA". Required certification documentation for Department funded projects (Sections 709.3 & 709.4)

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Mill / Non-Mill</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>TAUSW</td>
<td>Taubensee Steel &amp; Wire Company, 600 Diens Drive, Wheeling, IL 60090 <a href="http://www.taubensee.com/">http://www.taubensee.com/</a></td>
<td>Wire-Mill</td>
<td>2003-062Q</td>
</tr>
<tr>
<td>VIMC</td>
<td>Vimco, Inc., 300 Hansen Access Road, King of Prussia, PA 19406 <a href="http://vimcoinc.com/">http://vimcoinc.com/</a></td>
<td>Wire-Mill</td>
<td>2012-017Q</td>
</tr>
<tr>
<td>WIRET</td>
<td>Wiretech Inc., 6440 E. Canning St., Commerce, CA 90040 <a href="http://www.wiretechincorporated.com/">http://www.wiretechincorporated.com/</a></td>
<td>Wire-Mill</td>
<td>2010-060Q</td>
</tr>
<tr>
<td>YOUNG</td>
<td>Young Galvanizing, Inc., P. O. Box 334, Route 551, Pulaski, PA 16143 <a href="http://younggalvanizing.com/">http://younggalvanizing.com/</a></td>
<td>Galvanizer</td>
<td>2006-178Q</td>
</tr>
</tbody>
</table>

709.4 Deformed Welded Wire Fabric

All supplied project material MUST include documentation (Mill Certifications) from the "Steel Mill". A "Steel Mill" is defined as where the iron ore, pig iron, or scrap steel was originally melted to form the steel rods. The documentation must include physical test results and a statement that the material was "melted and manufactured in the USA". Required certification documentation for Department funded projects (Sections 709.3 & 709.4)

A "Wire-Mill" is defined as a facility that cold draws the steel rods into wire.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>DOWNY</td>
<td>Downey, B. L., Company, Inc., 2125 Gardner Road, Broadview, IL 60153</td>
<td>1996-248</td>
</tr>
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</table>
Section 709: Reinforcement Steel

709.4 Deformed Welded Wire Fabric

All supplied project material MUST include documentation (Mill Certifications) from the "Steel Mill". A "Steel Mill" is defined as where the iron ore, pig iron, or scrap steel was originally melted to form the steel rods. The documentation must include physical test results and a statement that the material was "melted and manufactured in the USA". Required certification documentation for Department funded projects (Sections 709.3 & 709.4)

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<tr>
<th>Product</th>
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Section 709: Reinforcement Steel

709.4 Deformed Welded Wire Fabric

All supplied project material MUST include documentation (Mill Certifications) from the "Steel Mill". A "Steel Mill" is defined as where the iron ore, pig iron, or scrap steel was originally melted to form the steel rods. The documentation must include physical test results and a statement that the material was "melted and manufactured in the USA". Required certification documentation for Department funded projects (Sections 709.3 & 709.4)

A "Wire-Mill" is defined as a facility that cold draws the steel rods into wire.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>INST9 15</td>
<td>Insteel Wire Products, 1373 Boggs Drive, Mount Airy, NC 27030</td>
<td><a href="http://www.insteel.com/">http://www.insteel.com/</a></td>
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<tr>
<td>Plant</td>
<td>3325 Route 1099 Hickman, KY</td>
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<td>Galvanizer</td>
<td>2013-144Q</td>
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<td>Welded Wire Fabric Manufacturer</td>
<td>2013-144Q</td>
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<tr>
<td>IOWSW 15</td>
<td>Iowa Steel &amp; Wire, 1500 West Van Buren, Centerville, IA 52544</td>
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<td></td>
<td>Welded Wire Fabric Manufacturer</td>
<td>2000-230Q</td>
</tr>
<tr>
<td>LANE5 15</td>
<td>Lane Enterprises, Inc., 1244 Claremont Road, Carlisle, PA 17013</td>
<td><a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
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<td>Epoxy Coater</td>
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<td>NELWS 15</td>
<td>Nelson Wire and Steel, 1015 New Salem Road, New Salem, PA 15468</td>
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</tr>
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<td>Formerly Nucor Wire Products (NUCW-)</td>
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<td>Welded Wire Fabric Manufacturer</td>
<td>2011-151QAB</td>
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<tr>
<td>NJG&amp;T 15</td>
<td>New Jersey Galvanizing and Tinning Works, 139 Hayes Avenue, Newark,</td>
<td><a href="http://www.newjerseygalvanizing.com/1">http://www.newjerseygalvanizing.com/1</a></td>
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Section 709: Reinforcement Steel

709.4 Deformed Welded Wire Fabric

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<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>YOUNG 15</td>
<td>Young Galvanizing, Inc., P. O. Box 334, Route 551, Pulaski, PA 16143 <a href="http://younggalvanizing.com/">http://younggalvanizing.com/</a></td>
<td>2006-178Q</td>
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### Section 711: Concrete Curing Material and Admixtures

#### 711.1(a) Curing and Protecting Covers: White Polyethylene Sheeting

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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#### 711.1(b) Curing and Protecting Covers: White Polyethylene Sheeting-Burlap Backed

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

#### 711.1(c) Curing and Protecting Covers: White Polypropylene Sheeting-Polypropylene Fiber Backed

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

#### 711.1(d) Curing and Protecting Covers: Burlap

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Section 711: Concrete Curing Material and Admixtures

### 711.1(d) Curing and Protecting Covers: Burlap

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABITC 15</td>
<td>Abitec, Inc., 105 Grove Circle, Chalfont, PA 18914</td>
<td>Burlap 1999-191Q</td>
</tr>
<tr>
<td>AMEES 15</td>
<td>Amee Sales, Inc., 55 West 39th Street, New York, NY 10018</td>
<td>Burlap 1992-274A</td>
</tr>
</tbody>
</table>

### 711.1(e) Curing and Protecting Covers: Insulating Mats

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

### 711.1(f) Curing and Protecting Covers: Foam Insulation

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
### Section 711: Concrete Curing Material and Admixtures

#### 711.1(f) Curing and Protecting Covers: Foam Insulation

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foam Insulation</td>
<td>Foamular 1000</td>
<td>2002-005Q</td>
</tr>
<tr>
<td>Foam Insulation</td>
<td>Foamular 150</td>
<td>2002-005Q</td>
</tr>
<tr>
<td>Foam Insulation</td>
<td>Foamular 250</td>
<td>2002-005Q</td>
</tr>
<tr>
<td>Foam Insulation</td>
<td>Foamular 400</td>
<td>2002-005Q</td>
</tr>
<tr>
<td>Foam Insulation</td>
<td>Foamular 600</td>
<td>2002-005Q</td>
</tr>
<tr>
<td>PACTV 15</td>
<td>Kingspan Insulation LLC, 2100 RiverEdge Parkway, Suite 175, Atlanta, GA 30328 <a href="http://www.chemmasters.net/">Formerly Pactiv Building Products</a></td>
<td></td>
</tr>
<tr>
<td>Foam Insulation</td>
<td>GreenGuard XPS CM (0.5&quot; thick)</td>
<td>1990-359A</td>
</tr>
<tr>
<td>Foam Insulation</td>
<td>GreenGuard XPS CM (1&quot; thick)</td>
<td>1990-359B</td>
</tr>
<tr>
<td>Foam Insulation</td>
<td>GreenGuard XPS CM (1.5&quot; thick)</td>
<td>1990-359C</td>
</tr>
<tr>
<td>Foam Insulation</td>
<td>GreenGuard XPS CM (2&quot; thick)</td>
<td>1990-359D</td>
</tr>
<tr>
<td>Foam Insulation</td>
<td>GreenGuard XPS CM (2.5&quot; thick)</td>
<td>1990-359E</td>
</tr>
<tr>
<td>Foam Insulation</td>
<td>GreenGuard XPS CM (3&quot; thick)</td>
<td>1990-359F</td>
</tr>
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</table>

#### 711.2(a) Concrete Curing Compound: Clear or White

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Safe-Cure and Seal EPX</td>
<td>1999-217Q</td>
</tr>
<tr>
<td>Liquid Membrane-Forming Curing Compound, Safe-Cure Clear DR</td>
<td>1989-076</td>
<td></td>
</tr>
<tr>
<td>Liquid Membrane-Forming Curing Compound, Safe-Cure 2000</td>
<td>1989-044</td>
<td></td>
</tr>
<tr>
<td>Liquid Membrane-Forming Curing Compound, Safe-Cure 800</td>
<td>1989-043</td>
<td></td>
</tr>
</tbody>
</table>
Section 711: Concrete Curing Material and Admixtures

### 711.2(a) Concrete Curing Compound: Clear or White

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAYT1 15</td>
<td>Dayton Superior Corporation, 4226 Kansas Avenue, Kansas City, KS 66106 <a href="http://www.daytonsuperior.com/">http://www.daytonsuperior.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Clear Resin Cure J11W</td>
<td>1994-070</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>DSSCC Clear Wax Cure</td>
<td>2000-102Q</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D, Translucent/Red Fugitive Dye</td>
<td>Resin Cure with Dye J11W</td>
<td>1985-200</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>White Resin Cure J10W</td>
<td>----</td>
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<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>White Wax Cure J9A</td>
<td>2000-101Q</td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D, Translucent/Red Fugitive Dye</td>
<td>Tammscure WB 30D</td>
<td>2001-140Q</td>
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<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Thinfilm-420</td>
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<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Thinfilm-445 (Wax Based)</td>
<td>1989-147</td>
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<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Thinfilm-450</td>
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<tr>
<td>L&amp;MCC 15</td>
<td>L&amp;M Construction Chemicals, Inc., 14851 Calhoun Road, Omaha, NE 68152 <a href="http://www.lmcc.com/">http://www.lmcc.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Cure R</td>
<td>1994-187</td>
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<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Cure R-2</td>
<td>1994-188</td>
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<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Cure W-2 (Wax Based)</td>
<td>1994-162</td>
</tr>
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</table>
### Section 711: Concrete Curing Material and Admixtures

#### 711.2(a) Concrete Curing Compound: Clear or White

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDW0 15</td>
<td>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338 <a href="http://www.wrmeadows.com/">http://www.wrmeadows.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Sealtight 1200</td>
<td></td>
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<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Sealtight 1250</td>
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<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Sealtight 1600</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Sealtight 2255 White</td>
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</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D, Translucent/Red Fugitive Dye</td>
<td>Sealtight 1100</td>
<td>2013-128Q</td>
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<tr>
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<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Sealtight 1200</td>
<td>1988-251</td>
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<tr>
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<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Sealtight 1600</td>
<td>1988-252</td>
</tr>
<tr>
<td>RTPTC 15</td>
<td>RIGHT/POINTE, LLC, 234 Harvestore Drive, Dekalb, IL 60115 <a href="http://www.rightpointe.com/">http://www.rightpointe.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Acrylic Concrete Cure and Seal 350</td>
<td>2017-199Q</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Clear Water Resin 309</td>
<td>2004-052Q</td>
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<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Right Sheen 30 350</td>
<td>2017-206Q</td>
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<tr>
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<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>White Water Resin</td>
<td>2004-051Q</td>
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<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>White Water Wax WP</td>
<td>2003-033Q</td>
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</table>
### Section 711: Concrete Curing Material and Admixtures

#### 711.2(a) Concrete Curing Compound: Clear or White

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>SPECH 15</td>
<td>SpecChem, LLC, 1619 Walnut Street, Kansas City, MO 64108 <a href="http://specchemllc.com/">http://specchemllc.com/</a></td>
<td></td>
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<tr>
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<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
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<tr>
<td></td>
<td>Pavecure WW</td>
<td>2014-150Q</td>
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<tr>
<td>VEXCN 15</td>
<td>Vexcon Chemicals, Inc., 7240 State Road, Philadelphia, PA 19135 <a href="http://www.vexcon.com/">http://www.vexcon.com/</a></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
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<td>Certi-Vex AC 1315</td>
<td>2000-069Q</td>
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<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D, Translucent/Red Fugitive Dye</td>
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<td>Certi-Vex Envio RC 1000</td>
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<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D, Translucent/Red Fugitive Dye</td>
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<td></td>
<td>Envio Cure Clear 500</td>
<td>2000-067Q</td>
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<tr>
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<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
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<td>Envio Cure White 500</td>
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#### 711.2(b) Concrete Curing Compound: White, Poly-alpha-methylstyrene (PAMS)

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>CHEMM 15</td>
<td>ChemMasters, Inc., 300 Edward Street, Madison, OH 44057 <a href="http://www.chemmasters.net/">http://www.chemmasters.net/</a></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White, PAMS</td>
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</tr>
<tr>
<td></td>
<td>Safe-Cure 4000</td>
<td>2018-051Q</td>
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<tr>
<td>MEDW0 15</td>
<td>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338 <a href="http://www.wrmeadows.com/">http://www.wrmeadows.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White, PAMS</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Sealtight 2255 White</td>
<td>2013-115Q</td>
<td></td>
</tr>
<tr>
<td>RTPTC 15</td>
<td>RIGHT/POINTE, LLC, 234 Harvestore Drive, Dekalb, IL 60115 <a href="http://www.rightpointe.com/">http://www.rightpointe.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White, PAMS</td>
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</tr>
<tr>
<td></td>
<td>White Water Resin PAMS</td>
<td>2018-013Q</td>
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</table>
## Section 711: Concrete Curing Material and Admixtures

### 711.2(b) Concrete Curing Compound: White, Poly-alpha-methylstyrene (PAMS)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White, PAMS</td>
<td>1315</td>
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</tbody>
</table>

Provisionally approved per manufacturer's requirement to supply internal QC data and representative 1 quart production lot samples for the first 12 shipments to PennDOT projects.

### 711.2(c) Concrete Curing Compound: Black

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Black Emulsified Asphalt</td>
<td></td>
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</tbody>
</table>

### 711.2(d) Concrete Curing Compound: Bridge Deck Intermediate

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAYT1 15</td>
<td>Dayton Superior Corporation, 4226 Kansas Avenue, Kansas City, KS 66106 <a href="http://www.daytonsuperior.com/">http://www.daytonsuperior.com/</a></td>
<td>AquaFilm Concentrate J74 (formerly Sure Film J74)</td>
<td>1999-206</td>
</tr>
</tbody>
</table>

Provisionally Approved
# Section 711: Concrete Curing Material and Admixtures

## 711.2(d) Concrete Curing Compound: Bridge Deck Intermediate

### Last Revised: 8/10/2017

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAUFM 15</td>
<td>Kaufman Products, Inc., 3811 Curtis Ave., Baltimore, MD 21226-1131</td>
<td>Bridge Deck Intermediate Curing Compound</td>
<td>Vapor Aid</td>
<td>1993-046</td>
</tr>
<tr>
<td>L&amp;MCC 15</td>
<td>L&amp;M Construction Chemicals, Inc., 14851 Calhoun Road, Omaha, NE 68152</td>
<td>Bridge Deck Intermediate Curing Compound</td>
<td>E-Con</td>
<td>1990-176B</td>
</tr>
<tr>
<td>MEDW1 15</td>
<td>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338</td>
<td>Bridge Deck Intermediate Curing Compound</td>
<td>Evapre</td>
<td>1998-182</td>
</tr>
<tr>
<td>Plant</td>
<td></td>
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</tr>
<tr>
<td>SIKI2 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Bridge Deck Intermediate Curing Compound</td>
<td>SikaFilm</td>
<td>2000-130</td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VEXCN 15</td>
<td>Vexcon Chemicals, Inc., 7240 State Road, Philadelphia, PA 19135</td>
<td>Bridge Deck Intermediate Curing Compound</td>
<td>Certi-Vex Envio Assist</td>
<td>2010-148Q</td>
</tr>
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</table>

## 711.3 Concrete Admixtures

### Last Revised: 2/28/2020

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.
Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility 23700 Chagrin Blvd. Cleveland, OH 44122</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>A. Note: See BAS-1 (Allentown, PA), BAS-3 (Tipp City, OH), BAS-2 (Gurnee, IL), BAS-10 (Lancaster, TX), BAS-12 (Reynolds, GA), BAS-4 (Levittown/Bristol, PA), BAS-5 (Houston, TX), or BAS-8 (Quebec, Canada) for admixtures formerly listed under BAS-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterCast 730S (Rheomix 730 FC-S)</td>
<td>2.0 to 15 oz/cwt</td>
<td></td>
<td>2000-320Q</td>
</tr>
<tr>
<td>Plasticizing Admixture for Precast Only - Provisionally Approved</td>
<td></td>
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</tr>
</tbody>
</table>
Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures

See Section 220.2(l) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Allentown, PA</td>
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<tr>
<td>BASF 150</td>
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</tr>
<tr>
<td></td>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>MasterSet AC 122 (Pozzolith 122HE)</td>
<td>16 to 64 oz/cwt</td>
<td>CADD-2015-01-043</td>
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<tr>
<td></td>
<td>- For use in non-reinforced concrete only.</td>
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<tr>
<td></td>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>MasterSet AC 534 (Pozzolith NC 534)</td>
<td>10 to 45 oz/cwt</td>
<td>CADD-2015-01-120</td>
</tr>
<tr>
<td></td>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>MasterSet FP 20 (Pozzutec 20+)</td>
<td>5.0 to 90 oz/cwt</td>
<td>CADD-2016-01-096</td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture [AEA]</td>
<td>MasterAir AE 200 (Micro-Air)</td>
<td>As required</td>
<td>CADD-2016-01-030</td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture [AEA]</td>
<td>MasterAir AE 90 (MB AE 90)</td>
<td>As required</td>
<td>CADD-2016-01-031</td>
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<td></td>
<td>Air Entraining Admixture [AEA]</td>
<td>MasterAir VR 10 (MB-VR Standard) (Pave-Air)</td>
<td>As required</td>
<td>CADD-2106-01-032</td>
</tr>
<tr>
<td></td>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterGlenium 3030 (Glenium 3030 NS)</td>
<td>3.0 to 18 oz/cwt</td>
<td>CADD-2016-01-104</td>
</tr>
<tr>
<td></td>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterGlenium 3400 (Glenium 3400 NV)</td>
<td>2.0 to 12 oz/cwt</td>
<td>CADD-2016-01-099</td>
</tr>
<tr>
<td></td>
<td>- Provisionally Approved</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterGlenium 7500 (Glenium 7500)</td>
<td>2.0 to 15 oz/cwt</td>
<td>CADD-2014-01-086</td>
</tr>
<tr>
<td></td>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterGlenium 7620</td>
<td>3.6 oz./cwt and above</td>
<td>CADD-2014-01-053</td>
</tr>
<tr>
<td></td>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterGlenium 7710 (Glenium 7710)</td>
<td>2.0 to 15 oz/cwt</td>
<td>CADD-2016-01-100</td>
</tr>
<tr>
<td></td>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterPolyheed 1025 (PolyHeed 1025)</td>
<td>3.0 to 12 oz/cwt</td>
<td>CADD-2016-01-141</td>
</tr>
</tbody>
</table>
### Section 711: Concrete Curing Material and Admixtures

#### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Allentown, PA</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Provisionally Approved**

| High Range Water Reducing (Type F) Admixture [HRWR] | MasterRheobuild 1000 (Rheobuild 1000) | 1.0 to 25 oz/cwt | CADD-2015-01-070 | 1986-373 |
| Retarding (Type B) Admixture [RE] | MasterPozzolith 200 (Pozzolith 200-N) | 3.0 to 6.0 oz/cwt | CADD-2014-01-019 | 2000-142Q |
| Retarding (Type B) Admixture [RE] | MasterSet R 100 (Pozzolith 100-XR) | 2.0 to 4.0 oz/cwt | CADD-2016-01-098 | 1969-013 |
| Water Reducing (Type A) Admixture [WR] | MasterGlenium 3030 (Glenium 3030 NS) | 3.0 to 18 oz/cwt | CADD-2016-01-103 | 2002-034Q |
| Water Reducing (Type A) Admixture [WR] | MasterGlenium 7500 (Glenium 7500) | 2.0 to 15 oz/cwt | CADD-2014-01-085 | 2007-118Q |
| Water Reducing (Type A) Admixture [WR] | MasterGlenium 7620 | 2.0 to 3.6 oz/cwt | CADD-2014-01-052 | 2015-091QA |
| Water Reducing (Type A) Admixture [WR] | MasterPolyheed 1025 (PolyHeed 1025) | 3.0 to 12 oz/cwt | CADD-2016-01-140 | 2003-142Q |

**Provisionally Approved**

Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

### BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122

<table>
<thead>
<tr>
<th>Plant</th>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterPozzolith 700</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2015-01-044</td>
<td>2018-227Q</td>
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<tr>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterSet FP 20 (Pozzutec 20+)</td>
<td>3.0 to 10 oz/cwt</td>
<td>CADD-2016-01-028</td>
<td>2001-024Q</td>
</tr>
<tr>
<td></td>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>MasterPozzolith 80 (Pozzolith 80)</td>
<td>3.0 to 10 oz/cwt</td>
<td>CADD-2017-01-028</td>
<td>2001-024Q</td>
</tr>
<tr>
<td></td>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>MasterSet Delvo (Delvo Stabilizer)</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-041</td>
<td>1995-071</td>
</tr>
</tbody>
</table>
Section 711: Concrete Curing Material and Admixtures

### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>Plant</td>
<td>Lancaster, TX</td>
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<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterGlenium 1466 (PS 1466)</td>
<td>2.0 to 10 oz/cwt</td>
<td>CADD-2016-01-143</td>
<td>2005-136Q</td>
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<tr>
<td>Provisionally Approved</td>
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</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterGlenium 7700 (Glenium 7700)</td>
<td>2.0 to 15 oz/cwt</td>
<td>CADD-2016-01-097</td>
<td>2007-119Q</td>
</tr>
<tr>
<td>Provisionally Approved</td>
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<tr>
<td>Provisionally Approved</td>
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<td></td>
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<tr>
<td>Provisionally Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 711: Concrete Curing Material and Admixtures

### 711.3 Concrete Admixtures

See Section 220.2(l) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>MasterSet R 122 (Pozzolith 122-R)</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-020</td>
<td>1974-031</td>
</tr>
<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>MasterSet R 300 (Pozzolith 300-R)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>MasterSet R 961 (Pozzolith 961R)</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-038</td>
<td>2010-302Q</td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>MasterSet R 961 (Pozzolith 961R)</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-038</td>
<td>2010-303Q</td>
</tr>
</tbody>
</table>

Provisionally Approved
### Section 711: Concrete Curing Material and Admixtures

#### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS-2 15 Plant</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td></td>
<td></td>
<td>260</td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>MasterSet FP 20 (Pozzutec 20+)</td>
<td>5.0 to 90 oz/cwt</td>
<td>CADD-2016-01-096</td>
<td>2002-018Q</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>MasterAir AE 200 (Micro-Air)</td>
<td>As required</td>
<td>CADD-2016-01-030</td>
<td>1984-185</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>MasterAir VR 10 (MB-VR Standard) (Pave-Air)</td>
<td>As required</td>
<td>CADD-2016-01-032</td>
<td>-----</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>MasterAir VR 20 (MB-VR Concentrated)</td>
<td>As required</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterGlenium 3030 (Glenium 3030 NS)</td>
<td>3.0 to 18 oz/cwt</td>
<td>CADD-2016-01-104</td>
<td>2001-188Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR] Provisely Approved</td>
<td>MasterGlenium 7700 (Glenium 7700)</td>
<td>2.0 to 15 oz/cwt</td>
<td>CADD-2016-01-097</td>
<td>2008-100Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR] Provisely Approved</td>
<td>MasterPolyheed 1020 (Polyheed 1020)</td>
<td>3.0 to 12 oz/cwt</td>
<td>CADD-2015-01-069</td>
<td>2004-043Q</td>
</tr>
<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>MasterSet R 300 (Pozzolith 300-R)</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-020</td>
<td>1974-031</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterGlenium 3030 (Glenium 3030 NS)</td>
<td>3.0 to 18 oz/cwt</td>
<td>CADD-2016-01-103</td>
<td>2002-034Q</td>
</tr>
</tbody>
</table>
## Section 711: Concrete Curing Material and Admixtures

### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Gurnee, IL</td>
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<tr>
<td></td>
<td><strong>Provisionally Approved</strong></td>
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<tr>
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<td><strong>Provisionally Approved</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterSet FP 20 (Pozzutec 20+)</td>
<td></td>
<td>CADD-2016-01-096</td>
</tr>
</tbody>
</table>
### Section 711: Concrete Curing Material and Admixtures

**711.3 Concrete Admixtures**

See Section 220.2(l) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>BAS-3 15</td>
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</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tipp City, OH</td>
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</tr>
<tr>
<td><strong>Accelerating (Type C) Admixture [ACCL]</strong></td>
<td>MasterSet AC 122 (Pozzolith 122HE)</td>
<td>16 to 64 oz/cwt</td>
<td>CADD-2015-01-043</td>
<td>1978-030</td>
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<tr>
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<td>MasterSet AC 534 (Pozzolith NC 534)</td>
<td>10 to 45 oz/cwt</td>
<td>CADD-2015-01-087</td>
<td>1997-153</td>
</tr>
<tr>
<td></td>
<td>MasterSet FP 20 (Pozzutec 20+)</td>
<td>5.0 to 90 oz/cwt</td>
<td>CADD-2016-01-096</td>
<td>2002-018Q</td>
</tr>
<tr>
<td><strong>Air Entraining Admixture [AEA]</strong></td>
<td>MasterAir AE 200 (Micro-Air)</td>
<td>As required</td>
<td>CADD-2016-01-030</td>
<td>1984-185</td>
</tr>
<tr>
<td></td>
<td>MasterAir AE 400 (EverAIR Plus)</td>
<td>As required</td>
<td>CADD-2016-01-029</td>
<td>2009-143Q</td>
</tr>
<tr>
<td><strong>High Range Water Reducing (Type F) Admixture [HRWR]</strong></td>
<td>MasterGlenium 3030 (Glenium 3030 NS)</td>
<td>3.0 to 18 oz/cwt</td>
<td>CADD-2016-01-104</td>
<td>2001-188Q</td>
</tr>
<tr>
<td></td>
<td>MasterGlenium 3400 (Glenium 3400 NV)</td>
<td>2.0 to 12 oz/cwt</td>
<td>CADD-2016-01-099</td>
<td>2004-094Q</td>
</tr>
<tr>
<td><strong>High Range Water Reducing (Type F) Admixture [HRWR]</strong></td>
<td>MasterGlenium 7500 (Glenium 7500)</td>
<td>2.0 to 15 oz/cwt</td>
<td>CADD-2014-01-086</td>
<td>2007-118Q</td>
</tr>
<tr>
<td></td>
<td>MasterGlenium 7710 (Glenium 7710)</td>
<td>2.0 to 15 oz/cwt</td>
<td>CADD-2016-01-100</td>
<td>2009-083Q</td>
</tr>
</tbody>
</table>
## Section 711: Concrete Curing Material and Admixtures

### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Tipp City, OH</td>
<td></td>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterRheobuild 1000 (Rheobuild 1000)</td>
<td>1.0 to 25 oz/cwt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Retarding (Type B) Admixture [RE]</td>
<td>MasterPozzolith 200 (Pozzolith 200-N)</td>
<td>3.0 to 6.0 oz/cwt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Retarding (Type B) Admixture [RE]</td>
<td>MasterSet R 100 (Pozzolith 100-XR)</td>
<td>2.0 to 4.0 oz/cwt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterGlenium 3030 (Glenium 3030 NS)</td>
<td>3.0 to 18 oz/cwt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterGlenium 7500 (Glenium 7500)</td>
<td>2 to 15 oz/cwt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterPolyheed 100 (Polyheed FC 100)</td>
<td>8 to 30 oz/cwt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterPolyheed 1725 (Polyheed 1725)</td>
<td>3.0 to 12 oz/cwt</td>
</tr>
</tbody>
</table>
## Section 711: Concrete Curing Material and Admixtures

### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Provisionally Approved: Do not use for prestressed concrete members. Exceeds the limits of chloride ion concentration per AASHTO LRFD Construction Specifications, Section 8 'Concrete Structures' and Publication 408, Section 711.3(a).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterPozzolith 80 (Pozzolith 80)</td>
<td>3.0 to 10 oz/cwt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>MasterPozzolith 80 (Pozzolith 80)</td>
<td>3.0 to 5.0 oz/cwt</td>
</tr>
</tbody>
</table>
Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures
See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Chryso TurboCast NCT</td>
<td>CADD-2016-01-024</td>
<td>2012-227Q</td>
</tr>
<tr>
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<td>Provisionally Approved</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Chryso Fluid Optima 256</td>
<td>CADD-2010-01-051</td>
<td>2012-225Q</td>
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<tr>
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<td>Provisionally Approved</td>
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<tr>
<td>EUCL3 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
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<tr>
<td>Plant</td>
<td>227 Pearl Street Auburndale, FL 33823</td>
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<tr>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Eucon SE</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>2018-206Q</td>
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<tr>
<td></td>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>Eucon SE</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>2018-207Q</td>
</tr>
</tbody>
</table>
Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Accelguard 90</td>
<td>12 to 90 oz/cwt</td>
<td>CADD-2017-01-080</td>
<td>1989-118</td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Accelguard G3</td>
<td>10 to 90 oz/cwt</td>
<td>CADD-2016-01-005</td>
<td>2016-201Q</td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Accelguard NCA</td>
<td>12.0 to 75 oz/cwt</td>
<td>CADD-2019-01-001</td>
<td>2015-060QB</td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Eucon CIA</td>
<td>10 to 90 oz/cwt</td>
<td>CADD-2013-01-025</td>
<td>2015-122QA</td>
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<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Eucon AEA-92</td>
<td>0.1 to 4.0 oz/cwt</td>
<td>CADD-2015-01-112</td>
<td>1993-024</td>
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<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Eucon AEA-92S</td>
<td>0.5 to 2.0 oz/cwt</td>
<td>CADD-2017-01-055</td>
<td>2006-080Q</td>
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<td>Air Entraining Admixture [AEA]</td>
<td>Eucon Air MAC12</td>
<td>0.1 to 4.0 oz/cwt</td>
<td>CADD-2018-01-005</td>
<td>2012-204Q</td>
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<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Eucon Air MAC6</td>
<td>0.5 to 4.0 oz/cwt</td>
<td>CADD-2016-01-036</td>
<td>2016-251Q</td>
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<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Eucon Air Mix</td>
<td>0.5 to 1.0 oz/cwt</td>
<td>CADD-2019-01-018</td>
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<td>Air Entraining Admixture [AEA]</td>
<td>Eucon Air Mix 200</td>
<td>0.5 to 1.0 oz/cwt</td>
<td>CADD-2017-01-056</td>
<td>1995-005</td>
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<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Plastol 6400</td>
<td>7.0 to 12 oz/cwt</td>
<td>CADD-2016-01-062</td>
<td>2015-071Q</td>
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<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Plastol 6420</td>
<td>6.0 to 10 oz/cwt</td>
<td>CADD-2016-01-004</td>
<td>2012-209QB</td>
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<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Plastol Ultra 209</td>
<td>2.0 to 12 oz/cwt</td>
<td>CADD-2018-01-042</td>
<td>2016-252Q</td>
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</tbody>
</table>
Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>Eucon Retarder 75</td>
<td>2.0 to 3.0 oz/cwt</td>
<td>CADD-2017-01-089</td>
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<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>Eucon Stasis</td>
<td>1.0 to 6.0 oz/cwt</td>
<td>CADD-2015-01-116</td>
<td>2015-061QB</td>
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<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>Eucon W.O.</td>
<td>1.0 to 6.0 oz/cwt</td>
<td>CADD-2017-01-017</td>
<td>2015-061QB</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Eucon MR</td>
<td>4.0 to 10 oz/cwt</td>
<td>CADD-2018-01-001</td>
<td>2012-220QA</td>
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<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Eucon MRX</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2018-01-046</td>
<td>2018-234Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Eucon WR</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2019-01-011</td>
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<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Plastol 341</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2015-01-117</td>
<td>2010-165Q</td>
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<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Plastol 6420</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2016-01-003</td>
<td>2012-209QA</td>
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<td>Provisionally Approved</td>
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</tr>
<tr>
<td>Water Reducing and Accelerator (Type E) Admixture</td>
<td>Accelguard NCA</td>
<td>12 to 75.0 oz/cwt</td>
<td>CADD-2019-01-002</td>
<td>2015-060QA</td>
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<tr>
<td>Water Reducing and Accelerator (Type E) Admixture</td>
<td>Eucon CIA</td>
<td>10 to 90 oz/cwt</td>
<td>CADD-2017-01-081</td>
<td>2015-1220B</td>
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<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>Eucon W.O.</td>
<td>6.0 to 16 oz/cwt</td>
<td>CADD-2011-01-017</td>
<td>2015-061QA</td>
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</tbody>
</table>

NOTE: Do not use for prestressed concrete members. Exceeds the limits of chloride ion concentration per AASHTO LRFD Construction Specifications, Section 8 'Concrete Structures' and Publication 408, Section 711.3(a).

This product is also known as Eucon W.O. (same formulation and manufacturing process).
Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Provisionally Approved. Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture BASF MasterFiber F 70</td>
<td>1.5 lbs/cy</td>
<td>2013-045Q</td>
</tr>
<tr>
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<td></td>
<td>Provisionally Approved. Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture BASF MasterFiber M 100</td>
<td>0.5 lbs/cy</td>
<td>2013-047Q</td>
</tr>
<tr>
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<td>Provisionally Approved. Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
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</tr>
<tr>
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<td></td>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture BASF MasterFiber M 70</td>
<td>1.0 lbs/cy</td>
<td>2013-046Q</td>
</tr>
<tr>
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<td>Provisionally Approved. Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
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<tr>
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<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture BASF MasterFiber MAC 100</td>
<td>3.0 lbs/cy</td>
<td>2013-048Q</td>
</tr>
<tr>
<td></td>
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<td>Provisionally Approved. Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
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<tr>
<td></td>
<td></td>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture BASF MasterFiber MAC 360 FF</td>
<td>3.0 lbs/cy</td>
<td>2019-101Q</td>
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<td></td>
<td>Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
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</tr>
</tbody>
</table>
**Section 711: Concrete Curing Material and Admixtures**

**711.3 Concrete Admixtures**

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

*Effective 1/1/2020, GRT is now MAPEI Corporation*

See Supplier Code MAPEID15
## Section 711: Concrete Curing Material and Admixtures

### 711.3 Concrete Admixtures

See Section 220.2(l) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td><strong>Facility</strong></td>
<td><strong>62 Whittemore Ave. Cambridge, MA 02140-1692</strong></td>
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<tr>
<td><strong>Formerly: W. R. Grace and Company</strong></td>
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<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Daraccel</td>
<td>6.0 to 40 oz/cwt</td>
<td>CADD-2017-01-054</td>
<td>1983-257</td>
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<tr>
<td>For non-reinforced concrete only.</td>
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<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>DCI</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2014-01-050</td>
<td>1998-147Q</td>
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<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Polorset</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2017-01-051</td>
<td>1995-040</td>
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<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Daravair 1000</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-063</td>
<td>1995-041</td>
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<td>Provisionally Approved</td>
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<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Daravair 1400</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-066</td>
<td>1995-220</td>
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<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Daravair AT60</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-062</td>
<td>1997-048</td>
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<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ADVA Cast 530</td>
<td>3.0 to 10.0 oz/cwt</td>
<td>CADD-2019-01-037</td>
<td>2002-045Q</td>
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<td>Provisionally Approved</td>
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<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>Daratard HC</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2015-01-110</td>
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<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Daraccel</td>
<td>8.0 to 80 oz/cwt</td>
<td>CADD-2017-01-054</td>
<td>1983-257</td>
</tr>
</tbody>
</table>
Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures

See Section 220.2(l) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>WRDA 20</td>
<td>2.5 oz/cwt</td>
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<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>WRDA 35</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2014-01-048</td>
<td>1998-001</td>
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<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>WRDA 82</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2017-01-050</td>
<td>1991-167</td>
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<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>WRDA/Hycol</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2019-01-031</td>
<td>1982-121Q</td>
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<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>Daratard 17</td>
<td>2.0 to 8.0 oz/cwt</td>
<td>CADD-2019-01-029</td>
<td>1974-037</td>
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</table>
### 711.3 Concrete Admixtures

See Section 220.2(l) for Flowable Fill Only Air Entrainment Admixtures

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<tr>
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<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td><strong>Plant</strong></td>
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<tr>
<td><strong>Formerly: W. R. Grace and Company</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>Accelerating (Type C) Admixture [ACCL]</strong></td>
<td>Daraccel</td>
<td>6.0 to 40 oz/cwt</td>
<td>CADD-2017-01-054</td>
<td>1983-257</td>
</tr>
<tr>
<td><strong>For non-reinforced concrete only.</strong></td>
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<tr>
<td><strong>Accelerating (Type C) Admixture [ACCL]</strong></td>
<td>DCI</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2014-01-050</td>
<td>1998-147Q</td>
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<td><strong>Provisionally Approved</strong></td>
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<td></td>
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<tr>
<td><strong>Accelerating (Type C) Admixture [ACCL]</strong></td>
<td>Polarset</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2017-01-051</td>
<td>1995-040</td>
</tr>
<tr>
<td><strong>Air Entraining Admixture [AEA]</strong></td>
<td>Daravair 1000</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-063</td>
<td>1995-041</td>
</tr>
<tr>
<td><strong>Air Entraining Admixture [AEA]</strong></td>
<td>Daravair 1400</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-066</td>
<td>1995-220</td>
</tr>
<tr>
<td><strong>Air Entraining Admixture [AEA]</strong></td>
<td>DARAVAIR AT30</td>
<td>0.25 to 3 oz/cwt</td>
<td>CADD-2018-01-064</td>
<td>2015-200Q</td>
</tr>
<tr>
<td><strong>Provisionally Approved</strong></td>
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</tr>
<tr>
<td><strong>Air Entraining Admixture [AEA]</strong></td>
<td>Daravair AT60</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-062</td>
<td>1997-048</td>
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<tr>
<td><strong>Air Entraining Admixture [AEA]</strong></td>
<td>Darex EH AEA</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-068</td>
<td>2003-184Q</td>
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<td><strong>Provisionally Approved</strong></td>
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<tr>
<td><strong>Air Entraining Admixture [AEA]</strong></td>
<td>Darex II AEA</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2017-01-040</td>
<td>1993-207</td>
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<tr>
<td><strong>High Range Water Reducing (Type F) Admixture [HRWR]</strong></td>
<td>ADVA 140</td>
<td>5.0 to 20 oz/cwt</td>
<td>CADD-2002-119Q</td>
<td>2002-119Q</td>
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<td><strong>Provisionally Approved</strong></td>
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</tr>
<tr>
<td><strong>High Range Water Reducing (Type F) Admixture [HRWR]</strong></td>
<td>ADVA Flex</td>
<td>4.0 to 14 oz/cwt</td>
<td>CADD-2018-01-035</td>
<td>2015-070Q</td>
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<td><strong>High Range Water Reducing (Type F) Admixture [HRWR]</strong></td>
<td>Daracem 19</td>
<td>5.0 to 20.0 oz/cwt</td>
<td>CADD-2019-01-034</td>
<td>1979-028</td>
</tr>
<tr>
<td><strong>Retarding (Type B) Admixture [RE]</strong></td>
<td>Daratard HC</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2015-01-110</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Water Reducing (Type A) Admixture [WR]</strong></td>
<td>ADVA 140M</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2017-01-034</td>
<td>2012-101Q</td>
</tr>
<tr>
<td><strong>Provisionally Approved</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Water Reducing (Type A) Admixture [WR]</strong></td>
<td>Daraccel</td>
<td>8.0 to 80 oz/cwt</td>
<td>CADD-2017-01-054</td>
<td>1983-257</td>
</tr>
</tbody>
</table>
# Section 711: Concrete Curing Material and Admixtures

## 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>North Bergen, NJ</td>
<td><strong>Formerly: W. R. Grace and Company</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>WRDA 20</td>
<td>2.5 oz/cwt</td>
<td>CADD-2017-01-049</td>
<td>1988-231</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>WRDA 35</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2014-01-048</td>
<td>1998-001</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>WRDA 82</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2017-01-050</td>
<td>1991-167</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>WRDA/Hycol</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2019-01-031</td>
<td>1982-121</td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>Recover</td>
<td>2.0 to 8.0 oz/cwt</td>
<td>CADD-2014-01-045</td>
<td>2012-100Q</td>
</tr>
<tr>
<td><strong>Provisionally Approved</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>WRDA 20</td>
<td>3 to 5 oz/cwt</td>
<td>CADD-2017-01-049</td>
<td>2009-186Q</td>
</tr>
<tr>
<td><strong>Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>Zyla R</td>
<td>2.0 to 12 oz/cwt</td>
<td>CADD-2017-01-031</td>
<td>2012-173QB</td>
</tr>
<tr>
<td><strong>Provisionally Approved</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section 711: Concrete Curing Material and Admixtures

#### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Daraccel</td>
<td>6.0 to 40 oz/cwt</td>
<td>CADD-2017-01-054</td>
<td>1983-257</td>
</tr>
<tr>
<td>For non-reinforced concrete only.</td>
<td>DCI</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2014-01-050</td>
<td>1998-147</td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td>Polarset</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2017-01-051</td>
<td>1995-040</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Daravair 1400</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-066</td>
<td>1995-220</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Daravair M</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-067</td>
<td>1981-040</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Darex AEA</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-065</td>
<td>1980-049</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Terapave AEA</td>
<td>0.25 to 1.0 oz/cwt</td>
<td>CADD-2015-01-104</td>
<td>2015-110Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ADVA 140M</td>
<td>5.0 to 20 oz/cwt</td>
<td>CADD-2014-01-044</td>
<td>2013-091QA</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>ADVA 140M</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2017-01-034</td>
<td>2013-091QB</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Daraccel</td>
<td>8.0 to 80 oz/cwt</td>
<td>CADD-2017-01-054</td>
<td>1983-257</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>WRDA 20</td>
<td>2.5 oz/cwt</td>
<td>CADD-2017-01-049</td>
<td>1988-231</td>
</tr>
</tbody>
</table>

**Dosages outside the "recommended dosage" may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.**

Water Reducing/Retarding (Type D) Admixture [RR] | Daratard 17        | 2.0 to 8.0 oz/cwt  | CADD-2019-01-029  | 1974-037Q |

Water Reducing/Retarding (Type D) Admixture [RR] | Recover            | 2.0 to 8.0 oz/cwt  | CADD-2014-01-045  | 2013-083Q |

Provisionally Approved

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Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant Houston, TX</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Formerly: W. R. Grace and Company</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Daraset 400</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2017-01-053</td>
<td>2007-093Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ADVA 140M</td>
<td>5.0 to 20 oz/cwt</td>
<td>CADD-2014-01-044</td>
<td>2009-064Q</td>
</tr>
<tr>
<td>Provisioanlly Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provisioanlly Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ADVA Cast 530</td>
<td>3.0 to 10 oz/cwt</td>
<td>CADD-2019-01-037</td>
<td>2002-045Q</td>
</tr>
<tr>
<td>Provisioanlly Approved</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Provisioanlly Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ADVA Cast 575</td>
<td>2.0 to 10 oz/cwt</td>
<td>CADD-2018-01-014</td>
<td>2007-065Q</td>
</tr>
<tr>
<td>Do not use for prestressed concrete members. Exceeds the limits of chloride ion concentration per AASHTO LRFD Construction Specifications, Section 8 'Concrete Structures' and Publication 408, Section 711.3(a).</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ADVA Cast 600</td>
<td>2.0 to 10 oz/cwt</td>
<td>CADD-2017-01-037</td>
<td>2010-157Q</td>
</tr>
<tr>
<td>Provisioanlly Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>CONCERA SA8080</td>
<td>8.0 to 20 oz/cwt</td>
<td>CADD-2017-01-018</td>
<td>2019-134Q</td>
</tr>
<tr>
<td>Do not use for prestressed concrete members. Exceeds the limits of chloride ion concentration per AASHTO LRFD Construction Specifications, Section 8 'Concrete Structures' and Publication 408, Section 711.3(a).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures

See Section 220.2(I) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Formerly: W. R. Grace and Company</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Polarset</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2017-01-051</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Formerly: W. R. Grace and Company</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture [AEA]</td>
<td>Darex II AEA</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2017-01-040</td>
</tr>
<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ADVA 198</td>
<td>2.0 to 15 oz/cwt</td>
<td>CADD-2018-01-017</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ADVA Cast 585</td>
<td>2.0 to 12 oz/cwt</td>
<td>CADD-2018-01-019</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MIRA 95</td>
<td>2 to 15 oz/cwt</td>
<td>CADD-2018-01-016</td>
</tr>
<tr>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Daraccel</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2017-01-054</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Zyla 640</td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2017-01-023</td>
</tr>
</tbody>
</table>
## Section 711: Concrete Curing Material and Admixtures

### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Setcon 6A</td>
<td>0.25 to 4 oz/cwt</td>
<td>CADD-2015-01-054</td>
<td>2012-091Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>PolyStrong</td>
<td>up to 18 oz/cwt</td>
<td>CADD-2011-02-010</td>
<td>2012-070QC</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>PolyStrong HP</td>
<td>up to 18 oz/cwt</td>
<td>CADD-2015-01-053</td>
<td>2012-070QD</td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>ChemStrong R</td>
<td>2.0 to 4.0 oz/cwt</td>
<td>CADD-2015-01-050</td>
<td>2006-174Q</td>
</tr>
<tr>
<td>Logan Township, NJ</td>
<td>Effective 1/1/2020, GRT is now MAPEI Corporation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>See Supplier Code MAPEIC15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logan Township, NJ</td>
<td>Formerly GRTLT 15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Polychem Super Set</td>
<td>8.0 to 32 oz/cwt</td>
<td>CADD-2016-01-081</td>
<td>2018-172Q</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Polychem SA-50</td>
<td>0.50 to 3.0 oz/cwt</td>
<td>CADD-2016-01-081</td>
<td>2019-090Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Dynamon SX</td>
<td>3.0 to 15 oz/cwt</td>
<td>CADD-2016-01-080</td>
<td>2018-169Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Polychem 400 NC</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2016-01-077</td>
<td>2018-170Q</td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>Polychem R</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2016-01-093</td>
<td>2018-171Q</td>
</tr>
</tbody>
</table>
## Section 711: Concrete Curing Material and Admixtures

### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAPEI Corporation, Plant Eagan, MN</td>
<td>Formerly GENRT 15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Polchem Super Set</td>
<td>8.0 to 32 oz/cwt</td>
<td>CADD-2016-01-081</td>
<td>2016-156Q</td>
</tr>
<tr>
<td>Air Entaining Admixture [AEA]</td>
<td>Polchem SA-50</td>
<td>0.50 to 3.0 oz/cwt</td>
<td>CADD-2016-01-080</td>
<td>2016-205Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Dynamon SX</td>
<td>3.0 to 15 oz/cwt</td>
<td>CADD-2016-01-078</td>
<td>2016-157Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Polchem 3000</td>
<td>6.0 to 20 oz/cwt</td>
<td>CADD-2017-01-075</td>
<td>2017-119Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Polchem SPC</td>
<td>5.0 to 12 oz/cwt</td>
<td>CADD-2016-01-078</td>
<td>2016-157Q</td>
</tr>
<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>Polchem Renu</td>
<td>1.0 to 12 oz/cwt</td>
<td>CADD-2016-01-085</td>
<td>2018-074Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Polchem 3000</td>
<td>1.0 to 20 oz/cwt</td>
<td>CADD-2016-01-088</td>
<td>2016-238Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Polchem 400 NC</td>
<td>3 to 5 oz/cwt</td>
<td>CADD-2016-01-077</td>
<td>2016-155Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Polchem Super Set</td>
<td>8.0 to 32 oz/cwt</td>
<td>CADD-2016-01-093</td>
<td>2016-206Q</td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>Polchem-R</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2016-01-093</td>
<td>2016-206Q</td>
</tr>
</tbody>
</table>

| | Formerly GENRT 15 | | | |
| Accelerating (Type C) Admixture [ACCL] | Sika CNI | | | |
| Provisionally Approved | | | | |
**Section 711: Concrete Curing Material and Admixtures**

### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRECA 15</strong></td>
<td>Premiere Concrete Admixtures, 508 Cedar Street, Pioneer, OH 43554 <a href="http://www.premiereadmix.com/">http://www.premiereadmix.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>NitroCast K</td>
<td>6.0 to 90 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2011-170Q</td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>NitroCast NC</td>
<td>8.0 to 90 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2011-178Q</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>ConAir</td>
<td>0.2 to 3.0 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2011-243Q</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>ConAir 260</td>
<td>0.2 to 3.0 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2011-244Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>EcoFlo Green</td>
<td>1.5 to 10 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2011-174QB</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>UltraFlo 2000</td>
<td>6.0 to 16 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2010-167QA</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>UltraFlo 4800</td>
<td>7.0 to 24 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2010-174Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>UltraFlo DP</td>
<td>4.0 to 14 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2011-175Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>EcoFlo Green</td>
<td>1.5 to 10 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2011-174QA</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>OptiFlo 50</td>
<td></td>
<td></td>
<td>2011-169Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>OptiFlo MR</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2011-166Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>OptiFlo Plus</td>
<td>5.0 to 10 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2011-165Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>UltraFlo 2000</td>
<td>up to 3.0 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2010-167QB</td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>OptiFlo 100R</td>
<td>2.0 to 8.0 oz/cwt</td>
<td>CADD-2016-01-122</td>
<td>2011-177Q</td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>OptiFlo Renu</td>
<td></td>
<td></td>
<td>2011-176Q</td>
</tr>
</tbody>
</table>
### Section 711: Concrete Curing Material and Admixtures

#### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Product Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>RAE-260</td>
<td>0.50 to 2.0 oz/cwt</td>
<td>CADD-2015-01-002</td>
<td>2019-054Q</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>RSA-10</td>
<td>0.5 to 2.0 oz/cwt</td>
<td>CADD-2015-01-001</td>
<td>2016-288Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Superflo 2000 SCC</td>
<td>4.0 to 26 oz/cwt</td>
<td>CADD-2015-01-008</td>
<td>2017-123Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>FinishEase-NC</td>
<td>2.0 to 8.0 oz/cwt</td>
<td>CADD-2015-01-010</td>
<td>2019-050Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>LC-400P</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2015-01-003</td>
<td>2016-276Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Superflo 2000 SCC</td>
<td>1.0 to 3.0 oz/cwt</td>
<td>CADD-2015-01-008</td>
<td>2016-275Q</td>
</tr>
<tr>
<td>Water Reducing and Accelerator (Type E) Admixture</td>
<td>LCNC-166</td>
<td>8.0 to 90 oz/cwt</td>
<td>CADD-2015-01-006</td>
<td>2016-269Q</td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>LC-400P</td>
<td>&lt; 65°F (5 to 6 oz/cwt); 65 °F - 85 °F (6 to 7 oz/cwt); &gt;85 °F (7 to 8 oz/cwt)</td>
<td>CADD-2015-01-003</td>
<td>2017-124Q</td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>RussTech Renu</td>
<td>1.0 to 12 oz/cwt</td>
<td>CADD-2015-01-005</td>
<td>2018-092Q</td>
</tr>
</tbody>
</table>
# Section 711: Concrete Curing Material and Admixtures

## 711.3 Concrete Admixtures

See Section 220.2(l) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sika Set NC</td>
<td>8.0 to 64.0 oz/cwt</td>
<td>CADD-2014-01-033</td>
<td>2000-271Q</td>
</tr>
<tr>
<td>Facility 201 Polito Avenue  Lyndhurst, NJ 07071</td>
<td>Sika Air</td>
<td>Up to 3.0 oz/cwt</td>
<td>CADD-2016-01-105</td>
<td>2000-061Q</td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Sika Rapid 1</td>
<td>8.0 to 64.0 oz/cwt</td>
<td>CADD-2015-01-083</td>
<td>1996-138Q</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>IntraPlast-N</td>
<td>1% by weight of cementitious</td>
<td>CADD-2016-01-114</td>
<td>1974-028Q</td>
</tr>
<tr>
<td>Early Strength Accelerator Admixture</td>
<td>Sikament 686</td>
<td>6.0 to 18.0 oz/cwt</td>
<td>CADD-2016-01-114</td>
<td>2005-031Q</td>
</tr>
<tr>
<td>Grout Fluidifier Admixture</td>
<td>ViscoCrete 2100</td>
<td>2.5 to 12.0 oz/cwt</td>
<td>CADD-2014-01-057</td>
<td>2004-142Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ViscoCrete 6100</td>
<td>3.0 to 12.0 oz/cwt</td>
<td>CADD-2016-01-109</td>
<td>2003-032Q</td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sikament 686</td>
<td>3.0 to 6.0 oz/cwt</td>
<td>CADD-2016-01-110</td>
<td>2005-031Q</td>
</tr>
</tbody>
</table>
## Section 711: Concrete Curing Material and Admixtures

### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grout Fluidifier Admixture</td>
<td>IntraPlast-N</td>
<td>1% by weight of</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>cementitious</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Sika ViscoCrete-1000</td>
<td>5.0 to 21.0 oz/cwt</td>
<td>CADD-2015-01-085</td>
<td>2012-028B</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Sika ViscoCrete-4100</td>
<td>3.0 to 12.0 oz/cwt</td>
<td>CADD-2017-01-001</td>
<td>2015-075Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Sikament 686</td>
<td>6.0 to 18.0 oz/cwt</td>
<td>CADD-2016-01-114</td>
<td>2005-031Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Sikament AFM</td>
<td>8.0 to 18.0 oz/cwt</td>
<td>CADD-2016-01-008</td>
<td>2006-193Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ViscoCrete 2100</td>
<td>2.5 to 12.0 oz/cwt</td>
<td>CADD-2014-01-057</td>
<td>2004-142Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ViscoCrete 6100</td>
<td>3.0 to 12.0 oz/cwt</td>
<td>CADD-2016-01-109</td>
<td>2003-032Q</td>
</tr>
<tr>
<td>Provisionally Approved</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sika ViscoCrete-1000</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2016-01-108</td>
<td>2016-287Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sika ViscoFlow-2020</td>
<td>2.0 to 15.0 oz/cwt</td>
<td>CADD-2016-01-117</td>
<td>2018-030Q</td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dosage rates of Sika ViscoFlow-2020 will vary according to materials used, ambient conditions, and the requirements of a specific project. Typical dosage rates are 2 to 8 oz/cwt for general concrete applications. If maximum slump retention is required dosage up to 15 oz/cwt may be used.

| Water Reducing (Type A) Admixture [WR] | Sikament 686 | 3.0 to 6.0 oz/cwt | CADD-2016-01-110 | 2005-031Q |
| Water Reducing (Type A) Admixture [WR] | Sikament AFM  | 3.0 to 8.0 oz/cwt | CADD-2016-01-007 | 2008-031Q |
### Section 711: Concrete Curing Material and Admixtures

#### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com">http://usa.sika.com/</a></td>
<td>Sika Set NC</td>
<td>8.0 to 64.0 oz/cwt</td>
<td>CADD-2014-01-033</td>
<td>2003-164Q</td>
</tr>
<tr>
<td>Sika Air 360</td>
<td>Sika AEA 14</td>
<td>Up to 3.0 oz/cwt</td>
<td>CADD-2016-01-001</td>
<td>2004-141Q</td>
</tr>
<tr>
<td>Sika AER-C</td>
<td>Sika AEA 260</td>
<td>Up to 1.5 oz/cwt</td>
<td>CADD-2016-01-095</td>
<td>2012-138Q</td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td>Sika AEA 14</td>
<td>8.0 to 64.0 oz/cwt</td>
<td>CADD-2018-01-001</td>
<td>1996-138Q</td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td>Sika AEA 260</td>
<td>8.0 to 64.0 oz/cwt</td>
<td>CADD-2018-01-002</td>
<td>1996-138Q</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Sika Rapid-1</td>
<td>0.1 to 6.0 oz/cwt</td>
<td>CADD-2016-01-114</td>
<td>2000-021Q</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>IntraPlast-N</td>
<td>Up to 1.5 oz/cwt</td>
<td>CADD-2014-01-034</td>
<td>2010-274QA</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Sikament 686</td>
<td>8.0 to 18.0 oz/cwt</td>
<td>CADD-2016-01-114</td>
<td>2005-031Q</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Sikament AFM</td>
<td>6.0 to 18.0 oz/cwt</td>
<td>CADD-2016-01-008</td>
<td>2006-193Q</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Sikament SPMN</td>
<td>Up to 40.0 oz/cwt</td>
<td>CADD-2017-01-014</td>
<td>2012-1360B</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Sikament 475</td>
<td>7.0 to 15.0 oz/cwt</td>
<td>CADD-2015-01-102</td>
<td>2017-076Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ViscoCrete 1000</td>
<td>5.0 to 21.0 oz/cwt</td>
<td>CADD-2015-01-084</td>
<td>2012-028B</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ViscoCrete 2100</td>
<td>2.5 to 12.0 oz/cwt</td>
<td>CADD-2014-01-085</td>
<td>2004-142Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ViscoCrete 6100</td>
<td>3.0 to 12.0 oz/cwt</td>
<td>CADD-2016-01-109</td>
<td>2003-032Q</td>
</tr>
<tr>
<td>If maximum water reduction is required, a dosage of up to 20 oz/cwt or above may be used.</td>
<td>Sikament 686</td>
<td>6.0 to 18.0 oz/cwt</td>
<td>CADD-2016-01-114</td>
<td>2005-031Q</td>
</tr>
<tr>
<td>Sikament AFM</td>
<td>Sikament SPMN</td>
<td>Up to 40.0 oz/cwt</td>
<td>CADD-2017-01-014</td>
<td>2012-1360B</td>
</tr>
<tr>
<td>Sikament 475</td>
<td>Sikament 686</td>
<td>6.0 to 18.0 oz/cwt</td>
<td>CADD-2016-01-114</td>
<td>2005-031Q</td>
</tr>
<tr>
<td>Sikament AFM</td>
<td>Sikament SPMN</td>
<td>Up to 40.0 oz/cwt</td>
<td>CADD-2017-01-014</td>
<td>2012-1360B</td>
</tr>
<tr>
<td>Sikament 475</td>
<td>Sikament 686</td>
<td>6.0 to 18.0 oz/cwt</td>
<td>CADD-2016-01-114</td>
<td>2005-031Q</td>
</tr>
<tr>
<td>Sikament AFM</td>
<td>Sikament SPMN</td>
<td>Up to 40.0 oz/cwt</td>
<td>CADD-2017-01-014</td>
<td>2012-1360B</td>
</tr>
<tr>
<td>Sikament 475</td>
<td>Sikament 686</td>
<td>6.0 to 18.0 oz/cwt</td>
<td>CADD-2016-01-114</td>
<td>2005-031Q</td>
</tr>
<tr>
<td>Sikament AFM</td>
<td>Sikament SPMN</td>
<td>Up to 40.0 oz/cwt</td>
<td>CADD-2017-01-014</td>
<td>2012-1360B</td>
</tr>
</tbody>
</table>

| Plant | Fairless Hills, PA | | | |

If maximum water reduction is required, a dosage of up to 20 oz/cwt or above may be used.
Section 711: Concrete Curing Material and Admixtures

### 711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SIKA3 15</strong></td>
<td><strong>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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</tr>
<tr>
<td><strong>Plant</strong></td>
<td><strong>Fairless Hills, PA</strong></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ViscoCrete-4100</td>
<td>3.0 to 12.0 oz./cwt</td>
<td>CADD-2017-01-001</td>
<td>2015-075Q</td>
</tr>
<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>Plastiment</td>
<td>0.5 to 5.0 oz/cwt</td>
<td>CADD-2014-01-032</td>
<td>2009-032QA</td>
</tr>
<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>Sikatard 440</td>
<td>1.0 to 10.0 oz/cwt</td>
<td>CADD-2016-01-113</td>
<td>2011-195Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>PlastoCrete 10N</td>
<td>1.5 to 3.0 oz/cwt</td>
<td>CADD-2017-01-015</td>
<td>2012-137QA</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Plastocrete 161</td>
<td>2.0 to 5.5 oz/cwt</td>
<td>CADD-2015-01-086</td>
<td>2012-221Q</td>
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<tr>
<td><strong>Provisionally Approved</strong></td>
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<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Plastocrete-250</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2016-01-075</td>
<td>2018-202Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sika ViscoCrete-1000</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2016-01-108</td>
<td>2016-288Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sika ViscoFlow-2020</td>
<td>2.0 to 15 oz/cwt</td>
<td>CADD-2016-01-117</td>
<td>2018-031Q</td>
</tr>
<tr>
<td><strong>Dosage rates of Sika ViscoFlow-2020 will vary according to materials used, ambient conditions, and the requirements of a specific project. Typical dosage rates are 2 to 8 oz/cwt for general concrete applications. If maximum slump retention is required dosage up to 15 oz/cwt may be used.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sikament 686</td>
<td>3.0 to 6.0 oz/cwt</td>
<td>CADD-2016-01-110</td>
<td>2005-031Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sikament AFM</td>
<td>3.0 to 8.0 oz/cwt</td>
<td>CADD-2016-01-007</td>
<td>2005-031Q</td>
</tr>
<tr>
<td><strong>Provisionally Approved</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sikament-475</td>
<td>3.0 to 8.0 oz/cwt</td>
<td>CADD-2015-01-101</td>
<td>2017-075Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sikaplast 200</td>
<td>Up to 12.0 oz/cwt</td>
<td>CADD-2019-01-022</td>
<td>2012-132Q</td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sikaplast 300 GP</td>
<td>Up to 12.0 oz/cwt</td>
<td>CADD-2016-01-112</td>
<td>2012-134Q</td>
</tr>
<tr>
<td><strong>Provisionally Approved</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>ViscoCrete 2100</td>
<td>1.0 to 3.5 oz/cwt</td>
<td>CADD-2014-01-056</td>
<td>2008-032Q</td>
</tr>
<tr>
<td>Water Reducing and Accelerator (Type E) Admixture</td>
<td>SikaSet NC</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>Plastiment</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-032</td>
<td>2009-032QB</td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>PlastoCrete 10N</td>
<td>3.0 to 5.0 oz/cwt</td>
<td>CADD-2017-01-016</td>
<td>2012-137QC</td>
</tr>
</tbody>
</table>

---

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Section 711: Concrete Curing Material and Admixtures

711.3 Concrete Admixtures

See Section 220.2(i) for Flowable Fill Only Air Entrainment Admixtures

See Section 711.3(e) for Latex Emulsion Admixtures

While the Recommended Dosage ranges provided are typical, dosages outside these ranges may be necessary due to special project considerations, ambient conditions, specific mix designs, or in combination with other admixtures. The manufacturer should be contacted in these situations.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Water Reducing/Retarding (Type D) Admixture [RR] Plastocrete-250</td>
<td>5 to 9 oz/cwt</td>
<td>CADD-2017-01-002</td>
</tr>
<tr>
<td></td>
<td>Grout Fluidifier Admixture Intrusion-Aid DSC</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2015-01-086</td>
<td>2016-235Q</td>
</tr>
<tr>
<td></td>
<td>Grout Fluidifier Admixture Intrusion-Aid LS</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
<tr>
<td></td>
<td>Grout Fluidifier Admixture Intrusion-Aid R</td>
<td>5.0 to 10.0 oz/cwt</td>
<td>CADD-2015-01-084</td>
<td>2016-182Q</td>
</tr>
</tbody>
</table>

711.3(e) Latex Emulsion Admixture

Last Revised: 5/1/2017
**Section 711: Concrete Curing Material and Admixtures**

### 711.3(e) Latex Emulsion Admixture

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOWRE 15</td>
<td>Dow Reichhold Specialty Latex, P. O. Box 13906, Research Triangle Park, NC 27709 <a href="http://www.reichhold.com/">http://www.reichhold.com/</a></td>
<td>Tylac 97314-00</td>
<td>1990-287</td>
<td></td>
</tr>
</tbody>
</table>

### 711.3(f) Other Admixtures: Specific Performance [Type S - AASHTO M 194/ASTM C 494]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
### Section 711: Concrete Curing Material and Admixtures

#### 711.3(f) Other Admixtures: Specific Performance [Type S - AASHTO M 194/ASTM C 494]  

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</strong> &lt;br&gt;<strong>Plant Allentown, PA</strong></td>
<td>Shrinkage Reducing Admixture [S-SRA]</td>
<td>MasterLife SRA 035</td>
<td>See Note</td>
<td>CADD-2016-01-102</td>
</tr>
<tr>
<td><strong>BASF Construction Chemicals, LLC, Admixtures Div., 23700 Chagrin Blvd., Cleveland, OH 44122</strong> &lt;br&gt;<strong>Plant Newark, CA</strong></td>
<td>Waterproothing Admixture [S-WP]</td>
<td>MasterLife 300D (Rheomac 300D)</td>
<td>2% of cement weight</td>
<td>CADD-2015-01-121</td>
</tr>
<tr>
<td><strong>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</strong> &lt;br&gt;<strong>Plant Gurnee, IL</strong></td>
<td>Specific Performance Workability Retention Admixture [S-WKR]</td>
<td>MasterSure Z 60 (RheoTEC Z-60)</td>
<td>2.0 to 12 oz/cwt</td>
<td>CADD-2017-01-029</td>
</tr>
</tbody>
</table>

**Provisionally Approved:** Concrete plants are required to submit a cylinder for hardened air testing to PennDOT's Material Testing Laboratory, 82 Dogwood Avenue, Harrisburg, PA 17110 during the JMF mix design approval process. For field projects, two cylinders must be submitted for hardened air testing to the Materials Testing Laboratory. These are in addition to any cylinders submitted for compressive strength testing. The provisional approval requirements will remain in place for a period of three years until February 1st, 2023.

Dosage: Knowledge of the shrinkage characteristics of the concrete mixture proposed for use is required prior to the addition of MasterLife SRA 035 admixture. The dosage of MasterLife SRA 035 admixture will be dependent on the desired drying shrinkage and the reduction in drying shrinkage required. Therefore, it is strongly recommended that drying shrinkage testing be performed to determine the optimum dosage for each application and each set of materials. The typical dosage range of MasterLife SRA 035 admixture is 0.5 to 1.5 gal/yd3. However, dosages outside of this range may be required depending on the level of shrinkage reduction needed for a given application and because of variations in concrete materials, jobsite conditions and other factors.

**Provisionally Approved**

Provisionally Approved
# Section 711: Concrete Curing Material and Admixtures

## 711.3(f) Other Admixtures: Specific Performance [Type S - AASHTO M 194/ASTM C 494]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tipp City, OH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Specific Performance Workability Retention Admixture [S-WKR]</strong></td>
<td>MasterSure Z 60 (RheoTEC Z-60)</td>
<td>2.0 to 12 oz/cwt</td>
<td>CADD-2017-01-029</td>
<td>2009-116Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Provisionally Approved</td>
</tr>
<tr>
<td><strong>Strength-Enhancing Admixture [S-SEA]</strong></td>
<td>Master X-Seed 55</td>
<td>4.0 to 15 oz/cwt</td>
<td>CADD-2017-01-058</td>
<td>2018-053Q</td>
</tr>
<tr>
<td><strong>Plant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6450 Bristol Pike, Levittown, PA 19057</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Waterproofing Admixture [S-WP]</strong></td>
<td>MasterPel 240 (Rheomix Rheopel)</td>
<td>1.0 to 5.0 oz/cwt</td>
<td>CADD-2016-01-101</td>
<td>1999-050Q</td>
</tr>
<tr>
<td><strong>EUCLD 15</strong></td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Anti-Washout Admixture - Army Corps Std. CRD-C 661-06</strong></td>
<td>Eucon AWA</td>
<td>10 to 32 oz/cwt</td>
<td>CADD-2018-01-009</td>
<td>2015-183Q</td>
</tr>
<tr>
<td><strong>Viscosity Modifying Admixture [S-VM]</strong></td>
<td>Visctrol</td>
<td></td>
<td>CADD-2017-01-091</td>
<td>2012-062Q</td>
</tr>
<tr>
<td><strong>FMCLD 15</strong></td>
<td>FMC Corporation, Lithium Division, 2801 Yorkmont Road, Suite 300, Charlotte, NC 28208 <a href="http://www.fmclithium.com/">http://www.fmclithium.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lithium Admixture for Alkali Silica Reactivity Remediation [S-Li]</strong></td>
<td>Lifetime (TM) N</td>
<td></td>
<td></td>
<td>1999-058Q</td>
</tr>
<tr>
<td><strong>Lithium Admixture for Alkali Silica Reactivity Remediation [S-Li]</strong></td>
<td>Lifetime (TM) SL</td>
<td></td>
<td></td>
<td>1999-059Q</td>
</tr>
<tr>
<td><strong>Facility</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62 Whittemore Ave., Cambridge, MA 02140-1692</td>
<td></td>
<td></td>
<td></td>
<td>Formerly: W. R. Grace and Company</td>
</tr>
<tr>
<td><strong>Viscosity Modifying Admixture [S-VM]</strong></td>
<td>V-MAR 3</td>
<td></td>
<td>CADD-2015-01-080</td>
<td>2003-061Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Cannot be used as an anti-washout admixture.</td>
</tr>
<tr>
<td><strong>Waterproofing Admixture [S-WP]</strong></td>
<td>Darapël</td>
<td></td>
<td>CADD-2016-01-015</td>
<td>1996-164</td>
</tr>
</tbody>
</table>
### Section 711: Concrete Curing Material and Admixtures

#### 711.3(f) Other Admixtures: Specific Performance [Type S - AASHTO M 194/ASTM C 494]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIKA3 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td>Sikament 100SC</td>
<td>2010-274QB</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sika Stabilizer 300 SCC</td>
<td>0.3 to 4.0 oz/cwt</td>
<td>CADD-2013-01-035</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sikament 100SC</td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sika Stabilizer 4R</td>
<td>CADD-2019-01-025</td>
<td>2010-278Q</td>
</tr>
</tbody>
</table>
### Section 711: Concrete Curing Material and Admixtures

#### 711.3(f) Other Admixtures: Specific Performance [Type S - AASHTO M 194/ASTM C 494]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TROCH 15</td>
<td>Troy Chemical Industries, Inc., 17040 Rapids Road, P. O. Box 430, Burton, OH 44021 <a href="http://www.troychemical.com/">http://www.troychemical.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialty Workability/Rheology Controlling Admixture</td>
<td>BASF MasterMatrix 33 (Navitas 33)</td>
<td>2.0 to 12 oz/cwt</td>
<td>CADD-2015-01-089</td>
<td>2013-134Q</td>
</tr>
<tr>
<td>For use in precast concrete only. Manufactured by Troy Chemical Industries, Inc. for BASF.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Viscosity Modifying Admixture [S-VM]</td>
<td>BASF MasterMatrix VMA 358 (Rheomac VMA 358)</td>
<td>2.0 to 10 oz/cwt</td>
<td>CADD-2015-01-090</td>
<td>2004-087Q</td>
</tr>
<tr>
<td>Manufactured by Troy Chemical Industries, Inc. for BASF.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYPEX 15</td>
<td>Xypex Chemical Corporation, 13731 Mayfield Place, Richmond, British Columbia, Canada V6V 2G9 <a href="http://www.xypex.com/">http://www.xypex.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waterproofing Admixture [S-WP]</td>
<td>C1000</td>
<td></td>
<td></td>
<td>2002-020Q</td>
</tr>
</tbody>
</table>

#### 711.3(g) Fibers for Plastic Shrinkage Cracking

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture</td>
<td>BASF MasterFiber F 70</td>
<td>1.5 lbs/cy</td>
<td></td>
<td>2013-045Q</td>
</tr>
<tr>
<td>Provisionally Approved. Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture</td>
<td>BASF MasterFiber M 100</td>
<td>0.5 lbs/cy</td>
<td></td>
<td>2013-047Q</td>
</tr>
<tr>
<td>Provisionally Approved. Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture</td>
<td>BASF MasterFiber M 70</td>
<td>1.0 lbs/cy</td>
<td></td>
<td>2013-046Q</td>
</tr>
<tr>
<td>Provisionally Approved. Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture</td>
<td>BASF MasterFiber MAC 100</td>
<td>3.0 lbs/cy</td>
<td></td>
<td>2013-048Q</td>
</tr>
</tbody>
</table>

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### Section 711: Concrete Curing Material and Admixtures

#### 711.3(g) Fibers for Plastic Shrinkage Cracking

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great Lakes Polymer Technologies, LLC (dba Fabpro Polymers), 100 South Fabpro Way, Kingman, KS 67068 <a href="http://www.fabpropolymers.com/">http://www.fabpropolymers.com/</a></td>
<td><strong>FABRO 15</strong></td>
<td>Provisionally Approved. Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture</td>
<td>BASF MasterFiber MAC 360 FF</td>
<td>3.0 lbs/cy</td>
<td>2019-101Q</td>
<td></td>
</tr>
<tr>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture</td>
<td>BASF MasterFiber MAC Matrix</td>
<td>3.0 lbs/cy</td>
<td>2016-174Q</td>
<td></td>
</tr>
</tbody>
</table>

Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.
Section 713: Masonry Units

### 713.1 Brick

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLNG1 15</td>
<td>Glen-Gery Corporation, State Route 970, Bigler, PA 16825</td>
<td>GLNG1 15</td>
</tr>
<tr>
<td>Plant</td>
<td>24 Pinetop Rd Bigler, PA 16825</td>
<td></td>
</tr>
<tr>
<td>Brick</td>
<td></td>
<td>2010-159QA</td>
</tr>
<tr>
<td>GLNG2 15</td>
<td>Glen-Gery Corporation, 1090 East Boundary Avenue, York, PA 17403</td>
<td>GLNG2 15</td>
</tr>
<tr>
<td>Plant</td>
<td>York, PA</td>
<td></td>
</tr>
<tr>
<td>Brick</td>
<td></td>
<td>2010-159QB</td>
</tr>
<tr>
<td>GLNG3 15</td>
<td>Glen-Gery Corporation, Route 28, Summerville, PA 15864</td>
<td>GLNG3 15</td>
</tr>
<tr>
<td>Plant</td>
<td>Summerville, PA</td>
<td></td>
</tr>
<tr>
<td>Brick</td>
<td></td>
<td>2010-159QC</td>
</tr>
<tr>
<td>GLNG4 15</td>
<td>Glen-Gery Corporation, 423 South Pottsville Pike, Shoemakersville, PA 19555</td>
<td>GLNG4 15</td>
</tr>
<tr>
<td>Plant</td>
<td>Shoemakersville, PA</td>
<td></td>
</tr>
<tr>
<td>Brick</td>
<td></td>
<td>2010-159QD</td>
</tr>
<tr>
<td>REDLA 15</td>
<td>Redland Brick, Inc., Harmar Plant, 13 Rich Hill Rd., Cheswick, PA 15024</td>
<td>REDLA 15</td>
</tr>
<tr>
<td>Brick</td>
<td></td>
<td>1983-172</td>
</tr>
<tr>
<td>WATBC 15</td>
<td>Watsontown Brick Company, Route 404, P.O. Box 68, Watsontown, PA 17777</td>
<td>WATBC 15</td>
</tr>
<tr>
<td>Brick</td>
<td></td>
<td>2003-005Q</td>
</tr>
</tbody>
</table>

### 713.2 Precast Concrete Blocks

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEAVE 15</td>
<td>Beavertown Block Company, Inc., P.O. Box 337, Middleburg, PA 17842-0337</td>
<td>BEAVE 15</td>
</tr>
<tr>
<td>Precast Concrete Block</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td>CASTL 15</td>
<td>Castle Builders Supply Company, 1409 Moravia Street, New Castle, PA 16101</td>
<td>CASTL 15</td>
</tr>
<tr>
<td>Precast Concrete Block</td>
<td></td>
<td>-----</td>
</tr>
</tbody>
</table>
## Section 713: Masonry Units

### 713.2 Precast Concrete Blocks

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FiZZ0 15</td>
<td>Fizzano Brothers Concrete Products, Inc., 1776 Chester Pike, Crum Lynne, PA 19022 <a href="http://fizzano.com/">http://fizzano.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>FiZZ1 15 Plant</td>
<td>Fizzano Brothers Concrete Products, Inc., Trevose and Sterner Mill, Trevose, PA 19053 <a href="http://fizzano.com/">http://fizzano.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>FIZZ2 15 Plant</td>
<td>Fizzano Brothers Concrete Products, Inc., 201 South Phoenixville Pike, Malvern, PA 19355 <a href="http://fizzano.com/">http://fizzano.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>NEW-0 15</td>
<td>New Enterprise Stone &amp; Lime Co., Inc., Newcrete Products Division, P.O. Box 34, Roaring Spring, PA 16673 <a href="http://www.nesl.com/">http://www.nesl.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>TERH0 15 Plant</td>
<td>Terre Hill Concrete Products, PLANT #2; P.O. Box 10, Terre Hill, PA 17581 <a href="http://www.terrehill.com/">http://www.terrehill.com/</a></td>
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### Section 714: Precast Concrete Products

#### 714.2 Endwalls

*See Standard Drawing RC-31M (Publication 72M)*

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Section 714: Precast Concrete Products

714.2 Endwalls

See Standard Drawing RC-31M (Publication 72M)

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<td>CPPLL 15</td>
<td>Concrete Pipe and Precast, LLC, 401 South Carlisle Street, Greencastle, PA 17225</td>
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Section 714: Precast Concrete Products

714.2 Endwalls

Last Revised: 6/12/2018

See Standard Drawing RC-31M (Publication 72M)

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<td>Fi-Hoff Concrete Products, Inc., 240 Bentwood Avenue, Johnstown, PA 15904 <a href="http://fi-hoff.com/">http://fi-hoff.com/</a></td>
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<td>MCCAR 15</td>
<td>McCarroll Precast, Inc., 1129 Old 115, Dallas, PA 18612</td>
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<td>A. C. Miller Concrete Products, P.O. Box 93, 9588 Route 22, Blairsville, PA 15717 <a href="http://www.acmiller.com/">http://www.acmiller.com/</a></td>
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<td>MONPC 15</td>
<td>Monarch Precast Concrete Corporation, 425 North Dauphin Street, Allentown, PA 18109-2199 <a href="http://www.monarchprecast.com/">http://www.monarchprecast.com/</a></td>
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Section 714: Precast Concrete Products

714.2 Endwalls

See Standard Drawing RC-31M (Publication 72M)

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<td>Oldcastle Infrastructure, Inc., a CRH Company, 200 Keystone Drive, Telford, PA 18969 <a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
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<td>OLP-2 15</td>
<td>Oldcastle Infrastructure, Inc., a CRH Company, 3900 Glover Road, Easton, PA 18040 <a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
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<td>POLCP 15</td>
<td>Poland Concrete Products, Inc., 210 Overlook Avenue, Hillsville, PA 16132</td>
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Section 714: Precast Concrete Products

714.2 Endwalls

See Standard Drawing RC-31M (Publication 72M)

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<tr>
<th>Product</th>
<th>Name</th>
<th>Reference Letter</th>
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<tbody>
<tr>
<td>TERH0 15</td>
<td>Terre Hill Concrete Products, PLANT #2; P.O. Box 10, Terre Hill, PA 17581</td>
<td><a href="http://www.terrehill.com/">http://www.terrehill.com/</a></td>
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<tr>
<td>Plant PLANT #2: P.O. Box 10 Terre Hill, PA 17581</td>
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<td>Type Subsurface Drain Outlet Endwall</td>
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<td>Type D Endwall</td>
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<td>Type D-W Endwall</td>
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<td>Type E-S Endwall</td>
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| TERH1 15 | Terre Hill Concrete Products, PLANT #4; 42 South Butler Road, Lebanon, PA 17042 | http://www.terrehill.com/ |
| Plant PLANT #4: 42 South Butler Road Lebanon, PA 17042 | | |
| Type Subsurface Drain Outlet Endwall | ----- |
| Type D Endwall | ----- |
| Type D-E Endwall | ----- |
| Type D-W Endwall | ----- |

| WINEC 15 | Wine Concrete Products, Inc., 1000 Big Sewickley Creek Road, Sewickley, PA 15143 | | |
| Type Sloped Subsurface Drain Outlet Endwall | ----- |
| Subsurface Drain Outlet Endwall | 2009-167QC |
| Type D Endwall | ----- |
| Type D-W Endwall | ----- |

714.2 Glare Screen

See Standard Drawing RC-59M (Publication 72M)

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<th>Product</th>
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<tr>
<td>CONSS 15</td>
<td>Concrete Safety Systems, LLC, 9190 Old Route 22, Bethel, PA 19507</td>
<td><a href="http://concretesafety.com/">http://concretesafety.com/</a></td>
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<td>52&quot;/50&quot; Glare Screen (RC 59M)</td>
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Section 714: Precast Concrete Products

### 714.2 Glare Screen

See Standard Drawing RC-59M (Publication 72M)

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<th>Product Name</th>
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<tr>
<td>EAGLE 15</td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
<td>52&quot;/50&quot; Glare Screen (RC 59M)</td>
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<td>FADD1 15</td>
<td>Faddis Concrete Products, 3515 Kings Highway, Downingtown, PA 19335</td>
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<td>FADD2 15</td>
<td>Faddis Concrete Products, 205 West Washington Street, New Castle, PA 16101</td>
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<td>FADD3 15</td>
<td>Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530</td>
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<td>GCLI- 15</td>
<td>GCL, Inc., 2559 Brandt School Road, Heritage Center, Suite 200, Wexford, PA 15090</td>
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<td>INTSS 15</td>
<td>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
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<td>MACK0 15</td>
<td>Mack Industries of PA, Inc., 2207 Sodom-Hutchings Road, Vienna, OH 44473</td>
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</table>

### 714.2 Inlet Assemblies

Companies listed to fabricate Inlet Assemblies are approved to provide the corresponding riser and top slab sections.

Actual inlet structures may be square or rectangular. The inlet structure type (size) is based on the largest pipe diameter. See Standard Drawing RC-46M (Publication 72M)

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
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<tr>
<td>ALTFJ 15</td>
<td>Altomare Precast, Inc., 4300 Wissahickon Avenue, Philadelphia, PA 19129</td>
<td>Inlet, Standard</td>
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Last Revised: 5/19/2015

Last Revised: 5/16/2018
# Section 714: Precast Concrete Products

## 714.2 Inlet Assemblies

Companies listed to fabricate Inlet Assemblies are approved to provide the corresponding riser and top slab sections.

Actual inlet structures may be square or rectangular. The inlet structure type (size) is based on the largest pipe diameter. Standard Drawing RC-46M (Publication 72M)

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<td>Inlet, Type 5</td>
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<td>Inlet, Type 6</td>
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<td>Inlet, Type 7</td>
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<td>Inlet, Type 8</td>
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<td>2011-263QF</td>
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<td>Inlet, Type 4</td>
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<td>2011-263QJ</td>
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## Section 714: Precast Concrete Products

### 714.2 Inlet Assemblies

Companies listed to fabricate Inlet Assemblies are approved to provide the corresponding riser and top slab sections.

Actual inlet structures may be square or rectangular. The inlet structure type (size) is based on the largest pipe diameter. Standard Drawing RC-46M (Publication 72M)

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<td>Inlet, Type D-H</td>
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<tr>
<td>CONCR 15</td>
<td>Concrete Concepts, Inc., 1095 Thompson Avenue, P.O. Box 272, McKees Rocks, PA 15136 <a href="https://bryanmaterialsgroup.com/">https://bryanmaterialsgroup.com/</a></td>
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### 714.2 Inlet Assemblies

Companies listed to fabricate Inlet Assemblies are approved to provide the corresponding riser and top slab sections.

Actual inlet structures may be square or rectangular. The inlet structure type (size) is based on the largest pipe diameter. Standard Drawing RC-46M (Publication 72M)

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<th>Product</th>
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<tr>
<td>CONTN 15</td>
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Section 714: Precast Concrete Products

714.2 Inlet Assemblies

Companies listed to fabricate Inlet Assemblies are approved to provide the corresponding riser and top slab sections.

Actual inlet structures may be square or rectangular. The inlet structure type (size) is based on the largest pipe diameter. Standard Drawing RC-46M (Publication 72M)

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Section 714: Precast Concrete Products

714.2 Inlet Assemblies

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## Section 714: Precast Concrete Products

### 714.2 Inlet Assemblies

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Section 714: Precast Concrete Products

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### Section 714: Precast Concrete Products

#### 714.2 Inlet Assemblies

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Last Revised: 5/16/2018
Section 714: Precast Concrete Products

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<td>WATRF 15</td>
<td>Waterford Precast and Sales, Inc., 511 Bagdad Road, Waterford, PA 16441</td>
<td>Inlet, Standard</td>
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<td>Wine Concrete Products, Inc., 1000 Big Sewickley Creek Road, Sewickley, PA 15143</td>
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### 714.2 Inlet Tops
See Standard Drawing RC-45M (Publication 72M)

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<td>Inlet Top, Type M</td>
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<td>Inlet Top, Type S</td>
<td>2011-263QC</td>
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# Section 714: Precast Concrete Products

## 714.2 Inlet Tops

See [Standard Drawing RC-45M (Publication 72M)](http://www.binghamtonprecast.com/)

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<td>BINGH 15</td>
<td>Binghamton Precast and Supply, 18 Phelps Street, Binghamton, NY 13901 <a href="http://www.binghamtonprecast.com/">http://www.binghamtonprecast.com/</a></td>
<td>Inlet Top, Type C</td>
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<tr>
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<td>Inlet Top, Type M</td>
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| CONCR 15 | Concrete Concepts, Inc., 1095 Thompson Avenue, P.O. Box 272, McKees Rocks, PA 15136 [https://bryanmaterialsgroup.com/](https://bryanmaterialsgroup.com/) | Inlet Top, Type C | ----- |
| | | Inlet Top, Type D-H Level | 2013-041Q |
| | | Inlet Top, Type M | ----- |
| | | Inlet Top, Type S | ----- |

| CONTN 15 | Continental Concrete Products, Inc., 1 South Grosstown Road, Pottstown, PA 19464 [http://www.continentalconcrete.com/](http://www.continentalconcrete.com/) | Inlet Top, Type C | ----- |
| | | Inlet Top, Type C Alternate | ----- |
| | | Inlet Top, Type D-H | 2012-012QA |
| | | Inlet Top, Type D-H Level | 2012-012QB |
| | | Inlet Top, Type M | ----- |
| | | Inlet Top, Type S | ----- |

| CPPLL 15 | Concrete Pipe and Precast, LLC, 401 South Carlisle Street, Greencastle, PA 17225 [http://www.concretepandp.com/](http://www.concretepandp.com/) | Formerly Advanced Drainage Structures (ADSTR 15) | |
| | | Inlet Top, Type C | 2012-068QC |
| | | Inlet Top, Type C Alternate | 2012-068QD |
| | | Inlet Top, Type M | 2012-068QA |
| | | Inlet Top, Type S | 2012-068QB |
### Section 714: Precast Concrete Products

#### 714.2 Inlet Tops

See [Standard Drawing RC-45M (Publication 72M)](#).

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<td>Dixon Precast and Supply, 740 Laurel Run Road, West Decatur, PA 16878</td>
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<td>Inlet Top, Type C</td>
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<td>2009-174QC</td>
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<td><strong>EAGLE 15</strong></td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
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<td>Inlet Top, Type S</td>
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<tr>
<td><strong>FIHFC 15</strong></td>
<td>Fi-Hoff Concrete Products, Inc., 240 Bentwood Avenue, Johnstown, PA 15904 <a href="http://fi-hoff.com/">http://fi-hoff.com/</a></td>
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<td>Inlet Top, Type S</td>
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Section 714: Precast Concrete Products

714.2 Inlet Tops

See Standard Drawing RC-45M (Publication 72M)

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<th>Product</th>
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<tr>
<td>MCCAR 15</td>
<td>McCarroll Precast, Inc., 1129 Old 115, Dallas, PA 18612</td>
<td>Inlet Top, Type C</td>
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<tr>
<td>MONAP 15</td>
<td>Monarch Products Company, Inc., 385 Sipe Road, York Haven, PA 17370 <a href="http://www.monarchproducts.net/">http://www.monarchproducts.net/</a></td>
<td>Inlet Top, Type C</td>
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<tr>
<td>MONPC 15</td>
<td>Monarch Precast Concrete Corporation, 425 North Dauphin Street, Allentown, PA 18109-2199 <a href="http://www.monarchprecast.com/">http://www.monarchprecast.com/</a></td>
<td>Inlet Top, Type C</td>
</tr>
<tr>
<td>OLP-1 15</td>
<td>Oldcastle Infrastructure, Inc., a CRH Company, 200 Keystone Drive, Telford, PA 18969 <a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
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## Section 714: Precast Concrete Products

### 714.2 Inlet Tops

See Standard Drawing RC-45M (Publication 72M)

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<th>Product</th>
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<td>OLP-2 15 Inlet Top, Type C 2006-182Q</td>
<td>Oldcastle Infrastructure, Inc., a CRH Company, 3900 Glover Road, Easton, PA 18040</td>
<td>Formerly Oldcastle Precast</td>
<td><a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
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<td>OLP-2 15 Inlet Top, Type D-H -----</td>
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<td>OLP-2 15 Inlet Top, Type D-H Level -----</td>
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<td>OLP-2 15 Inlet Top, Type M 2006-183Q</td>
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<td>OLP-2 15 Inlet Top, Type S 2006-187Q</td>
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<td>POLCP 15 Inlet Top, Type C 2010-327QD</td>
<td>Poland Concrete Products, Inc., 210 Overlook Avenue, Hillsville, PA 16132</td>
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<td>POLCP 15 Inlet Top, Type M 2010-327QE</td>
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<td>PREMC 15 Inlet Top, Type C 2013-050QG</td>
<td>Precast Manufacturing Company, 187 Strykers Road, Phillipsburg, NJ 08865</td>
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<td><a href="http://www.precastmfgco.com/">http://www.precastmfgco.com/</a></td>
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<td>RAHN- 15 Inlet Top, Type C -----</td>
<td>Rahns Construction Materials Company, 430 Bridge Road, Rahns, PA 19426</td>
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<td>RAHN- 15 Inlet Top, Type M -----</td>
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<td>SCRCR 15 Inlet Top, Type C 2015-036QD</td>
<td>Scranton Craftsmen, Inc., 930 Dunmore Street, Troop, PA 18512</td>
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## Section 714: Precast Concrete Products

### 714.2 Inlet Tops

See [Standard Drawing RC-45M (Publication 72M)](http://www.terrehill.com/)

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<td>Inlet Top, Type D-H</td>
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<td>Inlet Top, Type M</td>
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<td>TERH1 15</td>
<td>PLANT #4</td>
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<td>Inlet Top, Type D-H</td>
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<td>Inlet Top, Type D-H Level</td>
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<td>WATRF 15</td>
<td>Waterford Precast and Sales, Inc., 511 Bagdad Road, Waterford, PA 16441</td>
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### 714.2 Junction Boxes, Precast Concrete

Last Revised: 5/19/2015
Section 714: Precast Concrete Products

714.2 Junction Boxes, Precast Concrete

JB-1 & JB-2, Light Duty (For locations with pedestrian type loadings only): **Standard Drawing RC-81M (Publication 72M)**

JB-11 & JB-12, Heavy Duty: **Standard Drawing RC-82M (Publication 72M)**

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<td>CONCR 15</td>
<td>Concrete Concepts, Inc., 1095 Thompson Avenue, P.O. Box 272, McKees Rocks, PA 15136 <a href="https://bryanmaterialsgroup.com/">https://bryanmaterialsgroup.com</a></td>
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<td>JB-1</td>
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<td>JB-11</td>
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<td>JB-2</td>
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<tr>
<td>CONSS 15</td>
<td>Concrete Safety Systems, LLC, 9190 Old Route 22, Bethel, PA 19507 <a href="http://concretesafety.com/">http://concretesafety.com</a></td>
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<td>DIXPS 15</td>
<td>Dixon Precast and Supply, 740 Laurel Run Road, West Decatur, PA 16878</td>
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<td>EAGLE 15</td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
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<td>JB-1</td>
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Section 714: Precast Concrete Products

714.2 Junction Boxes, Precast Concrete

JB-1 & JB-2, Light Duty (For locations with pedestrian type loadings only): Standard Drawing RC-81M (Publication 72M)

JB-11 & JB-12, Heavy Duty: Standard Drawing RC-82M (Publication 72M)

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<td>JB-2</td>
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<tr>
<td>FADD2 15</td>
<td>Faddis Concrete Products, 205 West Washington Street, New Castle, PA 16101 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
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<td>FADD3 15</td>
<td>Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
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<td>WINEC 15</td>
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714.2 Manhole (Utility Hole) Sections (Reinforced Concrete)
Section 714: Precast Concrete Products

### 714.2 Manhole (Utility Hole) Sections (Reinforced Concrete)

Last Revised: 5/16/2018

For Sanitary Sewer Manholes (Utility Holes), see [Standard Drawing RC-38M (Publication 72M)](http://www.altomareprecast.com/)

For Storm Water Manholes (Utility Holes), see [Standard Drawing RC-39M (Publication 72M)](http://www.atlanticconcrete.com/)

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<tr>
<th>Product</th>
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<tr>
<td>CONCR 15</td>
<td>Concrete Concepts, Inc., 1095 Thompson Avenue, P.O. Box 272, McKees Rocks, PA 15136 <a href="https://bryanmaterials.com/">https://bryanmaterials.com/</a></td>
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<td>EAGLE 15</td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
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Section 714: Precast Concrete Products

714.2 Manhole (Utility Hole) Sections (Reinforced Concrete)

For Sanitary Sewer Manholes (Utility Holes), see Standard Drawing RC-38M (Publication 72M)

For Storm Water Manholes (Utility Holes), see Standard Drawing RC-39M (Publication 72M)

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<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>MCCAR 15</td>
<td>McCarroll Precast, Inc., 1129 Old 115, Dallas, PA 18612</td>
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<tr>
<td>OLP-2 15</td>
<td>Oldcastle Infrastructure, Inc., a CRH Company, 3900 Glover Road, Easton, PA 18040 <a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
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<tr>
<td>POLCP 15</td>
<td>Poland Concrete Products, Inc., 210 Overlook Avenue, Hillsville, PA 16132</td>
</tr>
<tr>
<td>RAHN- 15</td>
<td>Rahns Construction Materials Company, 430 Bridge Road, Rahns, PA 19426</td>
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Section 714: Precast Concrete Products

714.2 Manhole (Utility Hole) Sections (Reinforced Concrete)

For Sanitary Sewer Manholes (Utility Holes), see Standard Drawing RC-38M (Publication 72M)

For Storm Water Manholes (Utility Holes), see Standard Drawing RC-39M (Publication 72M)

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<tr>
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<th>Plant Name</th>
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<tr>
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<td>Terre Hill Concrete Products, PLANT #2:</td>
<td>P.O. Box 10, Terre Hill, PA 17581</td>
<td><a href="http://www.terrehill.com/">http://www.terrehill.com/</a></td>
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<tr>
<td></td>
<td>PLANT #2:</td>
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<tr>
<td></td>
<td>P.O. Box 10</td>
<td>Terre Hill, PA 17581</td>
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<tr>
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<tr>
<td>TERH1 15</td>
<td>Terre Hill Concrete Products, PLANT #4:</td>
<td>42 South Butler Road, Lebanon, PA 17042</td>
<td><a href="http://www.terrehill.com/">http://www.terrehill.com/</a></td>
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<td>PLANT #4:</td>
<td>42 South Butler Road</td>
<td>Lebanon, PA 17042</td>
</tr>
<tr>
<td></td>
<td>Manhole (Utility Hole) Section (RC)</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td>WINEC 15</td>
<td>Wine Concrete Products, Inc.</td>
<td>1000 Big Sewickley Creek Road, Sewickley, PA 15143</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manhole (Utility Hole) Section (RC)</td>
<td></td>
<td>-----</td>
</tr>
</tbody>
</table>

714.2 Median Barrier (Temporary and Permanent)

Concrete Median Barrier: Standard Drawing of Concrete Median Barrier RC -57M (Publication 72M)

Single Face Concrete Barrier: Standard Drawing of Single Face Concrete Barrier RC-58M (Publication 72M)

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Plant Name</th>
<th>Plant Location</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRAYP 15</td>
<td>Brayman Precast Solutions, LLC</td>
<td>2900 South Noah Drive, Saxonburg, PA 16056</td>
<td><a href="http://www.braymanprecast.com/">http://www.braymanprecast.com/</a></td>
</tr>
<tr>
<td></td>
<td>Previous Supplier Codes: SRST0 15 &amp; ADVPS 15</td>
<td></td>
<td>41&quot; Single Face (RC 58M)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2015-004QB</td>
</tr>
<tr>
<td>CONCR 15</td>
<td>Concrete Concepts, Inc.</td>
<td>1095 Thompson Avenue, P.O. Box 272, McKees Rocks, PA 15136</td>
<td><a href="https://bryanmaterialsgroup.com/">https://bryanmaterialsgroup.com/</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>34&quot;/32&quot; Double Face (RC 57M)</td>
</tr>
</tbody>
</table>

Last Revised: 5/16/2018

Last Revised: 8/25/2017
Section 714: Precast Concrete Products

714.2 Median Barrier (Temporary and Permanent)

Concrete Median Barrier: Standard Drawing of Concrete Median Barrier RC-57M (Publication 72M)

Single Face Concrete Barrier: Standard Drawing of Single Face Concrete Barrier RC-58M (Publication 72M)

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSS 15</td>
<td>Concrete Safety Systems, LLC, 9190 Old Route 22, Bethel, PA 19507 <a href="http://concretesafety.com/">http://concretesafety.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>34”/32” Double Face (RC 57M)</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>41” Single Face (RC 58M)</td>
<td>-----</td>
</tr>
<tr>
<td>EAGLE 15</td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32” Double Face with JJ Hook</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>34’/32” Double Face (RC 57M)</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>41” Single Face (RC 58M)</td>
<td>-----</td>
</tr>
<tr>
<td>FADD1 15</td>
<td>Faddis Concrete Products, 3515 Kings Highway, Downingtown, PA 19335 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>34”/32” Double Face (RC 57M)</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>41” Single Face (RC 58M)</td>
<td>-----</td>
</tr>
<tr>
<td>FADD2 15</td>
<td>Faddis Concrete Products, 205 West Washington Street, New Castle, PA 16101 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>32” Double Face with JJ Hook</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>32” Double Face with JJ Hook (MASH)</td>
<td>2013-194QC</td>
</tr>
<tr>
<td></td>
<td>32” Double Face-I Beam (NJ/NY) non-structure mounted</td>
<td>2017-095</td>
</tr>
<tr>
<td></td>
<td>34”/32” Double Face (RC 57M)</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>41” Single Face (RC 58M)</td>
<td>-----</td>
</tr>
</tbody>
</table>
# Section 714: Precast Concrete Products

## 714.2 Median Barrier (Temporary and Permanent)

Concrete Median Barrier: **Standard Drawing of Concrete Median Barrier RC -57M (Publication 72M)**

Single Face Concrete Barrier: **Standard Drawing of Single Face Concrete Barrier RC-58M (Publication 72M)**

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Ref. No.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530</td>
<td>FADD3 15</td>
<td><a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
</tr>
<tr>
<td>&quot;32&quot; Double Face with JJ Hook</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>&quot;32&quot; Double Face with JJ Hook (MASH)</td>
<td>2013-194QB</td>
<td></td>
</tr>
<tr>
<td>&quot;32&quot; Double Face-I Beam (NJ/NY) non-structure mounted</td>
<td>2017-028</td>
<td></td>
</tr>
<tr>
<td>&quot;34&quot;/&quot;32&quot; Double Face (RC 57M)</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>&quot;41&quot; Single Face (RC 58M)</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>&quot;34&quot;/&quot;32&quot; Double Face (RC 57M)</td>
<td>2010-069Q</td>
<td></td>
</tr>
<tr>
<td>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
<td>INTSS 15</td>
<td></td>
</tr>
<tr>
<td>&quot;32&quot; Double Face-I Beam (NJ/NY) non-structure mounted</td>
<td>2014-266QB</td>
<td></td>
</tr>
<tr>
<td>&quot;34&quot;/&quot;32&quot; Double Face (RC 57M)</td>
<td>2006-230Q</td>
<td></td>
</tr>
<tr>
<td>&quot;41&quot; Single Face (RC 58M)</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>&quot;34&quot;/&quot;32&quot; Double Face (RC 57M)</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>&quot;41&quot; Single Face (RC 58M)</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>
Section 714: Precast Concrete Products

714.2 Median Barrier (Temporary and Permanent)
Concrete Median Barrier: Standard Drawing of Concrete Median Barrier RC-57M (Publication 72M)

Single Face Concrete Barrier: Standard Drawing of Single Face Concrete Barrier RC-58M (Publication 72M)

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NITT1 15</td>
<td>Nitterhouse Concrete Products Inc., P. O. Box N, Chambersburg, PA 17201 <a href="http://nitterhouseconcrete.com/">http://nitterhouseconcrete.com/</a></td>
<td>2013-083Q</td>
</tr>
<tr>
<td>NORPR 15</td>
<td>Northeast Precast, 92 Reese Road, Millville, NJ 08332 <a href="http://www.northeastprecast.com/">http://www.northeastprecast.com/</a></td>
<td>2012-118A</td>
</tr>
</tbody>
</table>

714.2 Sound Barrier
Standard Drawing BC-776M/BD-676M - Standard Ground Mounted Sound Barriers Precast Concrete Panels

Standard Drawing BC-777M/BD-677M - Standard Ground Mounted Sound Barriers Precast Concrete Posts

Standard Drawing BC-779/BD-679 - Standard Structured Mounted Sound Barrier Walls

Standard Drawing BC-780M/BD-680M - Standard Offset Sound Barrier Walls; Precast Concrete Standard Panel Details
Section 714: Precast Concrete Products

714.2 Sound Barrier

Standard Drawing BC-776M/BD-676M - Standard Ground Mounted Sound Barriers Precast Concrete Panels

Standard Drawing BC-777M/BD-677M - Standard Ground Mounted Sound Barriers Precast Concrete Posts

Standard Drawing BC-779/BD-679 - Standard Structured Mounted Sound Barrier Walls

Standard Drawing BC-780M/BD-680M - Standard Offset Sound Barrier Walls; Precast Concrete Standard Panel Details

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONAW 15</td>
<td>Conewago Precast Building Systems, 576 Edgegrove Road, P.O. Box 461, Hanover, PA 17331 <a href="http://www.conewago.com/capabilities/precast-concrete/">http://www.conewago.com/capabilities/precast-concrete/</a></td>
<td>2010-241Q</td>
</tr>
<tr>
<td>CONPG 15</td>
<td>Eastern Concrete Products DBA U.S. Concrete Precast Group, 3369 Paxtonville Road, Middleburg, PA 17842 <a href="http://eastern-concrete.com/">http://eastern-concrete.com/</a></td>
<td>2009-166Q</td>
</tr>
</tbody>
</table>

Effective 12/1/18, name change back to Durisol (DURIS 15)
Section 714: Precast Concrete Products

714.2 Sound Barrier

Standard Drawing BC-776M/BD-676M - Standard Ground Mounted Sound Barriers Precast Concrete Panels

Standard Drawing BC-777M/BD-677M - Standard Ground Mounted Sound Barriers Precast Concrete Posts

Standard Drawing BC-779/BD-679 - Standard Structured Mounted Sound Barrier Walls

Standard Drawing BC-780M/BD-680M - Standard Offset Sound Barrier Walls; Precast Concrete Standard Panel Details

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DURIS 15</td>
<td>Durisol, 8270 Greensboro Drive, Suite 810, McLean, VA 22102 <a href="http://www.durisol.com">http://www.durisol.com</a></td>
<td></td>
</tr>
<tr>
<td>Plant 51</td>
<td>Plant 51 Arthur Street South, Mitchell, ON Canada NOK 1NO (Formerly Armtec - ARMTC 15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td>2009-133Q</td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Precast)</td>
<td>2009-133Q</td>
</tr>
<tr>
<td>FADD1 15</td>
<td>Faddis Concrete Products, 3515 Kings Highway, Downingtown, PA 19335 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
<tr>
<td>FADD2 15</td>
<td>Faddis Concrete Products, 205 West Washington Street, New Castle, PA 16101 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
<tr>
<td>FADD3 15</td>
<td>Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td>2010-105Q</td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Precast)</td>
<td>2010-105Q</td>
</tr>
<tr>
<td>INTSS 15</td>
<td>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td>2012-178Q</td>
</tr>
</tbody>
</table>
Section 714: Precast Concrete Products

714.2 Sound Barrier

Standard Drawing BC-776M/BD-676M - Standard Ground Mounted Sound Barriers Precast Concrete Panels

Standard Drawing BC-777M/BD-677M - Standard Ground Mounted Sound Barriers Precast Concrete Posts

Standard Drawing BC-779/BD-679 - Standard Structured Mounted Sound Barrier Walls

Standard Drawing BC-780M/BD-680M - Standard Offset Sound Barrier Walls; Precast Concrete Standard Panel Details

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Note: Previously assigned J&amp;RS2 15 for same facility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Prestressed)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td>2008-180Q</td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
<tr>
<td>MILL0 15</td>
<td>A. C. Miller Concrete Products, P.O. Box 93, 9588 Route 22, Blairsville, PA 15717 <a href="http://www.acmiller.com/">http://www.acmiller.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
<tr>
<td>NITT1 15</td>
<td>Nitterhouse Concrete Products Inc., P. O. Box N, Chambersburg, PA 17201 <a href="http://nitterhouseconcrete.com/">http://nitterhouseconcrete.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
<tr>
<td>NORPP 15</td>
<td>Northeast Prestressed Products LLC, 121 River Street, Cressona, PA 17929-1133 <a href="http://www.nppbeams.com/">http://www.nppbeams.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
</tbody>
</table>
Section 714: Precast Concrete Products

714.2 Sound Barrier

Standard Drawing BC-776M/BD-676M - Standard Ground Mounted Sound Barriers Precast Concrete Panels

Standard Drawing BC-777M/BD-677M - Standard Ground Mounted Sound Barriers Precast Concrete Posts

Standard Drawing BC-779/BD-679 - Standard Structured Mounted Sound Barrier Walls

Standard Drawing BC-780M/BD-680M - Standard Offset Sound Barrier Walls; Precast Concrete Standard Panel Details

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WILLA 15</td>
<td>K. J. Williams Concrete Company, Inc., P.O. Box 5137, Cresaptown, MD 21505-5137</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>15213 McMullen Highway S.W. Cumberland, MD 21502</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
</tbody>
</table>

714.2 Temporary Concrete Barrier, Structure Mounted (BC 719)

Note: Approved Bridge and Structure Products

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>32&quot; Double Face</td>
<td></td>
</tr>
<tr>
<td></td>
<td>42&quot; Single Face</td>
<td></td>
</tr>
<tr>
<td>EAGLE 15</td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32&quot; Double Face</td>
<td></td>
</tr>
<tr>
<td></td>
<td>42&quot; Single Face</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50&quot; Double Face</td>
<td></td>
</tr>
</tbody>
</table>
Section 714: Precast Concrete Products

714.2 Temporary Concrete Barrier, Structure Mounted (BC 719)

Note: Approved Bridge and Structure Products

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FADD2 15</td>
<td>Faddis Concrete Products, 205 West Washington Street, New Castle, PA 16101 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>32&quot; Double Face</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>42&quot; Single Face</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>50&quot; Double Face</td>
<td>-----</td>
</tr>
<tr>
<td>FADD3 15</td>
<td>Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>32&quot; Double Face</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>42&quot; Single Face</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>50&quot; Double Face</td>
<td>-----</td>
</tr>
<tr>
<td>INTSS 15</td>
<td>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
<td></td>
</tr>
<tr>
<td></td>
<td>32&quot; Double Face</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>42&quot; Single Face</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>50&quot; Double Face</td>
<td>-----</td>
</tr>
<tr>
<td>MACK0 15</td>
<td>Mack Industries of PA, Inc., 2207 Sodom-Hutchings Road, Vienna, OH 44473 <a href="http://www.mackconcrete.com/">http://www.mackconcrete.com/</a></td>
<td>2012-014Q</td>
</tr>
<tr>
<td></td>
<td>32&quot; Double Face</td>
<td></td>
</tr>
</tbody>
</table>

714.6 Fabrication

Standard Drawing of Vertical Adjustment Device on Steel Beam/Girder BC-775M - Sheet 3 of 3 (Publication 219M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>THOMC 15</td>
<td>Thompson Machine Company, 1128 N. Fourth Ave., Altoona, PA 16601</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vertical Adjustment Device</td>
<td>2015-171Q</td>
</tr>
</tbody>
</table>
## Section 721: Calcium Chloride

### 721 Calcium Chloride, AASHTO M144

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENER 15</td>
<td>General Chemical Group, 90 East Halsey Road, Parsippany, NJ 07054 <a href="http://www.genchem.com/">http://www.genchem.com/</a></td>
<td>Calcium Chloride, Type S, Grade 1, Class A or B CaCl Flake 77-80% 2000-141Q</td>
</tr>
<tr>
<td>OCCCC 15</td>
<td>Occidental Chemical Corporation, P.O. Box 809050, Dallas, TX 75380 <a href="http://www.oxy.com/OurBusinesses/Chemicals/Pages/default.aspx">http://www.oxy.com/OurBusinesses/Chemicals/Pages/default.aspx</a></td>
<td>Calcium Chloride, Type S, Grade 1, Class A or B DOWFLAKE 83-87% ___</td>
</tr>
<tr>
<td>Plant</td>
<td>Calcium Chloride, Type S, Grade 1, Class A or B LIQUIDOW 30-42% 1992-345</td>
<td></td>
</tr>
<tr>
<td>TETRA 15</td>
<td>TETRA Technologies, Inc., 25025 Interstate 45N, P. O. Box 73087, The Woodlands, TX 77380 <a href="http://www.tetratec.com/">http://www.tetratec.com/</a></td>
<td>Calcium Chloride, Type S, Grade 1, Class A or B 1997-076</td>
</tr>
</tbody>
</table>
### Section 722: Sodium Chloride

**722 Sodium Chloride, AASHTO M143 or ASTM D632**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Facility</th>
<th>Last Revised: 9/14/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMERS 15</td>
<td>American Rock Salt Company, LLC, P.O. Box 190, Mount Morris, NY 14510 <a href="https://www.americanrocksalt.com/">https://www.americanrocksalt.com/</a></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2000-109Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hampton Corners, NY</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Avery Island, LA</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cleveland, OH</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lansing, NY</td>
<td></td>
</tr>
<tr>
<td>COMMC 15</td>
<td>Compania Minera Cordillera SCM, Providencia 2653, Office 702, 7510015 Santiago, Chile</td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2009-157Q</td>
</tr>
<tr>
<td>DETSC 15</td>
<td>Detroit Salt Co., 12841 Sanders Street, Detroit, MI 48217 <a href="http://detroitsalt.com/">http://detroitsalt.com/</a></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2013-079Q</td>
</tr>
<tr>
<td>DETST 15</td>
<td>Detroit Salt Co., 12841 Sanders St, Detroit, MI 48217 <a href="http://detroitsalt.com/">http://detroitsalt.com/</a></td>
<td>Kinder Morgan Bulk Terminal 1000 South Port Road Fairless Hills, PA 19030</td>
<td>2018-050Q</td>
</tr>
<tr>
<td>HAVN1 15</td>
<td>Haven Salt Company LLC, 409 North State Street, Clarks Summit, PA 18411</td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2017-189Q</td>
</tr>
<tr>
<td></td>
<td>Kinder Morgan Bulk Terminals 1 Sinter Road Fairless Hills, PA 19030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOOPS 15</td>
<td>Hoopes Fertilizer Works, Inc., 9866 Freshley Ave., NE, Alliance, OH 44601</td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2008-190</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ice Bite 55</td>
<td></td>
</tr>
</tbody>
</table>

*Anti-foaming agent, AE-30-FGK, can be added per manufacturer recommendations, Univar USA Mfg. Conditionally approved as an alternate per the manufacturer's specifications.*
# Section 722: Sodium Chloride

## 722 Sodium Chloride, AASHTO M143 or ASTM D632

### Last Revised: 9/14/2018

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORTS 15 Morton Salt Company, 123 North Wacker Drive, Chicago, IL 60606</td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>1995-122B</td>
</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Cote Blanche, LA</td>
</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Goderich, Ontario</td>
</tr>
<tr>
<td>NAMSC 15 Compass Minerals America Inc., 9900 W 109th St, Suite 600, Overland Park, KS 66210</td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>1995-122A</td>
</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Cote Blanche, LA</td>
</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Goderich, Ontario</td>
</tr>
<tr>
<td>POTAH 15 Potash Corporation, 1101 Skokie Boulevard, Northbrook, IL 60062</td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2013-116Q</td>
</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Sussex, New Brunswick, Canada E4E 5L2</td>
</tr>
<tr>
<td>RIVERT15 Riverside Construction Materials, 355 Newbold Road, Fairless Hills, PA 19030 Terminal</td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2018-089Q</td>
</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Siwa, Egypt</td>
</tr>
<tr>
<td>SOCPD 15 K + S Chile S. A., Av. Tajamar 183, Piso 6, Las Condes, Santiago, Chile</td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2005-060Q</td>
</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Las Condes, Santiago, Chile</td>
</tr>
</tbody>
</table>
# Section 723: Hydrated Lime

## 723 Hydrated Lime, ASTM C207

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Route 422 &amp; Clear Springs Road  Annville, PA 17003</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hydrated Lime, Type N</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hydrated Lime, Type N</td>
<td></td>
</tr>
</tbody>
</table>
Section 724: Pozzolans - Supplementary Cementitious Materials

724.2(b) Fly Ash (For Use with Cement Concrete - AASHTO M295) Last Revised: 1/3/2020

Fly ash manufacturers listed in Bulletin 15 are required to submit monthly production test data in an Excel spreadsheet format. All the tests required on the PennDOT TR-7012 form for fly ash material should be recorded on this spreadsheet: **Fly Ash Statistical Data Spreadsheet**

On a monthly basis, completed spreadsheet(s) should be sent to: **RA-pdCementLab@pa.gov**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Belews Creek Power Station, 3193 Pine Hall Road, Belews Creek, NC 27009</td>
<td>ProAsh, Belews Creek Power Station</td>
<td>Belews Creek</td>
<td>NC</td>
</tr>
<tr>
<td></td>
<td>Fly Ash, Class F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Belews Creek Power Station</td>
<td>Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Plant | Roxboro Plant, 1514 Dunnaway Road, Semora, NC 27343 | ProAsh, Roxboro Plant | Semora | NC | 2016-026Q |
| | Fly Ash, Class F | | | | |
| | Roxboro Plant | Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate. | | |

| Plant | McIntyre, GA | MetaMax | McIntyre | GA | 2014-218M |
| | Fly Ash, Class N | | | | |
| | MetaMax | Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate. | | |

| Terminal | 200-B Neville Island, Pittsburgh, PA 15225 | Labadie Power Plant (MINR1 2005-083) | Labadie | MO | 2014-261Q |
| | Fly Ash, Class C | | | | |

| Terminal | 200-B Neville Island, Pittsburgh, PA 15225 | Rush Island Power Plant (MINR1 2001-138) | Festus | MO | 2011-098Q |
| | Fly Ash, Class C | | | | |

| Terminal | 200-B Neville Island, Pittsburgh, PA 15225 | IPL Petersburg Generation Station (MINR1) | Petersburg | IN | 2005-050Q |
| | Fly Ash, Class F | | | | |
Section 724: Pozzolans - Supplementary Cementitious Materials

724.2(b) Fly Ash (For Use with Cement Concrete - AASHTO M295)

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<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAR1 15 Plant</td>
<td>Charah, Inc., 12601 Plantside Drive, Louisville, KY 40299</td>
<td>Miami Fort Station (Dynegy, Inc.)</td>
<td>North Bend</td>
<td>OH</td>
</tr>
<tr>
<td></td>
<td>Fly Ash, Class F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plant North Bend, OH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fly Ash, Class F</td>
<td>Miami Fort Station (Dynegy, Inc.)</td>
<td>North Bend</td>
<td>OH</td>
</tr>
<tr>
<td></td>
<td>Available for use in concrete mixes to reduce alkaline silica reactivity of aggregate. Plant is operated by Dynegy, Inc. Quality control testing of the fly ash is performed by Charah, Inc. (Formerly operated by Cinergy Corporation - CINER 15)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHAR2 15 Plant</td>
<td>Charah, Inc., 12601 Plantside Drive, Louisville, KY 40299</td>
<td>Zimmer Power Station (Dynegy, Inc.)</td>
<td>Moscow</td>
<td>OH</td>
</tr>
<tr>
<td></td>
<td>Moscow, OH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fly Ash, Class F</td>
<td>Zimmer Power Station (Dynegy, Inc.)</td>
<td>Moscow</td>
<td>OH</td>
</tr>
<tr>
<td></td>
<td>Acceptable for use in concrete mixes to reduce alkaline silica reactivity of aggregate. Plant is operated by Dynegy, Inc. Quality control testing of the fly ash is performed by Charah, Inc.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRH-3 15 Terminal</td>
<td>Ash Grove (Formerly CRH Canada Group Inc.), 2300 Steeles Avenue West, 4th Floor, Concord Ontario Canada L4K 5X6</td>
<td>DTE Belle River Power Plant (Detroit Edison)</td>
<td>Dundee</td>
<td>MI</td>
</tr>
<tr>
<td></td>
<td>Ash Grove Cement Terminal Dundee, CRH US 15225 Day Road Dundee, MI 48131</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fly Ash, Class C</td>
<td>DTE Belle River Power Plant (Detroit Edison)</td>
<td>Dundee</td>
<td>MI</td>
</tr>
<tr>
<td></td>
<td>Effective April 1, 2020, CRH Canada Group is now Ash Grove</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Available for use in concrete mixes to reduce alkaline silica reactivity of aggregate.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENELP 15 Plant</td>
<td>Enel Produzione SpA, Viale Regina Margherita, 125, Roma 00198</td>
<td>Civitavecchia, Italy</td>
<td>Civitavecchia</td>
<td>Italy</td>
</tr>
<tr>
<td></td>
<td>Via Aurelia Nord 32 Civitavecchia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fly Ash, Class F</td>
<td>Civitavecchia, Italy</td>
<td>Civitavecchia</td>
<td>Italy</td>
</tr>
<tr>
<td></td>
<td>Acceptable for use in concrete mixes to reduce alkaline silica reactivity of aggregate.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAD2 15 Plant</td>
<td>WM FlyAshDirect, 4228 Airport Road, Cincinnati, OH 45226</td>
<td>Mountaineer Power Plant (American Electric Power)</td>
<td>Letart</td>
<td>WV</td>
</tr>
</tbody>
</table>
Section 724: Pozzolans - Supplementary Cementitious Materials

724.2(b) Fly Ash (For Use with Cement Concrete - AASHTO M295)
Fly ash manufacturers listed in Bulletin 15 are required to submit monthly production test data in an Excel spreadsheet format. All the tests required on the PennDOT TR-7012 form for fly ash material should be recorded on this spreadsheet: Fly Ash Statistical Data Spreadsheet

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLYAD 15</td>
<td>WM FlyAshDirect, 4228 Airport Road, Cincinnati, OH 45226</td>
<td>Winfield, WV</td>
<td>WV</td>
<td>-----</td>
</tr>
<tr>
<td>Plant</td>
<td>Fly Ash, Class F</td>
<td>John E. Amos Plant (Operated by Appalachian Power, subsidiary of American Electric Power)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.

| HEADWA15 | Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095 | Quinton, AL | AL | 2008-143Q |
| Plant | Fly Ash, Class C | Miller Power Station (Alabama Power) | Quinton | |

| HEADWB15 | Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095 | Baldwin, IL | IL | 2005-072Q |
| Plant | Fly Ash, Class C | Dynegy-Baldwin Power Station | Baldwin | |

| HEADWC15 | Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095 | Havana, IL | IL | 2006-002Q |
| Plant | Fly Ash, Class C | Dynegy-Havana Power Station | Havana | |

| HEADWG15 | Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095 | Maidsville, WV | WV | 1986-312 |
| Plant | Fly Ash, Class F (Allegheny Power) Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate. | Fort Martin Power Station | Maidsville | |

| HEADWH15 | Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095 | Stratton, OH | OH | 1997-146Q |
| Plant | Fly Ash, Class F | W. H. Sammis Power Plant | Stratton | |
Section 724: Pozzolans - Supplementary Cementitious Materials

### 724.2(b) Fly Ash (For Use with Cement Concrete - AASHTO M295)

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEADWJ15 Plant</td>
<td>Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095 <a href="https://www.boral.com/">https://www.boral.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>Washingtonville, PA</td>
<td>Washingtonville</td>
<td>PA</td>
<td>2018-165Q</td>
</tr>
<tr>
<td>Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEADWL15 Plant</td>
<td>Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095 <a href="https://www.boral.com/">https://www.boral.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class C</td>
<td>Labadie Power Plant</td>
<td>Labadie</td>
<td>MO</td>
<td>2005-083Q</td>
</tr>
<tr>
<td>HEADWM15 Plant</td>
<td>Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095 <a href="https://www.boral.com/">https://www.boral.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class C</td>
<td>Rush Island Power Plant</td>
<td>Festus</td>
<td>MO</td>
<td>2001-138Q</td>
</tr>
<tr>
<td>HEADWN15 Plant</td>
<td>Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095 <a href="https://www.boral.com/">https://www.boral.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>Conesville Power Plant</td>
<td>Conesville</td>
<td>OH</td>
<td>2017-254Q</td>
</tr>
<tr>
<td>HEADWP15 Plant</td>
<td>Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095 <a href="https://www.boral.com/">https://www.boral.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>AEP Mitchell Power Plant</td>
<td>Moundsville</td>
<td>WV</td>
<td>2019-058Q</td>
</tr>
<tr>
<td>Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HOLI0 15 Plant</td>
<td>Holcim (US) Inc. d/b/a LafargeHolcim US, 8700 West Bryn Mawr Avenue, Chicago, IL 60631 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class C</td>
<td>Detroit Edison Belle River Power Plant</td>
<td>China Township</td>
<td>MI</td>
<td>2014-046Q</td>
</tr>
<tr>
<td>Available Alkalis = 5.00%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LAFA 15 Plant</td>
<td>Lafarge North America, 20408 West Renwick Road, Lockport, IL 60441-0089 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class C</td>
<td>American Electric Power</td>
<td>Rockport</td>
<td>IN</td>
<td>1992-052</td>
</tr>
</tbody>
</table>
### Section 724: Pozzolans - Supplementary Cementitious Materials

#### 724.2(b) Fly Ash (For Use with Cement Concrete - AASHTO M295)

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LAFRB 15 Plant</strong></td>
<td>Lafarge North America, 20408 West Renwick Road, Lockport, IL 60441-0089</td>
<td>Northampton, PA</td>
<td>Federal White's Skyline, Lafarge Terminal</td>
<td>LAFRB 15</td>
</tr>
<tr>
<td>Fly Ash, Class C</td>
<td>Northampton</td>
<td>PA</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td><strong>LAFRC 15 Terminal</strong></td>
<td>Lafarge North America, 20408 West Renwick Road, Lockport, IL 60441-0089</td>
<td>Harrisburg, PA</td>
<td>Pennsy Supply, Paxton Street Lafarge Terminal</td>
<td>LAFRC 15</td>
</tr>
<tr>
<td>Fly Ash, Class C</td>
<td>Harrisburg</td>
<td>PA</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td><strong>RIVERT15 Terminal</strong></td>
<td>Riverside Construction Materials, 355 Newbold Road, Fairless Hills, PA 19030</td>
<td>Bristol, PA 19007</td>
<td>Enel Produzione SpA, Terminal for ENELP 2016-108Q. Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td>RIVERT15</td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>Civitavecchia</td>
<td>Italy</td>
<td>2016-087Q</td>
<td></td>
</tr>
<tr>
<td><strong>SEFA1 15</strong></td>
<td>The Sefa Group, 217 Cedar Road, Lexington, SC 29073</td>
<td>Newburg MD</td>
<td>Star GenOn Morgantown Generating Station</td>
<td>SEFA1 15</td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>York Haven</td>
<td>PA</td>
<td>2011-268Q</td>
<td></td>
</tr>
<tr>
<td><strong>SEFA2 15</strong></td>
<td>The Sefa Group, 217 Cedar Road, Lexington, SC 29073</td>
<td></td>
<td>Brunner Island Steam Electric Station (PP&amp;L)</td>
<td>SEFA2 15</td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td><strong>STECHA15</strong></td>
<td>Separation Technologies, LLC, 188 Summerfield Court, Suite 101, Roanoke, VA 24019</td>
<td></td>
<td>Flowable Fill</td>
<td>STECHA15</td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>
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<tr>
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<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STECHB15</td>
<td>Separation Technologies, LLC, 188 Summerfield Court, Suite 101, Roanoke, VA 24019 [<a href="http://www.proash.com/">http://www.proash.com/</a>] Fly Ash, Class F ProAsh (Brandon Shores Wagner Station)</td>
<td>Baltimore</td>
<td>MD</td>
<td>2006-028Q</td>
</tr>
</tbody>
</table>

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.

724.3 Ground Granulated Blast Furnace Slag (GGBFS) for Cement Partial Replacement  
AASHTO M302 (ASTM C989), Grade 100 or 120

Ground Granulated Blast Furnace Slag (GGBFS) manufacturers listed in Bulletin 15 are required to submit monthly production test data in an Excel spreadsheet format. All the tests required on the PennDOT TR-7013 form for GGBFS material should be recorded on this spreadsheet: GGBFS Statistical Data Spreadsheet

On a monthly basis, completed spreadsheet(s) should be sent to: RA-pdCementLab@pa.gov

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.
Section 724: Pozzolans - Supplementary Cementitious Materials

724.3 Ground Granulated Blast Furnace Slag (GGBFS) for Cement Partial Replacement

AASHTO M302 (ASTM C989), Grade 100 or 120

Ground Granulated Blast Furnace Slag (GGBFS) manufacturers listed in Bulletin 15 are required to submit monthly production test data in an Excel spreadsheet format. All the tests required on the PennDOT TR-7013 form for GGBFS material should be recorded on this spreadsheet: GGBFS Statistical Data Spreadsheet

On a monthly basis, completed spreadsheet(s) should be sent to: RA-pdCementLab@pa.gov

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formerly Essroc Materials, Inc. (ESS-6 15)</td>
<td>Blast Furnace Slag, Grade 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Former product names: i.tech Slag &amp; Essroc Slag. Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARGO4 15 Terminal</td>
<td>Argos USA, 3015 Windward Plaza, Windward Fairways II, Suite 300, Alpharetta, GA 30005 <a href="https://www.argos.co/usa/">https://www.argos.co/usa/</a></td>
<td>SuperCem Adana, Grade 100 (Source: Iskenderun, Turkey)</td>
<td>Chesapeake</td>
<td>VA</td>
</tr>
<tr>
<td>Formerly Essroc Materials, Inc. (ESS10 15)</td>
<td>Blast Furnace Slag, Grade 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Former product names: i.tech Slag. Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formerly Essroc Materials, Inc. (ESS16 15)</td>
<td>Blast Furnace Slag, Grade 120</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Former product name: i.tech Slag. Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 724: Pozzolans - Supplementary Cementitious Materials

724.3 Ground Granulated Blast Furnace Slag (GGBFS) for Cement Partial Replacement

Ground Granulated Blast Furnace Slag (GGBFS) manufacturers listed in Bulletin 15 are required to submit monthly production test data in an Excel spreadsheet format. All the tests required on the PennDOT TR-7013 form for GGBFS material should be recorded on this spreadsheet: GGBFS Statistical Data Spreadsheet

On a monthly basis, completed spreadsheet(s) should be sent to: RA-pdCementLab@pa.gov

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRH-4 15 Plant</td>
<td>Ash Grove (Formerly CRH Canada Group Inc.), 2300 Steeles Avenue West, Concord, Ontario L4K 5X6 <a href="https://www.ashgrove.com/">https://www.ashgrove.com/</a></td>
<td>Mississauga</td>
<td>Ontario</td>
<td>2000-087Q</td>
</tr>
<tr>
<td>HOLI1 15 Terminal</td>
<td>Holcim (US) Inc. d/b/a LafargeHolcim US, 8700 West Bryn Mawr Avenue, Chicago, IL 60631 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>Chicago</td>
<td>IL</td>
<td>2009-194Q</td>
</tr>
<tr>
<td>LAFR1115 Plant</td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>Baltimore</td>
<td>MD</td>
<td>1993-213</td>
</tr>
<tr>
<td>LAFR1515 Plant</td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>Chicago</td>
<td>IL</td>
<td>2003-002Q</td>
</tr>
</tbody>
</table>
Section 724: Pozzolans - Supplementary Cementitious Materials

724.3 Ground Granulated Blast Furnace Slag (GGBFS) for Cement Partial Replacement

AASHTO M302 (ASTM C989), Grade 100 or 120

Ground Granulated Blast Furnace Slag (GGBFS) manufacturers listed in Bulletin 15 are required to submit monthly production test data in an Excel spreadsheet format. All the tests required on the PennDOT TR-7013 form for GGBFS material should be recorded on this spreadsheet: **GGBFS Statistical Data Spreadsheet**

On a monthly basis, completed spreadsheet(s) should be sent to: RA-pdCementLab@pa.gov

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAFR1715 Terminal Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>Blast Furnace Slag, Grade 120 NewCem 120, (Plant Ref. No. 1993-230)</td>
<td>Baltimore (Sparrows Point)</td>
<td>MD</td>
<td>1993-230</td>
</tr>
<tr>
<td>LAFR1815 Plant Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>Blast Furnace Slag, Grade 100 NewCem 100</td>
<td>Woodstock</td>
<td>Ontario</td>
<td>2018-100Q</td>
</tr>
<tr>
<td>LAFR2 15 Terminal Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>Blast Furnace Slag, Grade 120 NewCem 120</td>
<td>Chicago</td>
<td>IL</td>
<td>2006-234Q</td>
</tr>
</tbody>
</table>

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate. [Terminal for LEH-3 15, Ref. No. 2001-058Q]
Section 724: Pozzolans - Supplementary Cementitious Materials

724.3 Ground Granulated Blast Furnace Slag (GGBFS) for Cement Partial Replacement

AASHTO M302 (ASTM C989), Grade 100 or 120

Ground Granulated Blast Furnace Slag (GGBFS) manufacturers listed in Bulletin 15 are required to submit monthly production test data in an Excel spreadsheet format. All the tests required on the PennDOT TR-7013 form for GGBFS material should be recorded on this spreadsheet: GGBFS Statistical Data Spreadsheet

On a monthly basis, completed spreadsheet(s) should be sent to: RA-pdCementLab@pa.gov

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Ground Granulated Blast Furnace Slag, Grade 120</td>
<td>Lehigh Slag Cement, GGBFS (ALLCEM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Former product names: i.tech Slag &amp; GranCem Cement. Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEH16 15</td>
<td>Lehigh Cement Company, LLC, 8282 Middlebranch Road, Middlebranch, OH 44652 [Formerly Essroc ESS-4 15]</td>
<td>Middlebranch</td>
<td>OH</td>
<td>2006-008Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>Ground Granulated Blast Furnace Slag, Grade 100</td>
<td>Lehigh Slag Cement GGBFS (ALLCEM)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Former product names: i.tech Slag &amp; Essroc Slag. Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate. NOTE: The Middlebranch, OH plant (LEH16 15) supplies Grade 100 Blast Furnace Slag to the ARGO3 15 (Bessemer, PA) and ARGO4 15 (Leetsdale, PA) terminals.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SKYC1 15</td>
<td>Skyway Cement Company, 1717 North Naper Blvd., Suite 111, Naperville, IL 60563 [Formerly Holcim (HOLI0 15, HOLI1 15, and HOLI9 15)]</td>
<td>Chicago</td>
<td>IL</td>
<td>2009-094Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Ground Granulated Blast Furnace Slag, Grade 100</td>
<td>Skyway Cement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SKYC2 15</td>
<td>Skyway Cement Company LLC, 1717 North Naper Blvd., Suite 111, Naperville, IL 60563 [Leased cement terminal from Holcim (HOLI1 15)]</td>
<td>Chicago</td>
<td>IL</td>
<td>2009-194Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>Ground Granulated Blast Furnace Slag, Grade 100</td>
<td>Skyway Cement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 724: Pozzolans - Supplementary Cementitious Materials

724.3 Ground Granulated Blast Furnace Slag (GGBFS) for Cement Partial Replacement

AASHTO M302 (ASTM C989), Grade 100 or 120

Ground Granulated Blast Furnace Slag (GGBFS) manufacturers listed in Bulletin 15 are required to submit monthly production test data in an Excel spreadsheet format. All the tests required on the PennDOT TR-7013 form for GGBFS material should be recorded on this spreadsheet: **GGBFS Statistical Data Spreadsheet**

On a monthly basis, completed spreadsheet(s) should be sent to: **RA-pdCementLab@pa.gov**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKYC3 15</td>
<td>Skyway Slag Cement (Plant Ref. No. 2009-094)</td>
<td>Chicago</td>
<td>IL</td>
<td>2017-136Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>Blast Furnace Slag, Grade 100</td>
<td>1717 North Naper Blvd., Suite 111, Naperville, IL 60563</td>
<td><a href="http://skywaycement.com/">http://skywaycement.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skyway Slag Cement (Plant Ref. No. 2009-094)</td>
<td>Chicago</td>
<td>IL</td>
<td>2017-227Q</td>
</tr>
<tr>
<td></td>
<td>Blast Furnace Slag, Grade 100</td>
<td>Skyway Slag Cement</td>
<td>Cleveland, OH 43004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skyway Slag Cement (Plant Ref. No. 2009-094)</td>
<td>Chicago</td>
<td>IL</td>
<td>2018-145Q</td>
</tr>
<tr>
<td></td>
<td>Blast Furnace Slag, Grade 100</td>
<td>Skyway Slag Cement</td>
<td>Etna, PA 15223</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skyway Slag Cement (Plant Ref. No. 2009-094)</td>
<td>Chicago</td>
<td>IL</td>
<td>2017-136Q</td>
</tr>
<tr>
<td></td>
<td>Blast Furnace Slag, Grade 100</td>
<td>Skyway Slag Cement</td>
<td>Chicago, IL 60563</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skyway Slag Cement (Plant Ref. No. 2009-094)</td>
<td>Chicago</td>
<td>IL</td>
<td>2018-145Q</td>
</tr>
<tr>
<td>STMC6 15</td>
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<td></td>
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</tr>
</tbody>
</table>
Section 724: Pozzolans - Supplementary Cementitious Materials

724.4 Silica Fume (AASHTO M307)

Silica fume manufacturers listed in Bulletin 15 are required to submit monthly production test data in an Excel spreadsheet format. All the tests required on the PennDOT TR-7014 form for silica fume material should be recorded on this spreadsheet. Silica Fume Statistical Data Spreadsheet

On a monthly basis, completed spreadsheet(s) should be sent to: RA-pdCementLab@pa.gov

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASF-0 15</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td>MasterLife SF 100 (densified)</td>
<td>Alloy</td>
<td>WV</td>
</tr>
<tr>
<td>Facility</td>
<td>23700 Chagrin Blvd.</td>
<td>Cleveland, OH 44122</td>
<td></td>
<td>(formerly Rheomac SF 100)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Producer of Silica Fume: Norchem</td>
</tr>
<tr>
<td>GCPRED15</td>
<td>GCP Applied Technologies, 62 Whittemore Avenue, Cambridge, MA 02140</td>
<td>Force 10,000 D (densified)</td>
<td>Burnsville</td>
<td>MS</td>
</tr>
<tr>
<td>Plant</td>
<td>80 County Road 210 Burnsville, MS 38833</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Silica Fume</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Force 10,000 D (densified)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Producer of Silica Fume: W. R. Grace and Company</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRAC0 15</td>
<td>GCP Applied Technologies Inc., 62 Whittemore Ave., Cambridge, MA 02140-1692</td>
<td>Force 10,000 D (densified)</td>
<td>Alloy</td>
<td>WV</td>
</tr>
<tr>
<td>Facility</td>
<td>62 Whittemore Ave.</td>
<td>Cambridge, MA 02140-1692</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Silica Fume</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Force 10,000 D (densified)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Producer of Silica Fume: Norchem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NORC1 15</td>
<td>Norchem, Inc., 985 Seaway Drive, Suite A, Fort Pierce, FL 34949-2744</td>
<td>Chryso DSF</td>
<td>Alloy</td>
<td>WV</td>
</tr>
<tr>
<td>Plant</td>
<td>West Virginia Manufacturing Route 60 East Alloy, WV 25002</td>
<td>Eucon MSA</td>
<td>Alloy</td>
<td>WV</td>
</tr>
<tr>
<td></td>
<td>Silica Fume</td>
<td>Force 10,000 D</td>
<td>Alloy</td>
<td>WV</td>
</tr>
<tr>
<td></td>
<td>Silica Fume</td>
<td>MasterLife SF 100</td>
<td>Alloy</td>
<td>WV</td>
</tr>
<tr>
<td></td>
<td>Silica Fume</td>
<td>Sikacrete 950 DP</td>
<td>Alloy</td>
<td>WV</td>
</tr>
<tr>
<td></td>
<td>Silica Fume</td>
<td>Silica Fume</td>
<td>Alloy</td>
<td>WV</td>
</tr>
<tr>
<td></td>
<td>Silica Fume from the Alloy, West Virginia source is also shipped from Norchem's packaging facility in Marietta, OH. Distributors of Norchem's silica fume include BASF Corporation, Euclid Chemical Company, GCP Applied Technologies, Sika Corporation, Acme, Advanced Cement Technology, Chryso, Fritz Pak, General Resource Technology - Mapei, Hydration Kontrol, Peregrine Chemical, Premiere Concrete Admixture, and RussTech.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Section 724: Pozzolans - Supplementary Cementitious Materials**

### 724.4 Silica Fume (AASHTO M307)

Silica fume manufacturers listed in Bulletin 15 are required to submit monthly production test data in an Excel spreadsheet format. All the tests required on the PennDOT TR-7014 form for silica fume material should be recorded on this spreadsheet. [Silica Fume Statistical Data Spreadsheet](#)

On a monthly basis, completed spreadsheet(s) should be sent to: RA-pdCementLab@pa.gov

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>REDMS 15 Plant</td>
<td>RED Industrial Products &amp; Mississippi Silicon Partnership, 4 Village Park Drive, #110, Grove City, PA 16127 <a href="http://www.redindustrialproducts.com/">http://www.redindustrialproducts.com/</a></td>
<td>Burnsville</td>
<td>MS</td>
<td>2016-192Q</td>
</tr>
<tr>
<td>Silica Fume</td>
<td>MasterLife SF 100 (densified)</td>
<td>Burnsville</td>
<td>MS</td>
<td>2016-192Q</td>
</tr>
<tr>
<td>Silica Fume</td>
<td>R-E-D Fume Concrete - 102</td>
<td>Burnsville</td>
<td>MS</td>
<td>2016-192Q</td>
</tr>
<tr>
<td>Silica Fume</td>
<td>DM (densified)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silica Fume</td>
<td>SikaCrete 950 DP (densified)</td>
<td>Burnsville</td>
<td>MS</td>
<td>2016-192Q</td>
</tr>
<tr>
<td>Sika1 15 Plant</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silica Fume</td>
<td>SikaCrete 950DP (densified)</td>
<td>Alloy</td>
<td>WV</td>
<td>1990-216</td>
</tr>
<tr>
<td>Producer of Silica Fume: Norchem</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sika3 15 Plant</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silica Fume</td>
<td>SikaCrete 950DP (densified)</td>
<td>Alloy</td>
<td>WV</td>
<td>1990-216</td>
</tr>
<tr>
<td>Producer of Silica Fume: Norchem</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Section 725: Lime Pozzolan

## 725 Lime Pozzolan

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARML 15</td>
<td>725 Lime Pozzolan</td>
<td>Last Revised: 5/27/2015</td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Route 422 &amp; Clear Springs Road Annville, PA 17003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MINTR 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility Pleasant Gap, PA</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 735: Geotextiles

735.1(b) Class 1 Geotextile - Subsurface Drainage

Unless noted, approved for projects let on or after October 7, 2016 (Pub 408, 2016, Change No. 1 or later). For prior contracts: Approved Geotextiles for Projects Let BEFORE October 7, 2016

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROP1 15</td>
<td>Propex Operating Company, LLC, 4019 Industrial Drive, Chattanooga, TN 37416 <a href="http://www.propexglobal.com/">http://www.propexglobal.com/</a></td>
<td>GEOTEX 111F</td>
<td>GTX-2017-01-096</td>
</tr>
<tr>
<td>SKA-3 15</td>
<td>SKAPS Industries, 335 Athena Drive, Athens, GA 30601 <a href="http://www.skaps.com/">http://www.skaps.com/</a></td>
<td>M404</td>
<td>GTX-2017-01-206</td>
</tr>
</tbody>
</table>

735.1(b) Class 3, Type A & B Geotextiles - Sediment Control

Unless note, approved for projects let on or after October 7, 2016 (Pub 408, 2016, Change No. 1 or later). For prior contracts: Approved Geotextiles for Projects Let BEFORE October 7, 2016

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
## Section 735: Geotextiles

### 735.1(b) Class 3, Type A & B Geotextiles - Sediment Control

**Last Revised: 2/24/2020**

Unless note, approved for projects let on or after October 7, 2016 (Pub 408, 2016, Change No. 1 or later). For prior contracts: Approved Geotextiles for Projects Let BEFORE October 7, 2016

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>95 East Jefferson Street Hazlehurst, GA 31539</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 3, Type A Geotextile (Woven Slit Film)</td>
<td>GEOTEX 200ST</td>
<td>GTX-2016-01-244</td>
</tr>
<tr>
<td></td>
<td>Class 3, Type B Geotextile (Woven Slit Film)</td>
<td>GEOTEX 2130</td>
<td>GTX-2015-01-071</td>
</tr>
<tr>
<td>SKA-1 15</td>
<td>SKAPS Industries Nonwoven Division, 316 South Holland Drive, Pendergrass, GA 30567 <a href="http://www.skaps.com/">http://www.skaps.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 3, Type A Geotextile (Woven Slit Film)</td>
<td>SW 200</td>
<td>GTX-2016-01-266</td>
</tr>
<tr>
<td>SKA-2 15</td>
<td>SKAPS Industries Nonwoven Division, 335 Athena Drive, Athens, GA 30601 <a href="http://www.skaps.com/">http://www.skaps.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 3, Type A Geotextile (Woven Slit Film)</td>
<td>SW 200</td>
<td>GTX-2013-01-185</td>
</tr>
<tr>
<td>SKA-3 15</td>
<td>SKAPS Industries, 335 Athena Drive, Athens, GA 30601 <a href="http://www.skaps.com/">http://www.skaps.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>Gujarat, India</td>
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</tr>
<tr>
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<td>Class 3, Type B Geotextile (Woven Slit Film)</td>
<td>W100</td>
<td>GTX-2016-01-264</td>
</tr>
<tr>
<td>TENC1 15</td>
<td>TenCate Geosynthetics, 365 South Holland Drive, Pendergrass, GA 30567 <a href="http://www.tencate.com/">http://www.tencate.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>Ahmedabad, India</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 3, Type A Geotextile (Woven Slit Film)</td>
<td>Mirafi 500X</td>
<td>GTX-2016-01-175</td>
</tr>
<tr>
<td>Plant</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 3, Type B Geotextile (Woven Slit Film)</td>
<td>GTF-200S</td>
<td>GTX-2018-01-232</td>
</tr>
<tr>
<td>Plant</td>
<td>Xanthi/Athens, Greece</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 3, Type A Geotextile (Woven Slit Film)</td>
<td>GTF-200</td>
<td>GTX-2017-01-162</td>
</tr>
<tr>
<td>WINFB 15</td>
<td>Willacoochee Ind. Fabrics, Inc, 769 West Main Street, P.O. Box 599, Willacoochee, GA 31650 <a href="http://winfabusa.com/">http://winfabusa.com/</a></td>
<td></td>
<td></td>
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<tr>
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<td></td>
<td>Class 3, Type A Geotextile (Woven Slit Film)</td>
<td>WINFAB 200W</td>
<td>GTX-2017-01-217</td>
</tr>
<tr>
<td></td>
<td>Class 3, Type B Geotextile (Woven Slit Film)</td>
<td>WINFAB 105SF</td>
<td>GTX-2018-01-127</td>
</tr>
</tbody>
</table>

### 735.1(b) Class 4, Type A Geotextile - Separation & Erosion Control

**Last Revised: 3/9/2020**
# Section 735: Geotextiles

## 735.1(b) Class 4, Type A Geotextile - Separation & Erosion Control

Unless noted, approved for projects let on or after October 7, 2016 (Pub 408, 2016, Change No. 1 or later). For prior contracts: [Approved Geotextiles for Projects Let BEFORE October 7, 2016](#).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

*Formerly known as Mirafi S1200.*
## Section 735: Geotextiles

### 735.1(b) Class 4, Type A Geotextile - Separation & Erosion Control

Unless noted, approved for projects let on or after October 7, 2016 (Pub 408, 2016, Change No. 1 or later). For prior contracts: [Approved Geotextiles for Projects Let BEFORE October 7, 2016](#).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

### 735.1(b) Class 4, Type C Geotextile - Stabilization & GRS Abutment Reinforcement

Unless noted, approved for projects let on or after October 7, 2016 (Pub 408, 2016, Change No. 1 or later). For prior contracts: [Approved Geotextiles for Projects Let BEFORE October 7, 2016](#).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANDM 15</td>
<td>L &amp; M Supply Company, 1800 Springhead Church Road, P.O. Box 640, Willacochee, GA 31650-0640</td>
<td><a href="https://www.landmsupplyco.com/">https://www.landmsupplyco.com/</a></td>
<td>GTX-2019-01-174</td>
</tr>
</tbody>
</table>
Section 735: Geotextiles

735.1(b) Class 4, Type C Geotextile - Stabilization & GRS Abutment Reinforcement

Unless noted, approved for projects let on or after October 7, 2016 (Pub 408, 2016, Change No. 1 or later). For prior contracts: [Approved Geotextiles for Projects Let BEFORE October 7, 2016](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Xanthi/Athens, Greece</td>
<td>Class 4, Type C Geotextile (Woven Polypropylene) GTF-550</td>
<td>This product is only approved for projects let per Publication 408, 2016 Change No. 7 and earlier. It is not approved for contracts let per Standard Special Provision a00089 Changes to Specifications: Section 735 or Pub 408, 2020 Initial Edition.</td>
</tr>
<tr>
<td>Facility</td>
<td>Lumite 1515 North County Line Road Alto, Georgia 30510</td>
<td>Class 4, Type C Geotextile (Woven Polypropylene) GTF-570</td>
<td></td>
</tr>
<tr>
<td>Class 4, Type C Geotextile (Woven Polypropylene) WINFAB 4x4</td>
<td>GTX-2017-01-131</td>
<td>2016-096Q</td>
<td></td>
</tr>
<tr>
<td>Changes to Specifications: Section 735 or Pub 408, 2020 Initial Edition.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Class 4, Type C Geotextile (Woven Polypropylene) WINFAB 570HP</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Section 736: Geomembrane**

736 Geomembrane, High Density Polyethylene (HDPE)  

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geomembrane (HDPE)</td>
<td>AA Microspike</td>
<td>1999-196</td>
</tr>
<tr>
<td>Geomembrane (HDPE)</td>
<td>AA Smooth</td>
<td>1999-196</td>
</tr>
<tr>
<td>GSELT 15</td>
<td>GSE Environmental, 19103 Gundle Road, Houston, TX 77073 <a href="http://www.gseworld.com/">http://www.gseworld.com/</a></td>
<td></td>
</tr>
<tr>
<td>Geomembrane (HDPE)</td>
<td>GSE HD Smooth</td>
<td>1999-189</td>
</tr>
<tr>
<td>Geomembrane (HDPE)</td>
<td>GSE HD Textured</td>
<td>1999-189</td>
</tr>
<tr>
<td>Geomembrane (HDPE)</td>
<td>Rufco 3300B</td>
<td>2001-125Q</td>
</tr>
<tr>
<td>Geomembrane (HDPE)</td>
<td>400 Series</td>
<td>2000-148</td>
</tr>
</tbody>
</table>
## Section 737: Geocell

### 737 Geocell

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GEOPR 15</strong></td>
<td>Geo Products, 8615 Golden Spike Lane, Houston, TX 77086 <a href="http://www.geoproducts.org/">http://www.geoproducts.org/</a></td>
<td></td>
</tr>
<tr>
<td>GeoCell, Perforated or Non-Perforated (EnviroGrid EGA20)</td>
<td>TerraCell 140 (Type A - 4&quot;, 6&quot;, or 8&quot; cell depth)</td>
<td>2001-122Q</td>
</tr>
<tr>
<td>GeoCell, Perforated or Non-Perforated (EnviroGrid EGA30)</td>
<td>TerraCell 175 (Type B - 4&quot;, 6&quot;, or 8&quot; cell depth)</td>
<td>2001-122Q</td>
</tr>
<tr>
<td>GeoCell, Perforated or Non-Perforated (EnviroGrid EGA40)</td>
<td>TerraCell 280 (Type C - 4&quot;, 6&quot;, or 8&quot; cell depth)</td>
<td>2001-122Q</td>
</tr>
<tr>
<td><strong>PREST 15</strong></td>
<td>Presto Products Company, P.O. Box 2399, Appleton, WI 54912-2399 <a href="http://prestoproducts.com/">http://prestoproducts.com/</a></td>
<td></td>
</tr>
<tr>
<td>Geocell, Perforated</td>
<td>GeoWeb GW20V (Type A - 4&quot;, 6&quot;, or 8&quot; cell depth)</td>
<td>2001-063Q</td>
</tr>
</tbody>
</table>
Section 738: Geogrids

738.2 Class 1 Uniaxial Geogrid Reinforcement

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ultimate Tensile Strength</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACEGE 15</td>
<td>Ace Geosynthetics Enterprise Company, Ltd., No. 33 Jing 3 Road, C.E.P.Z. Wuchi District, Taichung City 43541</td>
<td>2190 (lbs/ft)</td>
<td>2012-027ME</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>Maccaveri MacGrid WG8</td>
<td>10,100 (lbs/ft)</td>
<td>2017-343Q</td>
</tr>
<tr>
<td>STF-1 15</td>
<td>Synteen Technical Fabrics, 1950 W. Meeting Street, Lancaster, SC 29720</td>
<td>2025 (lbs/ft)</td>
<td>2017-337Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>SF110</td>
<td>3600 (lbs/ft)</td>
<td>2017-338Q</td>
</tr>
<tr>
<td>Plant</td>
<td>1950 W. Meeting Street Lancaster, SC 29720</td>
<td>SF35</td>
<td>2017-339Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SF55</td>
<td>2017-340Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SF80</td>
<td>2017-341Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SF90</td>
<td>2017-342Q</td>
</tr>
<tr>
<td>STRATA15</td>
<td>Strata Systems, Inc., subsidiary of Glen Raven Technical Fabrics, LLC, 1831 North Park Avenue, Burlington, NC 27217</td>
<td>1875 (lbs/ft)</td>
<td>2018-183Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>StrataGrid SG150</td>
<td>3600 (lbs/ft)</td>
<td>2018-095Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>StrataGrid SG200</td>
<td>5000 (lbs/ft)</td>
<td>2018-189Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>StrataGrid SG350</td>
<td>6400 (lbs/ft)</td>
<td>2018-267Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>StrataGrid SG500</td>
<td>8150 (lbs/ft)</td>
<td>2018-190Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>StrataGrid SG550</td>
<td>10500 (lbs/ft)</td>
<td>2018-266Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>StrataGrid SG650</td>
<td>11800 (lbs/ft)</td>
<td>2018-265Q</td>
</tr>
<tr>
<td>TCCEO 15</td>
<td>TenCate Geosynthetics, 365 South Holland Drive, Pendergrass, GA 30567</td>
<td>9500 (lbs/ft)</td>
<td>2017-084Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>Miragrid 10XT</td>
<td>13705 (lbs/ft)</td>
<td>2017-085Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>Miragrid 20XT</td>
<td>20599 (lbs/ft)</td>
<td>2017-086Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>Miragrid 22XT</td>
<td>2000 (lbs/ft)</td>
<td>2016-166Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>Miragrid 3XT</td>
<td>3500 (lbs/ft)</td>
<td>2016-260Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>Miragrid 5XT</td>
<td>4700 (lbs/ft)</td>
<td>2017-081Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>Miragrid 7XT</td>
<td>5900 (lbs/ft)</td>
<td>2017-082Q</td>
</tr>
<tr>
<td>Geogrid: Type A, (PET) PVC Coated Polyester</td>
<td>Miragrid 8XT</td>
<td>7400 (lbs/ft)</td>
<td>2017-083Q</td>
</tr>
</tbody>
</table>

738.3 Class 2 and 3 Biaxial Geogrids
Section 802: Topsoil Furnished and Placed

802 Topsoil

Project-Specific, Locally Approved Material.

In accordance with Publication 408, Section 106.02(a)2.c, a material specified for use in this Section is defined as a Project-Specific, Locally Approved Material.

PennDOT does not require manufacturers of Project-Specific, Locally Approved Materials to submit a Product Evaluation Application for approval and listing of their material(s) in Bulletin 15. Project-Specific, Locally Approved Materials are not listed in Bulletin 15.

Contractors proposing to use materials that meet the specification requirements must list them on Form CS-200 (Source of Supply-Materials) and submit them for local approval by the Representative (i.e. at the District or project level). Refer to Publication 408, Section 802 for specification requirements. Submit for local approval by the Representative all required information for the material, as indicated in the specification.

Also refer to the Project Specific, Locally Approved Materials section (Section 106) of Bulletin 15 for a complete listing of Publication 408 Sections that fall within this category.
# Section 805: Mulching

## 805.2(a)1 Mulches: Seeded Areas

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AMEE1 15</strong></td>
<td>American Excelsior Company, 850 Avenue H East, P.O. Box 5067, Arlington, TX 76011 <a href="http://americanexcelsior.com/">http://americanexcelsior.com/</a></td>
<td>AME1 15</td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>Excel Wood Fiber Mulch II</td>
<td>1992-313</td>
</tr>
<tr>
<td><strong>ENCAP 15</strong></td>
<td>Encap, LLC, 3921 Algoma Road, Green Bay, WI 54311-9707 <a href="http://encap.net/">http://encap.net/</a></td>
<td>ENCAP 15</td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>Pam-12 Recycled Paper Mulch</td>
<td>2007-128</td>
</tr>
<tr>
<td><strong>HSTRAW15</strong></td>
<td>HydroStraw, LLC, 22110 South State Route 27, Rockford, WA 99030 <a href="https://www.hydrostraw.com/">https://www.hydrostraw.com/</a></td>
<td>HSTRAW15</td>
</tr>
<tr>
<td>Straw</td>
<td>HydroStraw® Original</td>
<td>2012-153</td>
</tr>
<tr>
<td><strong>MATTT 15</strong></td>
<td>Mat, Inc., 12402 Highway 2, Floodwood, MN 55736 <a href="https://www.matinc.biz/">https://www.matinc.biz/</a></td>
<td>MATTT 15</td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>Bindex Wood WT</td>
<td>2011-074QA</td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>Mat Fiber Plus</td>
<td>1992-150D</td>
</tr>
<tr>
<td><strong>PROFP 15</strong></td>
<td>Profile Products, LLC, 750 W. Lake Cook Road, Suite 440, Buffalo Grove, IL 60089 <a href="http://www.profileproducts.com/">http://www.profileproducts.com/</a></td>
<td>PROFP 15</td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>Conwed Fibers 2000</td>
<td>1990-279</td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>Conwed Fibers Hydro Mulch 1000</td>
<td>2014-162MB</td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>EcoSolutions EcoFibre™</td>
<td>2016-113</td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>Lesco HydroCover Wood</td>
<td>2016-113</td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>SoilCover Wood</td>
<td>2016-113</td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>Terra-Mulch Terra-Wood™</td>
<td>2016-113</td>
</tr>
</tbody>
</table>
### Section 805: Mulching

#### 805.2(a)1 Mulches: Seeded Areas

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TENSR 15</td>
<td>Tensar International Corporation, 7265 AL Highway 9S, Centre, AL 35960</td>
<td><a href="http://www.tensarcorp.com/">http://www.tensarcorp.com/</a></td>
</tr>
<tr>
<td>Formerly Mulch and Seed Innov. (MULSI)</td>
<td>Wood Fiber</td>
<td>GeoSkin Hydraulic (Wood Fiber Alternate)</td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved as an alternate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wood Fiber</td>
<td>GeoSkin XT Hydraulic (Wood Fiber Alternate)</td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved as an alternate.</td>
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</tbody>
</table>

#### 805.2(a)1.e Mulches: Seeded Areas, Bonded Fiber Matrix

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARPF 15</td>
<td>Carolina Precision Fibers, Inc., 145 Factory Street, Rhonda, NC 28670</td>
<td><a href="http://www.carolinafibers.com/">http://www.carolinafibers.com/</a></td>
</tr>
<tr>
<td></td>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>Mulch and Grow BFM</td>
</tr>
<tr>
<td>CENTF 15</td>
<td>Profile Products, LLC, 750 W. Lake Cook Road, Suite 440, Buffalo Grove, IL 60089</td>
<td><a href="http://www.profileproducts.com/">http://www.profileproducts.com/</a></td>
</tr>
<tr>
<td></td>
<td>1525 Waynesburg Drive SE Canton, OH 44707</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>EnviroMatt</td>
</tr>
<tr>
<td></td>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>SprayMatt</td>
</tr>
<tr>
<td>EMSAL 15</td>
<td>E M Sales, LLC, 212 East High Street, Suite 102, Pottstown, PA 19464</td>
<td><a href="http://emsalesllc.com/">http://emsalesllc.com/</a></td>
</tr>
<tr>
<td></td>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>Fibre Mat</td>
</tr>
<tr>
<td>HSTRAW15</td>
<td>HydroStraw, LLC, 22110 South State Route 27, Rockford, WA 99030</td>
<td><a href="https://www.hydrostraw.com/">https://www.hydrostraw.com/</a></td>
</tr>
<tr>
<td></td>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>HydroStraw® Bonded Fiber Matrix (BFM)</td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved as an alternate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>HydroStraw® Guar Plus</td>
</tr>
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</tbody>
</table>
## Section 805: Mulching

### 805.2(a)1.e Mulches: Seeded Areas, Bonded Fiber Matrix

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATNU 15 Facility Mat, Inc., 12402 Highway 2, Floodwood, MN 55736 <a href="https://www.matinc.biz/">https://www.matinc.biz/</a> Mat-NuWood, LLC 811 Price Place Lenoir, NC 28645</td>
<td>Spray Guard</td>
<td>2018-269Q</td>
</tr>
<tr>
<td>Facility Mat-NuWood, LLC 811 Price Place Lenoir, NC 28645</td>
<td>Flex Guard</td>
<td>2010-004Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Soil Guard</td>
<td>1996-046</td>
</tr>
<tr>
<td>PROFP 15 Plant Profile Products, LLC, 750 W. Lake Cook Road, Suite 440, Buffalo Grove, IL 60089 <a href="http://www.profileproducts.com/">http://www.profileproducts.com/</a> 219 Simpson Street SW Conover, NC 28613</td>
<td>EcoSolutions EcoAegis® BFM</td>
<td>2016-100Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
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</tr>
<tr>
<td></td>
<td>EcoSolutions EcoFlex™ HP-FGM™</td>
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<tr>
<td></td>
<td>EcoSolutions EcoMatrix™ (EFM)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flexterra HP-FGM</td>
<td>1998-153</td>
</tr>
<tr>
<td></td>
<td>Hydro-Blanket</td>
<td>2006-003Q</td>
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<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
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<tr>
<td></td>
<td>ProMatrix EFM</td>
<td>2014-262M</td>
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### Introduced by Formerly Mulch and Seed Innov. (MULSI)

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<tr>
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<tbody>
<tr>
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<td></td>
<td>Hydro CM Hydraulically-Applied Mulch</td>
<td>2011-133</td>
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</table>
Section 805: Mulching

805.2(a)1.e Mulches: Seeded Areas, Bonded Fiber Matrix

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
| TERRN 15        | LSC Environmental Products, LLC, 2930 Patton Way, Bakersfield, CA 93308  [http://www.lscenv.com](http://www.lscenv.com/)  
(Formerly Terra Novo, Inc.) | EarthGuard Fiber Matrix 2013-053Q |
| USGY 15         | U. S. Gypsum Company, Industrial Products, 125 South Franklin Street, Chicago, IL 60606-4678 | Airtrol 1994-114  
Enviro-Shield 2006-189Q |

805.2(a)2 Mulches: Planting and Other Areas

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
| LAUVS 15        | Laurel Valley Soils, P.O. Box 640, Avondale, PA 19311  [http://laurelvalleysoils.com](http://laurelvalleysoils.com/)  | LVS Horticultural Compost 2003-013Q  
LVS Premium Compost 2003-013Q |

805.2(b) Mulch Binders

Wood Fiber [See 805.2(a)1.c]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEE0 15</td>
<td>American Excelsior Company, 850 Avenue H East, Arlington, TX 76011  <a href="http://americanexcelsior.com/">http://americanexcelsior.com</a></td>
<td>AM-TAC 1990-278</td>
</tr>
</tbody>
</table>
| CARPF 15        | Carolina Precision Fibers, Inc., 145 Factory Street, Rhonda, NC 28670  [http://www.carolinafibers.com](http://www.carolinafibers.com/)  | Mulch and Grow Hybrid 70/30 Blend 2010-007Q  
Mulch and Grow Premium Cellulose 2010-006Q  
PF Wood Blend 70/30 Mulch 2004-077Q |
## Section 805: Mulching

### 805.2(b) Mulch Binders

Wood Fiber [See 805.2(a.1)(c)]

<table>
<thead>
<tr>
<th>Plant</th>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
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<td>Plant</td>
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<tr>
<td>Plant</td>
<td></td>
<td>Recycled Cellulose Fiber Quickseed</td>
<td>1987-187</td>
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<tr>
<td>Plant</td>
<td></td>
<td>Recycled Cellulose Fiber Mat Blend Plus</td>
<td>1992-150B</td>
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<tr>
<td>Plant</td>
<td></td>
<td>Recycled Cellulose Fiber/Wood Fiber Mixture Bindex Blend WT</td>
<td>2011-074QC</td>
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<td>Plant</td>
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<tr>
<td>Plant</td>
<td></td>
<td>Recycled Cellulose Fiber Terra-Mulch Cellulose</td>
<td>2014-064Q</td>
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<tr>
<td>Plant</td>
<td></td>
<td>Recycled Cellulose Fiber Tornado Tack ST-1000</td>
<td>2015-032Q</td>
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</table>
Section 805: Mulching

805.2(b) Mulch Binders

Wood Fiber [See 805.2(a)1.c]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>RANTC 15</td>
<td>Rantec Corporation, 17 Kukuchka Lane, P.O. Box 729, Ranchester, WY 82839</td>
<td><a href="http://www.ranteccorp.com/">http://www.ranteccorp.com/</a></td>
</tr>
<tr>
<td></td>
<td>Nonasphaltic Emulsion</td>
<td>HF5000 Tack</td>
</tr>
<tr>
<td></td>
<td>2012-211</td>
<td></td>
</tr>
<tr>
<td>TURGD 15</td>
<td>Turf Guard Manufacturing, Inc., 489 Sweet Valley Road, Hunlock Creek, PA 18621</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>West Nanticoke, PA 18634</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nonasphaltic Emulsion</td>
<td>Earth Bond</td>
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<td></td>
<td>2002-017Q</td>
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805.2(c) Mulch Control Netting

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>BELTN 15</td>
<td>Belton Industries, P.O. Box 127, Belton, SC 29627</td>
<td><a href="http://www.beltonindustries.com/">http://www.beltonindustries.com/</a></td>
</tr>
<tr>
<td></td>
<td>Coconut Coir Netting</td>
<td>Dekowe Geonet</td>
</tr>
<tr>
<td></td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>TENX0 15</td>
<td>Tenax Corporation, 4800 East Monument Street, Baltimore, MD 21205</td>
<td><a href="http://www.tenaxus.com/">http://www.tenaxus.com/</a></td>
</tr>
<tr>
<td></td>
<td>Plastic Netting</td>
<td>Ornex LM</td>
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<td></td>
<td>1999-036Q</td>
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</table>

805.2(d) Weed Barrier and Weed Control Mats

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HANG0 15</td>
<td>Hanes Geo Components, 815 Buxton Street, Winston-Salem, NC 27101</td>
<td><a href="http://hanesgeo.com/">http://hanesgeo.com/</a></td>
</tr>
<tr>
<td></td>
<td>Weed Barrier Mat</td>
<td>Terra Tex NO3</td>
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<tr>
<td></td>
<td>Weed Barrier Mat</td>
<td>Terra Tex NO4</td>
</tr>
<tr>
<td></td>
<td>Weed Barrier Mat</td>
<td>Terra Top WC</td>
</tr>
<tr>
<td></td>
<td>1996-125</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1986-295</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>(Formerly known as Fiberweb, Inc. and Reemay, Inc.)</td>
<td>Weed Control Mat</td>
<td>Biobarrier II</td>
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<tr>
<td></td>
<td>1994-304</td>
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</tbody>
</table>
### Section 805: Mulching

**805.2(d) Weed Barrier and Weed Control Mats**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weed Barrier Mat</td>
<td>125EX</td>
<td>1999-120Q</td>
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<tr>
<td>Weed Barrier Mat</td>
<td>GTF 200 WBM</td>
<td>1991-329</td>
</tr>
<tr>
<td>Weed Barrier Mat</td>
<td>GTF 200S</td>
<td>1994-197</td>
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</tbody>
</table>
Section 806: Rolled Erosion Control Products (RECPs)
For contracts let on or after April 7th, 2017 (Pub 408, 2016 Change No. 2), temporary and permanent Rolled Erosion Control Products (RECPs) are project-specific, locally approved materials.

In accordance with Publication 408, Section 106.02(a)2.c, a material specified for use in this Section is defined as a Project-Specific, Locally Approved Material.

PennDOT does not require manufacturers of Project-Specific, Locally Approved Materials to submit a Product Evaluation Application for approval and listing of their material(s) in Bulletin 15. Project-Specific, Locally Approved Materials are not listed in Bulletin 15.

Contractors proposing to use materials that meet the specification requirements must list them on Form CS-200 (Source of Supply-Materials) and submit them for local approval by the Representative (i.e. at the District or project level). Refer to Publication 408, Section 806 for specification requirements. Submit for local approval by the Representative all required information for the material, as indicated in the specification.

Also refer to the Project Specific, Locally Approved Materials section (Section 106) of Bulletin 15 for a complete listing of Publication 408 Sections that fall within this category.

Use of any product listed in this Section is ultimately subject to County Conservation District (DEP’s representatives) oversight and acceptance for project field conditions.

806.2(a) Erosion Control (EC) Mats and EC Mulch Blankets
Products listed in this section are approved for contracts let prior to April 7th, 2017. For contracts let on or after this date (Pub 408, 2016 Change No. 2), temporary and permanent RECPs are project-specific, locally approved materials that must meet the specification referenced in contract.

Use of any product listed in this Section is ultimately subject to County Conservation District (DEP’s representatives) oversight and acceptance for project field conditions.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>ABITC 15</td>
<td>Abitec, Inc., 105 Grove Circle, Chalfont, PA 18914</td>
<td></td>
</tr>
<tr>
<td>EC Mat</td>
<td>Jute Mat</td>
<td>1999-192Q</td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>Curlex I Excel Blanket</td>
<td>1982-029</td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>Curlex Quickgrass</td>
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</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>Curlex II Excel Blanket</td>
<td>----</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>Curlex III (HV)</td>
<td>----</td>
</tr>
</tbody>
</table>
## Section 806: Rolled Erosion Control Products (RECPs)

### 806.2(a) Erosion Control (EC) Mats and EC Mulch Blankets

Products listed in this section are approved for contracts let prior to April 7th, 2017. For contracts let on or after this date (Pub 408, 2016 Change No. 2), temporary and permanent RECPs are project-specific, locally approved materials that must meet the specification referenced in contract.

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEE1 15</td>
<td>American Excelsior Company, 850 Avenue H East, P.O. Box 5067, Arlington, TX 76011 <a href="http://americanexcelsior.com/">http://americanexcelsior.com/</a> 831 Pioneer Avenue, Rice Lake, WI</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AEC Premier Straw Fibrenet Single Net</td>
<td>2013-219M</td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved</td>
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</tr>
<tr>
<td></td>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AEC Premier Straw Single Net</td>
<td>2008-064Q</td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Curlex I Fibrenet Single Net</td>
<td>2013-221M</td>
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<td></td>
<td>Conditionally Approved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Velocity EC Mulch Blanket</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AEC Premier Straw Double Net</td>
<td>2008-065Q</td>
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<td>AEC Premier Straw Fibrenet Double Net</td>
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<td>High Velocity EC Mulch Blanket</td>
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<td></td>
<td>AEC Premier Straw/Coconut</td>
<td>2006-091Q</td>
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<td>High Velocity EC Mulch Blanket</td>
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<td>AEC Premier Straw/Coconut Fibrenet Dual</td>
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<td>High Velocity EC Mulch Blanket</td>
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<td></td>
<td>Curlex Enforcer</td>
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<td>High Velocity EC Mulch Blanket</td>
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<td></td>
<td>Curlex II CL</td>
<td>2012-106Q</td>
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<td></td>
<td>Curlex II Fibrenet Double Net</td>
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<tr>
<td></td>
<td>Curlex III Fibrenet</td>
<td>2013-207</td>
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<tr>
<td>AMEEA 15</td>
<td>American Earth Solutions, LLC, 5830 Highway 161, Springfield, TN 37172 Formerly Robex LLC (ROBEX)</td>
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<td></td>
<td>EC Mulch Blanket (Organic Mulch)</td>
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<td></td>
<td>RobexShield RS-1</td>
<td>2001-069Q</td>
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<td>High Velocity EC Mulch Blanket</td>
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<tr>
<td></td>
<td>RobexShield RS-2</td>
<td>2001-070Q</td>
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</tbody>
</table>

Last Revised: 7/16/2019
Section 806: Rolled Erosion Control Products (RECPs)

806.2(a) Erosion Control (EC) Mats and EC Mulch Blankets

Products listed in this section are approved for contracts let prior to April 7th, 2017. For contracts let on or after this date (Pub 408, 2016 Change No. 2), temporary and permanent RECPs are project-specific, locally approved materials that must meet the specification referenced in contract.

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>EC Mat</td>
<td>Antiwash</td>
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<tr>
<td>EC Mat</td>
<td>EC-7Y</td>
<td>2011-079Q</td>
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<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>ECS-1</td>
<td>2003-027Q</td>
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<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>ECS-1B Single Net Straw</td>
<td>2008-110</td>
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<tr>
<td>Conditionally Approved as an alternate.</td>
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<td></td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>ECS-1D</td>
<td>2009-134Q</td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>ECX-1 Curled Wood</td>
<td>2004-182Q</td>
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<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>ECC-2</td>
<td>2005-038Q</td>
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<td>High Velocity EC Mulch Blanket</td>
<td>ECC-2B Double Net Coconut</td>
<td>2008-108</td>
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<td>Conditionally Approved as an alternate.</td>
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<td></td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>ECS-2 Straw</td>
<td>2003-028Q</td>
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<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>ECS-2B Double Net Straw</td>
<td>2008-111</td>
</tr>
<tr>
<td>Conditionally Approved as an alternate.</td>
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</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>ECS-2D Temporary Straw</td>
<td>2003-031Q</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>ECSC-2 Straw Coconut</td>
<td>2003-029Q</td>
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<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>ECSC-2B Double Net Straw/Coconut</td>
<td>2008-109</td>
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<td>Conditionally Approved as an alternate.</td>
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<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>ECX-2</td>
<td>2004-183Q</td>
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</table>
Section 806: Rolled Erosion Control Products (RECPs)

806.2(a) Erosion Control (EC) Mats and EC Mulch Blankets

Products listed in this section are approved for contracts let prior to April 7th, 2017. For contracts let on or after this date (Pub 408, 2016 Change No. 2), temporary and permanent RECPs are project-specific, locally approved materials that must meet the specification referenced in contract.

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>ECS-P 15 Erosion Control Systems, Inc., 9015 Energy Lane, Northport, AL 35476</td>
<td>EC Mulch Blanket (Organic Mulch) Proguard S1</td>
<td>1991-288A</td>
</tr>
<tr>
<td></td>
<td>High Velocity EC Mulch Blanket Everhold XL1</td>
<td>1991-301A</td>
</tr>
<tr>
<td></td>
<td>High Velocity EC Mulch Blanket Everhold XL2</td>
<td>1991-301B</td>
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<tr>
<td></td>
<td>High Velocity EC Mulch Blanket Proguard S2</td>
<td>1991-288B</td>
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<td>EC Mulch Blanket (Organic Mulch) S2000BD</td>
<td>2015-113</td>
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<td>High Velocity EC Mulch Blanket S2000</td>
<td>2003-083Q</td>
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<tr>
<td></td>
<td>High Velocity EC Mulch Blanket SC3000</td>
<td>2010-313QC</td>
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<tr>
<td>EROCB 15 Erosion Control Blanket, Highway 8 &amp; Virdir Line Road, Riverton R0C 2R0 <a href="http://www.erosioncontrolblanket.com/">http://www.erosioncontrolblanket.com/</a></td>
<td>EC Mulch Blanket (Organic Mulch) S31</td>
<td>2007-031Q</td>
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<td>EC Mulch Blanket (Organic Mulch) S31 UVD</td>
<td>2007-024Q</td>
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<td>High Velocity EC Mulch Blanket S32</td>
<td>2007-025Q</td>
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<td></td>
<td>High Velocity EC Mulch Blanket S32 UVD</td>
<td>2007-026Q</td>
</tr>
<tr>
<td></td>
<td>High Velocity EC Mulch Blanket SC32</td>
<td>2007-027Q</td>
</tr>
</tbody>
</table>
BULLETIN 15 (Publication 35)
Qualified Products List for Construction

Section 806: Rolled Erosion Control Products (RECPs)

806.2(a) Erosion Control (EC) Mats and EC Mulch Blankets

Products listed in this section are approved for contracts let prior to April 7th, 2017. For contracts let on or after this date (Pub 408, 2016 Change No. 2), temporary and permanent RECPs are project-specific, locally approved materials that must meet the specification referenced in contract.

Use of any product listed in this Section is ultimately subject to County Conservation District (DEP’s representatives) oversight and acceptance for project field conditions.

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOAMG 15</td>
<td>North American Green, 5401 St. Wendel-Cynthiana Road, Poseyville, IN 47633 <a href="http://www.tensarnagreen.com/">http://www.tensarnagreen.com/</a></td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch) DS150 ECB</td>
<td>1990-121</td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch) DS75 ECB</td>
<td>1990-119</td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch) S75 ECB</td>
<td>1990-118</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket C125 ECB</td>
<td>1990-124</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket C350 ECB</td>
<td>1995-018</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket S150 ECB</td>
<td>1990-120</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket SC150 ECB</td>
<td>1990-122</td>
</tr>
<tr>
<td>NYPPA 15</td>
<td>NYP Corporation - PA Division, 10 Site Road, Leola, PA 17540 <a href="http://nyp-corp.com/">http://nyp-corp.com/</a></td>
</tr>
<tr>
<td>EC Mat JM 48 ECM</td>
<td>2001-222Q</td>
</tr>
<tr>
<td>PROP2 15</td>
<td>Propex Operating Company, LLC, 4019 Industry Drive, Chattanooga, TN 37416 <a href="http://www.propexglobal.com/">http://www.propexglobal.com/</a></td>
</tr>
<tr>
<td>Plant 428 Rollins Industrial Blvd. Ringgold, GA 30736</td>
<td></td>
</tr>
<tr>
<td>EC Mat</td>
<td>Landlok 407GR (Polyjute) 1992-254</td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch) Landlok S1</td>
<td>1991-212</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket Landlok C2</td>
<td>1991-211</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket Landlok CS2</td>
<td>1991-210</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket Landlok S2</td>
<td>1991-213</td>
</tr>
<tr>
<td>USECP 15</td>
<td>US Erosion Control Products, 1034 Albany Avenue West, Pearson, GA 31642</td>
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<tr>
<td>High Velocity EC Mulch Blanket US-2C</td>
<td>2012-002QD</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket US-2S</td>
<td>2012-002QB</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket US-2S/C</td>
<td>2012-002QC</td>
</tr>
</tbody>
</table>
Section 806: Rolled Erosion Control Products (RECPs)

806.2(a) Erosion Control (EC) Mats and EC Mulch Blankets

Products listed in this section are approved for contracts let prior to April 7th, 2017. For contracts let on or after this date (Pub 408, 2016 Change No. 2), temporary and permanent RECPs are project-specific, locally approved materials that must meet the specification referenced in contract.

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<table>
<thead>
<tr>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>EXCEL R-1 ECB 1985-201</td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>EXCEL S-2 2001-061Q</td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>EXCEL SR-1 2001-004Q</td>
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<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>EXCEL SR-1 Rapid Go 2001-005Q</td>
</tr>
<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>EXCEL SS-2 Rapid Go 2001-007Q</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>EXCEL CC-4 2001-009Q</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>EXCEL CS-3 2001-008Q</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>EXCEL S-2 1996-154A</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>EXCEL SD-3 1996-154B</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>EXCEL SS-2 2001-006Q</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>Permamat 100 1996-154D</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>Permamat 150F ECB 1996-154E</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>Permamat 200F 1996-154C</td>
</tr>
</tbody>
</table>

806.2(b) Turf Reinforcement Mat (TRM)

Products listed in this section are approved for contracts let prior to April 7th, 2017. For contracts let on or after this date (Pub 408, 2016 Change No. 2), temporary and permanent RECPs are project-specific, locally approved materials that must meet the specification referenced in contract.

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<table>
<thead>
<tr>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>Recyclex TRM 2002-009Q</td>
</tr>
</tbody>
</table>
Section 806: Rolled Erosion Control Products (RECPs)

806.2(b) Turf Reinforcement Mat (TRM)

Products listed in this section are approved for contracts let prior to April 7th, 2017. For contracts let on or after this date (Pub 408, 2016 Change No. 2), temporary and permanent RECPs are project-specific, locally approved materials that must meet the specification referenced in contract.

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEE15</td>
<td>American Excelsior Company, 850 Avenue H East, P.O. Box 5067, Arlington, TX 76011 <a href="http://americanexcelsior.com/">http://americanexcelsior.com/</a></td>
<td>2010-283Q</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>Recylex-TRM-V</td>
<td>2010-283Q</td>
</tr>
<tr>
<td>Eacob15</td>
<td>East Coast Erosion Blankets, LLC, 443 Bricker Road, Bernville, PA 19506 <a href="http://eastcoasterosion.com/">http://eastcoasterosion.com/</a></td>
<td>2007-167Q</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>ECC-3 Coconut Triple Net</td>
<td>2007-167Q</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>ECP-2</td>
<td>2006-037Q</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>ECP-2 10 oz.</td>
<td>2013-112Q</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>ECP-3 TRM</td>
<td>2013-111Q</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>T-RECS/G</td>
<td>2011-201Q</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>P42</td>
<td>2007-029QA</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>C350 TRM</td>
<td>2002-057Q</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>P300P TRM</td>
<td>1991-190</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>SC250 TRM</td>
<td>2010-300</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>Landlok Geomat 1060</td>
<td>1991-178</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>Landlok TRM 435</td>
<td>2005-049Q</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>Landlok TRM 450</td>
<td>2005-049Q</td>
</tr>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>Pyramat</td>
<td>1996-024</td>
</tr>
</tbody>
</table>
Section 806: Rolled Erosion Control Products (RECPs)

806.2(b) Turf Reinforcement Mat (TRM)

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WESEX 15</td>
<td>Western Excelsior, Inc., 901 Grand Avenue, P.O. Box 659, Mancos, CO 81328 <a href="http://westernexcelsior.com/">http://westernexcelsior.com/</a></td>
<td>Turf Reinforcement Mat (TRM) EXCEL PP5-10 2001-060Q</td>
</tr>
</tbody>
</table>

806.2(c) Erosion Control and Revegetation (ECR) Mat

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEE1 15</td>
<td>American Excelsior Company, 850 Avenue H East, P.O. Box 5067, Arlington, TX 76011 <a href="http://americanexcelsior.com/">http://americanexcelsior.com/</a></td>
<td>ECR Mat, Type A Curlex Enforcer 2012-096Q ECR Mat, Type A Recylex TRM 2011-130Q ECR Mat, Type A Recylex TRM-V 2012-041Q</td>
</tr>
<tr>
<td>EACEB 15</td>
<td>East Coast Erosion Blankets, LLC, 443 Bricker Road, Bernville, PA 19506 <a href="http://eastcoasterosion.com/">http://eastcoasterosion.com/</a></td>
<td>ECR Mat, Type A ECC-3 2004-009Q ECR Mat, Type A ECP-2 2009-135Q ECR Mat, Type A ECP-2 10 oz. 2010-143QB ECR Mat, Type A ECP-3 2010-153Q ECR Mat, Type A ECSC-3 2010-143QA</td>
</tr>
</tbody>
</table>
Section 806: Rolled Erosion Control Products (RECPs)

806.2(c) Erosion Control and Revegetation (ECR) Mat

Products listed in this section are approved for contracts let prior to April 7th, 2017. For contracts let on or after this date (Pub 408, 2016 Change No. 2), temporary and permanent RECPs are project-specific, locally approved materials that must meet the specification referenced in contract.

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EROCB 15</td>
<td>Erosion Control Blanket, Highway 8 &amp; Virdir Line Road, Riverton R0C 2R0 <a href="http://www.erosioncontrolblanket.com/">http://www.erosioncontrolblanket.com/</a></td>
<td>2007-029QB</td>
</tr>
<tr>
<td></td>
<td>ECR Mat, Type A</td>
<td>P42</td>
</tr>
<tr>
<td>GRES 15</td>
<td>Sika Greenstreak, 3400 Tree Court, Industrial Boulevard, Box 7139, St. Louis, MO 63177 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td>1987-198</td>
</tr>
<tr>
<td></td>
<td>ECR Mat, Type B</td>
<td>GREES 15</td>
</tr>
<tr>
<td>NOAMG 15</td>
<td>North American Green, 5401 St. Wendel-Cynthiana Road, Poseyville, IN 47633 <a href="http://www.tensarnagreen.com/">http://www.tensarnagreen.com/</a></td>
<td>TENX0 15</td>
</tr>
<tr>
<td></td>
<td>ECR Mat, Type A</td>
<td>C350 ECRM</td>
</tr>
<tr>
<td></td>
<td>ECR Mat, Type A</td>
<td>Éronet P300 LW</td>
</tr>
<tr>
<td>PROP2 15</td>
<td>Propex Operating Company, LLC, 4019 Industry Drive, Chattanooga, TN 37416 <a href="http://www.propexglobal.com/">http://www.propexglobal.com/</a></td>
<td>WESEX 15</td>
</tr>
<tr>
<td></td>
<td>ECR Mat, Type A</td>
<td>Landlok Geomat 1060</td>
</tr>
<tr>
<td></td>
<td>ECR Mat, Type A</td>
<td>Landlok Geomat 450</td>
</tr>
<tr>
<td></td>
<td>ECR Mat, Type A</td>
<td>Landlok TRM 435</td>
</tr>
<tr>
<td>TENX 15</td>
<td>Tenax Corporation, 4800 East Monument Street, Baltimore, MD 21205 <a href="http://www.tenaxus.com/">http://www.tenaxus.com/</a></td>
<td>WESEX 15</td>
</tr>
<tr>
<td></td>
<td>ECR Mat, Type A</td>
<td>Multimat 100</td>
</tr>
<tr>
<td>WESEX 15</td>
<td>Western Excelsior, Inc., 901 Grand Avenue, P.O. Box 659, Mancos, CO 81328 <a href="http://westernexcelsior.com/">http://westernexcelsior.com/</a></td>
<td>EXCEL PP5-10</td>
</tr>
<tr>
<td></td>
<td>ECR Mat, Type A</td>
<td>2001-010Q</td>
</tr>
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</table>
## Section 808: Plants, Planting and Transplanting

### 808.2(a)6 Bare Root (BR) Plants

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Superconcentrated Water Absorbent Gel</td>
<td>Horta-Sorb SM</td>
</tr>
</tbody>
</table>

### 808.2(c) Fertilizer

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fertilizer</td>
<td>The Unique Feeder, 16-8-16 Packet 4 oz.</td>
</tr>
</tbody>
</table>

### 808.2(f) Soil Amendments

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mycorrhizal Inoculation (Trees)</td>
<td>Diehard Transplant</td>
</tr>
<tr>
<td></td>
<td>Water Absorbent Polymer</td>
<td>Horta-Sorb LG</td>
</tr>
<tr>
<td>LAUVS 15</td>
<td>Laurel Valley Soils, P.O. Box 640, Avondale, PA 19311 <a href="http://laurelvalleysoils.com/">http://laurelvalleysoils.com/</a></td>
<td>2003-014Q</td>
</tr>
<tr>
<td></td>
<td>Spent Mushroom Soil Compost</td>
<td>LVS Horticultural Compost</td>
</tr>
<tr>
<td></td>
<td>Spent Mushroom Soil Compost</td>
<td>LVS Premium Compost</td>
</tr>
<tr>
<td></td>
<td>Mycorrhizal Inoculation (Bare Root Seedlings and Transplants)</td>
<td>Mycor Tree Root Dip</td>
</tr>
<tr>
<td></td>
<td>Mycorrhizal Inoculation (Trees)</td>
<td>Mycor Tree Saver</td>
</tr>
<tr>
<td>PROFP 15</td>
<td>Profile Products, LLC, 750 W. Lake Cook Road, Suite 440, Buffalo Grove, IL 60089 <a href="http://www.profileproducts.com/">http://www.profileproducts.com/</a></td>
<td>2016-128</td>
</tr>
<tr>
<td>Plant</td>
<td>Paper Mill Compost</td>
<td>ProGanics™ Biotic Soil Media™ (BSM™)</td>
</tr>
</tbody>
</table>

Conditionally approved as an alternate. The required soil testing and interpretation will be performed by Profile Products. Contractor must adhere to the manufacturer's usage and application guidelines.
### Section 808: Plants, Planting and Transplanting

#### 808.2(f) Soil Amendments

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sewage Sludge Compost</td>
<td>UAJA Compost</td>
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</table>

#### 808.2(g)3 Collar Strap Attachments

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KESLK 15</td>
<td>Keslick and Son, 214 North Penn Street, West Chester, PA 19380</td>
<td>1996-033</td>
</tr>
<tr>
<td></td>
<td>Collar Strap Attachment</td>
<td>CambGuards</td>
</tr>
<tr>
<td></td>
<td>Collar Strap Attachment</td>
<td>ArborTie</td>
</tr>
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</table>

#### 808.2(i) Time-Release Water

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time-Release Water</td>
<td>Driwater</td>
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</table>
Section 855: Pumped Water Filter Bag

855.2(a) Pumped Water Filter Bag

Pumped Water Filter Bag: Standard Drawing of Dewatering Devices RC-75M (Pub 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Filter Bag</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Protector 1515 10 oz Sediment Filter Bag</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Filter Bag</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FilterBag 1515P</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Filter Bag</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IVI 1515 Sediment Filter Bag</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Filter Bag</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enviro-Protection Filter Bag (15’ x 15’)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Filter Bag</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FB-3 Filter Bag</td>
<td></td>
</tr>
<tr>
<td>WINFB 15</td>
<td>Willacoochee Ind. Fabrics, Inc, 769 West Main Street, P.O. Box 599, Willacoochee, GA 31650 <a href="http://winfabusa.com/">http://winfabusa.com/</a></td>
<td>2016-187Q</td>
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<td></td>
<td>Filter Bag</td>
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<td>DWB10</td>
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</table>
## Section 857: Concrete Block Revetment Systems

### 857.2 Concrete Block Revetment Systems

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>BETPR 15</td>
<td>Bethlehem Precast, Inc., 835 East North Street, Bethlehem, PA 18017</td>
<td><a href="http://www.bethlehemprecast.com/">http://www.bethlehemprecast.com/</a></td>
</tr>
<tr>
<td></td>
<td>Precaster, Concrete Block Revetment System</td>
<td>Cable Concrete</td>
</tr>
<tr>
<td></td>
<td>Licensor: International Erosion Control Systems</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precaster, Concrete Block Revetment System</td>
<td>A-Jacks</td>
</tr>
<tr>
<td></td>
<td>Licensor: ARMORTEC Erosion Control Solutions (Contech Engineered Solutions)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precaster, Concrete Block Revetment System</td>
<td>ArmorFlex</td>
</tr>
<tr>
<td></td>
<td>Licensor: ARMORTEC Erosion Control Solutions (Contech Engineered Solutions)</td>
<td>2000-188Q</td>
</tr>
<tr>
<td></td>
<td>Precaster, Concrete Block Revetment System</td>
<td>ArmorLoc</td>
</tr>
<tr>
<td></td>
<td>Licensor: ARMORTEC Erosion Control Solutions (Contech Engineered Solutions)</td>
<td>2000-189Q</td>
</tr>
</tbody>
</table>
Section 860: Storm Inlet Protection

860.2(a) Inlet Filter Bag

Project-Specific, Locally Approved Material.

In accordance with Publication 408, Section 106.02(a.2.c, a material specified for use in this Section is defined as a Project-Specific, Locally Approved Material.

PennDOT does not require manufacturers of Project-Specific, Locally Approved Materials to submit a Product Evaluation Application for approval and listing of their material(s) in Bulletin 15. Project-Specific, Locally Approved Materials are not listed in Bulletin 15.

Contractors proposing to use materials that meet the specification requirements must list them on Form CS-200 (Source of Supply-Materials) and submit them for local approval by the Representative (i.e. at the District or project level). Refer to Publication 408, Section 860 for specification and documentation requirements. Submit for local approval by the Representative all required information for the material, as indicated in the specification.

Also refer to the Project Specific, Locally Approved Materials section (Section 106) of Bulletin 15 for a complete listing of Publication 408 Sections that fall within this category.

860.2(b) Concrete Block/Gravel Inlet Protection for Type M, S, or C Inlets

Last Revised: 11/7/2018

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKB-15</td>
<td>MKB Company, 3450 East College Ave, State College, PA 16801</td>
<td><a href="https://www.mkbcompany.com/">https://www.mkbcompany.com/</a></td>
</tr>
<tr>
<td></td>
<td>Frame &amp; Filter Assembly</td>
<td>2018-131</td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved as an alternate to stone filter inlet protection. * Shall be installed and used per manufacturer’s specifications and guidelines.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Shall only be used for inlets at grade level.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Shall not be placed where ponding water or inlet protection may be hazardous to vehicular traffic. If a PennDOT Representative determines the use of this product poses a safety hazard on location of inlet, its project use will not be allowed. Blackhawk Inlet Filter Mat Product Specifications and Installation/Maintenance Procedure.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frame &amp; Filter Assembly</th>
<th>Black Hawk Inlet Filter Mat 2'X4' Type-M</th>
<th>2018-131</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditionally Approved as an alternate to stone filter inlet protection. * Shall be installed and used per manufacturer’s specifications and guidelines.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Shall only be used for inlets at grade level.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Shall not be placed where ponding water or inlet protection may be hazardous to vehicular traffic. If a PennDOT Representative determines the use of this product poses a safety hazard on location of inlet, its project use will not be allowed. Blackhawk Inlet Filter Mat Product Specifications and Installation/Maintenance Procedure.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 860: Storm Inlet Protection

860.2(b) Concrete Block/Gravel Inlet Protection for Type M, S, or C Inlets

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILTS 15 SILT-SAVER, INC, 1094 CULPEPPER DRIVE, CONYERS, GA 30094-0000</td>
<td>Frame &amp; Filter Assembly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R-100A-DOT (Round)</td>
<td>2013-057</td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved as an alternate to stone filter inlet protection. * Shall be installed and used per manufacturer’s specifications and guidelines. * Shall only be used for inlets at grade level which are not adjacent to a curb or gutter. * Shall not be placed where ponding water or inlet protection may be hazardous to vehicular traffic. If a PennDOT Representative determines the use of this product poses a safety hazard on location of inlet, its project use will not be allowed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frame &amp; Filter Assembly</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S-200A-DOT (Square)</td>
<td>2013-057</td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved as an alternate to stone filter inlet protection. * Shall be installed and used per manufacturer’s specifications and guidelines. * Shall only be used for inlets at grade level which are not adjacent to a curb or gutter. * Shall not be placed where ponding water or inlet protection may be hazardous to vehicular traffic. If a PennDOT Representative determines the use of this product poses a safety hazard on location of inlet, its project use will not be allowed.</td>
<td></td>
</tr>
</tbody>
</table>
Section 865: Silt Barrier Fence

865.2 Geotextile Silt Fence Fabricators

Fabricate according to Standard Drawing RC-70M (Publication 72M)

30” Fence Requires Mesh Support. Maximum Post Spacing is 8 feet for Fence using Class 3, Type A Geotextile. Maximum Post Spacing is 4 feet for Fence using Class 3, Type B Geotextile.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Geotextile Type</th>
<th>Max Post Spacing (ft)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACF-1 15</td>
<td>ACF Environmental, Inc., 2831 Cardwell Road, Richmond, VA 23234</td>
<td>PD3A18100</td>
<td>Class 3, Type A</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 18” Height</td>
<td>PD3B18052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 30” Height</td>
<td>PD3A30100</td>
<td>Class 3, Type A</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>With Approved Mesh</td>
<td>PD3B30052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
<tr>
<td>AMEE0 15</td>
<td>American Excelisor Company, 850 Avenue H East, Arlington, TX 76011</td>
<td>PD3A18100</td>
<td>Class 3, Type A</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 18” Height</td>
<td>PD3B18052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Hanes Geo Components, 815 Buxton Street, Winston-Salem, NC 27101</td>
<td>PD3A18100</td>
<td>Class 3, Type A</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 18” Height</td>
<td>PD3B18052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 30” Height</td>
<td>PD3A30100</td>
<td>Class 3, Type B</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>With Approved Mesh</td>
<td>PD3B30052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
<tr>
<td>INDVA 15</td>
<td>Indian Valley Industries, Inc., 5 Pine Camp Dr., Binghamton, NY 13904</td>
<td>PD3A18100</td>
<td>Class 3, Type A</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 18” Height</td>
<td>PD3B18052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 30” Height</td>
<td>PD3A30100</td>
<td>Class 3, Type B</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>With Approved Mesh</td>
<td>PD3B30052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
</tbody>
</table>
Section 865: Silt Barrier Fence

865.2 Geotextile Silt Fence Fabricators

Fabricate according to Standard Drawing RC-70M (Publication 72M)

Last Revised: 1/31/2020

30” Fence Requires Mesh Support. Maximum Post Spacing is 8 feet for Fence using Class 3, Type A Geotextile. Maximum Post Spacing is 4 feet for Fence using Class 3, Type B Geotextile.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Geotextile Type</th>
<th>Max Post Spacing (ft)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOHNS 15</td>
<td>Johnston-Morehouse Dickey Company, 5401 Progress Boulevard, P.O. Box 173, Bethel Park, PA 15102 <a href="http://www.jmdcompany.com/">http://www.jmdcompany.com/</a></td>
<td>Silt Barrier Fence, 18&quot; Height</td>
<td>JMD 3A</td>
<td>Class 3, Type A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silt Barrier Fence, 18&quot; Height</td>
<td>JMD 3B</td>
<td>Class 3, Type B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silt Barrier Fence, 18&quot; Height</td>
<td>JMD 3B</td>
<td>Class 3, Type B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>With Approved Mesh</td>
<td>Silt Barrier Fence, 30&quot; Height</td>
<td>JMD 3A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>With Approved Mesh</td>
<td>Silt Barrier Fence, 30&quot; Height</td>
<td>JMD 3B</td>
</tr>
<tr>
<td>MKB-1 15</td>
<td>MKB Company, 3450 East College Ave, State College, PA 16801 <a href="https://www.mkbcompany.com/">https://www.mkbcompany.com/</a></td>
<td>Multi-layer Geotextile Filter Fence</td>
<td>SILTRON</td>
<td>Conditionally approved per manufacturer's specifications as an alternate to Class 3, Type A.</td>
</tr>
<tr>
<td>MUTAL 15</td>
<td>Mutual Industries, 707 West Grange Street, Philadelphia, PA 19120 <a href="http://www.mutualindustries.com/">http://www.mutualindustries.com/</a></td>
<td>Silt Barrier Fence, 18&quot; Height</td>
<td>PA DOT 3B18</td>
<td>Class 3, Type B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silt Barrier Fence, 18&quot; Height</td>
<td>PA DOT 3B18</td>
<td>Class 3, Type B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>With Approved Mesh</td>
<td>Silt Barrier Fence, 30&quot; Height</td>
<td>PA DOT 3B30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>With Approved Mesh</td>
<td>Silt Barrier Fence, 30&quot; Height</td>
<td>PA DOT 3B30</td>
</tr>
</tbody>
</table>
## Section 865: Silt Barrier Fence

### 865.2 Geotextile Silt Fence Fabricators

Fabricate according to [Standard Drawing RC-70M (Publication 72M)](http://www.frankrobertsandsons.com/)

30" Fence Requires Mesh Support. Maximum Post Spacing is 8 feet for Fence using Class 3, Type A Geotextile. Maximum Post Spacing is 4 feet for Fence using Class 3, Type B Geotextile.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Geotextile Type</th>
<th>Max Post Spacing (ft)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROBER 15</td>
<td>Frank Roberts and Sons, Inc., 1130 Robertsville Road, Punxsutawney, PA 15767</td>
<td><a href="http://www.frankrobertsandsons.com/">http://www.frankrobertsandsons.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silt Barrier Fence, 18&quot; Height</td>
<td>FR 110-278M</td>
<td>Class 3, Type B</td>
<td>8</td>
<td>1988-125</td>
</tr>
<tr>
<td>With Approved Mesh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silt Barrier Fence, 18&quot; Height</td>
<td>FR 180-304 Blue</td>
<td>Class 3, Type B</td>
<td>4</td>
<td>1991-372</td>
</tr>
<tr>
<td>Silt Barrier Fence, 18&quot; Height</td>
<td>FR 400-306 White</td>
<td>Class 3, Type A</td>
<td>8</td>
<td>1991-370</td>
</tr>
<tr>
<td>Silt Barrier Fence, 30&quot; Height</td>
<td>FR 180-424M Black</td>
<td>Class 3, Type B</td>
<td>4</td>
<td>1991-373</td>
</tr>
<tr>
<td>With Approved Mesh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silt Barrier Fence, 30&quot; Height</td>
<td>FR 400-428M Red</td>
<td>Class 3, Type A</td>
<td>8</td>
<td>1991-371</td>
</tr>
<tr>
<td>With Approved Mesh</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 867: Compost Filter Sock
Project-Specific, Locally Approved Material.

In accordance with Publication 408, Section 106.02(a)2.c, a material specified for use in this Section is defined as a Project-Specific, Locally Approved Material.

PennDOT does not require manufacturers of Project-Specific, Locally Approved Materials to submit a Product Evaluation Application for approval and listing of their material(s) in Bulletin 15. Project-Specific, Locally Approved Materials are not listed in Bulletin 15.

Contractors proposing to use materials that meet the specification requirements must list them on Form CS-200 (Source of Supply-Materials) and submit them for local approval by the Representative (i.e. at the District or project level). Refer to Publication 408, Section 867 for specification and documentation requirements. Submit for local approval by the Representative all required information for the material, as indicated in the specification.

Also refer to the Project Specific, Locally Approved Materials section (Section 106) of Bulletin 15 for a complete listing of Publication 408 Sections that fall within this category.
Section 868: Compost Blanket and Compost Filter Berm
Project-Specific, Locally Approved Material.

In accordance with Publication 408, Section 106.02(a)2.c, a material specified for use in this Section is defined as a Project-Specific, Locally Approved Material.

PennDOT does not require manufacturers of Project-Specific, Locally Approved Materials to submit a Product Evaluation Application for approval and listing of their material(s) in Bulletin 15. Project-Specific, Locally Approved Materials are not listed in Bulletin 15.

Contractors proposing to use materials that meet the specification requirements must list them on Form CS-200 (Source of Supply-Materials) and submit them for local approval by the Representative (i.e. at the District or project level). Refer to Publication 408, Section 868 for specification and documentation requirements.

Also refer to the Project Specific, Locally Approved Materials section (Section 106) of Bulletin 15 for a complete listing of Publication 408 Sections that fall within this category.
### Section 874: Temporary Riser Pipe Assembly

#### 874.2(d) Trash Rack and Anti-Vortex Device

Last Revised: 9/19/2017

See [Standard Drawing RC-71M (Publication 72M)](http://www.lane-enterprises.com/)

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANE2 15</td>
<td>Trash Rack and Anti-Vortex Device</td>
<td>2002-050Q</td>
</tr>
<tr>
<td>LANE3 15</td>
<td>Trash Rack and Anti-Vortex Device</td>
<td>2002-049Q</td>
</tr>
<tr>
<td>LANE4 15</td>
<td>Trash Rack and Anti-Vortex Device</td>
<td>2002-068Q</td>
</tr>
<tr>
<td>MANWF_15</td>
<td>Trash Rack and Anti-Vortex Device</td>
<td>2014-061Q</td>
</tr>
<tr>
<td>MORG A 15</td>
<td>Trash Rack and Anti-Vortex Device</td>
<td>2017-058Q</td>
</tr>
</tbody>
</table>
## Section 875: Concrete Outlet Structure

### 875.2(c) Trash Rack

See [Standard Drawing RC-71M (Publication 72M)](http://www.lane-enterprises.com/)

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANE2 15</td>
<td>Lane Enterprises, Inc., 682 Quaker Valley Road, Bedford, PA 15522</td>
<td><a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
</tr>
<tr>
<td></td>
<td>Trash Rack</td>
<td>2002-050Q</td>
</tr>
<tr>
<td>LANE3 15</td>
<td>Lane Enterprises, Inc., 8271 Mercer St., P.O. Box 345, Pulaski, PA 16143</td>
<td><a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
</tr>
<tr>
<td></td>
<td>Trash Rack</td>
<td>2002-049Q</td>
</tr>
<tr>
<td>LANE4 15</td>
<td>Lane Enterprises, Inc, 377 Crooked Lane, King of Prussia, PA 19406</td>
<td><a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
</tr>
<tr>
<td></td>
<td>Trash Rack</td>
<td>2002-068Q</td>
</tr>
<tr>
<td>MANWF_15</td>
<td>Mann Welding &amp; Fabrication LLC, 2755 Schukraft Road, Quakertown, PA 18951</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trash Rack</td>
<td>2014-061Q</td>
</tr>
<tr>
<td>MORGA 15</td>
<td>Morgan's Welding Inc. (Neenah Enterprises, Inc.), 1941 Camp Swatara Road, Myerstown, PA 17067</td>
<td><a href="http://www.nfco.com/">http://www.nfco.com/</a></td>
</tr>
<tr>
<td></td>
<td>Trash Rack</td>
<td>2017-058Q</td>
</tr>
</tbody>
</table>

Last Revised: 9/20/2017
## Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Arrow Panel

Category 4 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Arrow Panel Mount</th>
<th>Allow Panel Power</th>
<th>Size (in)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMIDA 15</td>
<td>Amida Industries, Inc., P. O. Box 3147, Rock Hill, SC 29731</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>DL25-FACH-DLO/4</td>
<td></td>
<td>Trailer</td>
<td>Diesel</td>
<td>48x96</td>
<td>1983-134</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>DLB-15-FACH-E900</td>
<td></td>
<td>Trailer</td>
<td>Battery</td>
<td>48x96</td>
<td>1989-079</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>DLB-25-FACH-E900</td>
<td></td>
<td>Trailer</td>
<td>Battery</td>
<td>48x96</td>
<td>1989-091</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>DLSB-15-ÖDLX4650</td>
<td></td>
<td>Trailer</td>
<td>Battery</td>
<td>48x96</td>
<td>1993-164</td>
</tr>
<tr>
<td>BEMIS 15</td>
<td>Bemis Division, Allmand Brothers, Inc., P.O. Box 888, Holdrege, NE 68949 <a href="https://www.bemis.com/">https://www.bemis.com/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>2200/SE</td>
<td>AB-7</td>
<td>Trailer</td>
<td>Solar Battery</td>
<td>48x96</td>
<td>1992-094</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>96-SER-3-F-S “Ellipse”</td>
<td>AB-7</td>
<td>Trailer</td>
<td></td>
<td></td>
<td>1996-178</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>KO25CTA</td>
<td>AB-7</td>
<td>Trailer</td>
<td>Gas</td>
<td>48x96</td>
<td>-----</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>LI25CTA</td>
<td>AB-7</td>
<td>Trailer</td>
<td>Diesel</td>
<td>48x96</td>
<td>-----</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>LO25CTA</td>
<td>AB-7</td>
<td>Trailer</td>
<td>Diesel</td>
<td>48x96</td>
<td>-----</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>PE25CTA</td>
<td>AB-7</td>
<td>Trailer</td>
<td>Diesel</td>
<td>48x96</td>
<td>-----</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>AB-15</td>
<td></td>
<td>Trailer</td>
<td>Diesel</td>
<td>48x96</td>
<td>1989-092</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>AB15</td>
<td>AB-27</td>
<td>Trailer</td>
<td>Solar Battery</td>
<td>48x96</td>
<td>-----</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>AB25</td>
<td>AB-27</td>
<td>Trailer</td>
<td>Solar Battery</td>
<td>48x96</td>
<td>-----</td>
</tr>
<tr>
<td>DISPL 15</td>
<td>Display Solutions, Inc., 6301 Best Friend Road, Norcross, GA 30071 <a href="https://www.displaysolutionsgroup.com/">https://www.displaysolutionsgroup.com/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>Sunray Solar 15 Lamp</td>
<td></td>
<td>Trailer</td>
<td>Solar Battery</td>
<td>48x96</td>
<td>2001-203Q</td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>Sunray Solar 25 Lamp</td>
<td></td>
<td>Trailer</td>
<td>Solar Battery</td>
<td>48x96</td>
<td>2001-204Q</td>
</tr>
<tr>
<td>FEDER 15</td>
<td>Federal Construction Products, 2645 Federal Sign Dr., University Park, IL 60466</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrow Panel</td>
<td>RW-1FA</td>
<td></td>
<td>Trailer</td>
<td>Diesel</td>
<td>48x96</td>
<td>1988-169</td>
</tr>
</tbody>
</table>
# Section 901: Maintenance and Protection of Traffic During Construction

## 901.2 Arrow Panel

### Category 4 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Arrow Panel Mount</th>
<th>Allow Panel Power</th>
<th>Size (in)</th>
<th>Ref. No.</th>
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</table>

*May be used only on stationary operations.*

*Must be aimed every time it is set up or moved.*

<table>
<thead>
<tr>
<th>Hi-VU 15</th>
<th>Hi-Vu, Inc., 1000 E. 9th Street, Indianapolis, IN 46202</th>
<th>Arrow Panel</th>
<th>AO2413</th>
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| INTC 15           | International Traffic Control Products, Inc., FM 2169, P.O. Box 24, Junction, TX 76849 | Arrow Panel       | ITCP 15L           | Trailer           | Solar Battery | 48x96   | 1999-001Q  |

| KKSYS 15          | K & K Systems, 687 Palmetto Road, Tupelo, MS 38801 | Arrow Panel       | KKAB5025           | AB-28             | Solar Battery | 48x96   | -----      |
### Section 901: Maintenance and Protection of Traffic During Construction

**901.2 Arrow Panel**

Category 4 Temporary Traffic Control Device

Last Revised: 5/3/2019

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Arrow Panel Mount</th>
<th>Allow Panel Power</th>
<th>Size (in)</th>
<th>Ref. No.</th>
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<td><strong>NATSG 15</strong></td>
<td>National Signal, Inc., 2440 Artesia Avenue, Fullerton, CA 92833 <a href="http://www.nationalsignalinc.net/">http://www.nationalsignalinc.net/</a></td>
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**Section 901: Maintenance and Protection of Traffic During Construction**

### 901.2 Arrow Panel

Category 4 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Arrow Panel Mount</th>
<th>Allow Panel Power</th>
<th>Size (in)</th>
<th>Ref. No.</th>
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<td>Trailer</td>
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<td>1992-041</td>
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**May be used only on stationary operations.**  
**Must be aimed every time it is set up or moved.**

| Arrow Panel AB-2025 | Trailer | Solar Battery | 48x96 | 1992-041 |

**May be used only on stationary operations.**  
**Must be aimed every time it is set up or moved.**

| Arrow Panel AB-2025 (WB) | Trailer | Solar Battery | 48x96 | 1992-288 |
| Arrow Panel AT-0515 | AB-20 | Vehicle | Solar Battery | 48x96 | ----- |
| Arrow Panel AT-0715 | AB-20 | Vehicle | Solar Battery | 48x96 | ----- |
### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Arrow Panel

Category 4 Temporary Traffic Control Device

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<td>St. Joseph, MO 64501</td>
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<td>SunEL 15</td>
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<td>Includes a 66&quot;x112&quot; message sign on the back of the arrow panel. Approved as a combination portable changeable message sign and 48&quot;x96&quot; arrow panel.</td>
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http://sunshine.us.com/

http://www.superiorsignals.com/
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901.2 Arrow Panel

Category 4 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Arrow Panel Mount</th>
<th>Allow Panel Power</th>
<th>Size (in)</th>
<th>Ref. No.</th>
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<td>TC1-15D</td>
<td>Trailer</td>
<td>Battery</td>
<td></td>
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<td>Arrow Panel</td>
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<td>Arrow Panel</td>
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<td>Skid Diesel</td>
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<td>TC1-15S Pulsar</td>
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<td>Arrow Panel</td>
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<td>Arrow Panel</td>
<td>TM1-15B</td>
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<td>Arrow Panel</td>
<td>TM1-15RS</td>
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Last Revised: 5/3/2019
### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Arrow Panel

Category 4 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Arrow Panel Mount</th>
<th>Allow Panel Power</th>
<th>Size (in)</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>TRLCM 15</td>
<td>Trailer Component Manufacturing, Inc., 7795 Division Drive, Mentor, OH 44060</td>
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<td>Arrow Panel</td>
<td>7636EC/PD</td>
<td>Trailer</td>
<td>Diesel</td>
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<td>Arrow Panel</td>
<td>7636EF/PD</td>
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<td>Diesel</td>
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<td>D2000</td>
<td>Trailer</td>
<td>Diesel</td>
<td>48x96</td>
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<td>Arrow Panel</td>
<td>S6000</td>
<td>Trailer</td>
<td>Solar Battery</td>
<td>48x96</td>
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<td>USSEA 15</td>
<td>U. S. Seal, Inc., 281 West Sixth Street, West Wyoming, PA 18644</td>
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<td>Arrow Panel</td>
<td>2500</td>
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<td>Solar Battery</td>
<td>48x96</td>
<td>1990-156</td>
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</table>

- May be used only on stationary operations.
- Must be aimed every time it is set up or moved.

#### VERMI 15


| Arrow Panel     | ST-4825 | AB-23 | Trailer | Solar Battery | 48x96 | 2011-223Q |
| Arrow Panel     | VM-95S  | AB-23 | Trailer | Solar Battery | 48x96 | 1997-155  |
### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Arrow Panel

Category 4 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Arrow Panel Mount</th>
<th>Allow Panel Power</th>
<th>Size (in)</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>Arrow Panel WRB5-A</td>
<td>Vehicle</td>
<td>Vehicle (12V)</td>
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<tr>
<td>Arrow Panel WRB5-SA</td>
<td>Vehicle</td>
<td>Vehicle (12V)</td>
<td>30x60</td>
<td>1989-093G</td>
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<tr>
<td>Arrow Panel WRB5-SAC</td>
<td>Vehicle</td>
<td>Vehicle (12V)</td>
<td>30x60</td>
<td>1989-093H</td>
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<tr>
<td>Arrow Panel WRB6-SA</td>
<td>Vehicle</td>
<td>Vehicle (12V)</td>
<td>36x72</td>
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<tr>
<td>Arrow Panel WTB8-SA</td>
<td>Vehicle</td>
<td>Vehicle (12V)</td>
<td>48x96</td>
<td>1989-093K</td>
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</tr>
<tr>
<td>Arrow Panel WTB8-SAC</td>
<td>Trailer</td>
<td>Diesel</td>
<td>48x96</td>
<td>1989-093C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrow Panel WTB8-SC</td>
<td>Vehicle</td>
<td>Vehicle (12V)</td>
<td>48x96</td>
<td>1989-093L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrow Panel WTB8-SC</td>
<td>Trailer with Skid</td>
<td>Diesel</td>
<td>48x96</td>
<td>1989-093A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrow Panel WTB8-SAC</td>
<td>Trailer</td>
<td>Diesel</td>
<td>48x96</td>
<td>1989-093D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrow Panel WTGB8-SA</td>
<td>Trailer</td>
<td>Diesel</td>
<td>48x96</td>
<td>1989-093B</td>
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<td></td>
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<tr>
<td>Arrow Panel WTSP10-LSA</td>
<td>Trailer</td>
<td>Solar Battery</td>
<td>48x96</td>
<td>2001-091Q</td>
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<tr>
<td>Arrow Panel WTSP55-LSA</td>
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<td>Solar Battery</td>
<td>48x96</td>
<td>2001-091Q</td>
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<tr>
<td>Arrow Panel WTSP75-LSA</td>
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<td>Solar Battery</td>
<td>48x96</td>
<td>2001-091Q</td>
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<tr>
<td>Arrow Panel WTSV-LSA (W</td>
<td>ECO 15 Light Display Panel, Vertical Mast)</td>
<td>Trailer</td>
<td>Solar Battery</td>
<td>48x96</td>
<td>2018-260Q</td>
<td></td>
</tr>
</tbody>
</table>

| Arrow Panel VMAW-30-15LV | AB-17 | Vehicle | Vehicle (12V) | 30x60 | 1992-350 |
| Arrow Panel WAAM-100-15D | AB-17 | Trailer | Diesel | 48x96 | 1991-283 |
| Arrow Panel WAP-WAAM-15SB | AB-17 | Trailer | Solar Battery | 48x96 | 1990-165 |

*May be used only on stationary operations.*

*Must be aimed every time it is set up or moved.*

| Arrow Panel WAP-WAAM-15SB-III | AB-17 | Trailer | Solar Battery | 48x96 | 1993-049 |
**Section 901: Maintenance and Protection of Traffic During Construction**

### 901.2 Automated Flagger Assistance Device

**Category 4 Temporary Traffic Control Device**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>INTE5 15</td>
<td>IntelliStrobe Safety Systems, LLC, 4136 S. McCann Ct., Springfield, MO 65804</td>
<td>INTES 15</td>
<td>AFAD-3</td>
<td>Stand Alone</td>
<td>Battery</td>
</tr>
<tr>
<td></td>
<td>Automated Flagger Assistance Device</td>
<td>W1-AG</td>
<td>W1-AG/TM</td>
<td>AFAD-3</td>
<td>Trailer</td>
</tr>
<tr>
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<td>Automated Flagger Assistance Device</td>
<td>WS1-AG/TM</td>
<td>AFAD-3</td>
<td>Trailer</td>
<td>Solar Battery</td>
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<tr>
<td>RCFLG 15</td>
<td>North America Traffic Inc. (R. C. Flagman), 7 Petersburg Circle, Port Colborne, Ontario, Canada L3K 5V5</td>
<td>RCF 2.4</td>
<td>AFAD-1</td>
<td>Trailer</td>
<td>Solar Battery</td>
</tr>
<tr>
<td>SAFTI 15</td>
<td>Safety Technologies, Inc., 28932 Highway 58 Blvd., Red Wing, MN 55066</td>
<td>AF 76</td>
<td>AFAD-2</td>
<td>Trailer</td>
<td>Solar Battery</td>
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<td>Automated Flagger Assistance Device</td>
<td>AutoFlagger AF-54</td>
<td>AutoFlagger AF-54</td>
<td>AFAD-1</td>
<td>Stand Alone</td>
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<tr>
<td>SITE2 15</td>
<td>Site 2020, 1505 Barrington Street, Suite 711, Halifax, Canada B2T 1A4</td>
<td>Guardian SmartFlagger</td>
<td>Guardian SmartFlagger</td>
<td>AFAD-1</td>
<td>Stand Alone</td>
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</table>

**Provisional Approval:** The Bureau of Maintenance and Operations, Work Zones and Regulations Department will monitor the Guardian SmartFlagger’s performance for a period of one year after its first project use.

### 901.2 Drums, Nonmetallic

The listed devices have been self-certified for crashworthiness by the vendor and are deemed compliant with NCHRP-350. The devices may be sold for use in Pennsylvania. Nonmetallic drums manufactured after December 31, 2019 must be certified as MASH 2016 compliant. [Clarifications on Implementing the AASHTO MASH 2016 Edition (May 9, 2018)]

**Category 1 Temporary Traffic Control Device**

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>CORTI 15</td>
<td>Cortina Safety Products, 10706 West Grand Ave., Franklin Park, IL 60131</td>
<td>Drums, Nonmetallic</td>
<td>360 Channelizer, Model 03-755-6HI</td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Drums, Nonmetallic

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Category 1 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
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<tr>
<td>EASMI 15</td>
<td>Eastern Molding International, 1 Elizabeth Street, Batavia, NY 14020</td>
<td>HTHD with High Density 25lb/40lb Rubber Base</td>
<td>2003-148Q</td>
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<tr>
<td>Drums, Nonmetallic</td>
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<td>HTLD with Low Density 25lb/40lb Rubber Base</td>
<td>2003-149Q</td>
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<tr>
<td>LAKSD 15</td>
<td>Lakeside Plastics, Inc., 450 West 33rd Avenue, P.O. Box 2384, Oshkosh, WI 54903</td>
<td>The Director, Model FTS 5</td>
<td>2002-032Q</td>
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<tr>
<td>PLAPC 15</td>
<td>Plasticade Products Corporation, 7700 North Austin Ave., Skokie, IL 60077</td>
<td>Commander Traffic Drum, Series 456 - HD (High Density)</td>
<td>2018-118Q</td>
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<tr>
<td>Drums, Nonmetallic</td>
<td>Commander Traffic Drum, Series 456 - LD (Low Density)</td>
<td>2018-181Q</td>
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<tr>
<td>Drums, Nonmetallic</td>
<td>Econocade II Drum, Series 452 High Density</td>
<td>2013-162QB</td>
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<tr>
<td>Drums, Nonmetallic</td>
<td>Econocade II Drum, Series 452 Low Density</td>
<td>2013-162QA</td>
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<td>Drums, Nonmetallic</td>
<td>Rhino Channelizer Barrel 454 High Density</td>
<td>ND-13</td>
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<tr>
<td>Drums, Nonmetallic</td>
<td>Rhino Channelizer Barrel 454 Low Density</td>
<td>ND-13</td>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

**901.2 Drums, Nonmetallic**

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<table>
<thead>
<tr>
<th>Category 1 Temporary Traffic Control Device</th>
<th>Name</th>
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<th>Ref. No.</th>
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<tbody>
<tr>
<td><strong>PLASS 15</strong> Plastic Safety Systems, Inc., 2444 Baldwin Road, P.O. Box 20140, Cleveland, OH 44104 <a href="http://plasticsafety.com/">http://plasticsafety.com/</a></td>
<td>LifeGard HDPE with Rubber Collar</td>
<td>1992-100A</td>
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<tr>
<td>Drums, Nonmetallic</td>
<td>LifeGard LDPE with Rubber Collar and Light</td>
<td>1992-100B</td>
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<tr>
<td><strong>SERVM 15</strong> Service &amp; Materials Company, Inc., 4835 East County Road 600, Sunman, IN 47041</td>
<td>1500 HD Channelizer Standard with Rubber Base and Light</td>
<td>1991-098</td>
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<td>Drums, Nonmetallic</td>
<td>1500 LD Channelizer Standard with Rubber Base and Light</td>
<td>1991-098</td>
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<td>Drums, Nonmetallic</td>
<td>PB-85 Commander, 2-piece, O</td>
<td>1991-098</td>
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<tr>
<td>Drums, Nonmetallic</td>
<td>Model 18000HDPE LW Standard with Sand Base and Light</td>
<td>1991-103</td>
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<td>Drums, Nonmetallic</td>
<td>Model 18000HDPE Standard with Sand Base and Light</td>
<td>1991-102</td>
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<td>Drums, Nonmetallic</td>
<td>Model 18000HDPE with Rubber Ring Ballast and Light</td>
<td>1995-008</td>
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<td>Drums, Nonmetallic</td>
<td>Model 18000LDPE Standard with Sand Base and Light</td>
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<td>Drums, Nonmetallic</td>
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<td>1995-008</td>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Drums, Nonmetallic

The listed devices have been self-certified for crashworthiness by the vendor and are deemed compliant with NCHRP-350. The devices may be sold for use in Pennsylvania. Nonmetallic drums manufactured after December 31, 2019 must be certified as MASH 2016 compliant. [Clarifications on Implementing the AASHTO MASH 2016 Edition (May 9, 2018)]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>WORKA 15</td>
<td>Work Area Protection Corporation, 2500 Production Drive, PO Box 4087, St. Charles, IL 60174 <a href="http://workareaprotection.com/">http://workareaprotection.com/</a></td>
<td>B-500LC with Rubber Tire Base, Plastic Base w/wo Light</td>
<td>ND-04</td>
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<tr>
<td>Drums, Nonmetallic</td>
<td>Drums, Nonmetallic</td>
<td>1993-144</td>
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<td>Drums, Nonmetallic</td>
<td>B-200HDPE with Sand Base</td>
<td>1993-143</td>
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<td>Drums, Nonmetallic</td>
<td>B-300HDPE with Rubber Tire Base</td>
<td>1996-236B</td>
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<td>Drums, Nonmetallic</td>
<td>B-400HDPE with Rubber Base and Light</td>
<td>1996-236A</td>
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<td>Drums, Nonmetallic</td>
<td>B-400HDPE with Sand Base and Light</td>
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901.2 Intrusion Alarm

Category 2 Temporary Traffic Control Device

<table>
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<th>Product</th>
<th>Name</th>
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<th>Ref. No.</th>
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<td>1997-015A</td>
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<tr>
<td>Intrusion Alarm</td>
<td>Model HWZIA-500</td>
<td>PCIA-2</td>
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<td>Provisionally Approved</td>
<td>1997-015B</td>
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</table>

| SAFLS 15 | Safe-Lite Systems, 1050 Eagle Road, Newton, PA 18940 | Model 10A-M | 1997-032 |
| Intrusion Alarm | Must use 70 durometer pneumatic tube |

901.2 Lane Separator Curb

Last Revised: 2/7/2019

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
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Section 901: Maintenance and Protection of Traffic During Construction

901.2 Lane Separator Curb

Last Revised: 2/7/2019

<table>
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<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Lane Separator Curb</td>
<td>IRS Tuff Curb XLP</td>
<td>LSC-02</td>
</tr>
<tr>
<td></td>
<td>Lane Separator Curb</td>
<td>Tuff Curb</td>
<td>LSC-02</td>
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<tr>
<td></td>
<td>Facility 3110 70th Avenue East  Tacoma, WA 98424</td>
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<td></td>
<td>Lane Separator Curb</td>
<td>FG 300 Curb</td>
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<td>Lane Separator Curb</td>
<td>Qwick Kurb</td>
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901.2 Longitudinal Channelizing Devices

Category 3 Temporary Traffic Control Device

Last Revised: 1/25/2019

<table>
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<th>Product</th>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>REMCON 15</td>
<td>REMCON Plastics Inc., 208 Chestnut Street, Reading, PA 16902 <a href="https://www.remcon.com/">https://www.remcon.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plant 208 Chestnut Street  Reading, PA 16902</td>
<td></td>
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<tr>
<td></td>
<td>Longitudinal Channelizing Device, Plastic Barrier</td>
<td>Guardsafe 36</td>
<td></td>
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<td></td>
<td>~ Guardsafe 36 Technical Drawing</td>
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<tr>
<td></td>
<td>Longitudinal Channelizing Device, Plastic Barrier</td>
<td>Sentry (Water Filled Temporary)</td>
<td>LCD-03</td>
</tr>
<tr>
<td>TRISD 15</td>
<td>Trident Security Devices, Inc., 1017 Prospect Avenue, Elkins, PA 19027</td>
<td></td>
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<tr>
<td></td>
<td>Longitudinal Channelizing Device, Plastic Barrier</td>
<td>Roadguard 2</td>
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<td>Longitudinal Channelizing Device, Plastic Barrier</td>
<td>Model 2001</td>
<td>LCD-02</td>
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<td>Longitudinal Channelizing Device, Plastic Barrier</td>
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### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Portable Changeable Message Signs

Category 4 Temporary Traffic Control Device

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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>PCMS Type</th>
<th>PCMS Power</th>
<th>Size (in)</th>
<th>PCMS Mount</th>
<th>PCMS Message</th>
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<td>Battery/Vehicle/Generator</td>
<td>42x84</td>
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<td>Trailer</td>
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<td>ADVSP 15</td>
<td>Advanced Safety Products, P.O. Box 2663, Fallbrook, CA 92088</td>
<td>VMS Message Master</td>
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<td>Trailer/Vehicle</td>
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<td>CMS-T320</td>
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<td>Portable Changeable Message Sign</td>
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<td>PS-8</td>
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<td>Trailer</td>
<td>Full Matrix</td>
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<td>Trailer</td>
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## Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Portable Changeable Message Signs

Category 4 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>PCMS Type</th>
<th>PCMS Power</th>
<th>Size (in)</th>
<th>PCMS Mount</th>
<th>PCMS Message</th>
<th>Ref. No.</th>
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<td>VP-4000</td>
<td>PS-20</td>
<td>LED</td>
<td>Solar Battery</td>
<td>77x133</td>
<td>Trailer</td>
<td>3-Line</td>
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<td>Portable Changeable Message Sign</td>
<td>VP-4000 FM</td>
<td>PS-20</td>
<td>LED</td>
<td>Solar Battery</td>
<td>77x133</td>
<td>Trailer</td>
<td>Full Matrix</td>
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<tr>
<td><strong>DISPL 15</strong></td>
<td>Display Solutions, Inc., 6301 Best Friend Road, Norcross, GA 30071</td>
<td><a href="https://www.displaysolutionsgroup.com/">https://www.displaysolutionsgroup.com/</a></td>
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<td>Portable Changeable Message Sign</td>
<td>Gen III</td>
<td>PS-2</td>
<td>Lamp</td>
<td>Diesel</td>
<td>75x94</td>
<td>Trailer</td>
<td>3-Line</td>
<td>1981-132</td>
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<td>Portable Changeable Message Sign</td>
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<td>PS-2</td>
<td>Lamp</td>
<td>Diesel</td>
<td>30x89</td>
<td>Trailer</td>
<td>1-Line</td>
<td>1981-005</td>
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<td>Portable Changeable Message Sign</td>
<td>Gen VI</td>
<td>PS-2</td>
<td>Flip Disk</td>
<td>Diesel</td>
<td>78x124</td>
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<td>Flip Disk</td>
<td>Diesel</td>
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<td>1990-301</td>
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<td>NightHawk 340</td>
<td>PS-2</td>
<td>Flip Disk</td>
<td>Diesel</td>
<td>76x111</td>
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<td>1993-166</td>
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<td>PCMS-2</td>
<td>PS-2</td>
<td>Lamp</td>
<td>Diesel</td>
<td>66x112</td>
<td>Trailer</td>
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<td>Portable Changeable Message Sign</td>
<td>Sunray 340</td>
<td>PS-2</td>
<td>LED</td>
<td>Solar Battery</td>
<td>76x111</td>
<td>Trailer</td>
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<td>1995-096</td>
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<td>Portable Changeable Message Sign</td>
<td>Sunray 380</td>
<td>PS-2</td>
<td>LED</td>
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<td>Trailer</td>
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<td>PS-2</td>
<td>LED</td>
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<td>Full Matrix</td>
<td>2000-228Q</td>
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<td>Portable Changeable Message Sign</td>
<td>Sunray Mini FM</td>
<td>PS-2</td>
<td>LED</td>
<td>Solar Battery</td>
<td>48x96</td>
<td>Trailer</td>
<td>Full Matrix</td>
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<td><strong>INTTC 15</strong></td>
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<td>PS-2</td>
<td>Lamp</td>
<td>Solar Battery</td>
<td>76x113</td>
<td>Trailer</td>
<td>3-Line</td>
<td>1996-113</td>
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<td>Lamp</td>
<td>Solar Battery</td>
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<td>Full Matrix</td>
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<td><strong>KKSYS 15</strong></td>
<td>K &amp; K Systems, 687 Palmetto Road, Tupelo, MS 38801</td>
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<td><strong>LAKET 15</strong></td>
<td>Lake Technologies, Inc., 28248 Country Road 561, Tavares, FL 32778</td>
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<td>Flip Disk</td>
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<td><strong>LITSI 15</strong></td>
<td>LiteSys Inc., 150 Pollywog Lane, Belgrade, MT 59714</td>
<td><a href="http://www.litesys.com/">http://www.litesys.com/</a></td>
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<td>PS-19</td>
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<td>Battery/Vehicle</td>
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<td>Vehicle</td>
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# Section 901: Maintenance and Protection of Traffic During Construction

## 901.2 Portable Changeable Message Signs

### Category 4 Temporary Traffic Control Device

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<th>Product Code</th>
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<th>PCMS Type</th>
<th>PCMS Power</th>
<th>Size (in)</th>
<th>PCMS Mount</th>
<th>PCMS Message</th>
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<td>Trailer</td>
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<td>Trailer</td>
<td>3-Line</td>
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<td>Must be equipped with LED lamps, model HLMT-CL00.</td>
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<td>76x126</td>
<td>Trailer</td>
<td>Full Matrix</td>
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<td>Plant St. Joseph, MO 64501</td>
<td>Portable Changeable Message Sign AWD</td>
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<td>Trailer</td>
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<td>1984-166</td>
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<td>Includes a 48&quot;x96&quot; arrow board on the back of the message panel. Approved as a combination portable changeable message sign and 48&quot;x96&quot; arrow board.</td>
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Section 901: Maintenance and Protection of Traffic During Construction

901.2 Portable Changeable Message Signs

Category 4 Temporary Traffic Control Device

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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>PCMS Type</th>
<th>PCMS Power</th>
<th>Size (in)</th>
<th>PCMS Mount</th>
<th>PCMS Message</th>
<th>Ref. No.</th>
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<td>Tele-Spot Systems, 76 Progress Drive, Stamford, CT 06902-3600</td>
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<td>317913-001</td>
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<td>Portable Changeable Message Sign (trailer)</td>
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<td>Trailer</td>
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<td>TC1-ADS</td>
<td>PS-15</td>
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<td>Solar/Vehicle</td>
<td>Trailer</td>
<td>Full Matrix</td>
<td>2001-202Q</td>
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<td>VERMI-15</td>
<td>Signalisation VER-MAC, Inc., 1781 Bresse Street, Quebec, Canada G3N 1X3 [<a href="http://www.ver-mac.com/">http://www.ver-mac.com/</a>]</td>
<td>Portable Changeable Message Sign</td>
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901.2 Portable Sign Support

Last Revised: 2/19/2020
### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Portable Sign Support

**FHWA Hardware Eligibility Letters - Work Zone Devices**

**Important Notice:** AASHTO/FHWA Joint Implementation Agreement for MASH 2016

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**Category 2 Temporary Traffic Control Device**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
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<tbody>
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<td><strong>DICKE 15</strong></td>
<td>Dicke Tool Company, 1201 Warren Avenue, Downers Grove, IL 60515 <a href="http://dicketool.com/">http://dicketool.com/</a></td>
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<td>Rubber Base Support</td>
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<td>Tripod Support</td>
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<td>DF3330</td>
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<td>TL-3 (62 mph)</td>
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Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Portable Sign Support

**FHWA Hardware Eligibility Letters - Work Zone Devices**

**Important Notice:** AASHTO/FHWA Joint Implementation Agreement for MASH 2016

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
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<tbody>
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<td>DL1003</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>DL1003 Latch</td>
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<td>TL-3 (62 mph)</td>
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<td>X-Base Support</td>
<td>QLVW</td>
<td>PSS-4</td>
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<td>TL-3 (62 mph)</td>
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<td>STF-12W</td>
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<td>TL-3 (62 mph)</td>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Portable Sign Support

FHWA Hardware Eligibility Letters - Work Zone Devices

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<td>X-Base Support</td>
<td>SUF2000</td>
<td>PSS-4</td>
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<td>X-Base Support</td>
<td>SUF2000S</td>
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<td>TL-3 (62 mph)</td>
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## Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Portable Sign Support

**FHWA Hardware Eligibility Letters - Work Zone Devices**

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### Category 2 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
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<th>Ref. No.</th>
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<td></td>
<td>C-102</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
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<td></td>
<td>C-132</td>
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<td>(62 mph)</td>
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<td>TL-3</td>
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<td>C-202</td>
<td>TL-3</td>
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<td>C-232</td>
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<td>X-553</td>
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<td>X-601</td>
<td>TL-3</td>
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<td>2001-106Q</td>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Portable Sign Support

FHWA Hardware Eligibility Letters - Work Zone Devices

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<table>
<thead>
<tr>
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<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
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<td>351</td>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Portable Sign Support

FHWA Hardware Eligibility Letters - Work Zone Devices

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<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
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<tbody>
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<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48AEE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48AETL</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48C</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48CA</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48CAE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48CE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48CE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48EE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48EE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48ETL</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48UC</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48UCA</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48UCR</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS48UCRA</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS60</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS60A</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS60AE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS60AE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS60AEE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Portable Sign Support

FHWA Hardware Eligibility Letters - Work Zone Devices

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

Temporary work zone devices manufactured after December 31, 2019, must meet the AASHTO MASH 2016 criteria. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

Category 2 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-Base Support</td>
<td>SS560E</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS560EE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS560UCA</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Portable Sign Support

FHWA Hardware Eligibility Letters - Work Zone Devices

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDITC 15 Marketing Displays, Inc. (MDI WorldWide), 38271 W. Twelve Mile Road, Farmington Hills, MI 48331</td>
<td><a href="http://www.mditrafficcontrol.com/">http://www.mditrafficcontrol.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-Base Support 30CAM</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 3612DLK</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 40CAM</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4812</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4814CS</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4814DLK</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4814HDK</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4814K</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4814NSCK</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4814SL</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2015-160QA</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-Base Support 4814SSCK</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4815</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4818</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4850</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4860</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4894CS</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td>X-Base Support 4884KET</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2018-077Q</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-Base Support 5012NS</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2015-160QC</td>
<td></td>
</tr>
</tbody>
</table>

Testing Criteria: NCHRP 350, FHWA Approval Letter: WZ-114
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Portable Sign Support

FHWA Hardware Eligibility Letters - Work Zone Devices

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Category 2 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portable Support</td>
<td>X-Base Support</td>
<td>5012SS</td>
<td>TL-3 (62 mph)</td>
<td>2015-160QD</td>
</tr>
<tr>
<td>Portable Support</td>
<td>X-Base Support</td>
<td>5012SSAL</td>
<td>TL-3 (62 mph)</td>
<td>2015-160QF</td>
</tr>
<tr>
<td>Portable Support</td>
<td>X-Base Support</td>
<td>5012K</td>
<td>TL-3 (62 mph)</td>
<td>2015-160QB</td>
</tr>
<tr>
<td>Portable Support</td>
<td>X-Base Support</td>
<td>50SM</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
</tbody>
</table>

| Portable Support | X-Base Support | Big Buster | TL-3 (62 mph) | 2001-030Q |
| Portable Support | X-Base Support | Econo-Buster 80018 | PSS-3 | TL-3 (62 mph) | 2001-031Q |
| Portable Support | X-Base Support | Lil-Buster 24018 | TL-3 (62 mph) | 2001-032Q |
| Portable Support | X-Base Support | Traffic Stand 22000 | TL-3 (62 mph) | 2001-033Q |
| Portable Support | X-Base Support | Zephyr 26000 | TL-3 (62 mph) | 2001-034Q |
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Portable Sign Support

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Category 2 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNISO 15</td>
<td>UniqueSource, 500 Bent Creek Boulevard, Mechanicsburg, PA 17050-1876</td>
<td><a href="https://www.uniquesource.com/">https://www.uniquesource.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formerly PIBH-15</td>
<td>9905-0075-010</td>
<td>TL-3 (62 mph)</td>
<td>2001-033Q</td>
<td></td>
</tr>
<tr>
<td>FHWA Eligibility Letter: WZ-18, NCHRP-350. Stand supports a roll up sign 12” above the ground and three warning flags on top. Assembled by MCAR, Inc. in Hermitage, PA.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The portable sign part no. 9905-0075-010 is referenced as Model 30SM-PAKD in WZ-18.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 30SM-PAKD Schematic Drawing from WZ-18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>9905-0075-015</td>
<td>TL-3 (62 mph)</td>
<td>2001-034Q</td>
<td></td>
</tr>
</tbody>
</table>

901.2 Safety Markers

Last Revised: 3/27/2015

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAG&amp;S 15</td>
<td>Vara, A. G. &amp; Sons, 4881 Newton Road, Hamburg, NY 14075</td>
<td>OC-5-30-64 Octopus</td>
<td>-----</td>
</tr>
</tbody>
</table>

901.2 Sign Trailer with Solar Powered Flashing Beacons

Last Revised: 4/13/2015

May be used with regulatory or warning series signs within a construction zone.

The sign trailer shall not be used in place of a Type B warning light as required by Department Regulations.

The red beacons shall be used only in conjunction with a stop sign.

Category 4 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Beacon Colors</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

Section 901: Maintenance and Protection of Traffic During Construction

901.2 Sign Trailer with Solar Powered Flashing Beacons

May be used with regulatory or warning series signs within a construction zone.

The sign trailer shall not be used in place of a Type B warning light as required by Department Regulations.

The red beacons shall be used only in conjunction with a stop sign.

Category 4 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Beacon Colors</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
<td>Sign Trailer with Solar Powered Flashing Beacons</td>
<td>PFAW-M91-SST</td>
<td>Yellow and Red</td>
</tr>
<tr>
<td>TRFCN 15</td>
<td>Trafcon Industries, Inc., 81 Texaco Road, Mechanicsburg, PA 17050</td>
<td>Sign Trailer with Solar Powered Flashing Beacons</td>
<td>SST-1</td>
<td>Yellow and Red</td>
</tr>
</tbody>
</table>

901.2 Speed Display Signs

Category 4 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Speed Display Mount</th>
<th>Speed Display Power</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLTS 15</td>
<td>All Traffic Solutions, 3100 Research Drive, State College, PA 16801</td>
<td>Speed Display Sign</td>
<td>SpeedSentry 18</td>
<td>SDS-3 Trailer</td>
<td>Solar Battery</td>
</tr>
<tr>
<td>AMESC 15</td>
<td>American Signal Company, 2755 Bankers Industrial Drive, Atlanta, GA 30360</td>
<td>Speed Display Sign</td>
<td>Digibrite Advantage</td>
<td>SDS-5 Trailer</td>
<td>Solar Battery</td>
</tr>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
<td>Speed Display Sign</td>
<td>ConSAM</td>
<td>SDS-1 Trailer</td>
<td>Solar Battery</td>
</tr>
<tr>
<td>SOLAT 15</td>
<td>Solar Technology, Inc., 7620 Cetronia Road, Allentown, PA 18106</td>
<td>Speed Display Sign</td>
<td>RST-2000</td>
<td>SDS-6 Trailer</td>
<td>Solar Battery</td>
</tr>
</tbody>
</table>
# Section 901: Maintenance and Protection of Traffic During Construction

## 901.2 Speed Display Signs

Last Revised: 1/31/2017

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Speed Display Mount</th>
<th>Speed Display Power</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERMI 15</td>
<td>Signalisation VER-MAC, Inc., 1781 Bresse Street, Quebec, Canada G3N 1X3 <a href="http://www.ver-mac.com/">http://www.ver-mac.com/</a></td>
<td>SP-710</td>
<td>SDS-7</td>
<td>Trailer</td>
<td>Solar Battery</td>
</tr>
</tbody>
</table>

## 901.2 Stop/Slow Paddle, Flashing

Last Revised: 5/19/2015

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Paddle Size (in)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DETRL 15</td>
<td>Detronics Limited, 4003 Bloomington Rd, RR #4, Stoufville, Ontario, Canada</td>
<td>Model TES-336T</td>
<td>18x18</td>
<td>1996-251</td>
</tr>
</tbody>
</table>

## 901.2 Temporary Barricades

Last Revised: 5/23/2019

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# Section 901: Maintenance and Protection of Traffic During Construction

## 901.2 Temporary Barricades

**FHWA Hardware Eligibility Letters - Work Zone Devices**

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### Category 2 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Barricade Light</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALLPI 15</strong></td>
<td>Allied Plastics, Inc., 150 Holy Hill Road, Twin Lakes, WI 53181</td>
<td>Three Sided Barricade</td>
<td>Multicade</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td><strong>CAMSC 15</strong></td>
<td>Camsoo Services, Inc., 255 Pennbriar Drive, Erie, PA 16509</td>
<td>Barricade, Type 2</td>
<td>T2HSA</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td><strong>CORTI 15</strong></td>
<td>Cortina Safety Products, 10706 West Grand Ave., Franklin Park, IL 60131</td>
<td>Barricade, Type 1</td>
<td>Plastx 97-01-001</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barricade, Type 1</td>
<td>Steelcade 97-03-001</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barricade, Type 2</td>
<td>97-11-003-46 SF Series</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barricade, Type 2</td>
<td>97-11-45 F Series</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barricade, Type 2</td>
<td>Plastx 97-01-002</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Barricade, Type 2</td>
<td>Steelcade 97-03-002</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td><strong>HTGCP 15</strong></td>
<td>HTG Custom Plastech, 15002 Cross Creek Parkway, Newbury, OH 44065</td>
<td>Barricade, Type 3</td>
<td>Sentinel B-30</td>
<td></td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td><strong>IMPRS 15</strong></td>
<td>Impact Recovery Systems, Inc., 4955 Stout Drive, San Antonio, TX 78219</td>
<td>Barricade, Type 3</td>
<td>Barricade Series 600</td>
<td>BAR-9</td>
<td>TL-3 (62 mph)</td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barricades

FHWA [Hardware Eligibility Letters - Work Zone Devices]

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Category 2 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Barricade Light</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barricade, Type 1, 2</td>
<td>WBT2 Jammer Plastic</td>
<td>BAR-12</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 1, 2</td>
<td>WBT2 Jammer Steel</td>
<td>BAR-12</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 3</td>
<td>WBT3BR Splice Plate Bracket</td>
<td>BAR-12</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 3</td>
<td>WBT3HP EZ-Kade</td>
<td>BAR-12</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 3</td>
<td>WBT3SW Welded Stub</td>
<td>BAR-12</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 1</td>
<td>100-WT12EG</td>
<td>BAR-10</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 1</td>
<td>Fibercade 101</td>
<td>BAR-10</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 1, 2, Direction Indicator (DI)</td>
<td>SafetyCade</td>
<td></td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>2000-303Q</td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>100-T12B8</td>
<td>BAR-10</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>Fibercade 111</td>
<td>BAR-10</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 3</td>
<td>300 Series</td>
<td>BAR-10</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 3</td>
<td>Type Metallic Barricade</td>
<td>BAR-14</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2012-040Q</td>
</tr>
<tr>
<td>Barricade, Type 1</td>
<td>TD 2000 Works</td>
<td>BAR-1</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>2000-272Q</td>
</tr>
<tr>
<td>Barricade, Type 1</td>
<td>TD 2150 Works</td>
<td>BAR-1</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>2000-272Q</td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>TD 2000 Works</td>
<td>BAR-1</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>2000-272Q</td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>TD 2150 Works</td>
<td>BAR-1</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
</tbody>
</table>

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Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barricades

FHWA Hardware Eligibility Letters - Work Zone Devices

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

Category 2 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Barricade Light</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barricade, Type 1</td>
<td>TD 36000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
</tr>
<tr>
<td>Barricade, Type 1</td>
<td>TD 37000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
</tr>
<tr>
<td>Barricade, Type 1</td>
<td>TD 39000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>TD 36000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>TD 37000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>TD 39000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
</tr>
<tr>
<td>Barricade, Type 3</td>
<td>Model 2001</td>
<td>BAR-7</td>
<td>TL-3 (62 mph)</td>
<td></td>
<td>-----</td>
</tr>
</tbody>
</table>

Maximum water per cell unit: 1060 pounds (482 kg).

May not contain water.

901.2 Temporary Barrier, Concrete (DM-2, Chapter 12)

Last Revised: 3/2/2020
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Concrete (DM-2, Chapter 12)

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 criteria as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. Design Manual Part 2 Highway Design - Temporary Barriers (Publication 13M, Chapter 12.10)

FHWA Acceptance Letters (Refer to this FHWA website for any subsequent or follow-up letters for each approved system): [Longitudinal Barrier Letters](#)

See Section 714.2 Median Barrier (Temporary and Permanent) for approved precasters of standard PennDOT barrier (RC-57M & RC-58M) and licensed barriers.

Important Notice: [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](#)

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

Category 3 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Barrier Shape</th>
<th>Connection Type</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARCO 15 Barrier Connection, LLC, 976 Narcissus Avenue, Clearwater, FL 33767-0564</td>
<td>Temporary Concrete Barrier</td>
<td>10’ or 20’ Modified</td>
<td>VDOT Barrier</td>
<td>F and Loop</td>
<td>32</td>
<td>6.0 ft.</td>
<td>TL-3 (62 mph)</td>
<td>B-54</td>
<td>-----</td>
</tr>
<tr>
<td>EASSI 15 Easi-Set Industries, 5119 Catlett Road, P.O. Box 400, Midland, VA 22728</td>
<td>Temporary Concrete Barrier</td>
<td>12’ and 20’ J-J Hook Barrier</td>
<td>NCHRP 350</td>
<td>F and NJ</td>
<td>J-J Hook</td>
<td>32</td>
<td>4.2 ft.</td>
<td>TL-3 (62 mph)</td>
<td>B-52, SWC02</td>
</tr>
</tbody>
</table>

See Section 714 for Precasters. Drawings for J-J Hooks with NJ or F-Shape Concrete Barrier: [B-52 FHWA Approval Letter (3/26/1999)](#)

Roadway Use only - Bolted to concrete surface. See Section 714 for Precasters. [J-J Hook F-Shape 12’ and 20’ Barrier Bolted & Pinned Drawings Signed by PennDOT 3/30/15](#)
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Concrete (DM-2, Chapter 12)  
Last Revised: 3/2/2020

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 criteria as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact.

Design Manual Part 2 Highway Design - Temporary Barriers (Publication 13M, Chapter 12.10)

FHWA Acceptance Letters (Refer to this FHWA website for any subsequent or follow-up letters for each approved system): **Longitudinal Barrier Letters**

See Section 714.2 Median Barrier (Temporary and Permanent) for approved precasters of standard PennDOT barrier (RC-57M & RC-58M) and licensed barriers.

Important Notice: **AASHTO/FHWA Joint Implementation Agreement for MASH 2016**

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

### Category 3 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Barrier Shape</th>
<th>Connection Type</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>FHWA Acc. Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>EASSI 15</td>
<td>Easi-Set Industries, 5119 Catlett Road, P.O. Box 400, Midland, VA 22728 <a href="http://www.easiset.com/">http://www.easiset.com/</a></td>
<td>Temporary Concrete Barrier 12’ and 20’ J-J Hook Barrier, Pin Down</td>
<td>MASH 2016 F</td>
<td>J-J Hook (MASH)</td>
<td>32</td>
<td>8.8” (0.73 ft.)</td>
<td>TL-3 (62 mph)</td>
<td>B-52C, SWC02c</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roadway Use only - Pinned down to asphalt surface.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>See Section 714 for Precasters.</td>
<td>J-J Hook F-Shape 12’ and 20’ Barrier Bolted &amp; Pinned Drawings Signed by PennDOT 3/30/15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Temporary Concrete Barrier 12’ J-J Hook Barrier, Free Standing</td>
<td>MASH 2016 F</td>
<td>J-J Hook (MASH)</td>
<td>32</td>
<td>64.2” (5.4 ft.)</td>
<td>TL-3</td>
<td>B-300</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PennDOT approved Drawing: J-J Hook F-Shape MASH Free Standing Drawing Signed by PennDOT 02/10/20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KENPR 15</td>
<td>Kentucky Precast, Easi-Set Industries, 5119 Catlett Road, P.O. Box 400, Midland, VA 22728</td>
<td>Temporary Concrete Barrier 20’ J-J Hook Kentucky Barrier</td>
<td>NCHRP NJ</td>
<td>J-J Hook</td>
<td>32</td>
<td>5.5 ft.</td>
<td>TL-3 (62 mph)</td>
<td>B-169</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Approved FHWA Barrier System Design only, not manufacturers. Requires approval by District and Central Office BOPD, Highway Delivery Division, before use.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Concrete (DM-2, Chapter 12)

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 criteria as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. Design Manual Part 2 Highway Design - Temporary Barriers (Publication 13M, Chapter 12.10)

FHWA Acceptance Letters (Refer to this FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

See Section 714.2 Median Barrier (Temporary and Permanent) for approved precasters of standard PennDOT barrier (RC-57M & RC-58M) and licensed barriers.

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

Category 3 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Barrier Shape</th>
<th>Connection Type</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINSY 15 Plant</td>
<td>Lindsay Transportation Solutions, LLC, 180 River Road, Rio Vista, CA 94571 <a href="http://www.lindsay.com/transportation-solutions">http://www.lindsay.com/transportation-solutions</a></td>
<td>3.28’ QuickChange Series 200 Moveable Concrete Barrier (MCB)</td>
<td>NCHRP 350</td>
<td>Tee-Head Pin and Hinge</td>
<td>32</td>
<td>4.4 ft.</td>
<td>TL-3 (62 mph)</td>
<td>B-63, SWC01</td>
<td>2013-052</td>
</tr>
</tbody>
</table>

PennDOT Approved Drawings: QuickChange Series 200 Moveable Concrete Barrier (MCB) Drawings Signed by PennDOT 1/27/14

See Section 714.2 for approved precasters.

MwRSF Report TRP-03-202-08, 03/14/2008 - Evaluation of Box Beam Stiffening of Unanchored Temporary Concrete Barriers
MwRSF Report TRP-03-224-10, 01/27/2010 - Dynamic Evaluation of a Pinned Anchoring System for New York State's Temporary Concrete Barriers - Phase II Midwest Roadside Safety Facility (MwRSF) Test Reports

[419]
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Concrete (DM-2, Chapter 12)

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 criteria as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. Design Manual Part 2 Highway Design - Temporary Barriers (Publication 13M, Chapter 12.10)

FHWA Acceptance Letters (Refer to this FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

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Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

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Category 3 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Barrier Shape</th>
<th>Connection Type</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OHIDO 15</td>
<td>Temporary Concrete Barrier, 10’ Ohio DOT</td>
<td>10’ Ohio DOT</td>
<td>NJ</td>
<td>Pin and Loop</td>
<td>32</td>
<td>5.5 ft.</td>
<td>TL-3 (62 mph)</td>
<td>B-93</td>
<td>-----</td>
</tr>
<tr>
<td>ROCPR 15</td>
<td>Temporary Concrete Barrier, 12’ T-LOK Barrier</td>
<td>12’ T-LOK Barrier</td>
<td>NCHRP 350</td>
<td>F</td>
<td>T-Shape Plate</td>
<td>32</td>
<td>3.8 ft.</td>
<td>TL-3 (62 mph)</td>
<td>B-42, SWC22</td>
</tr>
<tr>
<td>VIRDO 15</td>
<td>Temporary Concrete Barrier, Modified MB-7D</td>
<td>10’ or 20’ VDOT Barrier, Modified MB-7D</td>
<td>NCHRP 350</td>
<td>F</td>
<td>Pin and Loop</td>
<td>32</td>
<td>6.0 ft.</td>
<td>TL-3 (62 mph)</td>
<td>B-54</td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Concrete - Retrofit Systems to Limit Deflection (DM-2, Chapter 12)

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 criteria as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, Section 6.1.3.13, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives. AASHTO/FHWA Joint Implementation Agreement for MASH 2016

Category 3 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Comp. Barrier Shape</th>
<th>Comp. Barrier Conn. Type</th>
<th>Dynamic Deflection (ft)</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FADD2 15</td>
<td>Faddis Concrete Products, 205 West Washington Street, New Castle, PA 16101 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td>Barrier Retrofit System (Limit Deflection) 20' NYS I-Beam, Pinned Sections</td>
<td>MASH 2009</td>
<td>NJ Shape Only</td>
<td>I-Beam</td>
<td>1.7 ft. (20.5&quot;)</td>
<td>2017-095</td>
</tr>
<tr>
<td>FADD3 15</td>
<td>Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td>Barrier Retrofit System (Limit Deflection) 20' NYS I-Beam, Pinned Sections</td>
<td>MASH 2009</td>
<td>NJ Shape Only</td>
<td>I-Beam</td>
<td>1.7 ft. (20.5&quot;)</td>
<td>2017-028</td>
</tr>
<tr>
<td>INTSS 15</td>
<td>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
<td>Barrier Retrofit System (Limit Deflection) 20' NYS I-Beam, Pinned Sections</td>
<td>MASH 2009</td>
<td>NJ Shape Only</td>
<td>I-Beam</td>
<td>1.7 ft. (20.5&quot;)</td>
<td>2014-266QA</td>
</tr>
<tr>
<td>NORPR 15</td>
<td>Northeast Precast, 92 Reese Road, Millville, NJ 08332 <a href="http://www.northeastprecast.com/">http://www.northeastprecast.com/</a></td>
<td>Barrier Retrofit System (Limit Deflection) 20' NYS I-Beam, Pinned Sections</td>
<td>MASH 2009</td>
<td>NJ Shape Only</td>
<td>I-Beam</td>
<td>1.7 ft. (20.5&quot;)</td>
<td>2012-118A</td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Concrete - Retrofit Systems to Limit Deflection (DM-2, Chapter 12)  

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 criteria as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, Section 6.1.3.13, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives. AASHTO/FHWA Joint Implementation Agreement for MASH 2016

Category 3 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Comp. Barrier Shape</th>
<th>Comp. Barrier Conn. Type</th>
<th>Dynamic Deflection (ft)</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRBK 15</td>
<td>Strongstown's B&amp;K Enterprises, Inc., 260 Route 403 South, P. O. Box 124, Strongstown, PA 15957</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barrier Retrofit System (Limit Deflection)</td>
<td>12' Double Slot F-Shape J-J Hook Deflection Reducing Retrofit (asphalt pavement)</td>
<td>MASH 2016</td>
<td>F Shape only</td>
<td>J-J Hook</td>
<td>0.94 ft (11.3&quot;) at TOP, &lt; 5&quot; at BASE</td>
<td>2018-091Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provisionally approved based on successful crash testing by TTI and related FHWA Eligibility Letter to Indiana DOT (B-258). This version uses (2) threaded rods per Bent Plate Anchor Bracket. TTI MASH test report #690900-SBK7 (April 2018)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barrier Retrofit System (Limit Deflection)</td>
<td>12' Double Slot F-Shape J-J Hook Deflection Reducing Retrofit (concrete pavement)</td>
<td>MASH 2016</td>
<td>F Shape only</td>
<td>J-J Hook</td>
<td>1.04 ft (12.5&quot;) at TOP, &lt; 5&quot; at BASE</td>
<td>2018-094Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provisionally approved based on successful crash testing by TTI and related FHWA Eligibility Letter to Indiana DOT (B-258). This version uses (2) threaded rods per Bent Plate Anchor Bracket. TTI MASH test report #690900-SBK6 (April 2018)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barrier Retrofit System (Limit Deflection)</td>
<td>12' F-Shape J-J Hook Deflection Reducing Retrofit (asphalt pavement)</td>
<td>MASH 2016</td>
<td>F Shape only</td>
<td>J-J Hook</td>
<td>1.02 ft (12.2&quot;)</td>
<td>2017-252</td>
<td></td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Concrete - Retrofit Systems to Limit Deflection (DM-2, Chapter 12)

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 criteria as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, Section 6.1.3.13, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives. AASHTO/FHWA Joint Implementation Agreement for MASH 2016

Category 3 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Comp. Barrier Shape</th>
<th>Comp. Barrier Conn. Type</th>
<th>Dynamic Deflection (ft)</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRBK 15</td>
<td>Strongstown's B&amp;K Enterprises, Inc., 260 Route 403 South, P. O. Box 124, Strongstown, PA 15957</td>
<td>Provisionally approved based on successful crash testing by TTI and related FHWA Eligibility Letter to Indiana DOT (B-258). TTI MASH test report #690900-SBK4 (April 2017, revised 6/19/17) Per Strongstown's B&amp;K Enterprises’ Asphalt Pavement Retrofit Drawings Signed by PennDOT 12/05/19</td>
<td>12' F-Shape J-J Hook Retro Fit v3 (concrete pavement)</td>
<td>MASH 2016</td>
<td>F' Shape only</td>
<td>J-J Hook</td>
<td>At Toe: &lt; 1” toward field, 4.0” toward traffic; At Top: 11.9” toward field</td>
</tr>
<tr>
<td>Barrier Retrofit System (Limit Deflection)</td>
<td>STRBK 15</td>
<td>Provisionally approved based on successful crash testing by TTI and related FHWA Eligibility Letter to Indiana DOT (B-258). TTI MASH test report #690900-SBK4 (April 2017, revised 6/19/17) Per Strongstown's B&amp;K Enterprises’ Asphalt Pavement Retrofit Drawings Signed by PennDOT 12/05/19</td>
<td>12' F-Shape J-J Hook Retro Fit v4 (asphalt pavement)</td>
<td>MASH 2016</td>
<td>F’ Shape only</td>
<td>J-J Hook</td>
<td>At Toe: 2.2” toward field; At Top: 8.5” toward field</td>
</tr>
<tr>
<td>Barrier Retrofit System (Limit Deflection)</td>
<td>STRBK 15</td>
<td>Provisionally approved based on successful crash testing by TTI and related FHWA Eligibility Letter to Indiana DOT (B-258). TTI MASH test report #690900-SBK4 (April 2017, revised 6/19/17) Per Strongstown's B&amp;K Enterprises’ Asphalt Pavement Retrofit Drawings Signed by PennDOT 12/05/19</td>
<td>12' F-Shape J-J Hook Deflection Reducing Retrofit (concrete pavement)</td>
<td>MASH 2016</td>
<td>F’ Shape only</td>
<td>J-J Hook</td>
<td>0.99 ft (11.9”)</td>
</tr>
</tbody>
</table>

The limited deflection barrier utilizes (1) 1" x 7 3/4" zinc coated threaded rod with a zinc coated hex nut per each of (2) Bent Plate Anchor Brackets. Nut welded to rod for removal. Strongstown's B&K Enterprises’ Retrofit v3 Concrete Pavement Drawings Signed by PennDOT 12/05/19

The limited deflection barrier utilizes (1) 1" x 7 3/4" zinc coated threaded rod with a zinc coated hex nut per each of (2) Bent Plate Anchor Brackets. Nut welded to rod for removal. Strongstown's B&K Enterprises’ Retrofit v4 Asphalt Pavement Drawings Signed by PennDOT 12/05/19
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Concrete - Retrofit Systems to Limit Deflection (DM-2, Chapter 12)  

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 criteria as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, Section 6.1.3.13, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): [Longitudinal Barrier Letters](#).

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives. [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](#).

Category 3 Temporary Traffic Control Device

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<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Comp. Barrier Shape</th>
<th>Comp. Barrier Conn. Type</th>
<th>Dynamic Deflection (ft)</th>
<th>FHWA Acc. Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRBK 15</td>
<td>Strongstown's B&amp;K Enterprises, Inc., 260 Route 403 South, P. O. Box 124, Strongstown, PA 15957</td>
<td>Provisionally approval based on successful crash testing by TTI and related FHWA Eligibility Letter to Indiana DOT (B-258). TTI MASH test report #690900-SBK4 (April 2017, revised 6/19/17) Per Strongstown's B&amp;K Enterprises' Concrete Pavement Retrofit Drawings Signed by PennDOT 9/12/17</td>
<td>12' PCB Deflection</td>
<td>F shape only</td>
<td>J-J Hook</td>
<td>1.6 ft.</td>
</tr>
<tr>
<td>STRBK 15</td>
<td>Strongstown's B&amp;K Enterprises, Inc., 260 Route 403 South, P. O. Box 124, Strongstown, PA 15957</td>
<td>Provisionally approval based on successful crash testing by TTI and related FHWA Eligibility Letter to Indiana DOT (B-258). TTI MASH test report #690900-SBK4 (April 2017, revised 6/19/17) Per Strongstown's B&amp;K Enterprises' Concrete Pavement Retrofit Drawings Signed by PennDOT 9/12/17</td>
<td>12' PCB Deflection</td>
<td>F shape only</td>
<td>J-J Hook</td>
<td>1.6 ft.</td>
</tr>
</tbody>
</table>

Suspension Notice: Effective June 29, 2016 and until further notice, use of this system is prohibited on projects where this system is not already installed. Where this barrier system is currently installed but will be re-set elsewhere within the project, approval from the District Executive is required prior to re-use within the project. For information regarding this suspension please contact the Bulletin 15 Manager at RA-pdBulletin15@pa.gov. Per Strongstown’s B&K Enterprises’ Retrofit Drawing Dated and Signed by PennDOT 6/6/16

901.2 Temporary Barrier, Steel (DM-2, Chapter 12)
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Steel (DM-2, Chapter 12)

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 Test 3-11 at a 25 degree impact angle as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. Approved Bridge and Structure Products

FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

Category 3 Temporary Traffic Control Device

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>Structure Mounted</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARRS 15</td>
<td>Lindsay Transportation Solutions, LLC (Barrier Systems by Lindsay), 180 River Road, Rio Vista, CA 94571 <a href="http://www.barriersystemsinc.com/">http://www.barriersystemsinc.com/</a></td>
<td>Temporary Steel Barrier 28' ArmorGuard Barrier (AGB)</td>
<td>NCHRP 350</td>
<td>33.3</td>
<td>2.4 to 8.75 ft.</td>
<td>TL-3 (62 mph)</td>
<td>No (Ground Only)</td>
<td>B-173 (SWM07)</td>
</tr>
</tbody>
</table>

Tested deflection varies by configuration from 2.4 to 8.75 ft.
A. 2.4 ft: Based on three 28' AGB sections between six portable concrete barriers on each end (See Figure 1)
B. 4.0 ft: Based on four 28' AGB sections used between permanent barriers (See Figure 6)
C. 8.75 ft: Based on one 28' AGB section between permanent barriers (See Figure 11)
See B-173 FHWA Eligibility Letter for details.
Drawings of Armorguard Barrier: B-173 FHWA Approval Letter With Drawings
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Steel (DM-2, Chapter 12)

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 Test 3-11 at a 25 degree impact angle as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. Approved Bridge and Structure Products

FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

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<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>Structure Mounted</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Absorption Systems, Inc. (Trinity Industries, Inc. Company), 70 West Madison Street, Suite 2350, Chicago, IL 60602</td>
<td>12M Vulcan Barrier and Anchor System</td>
<td>NCHRP 350</td>
<td>32</td>
<td>1 ft.</td>
<td>TL-3 (62 mph)</td>
<td>No (Ground Only)</td>
<td>B-134C, SWM04b</td>
<td>2009-099Q</td>
</tr>
<tr>
<td>Energy Absorption Systems, Inc. (Trinity Industries, Inc. Company), 70 West Madison Street, Suite 2350, Chicago, IL 60602</td>
<td>4M and 12M Vulcan Barrier System</td>
<td>NCHRP 350</td>
<td>32</td>
<td>7.9 ft.</td>
<td>TL-4 (small truck)</td>
<td>No (Ground Only)</td>
<td>B-134D, SWM04a</td>
<td>2009-099Q</td>
</tr>
<tr>
<td>Energy Absorption Systems, Inc. (Trinity Industries, Inc. Company), 70 West Madison Street, Suite 2350, Chicago, IL 60602</td>
<td>Vulcan Barrier System, anchored ends</td>
<td>NCHRP 350</td>
<td>32</td>
<td>6.9 ft. Anchored Ends</td>
<td>TL-3 (62 mph)</td>
<td>No (Ground Only)</td>
<td>B-134, SWM04b</td>
<td>2009-099Q</td>
</tr>
<tr>
<td>Energy Absorption Systems, Inc. (Trinity Industries, Inc. Company), 70 West Madison Street, Suite 2350, Chicago, IL 60602</td>
<td>Vulcan Barrier System, unanchored ends</td>
<td>NCHRP 350</td>
<td>32</td>
<td>13.2 ft. Unanchored Ends</td>
<td>TL-3 (62 mph)</td>
<td>No (Ground Only)</td>
<td>B-134, SWM04b</td>
<td>2009-099Q</td>
</tr>
</tbody>
</table>

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Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Steel (DM-2, Chapter 12)

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 Test 3-11 at a 25 degree impact angle as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. Approved Bridge and Structure Products

FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

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Category 3 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>Structure Mounted</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway Care International, The Highlands, Detling Hill,, Dertling, Maidstone, Kent, United Kingdom ME14 3HT <a href="http://www.highwaycareint.com/">http://www.highwaycareint.com/</a></td>
<td>HIGCA 15</td>
<td>Temporary Steel Barrier</td>
<td>BarrierGuard 800</td>
<td>NCHRP 350</td>
<td>31.5</td>
<td>4.92 ft.</td>
<td>TL-4 (small truck)</td>
<td>Structure, Ground</td>
</tr>
<tr>
<td>PennDOT Drawing: BarrierGuard 800 - System Drawings (14-602 BDTD)</td>
<td></td>
<td>Temporary Steel Barrier</td>
<td>BarrierGuard 800</td>
<td>MASH 2016</td>
<td>31.5</td>
<td>5.54 ft.</td>
<td>TL-3 (62 mph)</td>
<td>Structure, Ground</td>
</tr>
<tr>
<td></td>
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<td>BarrierGuard 800 Standard originally tested per NCHRP 350 criteria (FHWA Eligibility Letter B-131). PennDOT Drawing: BarrierGuard 800 - System Drawings (14-602 BDTD)</td>
<td></td>
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</tr>
<tr>
<td>Temporary Steel Barrier, Minimum Deflection System</td>
<td>BarrierGuard 800</td>
<td>MASH 2016</td>
<td>31.5</td>
<td>12 in. (1 ft at TOP and 3&quot; at BASE</td>
<td>TL-3 (62 mph)</td>
<td>Structure, Ground</td>
<td>B-286</td>
<td>REVISED</td>
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<tr>
<td>PennDOT Drawing: BarrierGuard 800 - System Drawings (14-602 BDTD)</td>
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<td>BarrierGuard 800 MDS originally crash tested to NCHRP 350 (FHWA Eligibility Letter B-158). PennDOT Drawing: BarrierGuard 800 - System Drawings (14-602 BDTD)</td>
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<tr>
<td>Temporary Steel Barrier, Minimum Deflection System</td>
<td>BarrierGuard 800</td>
<td>MDS, 20 ft.</td>
<td>MASH 2016</td>
<td>31.5</td>
<td>12 in. (1 ft at TOP and 3&quot; at BASE</td>
<td>TL-3 (62 mph)</td>
<td>Structure, Ground</td>
<td>B-158, SWM06</td>
</tr>
<tr>
<td>PennDOT Drawing: BarrierGuard 800 - System Drawings (14-602 BDTD)</td>
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<td>MDS, 40 ft.</td>
<td>Anchoring</td>
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</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Steel (DM-2, Chapter 12)

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 Test 3-11 at a 25 degree impact angle as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. Approved Bridge and Structure Products

FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

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Category 3 Temporary Traffic Control Device

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>Structure Mounted</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HILSM 15</td>
<td>Hill &amp; Smith, 1000 Buckeye Park Road, Columbus, OH 43207 <a href="http://www.hillandsmith.com/">http://www.hillandsmith.com/</a></td>
<td>Temporary Steel Barrier</td>
<td>Zoneguard (Standard)</td>
<td>MASH 2016</td>
<td>32</td>
<td>6.3 ft. (76&quot;) at TOP, 6.2 ft. (74&quot;) at BASE</td>
<td>TL-3 (62 mph)</td>
<td>Structure, Ground</td>
</tr>
<tr>
<td>PennDOT Drawings: ZoneGuard Portable Steel Barrier System Drawings (12-602-BDTD)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temporary Steel Barrier</td>
<td>Zoneguard</td>
<td>NCHRP 350</td>
<td>32</td>
<td>4.75 ft.</td>
<td>TL-4 (small truck)</td>
<td>Structure, Ground</td>
<td>B-176, SWM10a</td>
<td>2010-154Q</td>
</tr>
<tr>
<td>PennDOT Drawings: ZoneGuard Portable Steel Barrier System Drawings (12-602-BDTD)</td>
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</tr>
<tr>
<td>Temporary Steel Barrier</td>
<td>Zoneguard, Asphalt</td>
<td>MASH 2016</td>
<td>32</td>
<td>3.2 ft. (39&quot;)</td>
<td>TL-3</td>
<td>No (Ground Only)</td>
<td>B-176B</td>
<td>2010-154Q</td>
</tr>
<tr>
<td>Temporary Steel Barrier</td>
<td>Zoneguard, Concrete</td>
<td>MASH 2016</td>
<td>32</td>
<td>6.8 ft. (81&quot;)</td>
<td>TL-3</td>
<td>No (Ground Only)</td>
<td>B-176C</td>
<td>2010-154Q</td>
</tr>
<tr>
<td>PennDOT Drawings: ZoneGuard Portable Steel Barrier System Drawings (12-602-BDTD)</td>
<td></td>
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</tr>
<tr>
<td>Temporary Steel Barrier, Minimum Deflection System</td>
<td>Zoneguard Barrier (Min. Deflection)</td>
<td>MASH 2016</td>
<td>32</td>
<td>1.35 ft. (16&quot;) at TOP, 5&quot; at BASE</td>
<td>TL-3 (62 mph)</td>
<td>Structure, Ground</td>
<td>B-176A, SWM10b</td>
<td>2010-154Q</td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Steel (DM-2, Chapter 12) *Last Revised: 2/13/2020*

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 Test 3-11 at a 25 degree impact angle as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact. Approved Bridge and Structure Products

FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

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Category 3 Temporary Traffic Control Device

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<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>Structure Mounted</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBNA 15 Plant</td>
<td>Safe Barriers North America LLC, 755 Grand Boulevard, Suite B105-227, Miramar Beach, FL 32550 <a href="https://www.safebarriers.com/">https://www.safebarriers.com/</a></td>
<td>Defender Barrier 100 HC</td>
<td>MASH 2016</td>
<td>31.5</td>
<td>8.1 ft. (97&quot;)</td>
<td>No (Ground Only)</td>
<td>B-297</td>
<td>2018-210Q</td>
</tr>
<tr>
<td></td>
<td><strong>HC = High Containment, Safe Barriers Defender Barrier - PennDOT Signed Drawing 071819</strong></td>
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<td>Safe Barriers Defender Barrier - PennDOT Signed Drawing 071819</td>
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<tr>
<td></td>
<td>Safe Barriers Defender Barrier - PennDOT Signed Drawing 071819</td>
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</tr>
</tbody>
</table>

901.2 Temporary Barrier, Water-Filled (DM-2, Chapter 12) *Last Revised: 11/1/2017*
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Water-Filled (DM-2, Chapter 12)  

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 criteria as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact.

FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

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Category 3 Temporary Traffic Control Device

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Barrier Material</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Approved Crash Test Level</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

FHWA Acceptance Letter: refer to the FHWA website for any subsequent or follow-up letters for each approved system.
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Water-Filled (DM-2, Chapter 12)

The Tested Deflection distances listed in Bulletin 15 are documented in crash test reports per NCHRP 350, MASH 2009, or MASH 2016 criteria as the Dynamic Test Article Deflection. Per the AASHTO Manual for Assessing Safety Hardware 2016, Second Edition, the dynamic deflection is the maximum lateral displacement of the test article on the traffic side that occurs during the impact.

FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): Longitudinal Barrier Letters

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<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Barrier Material</th>
<th>Tested Height (in)</th>
<th>Dynamic Deflection (ft)</th>
<th>Approved Crash Test Level</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary Water-Filled Barrier</td>
<td>Model 2001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Temporary Water-Filled Barrier</td>
<td>Model 2001M</td>
<td>NCHRP 350</td>
<td>Plastic with Steel Tubing</td>
<td>32</td>
<td>12.1 ft.</td>
<td>TL-2 (44 mph)</td>
<td>B-97</td>
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</table>

FHWA Acceptance Letter: refer to the FHWA website for any subsequent or follow-up letters for each approved system.

901.2 Temporary Pavement Marking Tape, Nonremovable

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Tape Color</th>
<th>Tape Surface</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary Pavement Marking Tape, Nonremovable</td>
<td>FOL200</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Temporary Pavement Marking Tape, Nonremovable</td>
<td>FOL200</td>
<td>TPT-01</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
<td>1991-236</td>
</tr>
<tr>
<td>Temporary Pavement Marking Tape, Nonremovable</td>
<td>FOL300</td>
<td>TPT-01</td>
<td>White</td>
<td>Asphalt and Concrete</td>
<td>1991-237</td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Pavement Marking Tape, Nonremovable

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Tape Color</th>
<th>Tape Surface</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLOT-15</td>
<td>FOL Tape, LLC, 2025 Hitzert Court, Fenton, MO 63026</td>
<td>FOL300</td>
<td>TPT-01</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
</tr>
<tr>
<td>SWAR0 15</td>
<td>Swarco Reflex LLC, 900 N. Denton, Mexia, TX 76667</td>
<td>Visa-Line C.G</td>
<td>TPT-02</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Visa-Line C.G</td>
<td>TPT-02</td>
<td>White</td>
<td>Asphalt and Concrete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Visa-Line C.G</td>
<td>TPT-02</td>
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<td>Asphalt and Concrete</td>
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<tr>
<td></td>
<td></td>
<td>Visa-Line E.G</td>
<td>TPT-02</td>
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<td>Asphalt and Concrete</td>
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901.2 Temporary Pavement Marking Tape, Removable

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Tape Color</th>
<th>Tape Surface</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>3M-03 15</td>
<td>3M Company, Traffic Control Devices Department, 3M Center, Building 582-1-15, St. Paul, MN 55144-1000</td>
<td>Stamark 145</td>
<td>TT-01</td>
<td>Black Line Mask</td>
<td>Asphalt and Concrete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stamark 715</td>
<td>TT-01</td>
<td>Black Line Mask</td>
<td>Asphalt and Concrete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stamark Wet Reflective Tape Series 710</td>
<td>TT-01</td>
<td>White</td>
<td>Asphalt and Concrete</td>
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<td></td>
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<td>Stamark Wet Reflective Tape Series 711</td>
<td>TT-01</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
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<td>Stamark Wet Reflective Tape Series 780</td>
<td>TT-01</td>
<td>White</td>
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<td></td>
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<td>Stamark Wet Reflective Tape Series 781</td>
<td>TT-01</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
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### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Temporary Pavement Marking Tape, Removable

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<thead>
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</thead>
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<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>ATM200W 19-200/216</td>
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<td>White</td>
<td>Asphalt and Concrete</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>ATM200Y 19-201/217</td>
<td>TT-02</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
<td>-----</td>
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<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>Director 2</td>
<td>TT-05</td>
<td>White</td>
<td>Asphalt and Concrete</td>
<td>1991-227</td>
</tr>
<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>Director 2</td>
<td>TT-05</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
<td>1991-228</td>
</tr>
<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>Director 2 WR</td>
<td>TT-07</td>
<td>White</td>
<td>Asphalt and Concrete</td>
<td>2010-008QA</td>
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<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>Aztec 390</td>
<td>TT-07</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
<td>2010-008QB</td>
</tr>
<tr>
<td>SWAR0 15</td>
<td>Swarco Reflex LLC, 900 N. Denton, Mexia, TX 76667 <a href="https://www.swarco.com/northamerica">https://www.swarco.com/northamerica</a></td>
<td>Director 2</td>
<td>TT-05</td>
<td>White</td>
<td>Asphalt and Concrete</td>
<td>1991-227</td>
</tr>
<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>Director 2</td>
<td>TT-05</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
<td>1991-228</td>
</tr>
<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>RoadQuake 2 (RQ2)</td>
<td>TPRS-01</td>
<td>Black</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>RoadQuake 2 (RQ2)</td>
<td>TPRS-01</td>
<td>White</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>RoadQuake 2 (RQ2)</td>
<td>TPRS-01</td>
<td>Orange</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>RoadQuake 2F (RQ2F)</td>
<td>2015-120Q</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>

#### 901.2 Temporary Portable Rumble Strips (Pub 213)

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>PLASS 15</td>
<td>Plastic Safety Systems, Inc., 2444 Baldwin Road, P.O. Box 20140, Cleveland, OH 44104 <a href="http://plasticsafety.com/">http://plasticsafety.com/</a></td>
<td>RoadQuake 2 (RQ2)</td>
<td>TPRS-01</td>
<td>Black</td>
<td>-----</td>
</tr>
<tr>
<td>Facility</td>
<td>Temporary Portable Rumble Strips</td>
<td>RoadQuake 2 (RQ2)</td>
<td>TPRS-01</td>
<td>White</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Temporary Portable Rumble Strips</td>
<td>RoadQuake 2 (RQ2)</td>
<td>TPRS-01</td>
<td>Orange</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Temporary Portable Rumble Strips</td>
<td>RoadQuake 2F (RQ2F)</td>
<td>2015-120Q</td>
<td>-----</td>
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</tr>
</tbody>
</table>
## Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Temporary Traffic Control Signals

Temporary work zone devices manufactured after December 31, 2019, must have been successfully tested to the 2016 edition of MASH. Such devices manufactured on or before this date, and successfully tested to NCHRP Report 350 or the 2009 edition of MASH, may continue to be used throughout their normal service lives.

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Signal Mount</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HORST 15</td>
<td>Horizon Signal Technologies, 5 Corporate Blvd., Reading, PA 19608 <a href="http://horizonsignal.com">http://horizonsignal.com</a></td>
<td>HORST-01</td>
<td>12/16/2008</td>
<td>Pedestal Mount</td>
<td>-----</td>
</tr>
<tr>
<td>NORAT 15</td>
<td>North America Traffic, 7 Petersburg Circle, Port Colborne, Ontario, Canada L3K 5V5 <a href="http://www.northamericatraffic.com">http://www.northamericatraffic.com</a></td>
<td>NORAT-00</td>
<td>12/16/2008</td>
<td>Trailer Mount</td>
<td>-----</td>
</tr>
<tr>
<td>OMJC1 15</td>
<td>OMJC Signal, INC, 403 Chestnut St, Waterloo, IA 50703 <a href="http://omjcsignal.com">http://omjcsignal.com</a></td>
<td>OMJC-00</td>
<td>12/16/2008</td>
<td>Trailer Mount</td>
<td>2016-143</td>
</tr>
<tr>
<td>THOJO 15</td>
<td>John Thomas, Inc. (JTI), 1560 Lovett Drive, Dixon, IL 61021 <a href="http://www.jtitraffic.com">http://www.jtitraffic.com</a></td>
<td>TJI-001P</td>
<td>3/12/2012</td>
<td>Pedestal Mount</td>
<td>2017-310Q</td>
</tr>
</tbody>
</table>

### 901.2 Traffic Alert Radio

|------------------|------|-----|-------|---------|
### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Traffic Alert Radio

Last Revised: 4/13/2015

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Cone Type</th>
<th>Height (in)</th>
<th>Cone Color</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHSP 4328</td>
<td>TC-2</td>
<td>One piece</td>
<td>28</td>
<td>Fluorescent Orange</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSP 4328</td>
<td>Slimline</td>
<td>28</td>
<td>Red Orange</td>
<td>1994-056</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSP 4328E-10</td>
<td>Slimline</td>
<td>28</td>
<td>Red Orange</td>
<td>1994-055</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSP 4336</td>
<td>36</td>
<td>Red Orange</td>
<td>1994-058</td>
<td></td>
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</tr>
</tbody>
</table>

#### 901.2 Traffic Cones

Last Revised: 11/22/2019

The listed devices have been self-certified for crashworthiness by the vendor and are deemed compliant with NCHRP-350. The devices may be sold for use in Pennsylvania.

Category 1 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Cone Type</th>
<th>Height (in)</th>
<th>Cone Color</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHSP 4328</td>
<td>TC-2</td>
<td>One piece</td>
<td>28</td>
<td>Fluorescent Orange</td>
<td></td>
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</tr>
<tr>
<td>HSP 4328</td>
<td>Slimline</td>
<td>28</td>
<td>Red Orange</td>
<td>1994-056</td>
<td></td>
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<tr>
<td>HSP 4328E-10</td>
<td>Slimline</td>
<td>28</td>
<td>Red Orange</td>
<td>1994-055</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSP 4336</td>
<td>36</td>
<td>Red Orange</td>
<td>1994-058</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Cone Type</th>
<th>Height (in)</th>
<th>Cone Color</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>RC70045S</td>
<td>10 lb Slimline</td>
<td>28</td>
<td>Fluorescent Orange</td>
<td>2004-035Q</td>
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</tr>
<tr>
<td>RS70045CT</td>
<td>10 lb Wide Body</td>
<td>28</td>
<td>Fluorescent Orange</td>
<td>2005-104Q</td>
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<tr>
<td>RS90045CT</td>
<td>10 lb Wide Body</td>
<td>36</td>
<td>Fluorescent Orange</td>
<td>2018-204Q</td>
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<th>Product</th>
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<th>COA</th>
<th>Cone Type</th>
<th>Height (in)</th>
<th>Cone Color</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>2850-10</td>
<td>TC-4</td>
<td>Trimline</td>
<td>28</td>
<td>Red Orange</td>
<td>1994-075</td>
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<tr>
<td>2850-10</td>
<td>TC-4</td>
<td>28</td>
<td>Red Orange</td>
<td>1994-078</td>
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<table>
<thead>
<tr>
<th>Product</th>
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<th>COA</th>
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<th>Height (in)</th>
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<tbody>
<tr>
<td>Navigator Traffic Channelizer</td>
<td>TC-15</td>
<td></td>
<td>48</td>
<td>Orange</td>
<td>2012-157Q</td>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Traffic Cones

The listed devices have been self-certified for crashworthiness by the vendor and are deemed compliant with NCHRP-350. The devices may be sold for use in Pennsylvania.

#### Category 1 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Cone Type</th>
<th>Height (in)</th>
<th>Cone Color</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>PLASS 15 Facility</td>
<td>Plastic Safety Systems, Inc., 2444 Baldwin Road, P.O. Box 20140, Cleveland, OH 44104 <a href="http://plasticsafety.com/">http://plasticsafety.com/</a></td>
<td></td>
<td>Traffic Cone</td>
<td>Navigator Channelizer</td>
<td>42</td>
<td>Fluorescent Orange</td>
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<tr>
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<td></td>
<td>Provisionally Approved</td>
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<td>PROTE 15 Facility</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
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<td>Traffic Cone</td>
<td>Channelizer</td>
<td>42</td>
<td>Fluorescent Orange</td>
</tr>
<tr>
<td>SERVM 15 Facility</td>
<td>Service &amp; Materials Company, Inc., 4835 East County Road 600, Sunman, IN 47041</td>
<td></td>
<td>Traffic Cone</td>
<td>2058647</td>
<td>28</td>
<td>Red Orange / Black Base</td>
</tr>
<tr>
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<td>Traffic Cone</td>
<td>TC-28FH-PA</td>
<td>Slimline</td>
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<td>Traffic Cone</td>
<td>TC-20WH-PA</td>
<td>Wide Body</td>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Traffic Cones

The listed devices have been self-certified for crashworthiness by the vendor and are deemed compliant with NCHRP-350. The devices may be sold for use in Pennsylvania.

Category 1 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Cone Type</th>
<th>Height (in)</th>
<th>Cone Color</th>
<th>Ref. No.</th>
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<tr>
<td>UATLLC15</td>
<td>UAT LLC, 4010 Earls Court, Alpharetta, GA 30004 <a href="https://uatsupply.com/">https://uatsupply.com/</a></td>
<td>UATLLC15</td>
<td>Traffic Cone</td>
<td>CW3M28-10</td>
<td>TC-13</td>
<td>10 lb Wide Body</td>
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</tbody>
</table>

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Section 901: Maintenance and Protection of Traffic During Construction

901.2 Traffic Cones
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Category 1 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Cone Type</th>
<th>Height (in)</th>
<th>Cone Color</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORKA 15</td>
<td>Work Area Protection Corporation, 2500 Production Drive, PO Box 4087, St. Charles, IL 60174 <a href="http://workareaprotection.com/">http://workareaprotection.com/</a></td>
<td></td>
<td>TC-6</td>
<td>3 lb</td>
<td>Orange</td>
<td>1993-107</td>
</tr>
<tr>
<td>Traffic Cone</td>
<td>18 PVCS</td>
<td>TC-6</td>
<td>3 lb</td>
<td>18</td>
<td>Orange</td>
<td>1994-071</td>
</tr>
<tr>
<td>Traffic Cone</td>
<td>18 PVCS</td>
<td>TC-6</td>
<td>3 lb</td>
<td>18</td>
<td>Orange</td>
<td>1993-109</td>
</tr>
<tr>
<td>Traffic Cone</td>
<td>28 PVCH</td>
<td>TC-6</td>
<td>10 lb Wide Body</td>
<td>28</td>
<td>Orange</td>
<td>1994-073</td>
</tr>
<tr>
<td>Traffic Cone</td>
<td>28 PVCH</td>
<td>TC-6</td>
<td>10 lb Wide Body</td>
<td>28</td>
<td>Orange</td>
<td>1993-108</td>
</tr>
<tr>
<td>Traffic Cone</td>
<td>28 PVCTLH</td>
<td>TC-6</td>
<td>10 lb Trinmlne</td>
<td>28</td>
<td>Orange</td>
<td>1994-074</td>
</tr>
<tr>
<td>Traffic Cone</td>
<td>36 PVCS</td>
<td>TC-6</td>
<td>10 lb</td>
<td>36</td>
<td>Orange</td>
<td>1993-238</td>
</tr>
<tr>
<td>Traffic Cone</td>
<td>36 PVCS</td>
<td>TC-6</td>
<td>10 lb</td>
<td>36</td>
<td>Orange</td>
<td>1994-072</td>
</tr>
<tr>
<td>Traffic Cone</td>
<td>Channelizer</td>
<td></td>
<td></td>
<td>42</td>
<td>Fluorescent Orange</td>
<td>2006-048Q</td>
</tr>
</tbody>
</table>

901.2 Traffic Warning Signal Spinning Delineator
This device shall not be used in place of a warning light required by Publication 213.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spinning Delineator</td>
<td>Safe T Spin</td>
<td></td>
<td>1995-107</td>
</tr>
</tbody>
</table>

901.2 Truck-Mounted Attenuators (TMA) & Trailer Attenuators (TA)

Last Revised: 11/22/2019

Last Revised: 2/26/2020

Last Revised: 8/20/2019
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Truck-Mounted Attenuators (TMA) & Trailer Attenuators (TA)

FHWA Eligibility Letters for TMA’s: Terminals/Crash Cushions Letters

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

Truck-Mounted Attenuators (TMA) & Trailer Attenuators (TA): Category 3 Temporary Traffic Control Devices

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENERG 15</strong></td>
<td>Energy Absorption Systems, Inc. (Trinity Industries, Inc. Company), 70 West Madison Street, Suite 2350, Chicago, IL 60602 <a href="http://energyabsorption.com/">http://energyabsorption.com</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pell City, AL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trailer Attenuator (TA)</td>
<td>Safe-Stop Trailer TMA, Model 9000</td>
<td>TMA-2</td>
<td>TL-3 (62 mph), NCHRP 350</td>
<td>-----</td>
</tr>
<tr>
<td>Trailer Attenuator (TA)</td>
<td>Vorteq Trailer TMA</td>
<td>TMA-2</td>
<td>TL-3 (62 mph), NCHRP 350</td>
<td>-----</td>
</tr>
<tr>
<td>Truck-Mounted Attenuator (TMA)</td>
<td>ALPHA 70K TMA</td>
<td>TMA-2</td>
<td>TL-2 (44 mph), NCHRP 350</td>
<td>1997-055</td>
</tr>
<tr>
<td>Truck-Mounted Attenuator (TMA)</td>
<td>Safe-Stop TMA, Model 8290</td>
<td>TMA-2(14)</td>
<td>TL-3 (62 mph), NCHRP 350</td>
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</tr>
<tr>
<td>Truck-Mounted Attenuator (TMA)</td>
<td>Safe-Stop TMA, Model 8291</td>
<td>TMA-2(14)</td>
<td>TL-3 (62 mph), NCHRP 350</td>
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</tr>
<tr>
<td>Truck-Mounted Attenuator (TMA)</td>
<td>Safe-Stop TMA, Model 8291CLC</td>
<td></td>
<td>TL-3 (62 mph), NCHRP 350</td>
<td>1999-177</td>
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<tr>
<td>Truck-Mounted Attenuator (TMA)</td>
<td>Safe-Stop TMA, Model 9180</td>
<td>TMA-2(14)</td>
<td>TL-3 (62 mph), NCHRP 350</td>
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</tr>
<tr>
<td>Truck-Mounted Attenuator (TMA)</td>
<td>Safe-Stop TMA, Model 9181</td>
<td>TMA-2(14)</td>
<td>TL-3 (62 mph), NCHRP 350</td>
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</tr>
<tr>
<td>Truck-Mounted Attenuator (TMA)</td>
<td>Safe-Stop TMA, Model 9182</td>
<td>TMA-2(14)</td>
<td>TL-3 (62 mph), NCHRP 350</td>
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<tr>
<td>Truck-Mounted Attenuator (TMA)</td>
<td>Safe-Stop TMA, Model 9182LC</td>
<td></td>
<td>TL-3 (62 mph), NCHRP 350</td>
<td>-----</td>
</tr>
<tr>
<td><strong>GREGV 15</strong></td>
<td>Gregory Industries, Inc., 4100 13th Street SW, P.O. Box 80508, Canton, OH 44708 <a href="http://www.gregorycorp.com/gccorp.htm">http://www.gregorycorp.com/gccorp.htm</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trailer Attenuator (TA)</td>
<td>Model TTMA-100 Trailer Attenuator</td>
<td>TA-01</td>
<td>TL-3 (62 mph), NCHRP 350</td>
<td>2013-147</td>
</tr>
</tbody>
</table>
### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Truck-Mounted Attenuators (TMA) & Trailer Attenuators (TA)

FHWA Eligibility Letters for TMA's: [Terminals/Crash Cushions Letters](#)

**Important Notice:** [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](#)

Truck-Mounted Attenuators (TMA) & Trailer Attenuators (TA): Category 3 Temporary Traffic Control Devices

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LINSY 15</strong></td>
<td><strong>Plant 505</strong></td>
<td>Lindsay Transportation Solutions, LLC, 180 River Road, Rio Vista, CA 94571</td>
<td>U-MAD 100K Trailer Attenuator</td>
<td>TA-02</td>
</tr>
<tr>
<td><strong>Truck-Mounted Attenuator (TMA)</strong></td>
<td><strong>U-MAD 100K</strong></td>
<td><strong>Trailer Attenuator</strong></td>
<td><strong>U-MAD 100K</strong></td>
<td><strong>TMA-6</strong></td>
</tr>
<tr>
<td><strong>Truck-Mounted Attenuator (TMA)</strong></td>
<td><strong>U-MAD 70K</strong></td>
<td><strong>TMA-6</strong></td>
<td><strong>TL-2 (44 mph), NCHRP 350</strong></td>
<td><strong>2000-229Q</strong></td>
</tr>
<tr>
<td><strong>PROTE 15</strong></td>
<td><strong>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</strong></td>
<td><strong>Truck-Mounted Attenuator (TMA)</strong></td>
<td><strong>React-350 TMA</strong></td>
<td><strong>TL-3 (62 mph), NCHRP 350</strong></td>
</tr>
<tr>
<td><strong>RENCO 15</strong></td>
<td><strong>Renco Supply Inc., P.O. Box 730, Pflugerville, TX 78691</strong></td>
<td><strong>Truck-Mounted Attenuator (TMA)</strong></td>
<td><strong>RAM 100k</strong></td>
<td><strong>TMA-3</strong></td>
</tr>
<tr>
<td><strong>Truck-Mounted Attenuator (TMA)</strong></td>
<td><strong>Ren-Gard 815</strong></td>
<td><strong>TMA-3</strong></td>
<td><strong>TL-2 (44 mph), NCHRP 350</strong></td>
<td><strong>-----</strong></td>
</tr>
<tr>
<td><strong>SYRS2 15</strong></td>
<td><strong>Syro, Inc., 2525 Stemmons Freeway, Dallas, TX 75207</strong></td>
<td><strong>Truck-Mounted Attenuator (TMA)</strong></td>
<td><strong>MPS-350III</strong></td>
<td><strong>TL-3 (62 mph), NCHRP 350</strong></td>
</tr>
<tr>
<td><strong>TRFXD 15</strong></td>
<td><strong>TrafFix Devices, Inc., 160 Avenida La Pata, San Clemente, CA 92673</strong></td>
<td><strong>Trailer Attenuator (TA)</strong></td>
<td><strong>Scorpion Model 10002</strong></td>
<td><strong>TMA-7</strong></td>
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<tr>
<td><strong>Truck-Mounted Attenuator (TMA)</strong></td>
<td><strong>Scorpion II Series ‘10000’ TMA</strong></td>
<td><strong>TL-3 (62 mph), MASH 2016</strong></td>
<td><strong>2019-008Q</strong></td>
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<tr>
<td><strong>FHWA Eligibility Letter: CC-132 Scorpion II TMA - PennDOT Approved Drawing 081919</strong></td>
<td><strong>Truck-Mounted Attenuator (TMA)</strong></td>
<td><strong>Scorpion Model A 10,000</strong></td>
<td><strong>TL-2 (44 mph), NCHRP 350</strong></td>
<td><strong>2000-301Q</strong></td>
</tr>
<tr>
<td><strong>Truck-Mounted Attenuator (TMA)</strong></td>
<td><strong>Scorpion Model C 10,000</strong></td>
<td><strong>TL-3 (62 mph), NCHRP 350</strong></td>
<td><strong>2000-301Q</strong></td>
<td></td>
</tr>
<tr>
<td><strong>TRIN5 15</strong></td>
<td><strong>Trinity Highway Products, LLC, 2525 Stemmons Freeway, Dallas, TX 75207</strong></td>
<td><strong>Truck-Mounted Attenuator (TMA)</strong></td>
<td><strong>MPS-350</strong></td>
<td><strong>TMA-1(03)</strong></td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Truck-Mounted Attenuators (TMA) & Trailer Attenuators (TA)

FHWA Eligibility Letters for TMA's: Terminals/Crash Cushions Letters

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>Munnikenheiweg 59 4879 NE Etten Leur, The Netherlands</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Truck-Mounted Attenuator (TMA)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FHWA Eligibility Letter: CC-136</td>
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</table>

901.2 Tubular Markers (Traffic Guide Posts)

The listed devices have been self-certified for crashworthiness by the vendor and are deemed compliant with NCHRP-350. The devices may be sold for use in Pennsylvania.

Category 1 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Height (in)</th>
<th>Tubular Marker Color</th>
<th>Tubular Marker Bond</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tubular Marker</td>
<td>SDC-2036</td>
<td>36</td>
<td>White Butyl Pad</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Tubular Marker</td>
<td>SDC-2036</td>
<td>36</td>
<td>Yellow Butyl Pad</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Tubular Marker</td>
<td>SDC-2036</td>
<td>36</td>
<td>White Epoxy</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Tubular Marker</td>
<td>SDC-2036</td>
<td>36</td>
<td>Yellow Epoxy</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Tubular Marker</td>
<td>SDC-2048</td>
<td>48</td>
<td>White Butyl Pad</td>
<td></td>
<td>-----</td>
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<tr>
<td></td>
<td>Tubular Marker</td>
<td>SDC-2048</td>
<td>48</td>
<td>Yellow Butyl Pad</td>
<td></td>
<td>-----</td>
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<tr>
<td></td>
<td>Tubular Marker</td>
<td>SDC-2048</td>
<td>48</td>
<td>White Epoxy</td>
<td></td>
<td>-----</td>
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<tr>
<td></td>
<td>Tubular Marker</td>
<td>SDC-2048</td>
<td>48</td>
<td>Yellow Epoxy</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Tubular Marker</td>
<td>SDR-3028</td>
<td>28</td>
<td>White Butyl Pad</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Tubular Marker</td>
<td>SDR-3028</td>
<td>28</td>
<td>Yellow Butyl Pad</td>
<td></td>
<td>-----</td>
</tr>
</tbody>
</table>
## Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Tubular Markers (Traffic Guide Posts)

The listed devices have been self-certified for crashworthiness by the vendor and are deemed compliant with NCHRP-350. The devices may be sold for use in Pennsylvania.

**Category 1 Temporary Traffic Control Device**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Height (in)</th>
<th>Tubular Marker Color</th>
<th>Tubular Marker Bond</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubular Marker</td>
<td>SDR-3028</td>
<td>TM-09</td>
<td>28</td>
<td>Orange</td>
<td>Butyl Pad</td>
<td>-----</td>
</tr>
<tr>
<td>Tubular Marker</td>
<td>SDR-3036</td>
<td>TM-09</td>
<td>36</td>
<td>White</td>
<td>Butyl Pad</td>
<td>-----</td>
</tr>
<tr>
<td>Tubular Marker</td>
<td>SDR-3036</td>
<td>TM-09</td>
<td>36</td>
<td>Yellow</td>
<td>Butyl Pad</td>
<td>-----</td>
</tr>
<tr>
<td>Tubular Marker</td>
<td>SDR-3036</td>
<td>TM-09</td>
<td>36</td>
<td>Orange</td>
<td>Butyl Pad</td>
<td>-----</td>
</tr>
</tbody>
</table>

| FLEXS 15        | FlexStake, Inc., 2150 Andrea Lane, Fort Myers, FL 33912 [http://www.flexstake.com/](http://www.flexstake.com/) |
| Tubular Marker  | TM 753   | TM-10 | 36          | White                | Butyl Pad           | -----    |
| Tubular Marker  | TM 753   | TM-10 | 36          | Yellow               | Butyl Pad           | -----    |
| Tubular Marker  | TM 753   | TM-10 | 36          | Orange               | Butyl Pad           | -----    |
| Tubular Marker  | TM 753   | TM-10 | 36          | Red                  | Butyl Pad           | -----    |
| Tubular Marker  | TM 753   | TM-10 | 36          | Blue                 | Butyl Pad           | -----    |
| Tubular Marker  | TM 753   | TM-10 | 36          | Gray                 | Butyl Pad           | -----    |
| Tubular Marker  | TM 753   | TM-10 | 36          | Brown                | Butyl Pad           | -----    |
| Tubular Marker  | TM 754   | TM-10 | 48          | Yellow               | Butyl Pad           | -----    |
| Tubular Marker  | TM 754   | TM-10 | 48          | Orange               | Butyl Pad           | -----    |
| Tubular Marker  | TM 754   | TM-10 | 48          | Red                  | Butyl Pad           | -----    |
| Tubular Marker  | TM 754   | TM-10 | 48          | Blue                 | Butyl Pad           | -----    |
| Tubular Marker  | TM 754   | TM-10 | 48          | Green                | Butyl Pad           | -----    |
| Tubular Marker  | TM 754   | TM-10 | 48          | Gray                 | Butyl Pad           | -----    |
| Tubular Marker  | TM 754   | TM-10 | 48          | Brown                | Butyl Pad           | -----    |
| Tubular Marker  | TM 754   | TM-10 | 48          | White                | Butyl Pad           | -----    |
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Tubular Markers (Traffic Guide Posts)

The listed devices have been self-certified for crashworthiness by the vendor and are deemed compliant with NCHRP-350. The devices may be sold for use in Pennsylvania.

Category 1 Temporary Traffic Control Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Height (in)</th>
<th>Tubular Marker Color</th>
<th>Tubular Marker Bond</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

**PEXCO 15**

Facility 3110 70th Avenue East Tacoma, WA 98424

| Tubular Marker | FG 300-UR/18" | TM-13 | 18 | White | Epoxy | ----- |
| Tubular Marker | FG 300-UR/18" | TM-13 | 18 | Yellow | Epoxy | ----- |
| Tubular Marker | FG 300-UR/18" | TM-13 | 18 | Orange | Epoxy | ----- |
| Tubular Marker | FG 300-UR/24" | TM-13 | 24 | White | Epoxy | ----- |
| Tubular Marker | FG 300-UR/24" | TM-13 | 24 | Yellow | Epoxy | ----- |
| Tubular Marker | FG 300-UR/36" | TM-13 | 36 | White | Epoxy | ----- |
| Tubular Marker | FG 300-UR/36" | TM-13 | 36 | Yellow | Epoxy | ----- |
| Tubular Marker | FG 300-UR/36" | TM-13 | 36 | Orange | Epoxy | ----- |

**SAFHC 15**

Safe-Hit Corporation, a Division of Energy Absorption Systems, Inc., A Trinity Industries, Inc. Company, 70 West Madison Street, Suite 2350, Chicago, IL 60602


| Tubular Marker | SH518SMTEAOS | TM-07 | 18 | Orange | Epoxy | ----- |

Use Master Builders Concrressive 1011 Epoxy 1 to 1 Mix

| Tubular Marker | SH518SMTEAWS | TM-07 | 18 | White | Epoxy | ----- |

Use Master Builders Concrressive 1011 Epoxy 1 to 1 Mix

| Tubular Marker | SH518SMTEAYS | TM-07 | 18 | Yellow | Epoxy | ----- |

Use Master Builders Concrressive 1011 Epoxy 1 to 1 Mix

| Tubular Marker | SH524SMAEOOS | TM-07 | 24 | Orange | Butyl Pad | ----- |

| Tubular Marker | SH524SMAEAWS | TM-07 | 24 | White | Butyl Pad | ----- |

| Tubular Marker | SH524SMAEAYS | TM-07 | 24 | Yellow | Butyl Pad | ----- |

| Tubular Marker | SH536SMTEOOS | TM-07 | 36 | Orange | Butyl Pad | ----- |
Section 901: Maintenance and Protection of Traffic During Construction

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Height (in)</th>
<th>Tubular Marker Color</th>
<th>Tubular Marker Bond</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>UniqueSource</td>
<td>PIBH-18TM</td>
<td>TM-11</td>
<td>18</td>
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</tr>
<tr>
<td>Tubular Marker</td>
<td>PIBH-18TM</td>
<td>TM-11</td>
<td>18</td>
<td>Yellow</td>
<td>Epoxy</td>
<td>_____</td>
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<tr>
<td>Tubular Marker</td>
<td>PIBH-18TM</td>
<td>TM-11</td>
<td>18</td>
<td>Orange</td>
<td>Epoxy</td>
<td>_____</td>
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<tr>
<td>Tubular Marker</td>
<td>PIBH-24TM</td>
<td>TM-11</td>
<td>24</td>
<td>White</td>
<td>Epoxy</td>
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<tr>
<td>Tubular Marker</td>
<td>PIBH-24TM</td>
<td>TM-11</td>
<td>24</td>
<td>Yellow</td>
<td>Epoxy</td>
<td>_____</td>
</tr>
<tr>
<td>Tubular Marker</td>
<td>PIBH-24TM</td>
<td>TM-11</td>
<td>24</td>
<td>Orange</td>
<td>Epoxy</td>
<td>_____</td>
</tr>
<tr>
<td>Tubular Marker</td>
<td>PIBH-28TM</td>
<td>TM-11</td>
<td>28</td>
<td>White</td>
<td>Epoxy</td>
<td>_____</td>
</tr>
<tr>
<td>Tubular Marker</td>
<td>PIBH-28TM</td>
<td>TM-11</td>
<td>28</td>
<td>Yellow</td>
<td>Epoxy</td>
<td>_____</td>
</tr>
<tr>
<td>Tubular Marker</td>
<td>PIBH-28TM</td>
<td>TM-11</td>
<td>28</td>
<td>Orange</td>
<td>Epoxy</td>
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<tr>
<td>Tubular Marker</td>
<td>PIBH-36TM</td>
<td>TM-11</td>
<td>36</td>
<td>White</td>
<td>Epoxy</td>
<td>_____</td>
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<tr>
<td>Tubular Marker</td>
<td>PIBH-36TM</td>
<td>TM-11</td>
<td>36</td>
<td>Yellow</td>
<td>Epoxy</td>
<td>_____</td>
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<tr>
<td>Tubular Marker</td>
<td>PIBH-36TM</td>
<td>TM-11</td>
<td>36</td>
<td>Blue</td>
<td>Epoxy</td>
<td>_____</td>
</tr>
<tr>
<td>Tubular Marker</td>
<td>PIBH-36TM</td>
<td>TM-11</td>
<td>36</td>
<td>Orange</td>
<td>Epoxy</td>
<td>_____</td>
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<tr>
<td>Tubular Marker</td>
<td>PIBH-48TM</td>
<td>TM-11</td>
<td>48</td>
<td>White</td>
<td>Epoxy</td>
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</tr>
<tr>
<td>Tubular Marker</td>
<td>PIBH-48TM</td>
<td>TM-11</td>
<td>48</td>
<td>Yellow</td>
<td>Epoxy</td>
<td>_____</td>
</tr>
<tr>
<td>Tubular Marker</td>
<td>PIBH-48TM</td>
<td>TM-11</td>
<td>48</td>
<td>Blue</td>
<td>Epoxy</td>
<td>_____</td>
</tr>
<tr>
<td>Tubular Marker</td>
<td>PIBH-48TM</td>
<td>TM-11</td>
<td>48</td>
<td>Orange</td>
<td>Epoxy</td>
<td>_____</td>
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<tr>
<td>Tubular Marker</td>
<td>PIBH-TMB</td>
<td>TM-11</td>
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Surface Mount Base, Pin Lock, Epoxy

901.2 Variable Speed Limit Signs

Last Revised: 3/20/2015

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Speed Display Mount</th>
<th>Speed Display Power</th>
<th>Ref. No.</th>
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### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Variable Speed Limit Signs

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Speed Display Mount</th>
<th>Speed Display Power</th>
<th>Ref. No.</th>
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#### 901.2 Vertical Panels

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Panel Type</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
<td>Vertical Panel</td>
<td>Big Foot</td>
<td>VP-2</td>
<td>Single Panel</td>
</tr>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
<td>Vertical Panel</td>
<td>Big Foot II</td>
<td>VP-2</td>
<td>Single Panel</td>
</tr>
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*May be used with light.*
**Section 901: Maintenance and Protection of Traffic During Construction**

### 901.2 Vertical Panels

Last Revised: 3/26/2015

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Panel Type</th>
<th>Approved Crash Test Level</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><em>May be used with light</em></td>
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<td></td>
<td></td>
<td></td>
<td><em>May be used with light</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Vertical Panel TD6500</td>
<td>VP-6</td>
<td>Single Panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td><em>May be used with light</em></td>
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<tr>
<td></td>
<td></td>
<td>Vertical Panel 40000 Series</td>
<td>VP-3</td>
<td>Double Panel</td>
<td>TL-3 (62 mph)</td>
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<td><em>May be used with light</em></td>
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<td></td>
<td>Vertical Panel 320 Series</td>
<td>VP-8</td>
<td>Single Panel</td>
<td>TL-3 (62 mph)</td>
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### 901.2 Warning Lights

Last Revised: 8/10/2017

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C&amp;CSG 15</td>
<td>C&amp;C Signal, LLC, 216 South Alma School Road, Mesa, AZ 85210</td>
<td>Warning Light: Type A, Yellow BL1V.3W00</td>
<td>WL-13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warning Light: Type A, Yellow BL3V.3WWX</td>
<td>WL-13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Warning Light: Type A, Yellow BLU36.3W</td>
<td>WL-13</td>
</tr>
<tr>
<td></td>
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<td>Warning Light: Type A, Yellow BLU36.3W00</td>
<td>WL-13</td>
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Section 901: Maintenance and Protection of Traffic During Construction

901.2 Warning Lights

Last Revised: 8/10/2017

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td><strong>C&amp;CSG 15</strong></td>
<td><strong>C&amp;C Signal, LLC, 216 South Alma School Road, Mesa, AZ 85210</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>SB.ACX</td>
<td>WL-13</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type B, White</td>
<td>BL3V.BL100</td>
<td>PWL-5</td>
<td>----</td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td>BLU6.BL100</td>
<td>PWL-5</td>
<td>----</td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td>BL3V.BL100</td>
<td>WL-13</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>BLU6.BL100-DH</td>
<td>WL-13</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>BLU6.BL100</td>
<td>WL-13</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>BLU36.3W00</td>
<td>WL-13</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>BL3V.3WXX</td>
<td>WL-13</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>BL3V.3WXX</td>
<td>WL-13</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>BL3V.3WXX</td>
<td>WL-13</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>SB.ACX</td>
<td>WL-13</td>
<td>----</td>
</tr>
<tr>
<td><strong>COLLT 15</strong></td>
<td><strong>Collt Manufacturing, Inc., 249 Hollis St., Holliston, MA 01746 <a href="http://www.colt.com/">http://www.colt.com/</a></strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PS-120</td>
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<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PS-600</td>
<td></td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>RS-120</td>
<td>1984-126</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>12-B</td>
<td>1984-125</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>PSB-600</td>
<td>1984-127</td>
<td>----</td>
</tr>
<tr>
<td><strong>DORMA 15</strong></td>
<td><strong>Dorman Smith Traffic Products, Rufford Road, Southport, England</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>TW1S-12V</td>
<td>1986-219</td>
<td>----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>TW2S</td>
<td>1985-206</td>
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# Section 901: Maintenance and Protection of Traffic During Construction

## 901.2 Warning Lights

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>100</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>100 LED</td>
<td>WL-2</td>
<td>1995-195</td>
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<tr>
<td>Warning Light: Type A, Yellow</td>
<td>2006</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>400</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>400 LED</td>
<td>WL-2</td>
<td>1995-196</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>444 LED</td>
<td>WL-2</td>
<td>1999-040Q</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>499L3</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>Y2K</td>
<td>WL-2</td>
<td>2000-162Q</td>
</tr>
<tr>
<td>Warning Light: Type B, White</td>
<td>212-6LW</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>1002</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>1002S</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>1102</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>1102L</td>
<td>WL-2</td>
<td>1996-085</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>212 LED</td>
<td>WL-2</td>
<td>1997-179</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>212-3</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>212-3DSL LED</td>
<td>WL-2</td>
<td>-----</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>212-3LW</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>212-3S</td>
<td>WL-2</td>
<td>-----</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>212-6</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>212-6DH</td>
<td>WL-2</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>213-3DH</td>
<td>WL-2</td>
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</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>100</td>
<td>WL-2</td>
<td>-----</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>100 LED</td>
<td>WL-2</td>
<td>1996-133</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>2006</td>
<td>WL-2</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>400</td>
<td>WL-2</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>400 LED</td>
<td>WL-2</td>
<td>1994-270</td>
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### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Warning Lights

<table>
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<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>400 LED-DH</td>
<td>WL-2</td>
<td>1994-134</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>499L3D</td>
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<td>Warning Light: Type C, Yellow</td>
<td>Y2K</td>
<td>WL-2</td>
<td>2000-162Q</td>
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<tr>
<td>Warning Light: Type D, Yellow</td>
<td>499L3D</td>
<td>WL-2</td>
<td></td>
</tr>
</tbody>
</table>

| PENTC 15 | Pennsylvania Turnpike Commission, P.O. Box 67676, Harrisburg, PA 17106 [https://www.paturnpike.com/](https://www.paturnpike.com/) |     |            |
| Warning Light: Type B, Yellow     | T-1   | PWL-3 | -----      |

*May be used only with W21-19 sign.*

*Provisionally Approved*
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Warning Lights

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
<td>PROTE 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PF-4</td>
<td>WL-1</td>
<td>---</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PF3P-12V-A</td>
<td>WL-1</td>
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</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PF3P-12V-PC-S</td>
<td>WL-1</td>
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</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PF4P-12V-PC-S</td>
<td>1983-069</td>
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<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PF4P-LED-6V-FL</td>
<td>1996-103A</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>200 LED</td>
<td>1995-075</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>Active WZ Light (Act 229)</td>
<td>PWL-4</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>Hi-3</td>
<td>1987-313</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>Hi-3-120</td>
<td>WL-1</td>
<td>---</td>
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<td>Warning Light: Type B, Yellow</td>
<td>Hi-3-12V</td>
<td>WL-1</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>Hi-4</td>
<td>1983-143</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>200-1-LED</td>
<td>1995-004</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>PF-3-PC-SB2</td>
<td>WL-1</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>PF-3P-6V-SBP-CS</td>
<td>1983-071</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>PF-3P-6VC</td>
<td>WL-1</td>
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</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>PF-4-PC-SB</td>
<td>WL-1</td>
<td>---</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>PF4P-LED-6V-FL</td>
<td>1996-103B</td>
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</table>

May be used only with W21-19 sign.
Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Warning Lights

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVM 15</td>
<td>Service &amp; Materials Company, Inc., 4835 East County Road 600, Sunman, IN 47041</td>
<td></td>
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<tr>
<td>Warning Light: Type A, Yellow</td>
<td>301</td>
<td></td>
<td>1981-103</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>501</td>
<td></td>
<td>1981-103</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>NF5003</td>
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<td>1983-139</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PAR7003</td>
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<td>1983-140</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>NF1714</td>
<td>WL-9</td>
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<td>Warning Light: Type B, Yellow</td>
<td>NF1724</td>
<td>WL-9</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>PAR1764</td>
<td>WL-9</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>PAR1774</td>
<td>WL-9</td>
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</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>301</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>501</td>
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<td>1981-103</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>NF5001</td>
<td>WL-9</td>
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</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>PAR7001</td>
<td>WL-9</td>
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<tr>
<td>TRFCN 15</td>
<td>Trafcon Industries, Inc., 81 Texaco Road, Mechanicsburg, PA 17050</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>M90</td>
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<td>1990-021</td>
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<tr>
<td>WLI 15</td>
<td>WLI Industries, Inc., 880 North Addison Road, Villa Park, IL 60181</td>
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<tr>
<td>Warning Light: Type A, Yellow</td>
<td>Toughlite 2000</td>
<td>WL-11</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>Toughlite 2000</td>
<td>WL-11</td>
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</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>Toughlite II</td>
<td>WL-11</td>
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<tr>
<td>WORKA 15</td>
<td>Work Area Protection Corporation, 2500 Production Drive, PO Box 4087, St. Charles, IL 60174</td>
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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>2524</td>
<td>WL-12</td>
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<td>Warning Light: Type B, Yellow</td>
<td>2540</td>
<td>WL-12</td>
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### 901.2 Warning Lights, Sequential

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
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**Section 901: Maintenance and Protection of Traffic During Construction**

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMPCL 15</td>
<td>Elgin Molded Plastics, Inc. DBA Empco-Lite, 909 Grace St., Elgin, IL 60120</td>
<td>2014-217Q</td>
</tr>
<tr>
<td>PIVAR 15</td>
<td>Pi Variables, Inc., 14831 Myford Road, Tustin, CA 92780</td>
<td>2014-011</td>
</tr>
<tr>
<td>UNID2 15</td>
<td>Unipart Dorman, Wennington Road, Southport, England PR97TN</td>
<td>2016-137</td>
</tr>
<tr>
<td>UNIDO 15</td>
<td>Unipart Dorman, 173 Main Street, Bath, Ontario, Canada K0H 1G0</td>
<td>2012-164Q</td>
</tr>
</tbody>
</table>

*Provisional Approval for Sunflower Cone-Top Lamps - Contact Ryan Palman (rpalman@pa.gov) before using on a Department highway.*

*FHWA Crashworthiness Eligibility: Self-Certification*

### 901.3(b) Dust Control Palliatives

Publication 447, Section MS-0440-0020 Dust Palliatives [Publication 447, Approved Products for Lower Volume Local Roads](http://www.dot.state.pa.us/)

Dust palliatives referenced in Pub 447, MS-0440-0020 are approved through the PennState Center for Dirt and Gravel Road Studies. To view the approved list and application rates: [The Dirt & Gravel Maintenance Program, Approved Products List](http://www.dot.state.pa.us/)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D&amp;DEM 15</td>
<td>D &amp; D Emulsions Inc., 270 Park Avenue East, P.O. Box 1706, Mansfield, OH 44901</td>
<td>2000-133Q</td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.3(b) Dust Control Palliatives

Dust palliatives referenced in Pub 447, MS-0440-0020 are approved through the PennState Center for Dirt and Gravel Road Studies. To view the approved list and application rates: The Dirt & Gravel Maintenance Program, Approved Products List

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVES 15</td>
<td>Environmental Energy Solutions, LLC, 10027 Route 403 Highway South, Seward, PA 15954 <a href="http://www.eesolutionsllc.com/">http://www.eesolutionsllc.com/</a></td>
<td>2000-235Q</td>
</tr>
<tr>
<td></td>
<td>Emulsified Petroleum Resins</td>
<td>Ultra Bond 2000</td>
</tr>
<tr>
<td></td>
<td>Calcium Lignosulfonate</td>
<td></td>
</tr>
<tr>
<td>PENSU 15</td>
<td>PennzSuppress Corporation, P.O. Box 4993, Lago, TX 78701 <a href="http://pennzspress.com/">http://pennzspress.com/</a></td>
<td>1991-177</td>
</tr>
<tr>
<td>Plant</td>
<td>77 North Kendall Avenue Bradford, PA 16701</td>
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<tr>
<td></td>
<td>Emulsified Petroleum Resins</td>
<td>PennzSuppress-D</td>
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<tr>
<td>Facility</td>
<td>Calcium Lignosulfonate</td>
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</tr>
<tr>
<td>SUIT3 15</td>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 <a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a></td>
<td>1997-188</td>
</tr>
<tr>
<td>Facility</td>
<td>Emulsified Petroleum Resins</td>
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</table>
Section 910: Highway Lighting

910.3(d) Pole Foundations (Alternates): Drilled Concrete Caissons

Approved product alternative for Section 910.3(d).

Strike Off Letters (SOL) and Drawings for Approved Bridge and Structure Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHAIN 15</td>
<td>Shaner Industries, LLC, 260 Pullman Square #169, Butler, PA 16001</td>
<td><a href="http://www.shanerindustries.com/">http://www.shanerindustries.com/</a></td>
<td></td>
</tr>
<tr>
<td>Pole Foundation (Alternate): Drilled Concrete Caisson</td>
<td>Metal Finned Pipe Foundations for Conventional Lighting Pole</td>
<td>483-16-06</td>
<td>2016-162</td>
</tr>
<tr>
<td>Drawing Number: 99-034 PE, Approval Date on Drawing: 10/6/2016. The alternate foundation design for conventional lighting has been approved under ECMS Special Provision c09101 ITEM 9910-0150. Approved Bridge and Structure Products</td>
<td></td>
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</tr>
<tr>
<td>Drawing Number: 95-291, PE, Rev. 2, Approval Date on Drawing: 3/7/2016. The alternate foundation design for high mast lighting has been approved under ECMS Special Provision c09102 ITEM 9910-0170. Approved Bridge and Structure Products</td>
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</table>
Section 930: Post Mounted Signs, Type A

930.2(c)2 Post Mounted Signs, Type A: Foundations (Alternatives)

Approved product alternatives for Section 930.2(c)1, Cast in Place.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
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<tbody>
<tr>
<td>SHAIN 15</td>
<td>Shaner Industries, LLC, 260 Pullman Square #169, Butler, PA 16001</td>
<td>Steel Finned Pipe Foundation</td>
<td>1995-290</td>
</tr>
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</table>
# Section 937: Delineation Devices

## 937.2(a) Delineation Devices, Barrier Mount

For Type, see Publication 111, **TC-8600 and TC-8700**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Device Color</th>
<th>Mount Description</th>
<th>Mount Type</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td><strong>3M-06 15</strong></td>
<td>3M Company, 4501 Highway 377 South, Brownwood, TX 76804</td>
<td><a href="http://www.3m.com/3M/en_US/company-us/">http://www.3m.com/3M/en_US/company-us/</a></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Plant</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linear Delineation System Series 340</td>
<td>LDS-341.5 (1.5 inch)</td>
<td>LDS-01</td>
<td></td>
<td></td>
<td></td>
<td>2013-150</td>
</tr>
<tr>
<td>Installation with manual fasteners only.</td>
<td></td>
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</tr>
<tr>
<td>Linear Delineation System Series 340</td>
<td>LDS-344 (4 inch)</td>
<td>LDS-01</td>
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<td>2013-150</td>
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<tr>
<td>Installation with manual fasteners only.</td>
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<tr>
<td>Linear Delineation System Series 340</td>
<td>LDS-346 (6 inch)</td>
<td>LDS-01</td>
<td></td>
<td></td>
<td></td>
<td>2013-150</td>
</tr>
<tr>
<td>Installation with manual fasteners only.</td>
<td></td>
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</tr>
<tr>
<td><strong>AMEMP 15</strong></td>
<td>American Molded Plastic, Inc., P.O. Box 434, Newton Falls, OH 44444</td>
<td><a href="http://americanmoldedplastic.com/">http://americanmoldedplastic.com/</a></td>
<td></td>
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<tr>
<td>Barrier Mounted Delineator</td>
<td>Flex-D</td>
<td>BMD-12</td>
<td>White and Yellow</td>
<td>Single/Bidirectional</td>
<td>Type R</td>
<td>-----</td>
</tr>
<tr>
<td><strong>ARTUK 15</strong></td>
<td>Artuk Corporation, 1200 Abbott Dr., Elgin, IL 60123</td>
<td><a href="http://artukinc.com/">http://artukinc.com/</a></td>
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<tr>
<td>Barrier Mounted Delineator</td>
<td>FB-38</td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction</td>
<td>Type P</td>
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<tr>
<td>(Formerly listed under Supplier Code ASTR-15)</td>
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<tr>
<td>Barrier Mounted Delineator</td>
<td>FB33-1</td>
<td>BMD-08</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction</td>
<td>Type O</td>
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<td>Barrier Mounted Delineator</td>
<td>FB33-2</td>
<td>BMD-08</td>
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<td>Impact Resistant, Bidirectional</td>
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<tr>
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<td>FB34-1</td>
<td>BMD-08</td>
<td>White and Yellow</td>
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<tr>
<td>Barrier Mounted Delineator</td>
<td>FB34-2</td>
<td>BMD-08</td>
<td>White and Yellow</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type O</td>
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<tr>
<td>(Formerly listed under Supplier Code ASTR-15)</td>
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</table>
## Section 937: Delineation Devices

### 937.2(a) Delineation Devices, Barrier Mount

For Type, see Publication 111, TC-8600 and TC-8700

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Device Color</th>
<th>Mount Description</th>
<th>Mount Type</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTUK 15</td>
<td>Artuk Corporation, 1200 Abbott Dr., Elgin, IL 60123 <a href="http://artukinc.com/">http://artukinc.com/</a></td>
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<td></td>
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<td>Type R</td>
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<tr>
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<td>Barrier Mounted Delineator</td>
<td>FT-1</td>
<td>BMD-06</td>
<td>White and Yellow Impact Resistant, Single Direction, Single Sided</td>
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<td></td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Type R</td>
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</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>660-IR-BMD</td>
<td>BMD-01</td>
<td>White and Yellow Impact Resistant, Single Direction</td>
<td>Type O</td>
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<td></td>
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</tr>
<tr>
<td>HALMC 15</td>
<td>Hall Manufacturing Corporation, 297 Margaret King Avenue, Ringwood, NJ 07456 <a href="http://www.hallmanufacturing.com/">http://www.hallmanufacturing.com/</a></td>
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<td>Type R</td>
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<td>Barrier Mounted Delineator</td>
<td>Flexx 2020</td>
<td>BMD-09</td>
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<td>Type R</td>
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<tr>
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<td>Facility</td>
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<td></td>
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<td>Type R</td>
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</tr>
<tr>
<td></td>
<td>3110 70th Avenue East Tacoma, WA 98424</td>
<td></td>
<td></td>
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<td>Type R</td>
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</tr>
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<td>Type R</td>
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<td>Type R</td>
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</table>

Last Revised: 10/27/2017
### Section 937: Delineation Devices

#### 937.2(a) Delineation Devices, Barrier Mount

For Type, see Publication 111, **TC-8600 and TC-8700**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Device Color</th>
<th>Mount Description</th>
<th>Mount Type</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SH216RBM-RS, 16&quot; Post</td>
<td>Red</td>
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<td>Type S</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SH216RBM-YA, 16&quot; Post</td>
<td>Yellow</td>
<td>Impact Resistant, Single Direction</td>
<td>Type S</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SH216RBMD-AA, 16&quot; Post</td>
<td>Gray</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type S</td>
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<tr>
<td></td>
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<td>SH216RBMD-RA, 16&quot; Post</td>
<td>Red</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type S</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SH216RBMD-WS, 16&quot; Post</td>
<td>White</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type S</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SH216RBMD-YA, 16&quot; Post</td>
<td>Yellow</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type S</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SH216RMB-WS, 16&quot; Post</td>
<td>White</td>
<td>Impact Resistant, Single Direction</td>
<td>Type S</td>
<td>-----</td>
</tr>
</tbody>
</table>

| UNISO    | UniqueSource, 500 Bent Creek Boulevard, Mechanicsburg, PA 17050-1876 https://www.uniquesource.com/ Formerly PIBH-15 | PIBH-16BMW, 16" Post | White | Impact Resistant, Single/Bidirectional | Type S | ----- |
|          |                                                            | PIBH-16BMY, 16" Post | Yellow | Impact Resistant, Single/Bidirectional | Type S | ----- |
|          |                                                            | PIBH-BMB BM Base | Pin Lock, Epoxy | ----- | ----- |

#### 937.2(b) Delineation Devices, Guiderail Mount

For Type, see Publication 111, **TC-8600 and TC-8700**

Last Revised: 10/27/2017

Last Revised: 4/16/2019
Section 937: Delineation Devices

937.2(b) Delineation Devices, Guiderail Mount

For Type, see Publication 111, TC-8600 and TC-8700

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Device Color</th>
<th>Mount Description</th>
<th>Mount Type</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M-06 15 Plant</td>
<td>3M Company, 4501 Highway 377 South, Brownwood, TX 76804</td>
<td><a href="http://www.3m.com/3M/en_US/company-us/">http://www.3m.com/3M/en_US/company-us/</a></td>
<td>Linear Delineation System Series 340</td>
<td>LDS-341.5 (1.5 inch)</td>
<td>LDS-01</td>
<td>2013-150</td>
</tr>
<tr>
<td></td>
<td>Linear Delineation System Series 340</td>
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<td>Installation with manual fasteners only.</td>
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</tr>
<tr>
<td></td>
<td>Linear Delineation System Series 340</td>
<td></td>
<td>LDS-344 (4 inch)</td>
<td>LDS-01</td>
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</tr>
<tr>
<td></td>
<td>Linear Delineation System Series 340</td>
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<td>Installation with manual fasteners only.</td>
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</tr>
<tr>
<td></td>
<td>Linear Delineation System Series 340</td>
<td></td>
<td>LDS-346 (6 inch)</td>
<td>LDS-01</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>American Molded Plastic, Inc., P.O. Box 434, Newton Falls, OH 44444</td>
<td><a href="http://americanmoldedplastic.com/">http://americanmoldedplastic.com/</a></td>
<td>Strong Post Guiderail Mounted Delineator</td>
<td>Flex-DS</td>
<td>BMD-12</td>
<td>Type CS</td>
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<td></td>
<td>Weak Post Guiderail Mounted Delineator</td>
<td>Flex-DS</td>
<td>BMD-12</td>
<td>White and Yellow</td>
<td>Single/Bidirectional</td>
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<tr>
<td></td>
<td>Guiderail Mounted Delineator</td>
<td>313 Straight</td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction, Single/Double Sided</td>
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<td>Guiderail Mounted Delineator</td>
<td>717</td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
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<td>Strong Post Guiderail Mounted Delineator</td>
<td>FR-1</td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction</td>
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<tr>
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<td>Strong Post Guiderail Mounted Delineator</td>
<td>FR-2</td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction</td>
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<td>Provisionally Approved</td>
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Last Revised: 4/16/2019
## Section 937: Delineation Devices

### 937.2(b) Delineation Devices, Guiderail Mount

For Type, see Publication 111, TC-8600 and TC-8700

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Device Color</th>
<th>Mount Description</th>
<th>Mount Type</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Guiderail Mounted Delineator CFGBK300 Bracket for Guiderail</td>
<td>BMD-10</td>
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<td>Impact Resistant, Single/Bidirectional</td>
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<td>Guiderail Mounted Delineator CGR-302701</td>
<td>BMD-10</td>
<td>Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type A</td>
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<td>Guiderail Mounted Delineator CGR-302702</td>
<td>BMD-10</td>
<td>Yellow</td>
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<td>Type A</td>
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<tr>
<td></td>
<td>Guiderail Mounted Delineator 650-IR-GMD</td>
<td>BMD-01</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction</td>
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<td>White and Yellow</td>
<td>Impact Resistant, Single Direction</td>
<td>Type D</td>
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<tr>
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<td>Guiderail Mounted Delineator 652-IR-GMD</td>
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<td>Impact Resistant, Bidirectional</td>
<td>Type D</td>
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<tr>
<td></td>
<td>Guiderail Mounted Delineator GRD-S</td>
<td>BMD-13</td>
<td></td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type D</td>
<td>2014-247Q</td>
</tr>
<tr>
<td></td>
<td>Guiderail Mounted Delineator GRO-ST</td>
<td>BMD-13</td>
<td></td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type A</td>
<td>2014-246Q</td>
</tr>
<tr>
<td></td>
<td>Strong Post Guiderail Mounted Delineator Railrider</td>
<td>BMD-09</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type CS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weak Post Guiderail Mounted Delineator Weak Post Railrider</td>
<td>BMD-09</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type CW</td>
<td></td>
</tr>
</tbody>
</table>
### Section 937: Delineation Devices

#### 937.2(b) Delineation Devices, Guiderail Mount

For Type, see Publication 111, **TC-8600 and TC-8700**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Device Color</th>
<th>Mount Description</th>
<th>Mount Type</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guiderail Mounted Delineator</td>
<td>Butterfly Guiderail</td>
<td>BMD-02</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type D</td>
<td>-----</td>
</tr>
<tr>
<td>Guiderail Mounted Delineator</td>
<td>Straight Post Ref. -GMD</td>
<td>BMD-02</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type A</td>
<td>-----</td>
</tr>
<tr>
<td>Strong Post Guiderail Mounted Delineator</td>
<td>I-Flex 12</td>
<td>BMD-02</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type CS</td>
<td>-----</td>
</tr>
<tr>
<td>Weak Post Guiderail Mounted Delineator</td>
<td>I-Flex 12 WP</td>
<td>BMD-02</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type CW</td>
<td>-----</td>
</tr>
<tr>
<td>Guiderail Mounted Delineator</td>
<td>SH2276GRSD-YS1 2, 27” Post</td>
<td>BMD-05</td>
<td>Yellow</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type B</td>
<td>-----</td>
</tr>
<tr>
<td>Guiderail Mounted Delineator</td>
<td>SH227GRS-WS12, 27” Post</td>
<td>BMD-05</td>
<td>White</td>
<td>Impact Resistant, Single Direction</td>
<td>Type B</td>
<td>-----</td>
</tr>
<tr>
<td>Guiderail Mounted Delineator</td>
<td>SH227GRS-YS12, 27” Post</td>
<td>BMD-05</td>
<td>Yellow</td>
<td>Impact Resistant, Single Direction</td>
<td>Type B</td>
<td>-----</td>
</tr>
<tr>
<td>Guiderail Mounted Delineator</td>
<td>SH227GRSD-WS12, 27” Post</td>
<td>BMD-05</td>
<td>White</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type B</td>
<td>-----</td>
</tr>
<tr>
<td>Guiderail Mounted Delineator</td>
<td>SH227GRSE-UL-LA, 27” Post</td>
<td>BMD-05</td>
<td>Blue</td>
<td>Impact Resistant, Single Direction</td>
<td>Type B</td>
<td>-----</td>
</tr>
</tbody>
</table>
Section 937: Delineation Devices

937.2(b) Delineation Devices, Guiderail Mount

For Type, see Publication 111, TC-8600 and TC-8700

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Device Color</th>
<th>Mount Description</th>
<th>Mount Type</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNISO 15</td>
<td>UniqueSource, 500 Bent Creek Boulevard, Mechanicsburg, PA 17050-1876</td>
<td><a href="https://www.uniquesource.com/">https://www.uniquesource.com/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formerly PIBH-15</td>
<td>Guiderail Mounted Delineator</td>
<td>PIBH-27GRW, 27&quot; Post</td>
<td>BMD-07 White</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type B</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Guiderail Mounted Delineator</td>
<td>PIBH-27GRY, 27&quot; Post</td>
<td>BMD-07 Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type B</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Guiderail Mounted Delineator</td>
<td>SHUR-FLEX Guiderail Post &quot;Flat Mount&quot; Delineator (#SF2752)</td>
<td></td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type B</td>
<td>2015-148</td>
</tr>
</tbody>
</table>

937.2(c) Delineation Devices, Posts

The Devices listed in this section have been self-certified by the vendor as to their crashworthiness and are deemed compliant with NCHRP-350. These Devices are approved for use in PA.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Post Type</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delineator Post</td>
<td>27&quot; Sentry Marker</td>
<td>DPOST-02</td>
<td>Guide Rail Post</td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>CDS-30</td>
<td>DPOST-02</td>
<td>Ground Mounted</td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>CFR-406601</td>
<td>DPOST-02</td>
<td>Ground Mounted</td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>CFR-406602</td>
<td>DPOST-02</td>
<td>Ground Mounted</td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>FlexGuard Post</td>
<td>DPOST-02</td>
<td>Ground Mounted</td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>SDC-2036 / 36&quot;</td>
<td>DPOST-02</td>
<td>Surface Mounted</td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>SDC-2048 / 48&quot;</td>
<td>DPOST-02</td>
<td>Surface Mounted</td>
</tr>
</tbody>
</table>

FLEX 15 | FlexStake, Inc., 2150 Andrea Lane, Fort Myers, FL 33912 | http://www.flexstake.com/ |
| | Delineator Post | HD-600 Series | DPOST-03 | Ground Mounted | 1992-072A-F |
| | Delineator Post | SM-700 Series | DPOST-03 | Surface Mounted | 1992-072A-F |
Section 937: Delineation Devices

937.2(c) Delineation Devices, Posts

The Devices listed in this section have been self-certified by the vendor as to their crashworthiness and are deemed compliant with NCHRP-350. These Devices are approved for use in PA.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Post Type</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delineator Post</td>
<td>PC-220</td>
<td>Ground Mounted</td>
<td>046Q</td>
<td></td>
</tr>
<tr>
<td>Approved to manufacture ground mounted delineator posts from recycled train rail per Franklin Industries’ Rail Identification &amp; Traceability Procedure, Q113.003. In lieu of mill certifications, a Certificate of Conformance must be included with the 'Unidentified Steel' box checked on the CS-4171. <a href="http://store.franklinindustriesco.com/">Franklin Industries’ Certificate of Conformance</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>3110 70th Avenue East Tacoma, WA 98424</td>
<td>DPOST-05</td>
<td>Ground Mounted</td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>City Post EAC (Embedded Anchor Cup)</td>
<td>Spin-in (Embedded Anchor Cup)</td>
<td>2018-150Q</td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>FG 300-UR</td>
<td>Surface Mounted (Epoxy)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>FG-500 Series FG-95</td>
<td>Ground Mounted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>FG-500 Series FG-96</td>
<td>Ground Mounted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SH-SMA-1-BL</td>
<td>Surface Mounted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SH236SMA-SP12</td>
<td>Surface Mounted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SH248GP3-SP-12</td>
<td>Ground Mounted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SH336SMA-SP12</td>
<td>Surface Mounted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SH348GP3-SP-12</td>
<td>Ground Mounted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SHA1-08E0-GL (8” Steel Anchor)</td>
<td>Ground Mounted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SHA3-18C-GL (18” Steel Anchor)</td>
<td>Ground Mounted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 937: Delineation Devices

**937.2(c) Delineation Devices, Posts**

The Devices listed in this section have been self-certified by the vendor as to their crashworthiness and are deemed compliant with NCHRP-350. These Devices are approved for use in PA.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Post Type</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNISO 15</td>
<td>UniqueSource, 500 Bent Creek Boulevard, Mechanicsburg, PA 17050-1876 <a href="https://www.uniquesource.com/">https://www.uniquesource.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formerly PIBH-15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>PIBH-36G</td>
<td>DPOST-04</td>
<td>Surface Mounted</td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>PIBH-48G</td>
<td>DPOST-04</td>
<td>Ground Mounted</td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>PIBH-52G</td>
<td>DPOST-04</td>
<td>Ground Mounted</td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>PIBH-A18 (18&quot; Steel Anchor)</td>
<td>DPOST-04</td>
<td>Ground Mounted</td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>PIBH-A8 (8&quot; Steel Anchor)</td>
<td>DPOST-04</td>
<td>Surface Mounted</td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>PIBH-TMB</td>
<td>DPOST-04</td>
<td>Surface Mounted (Epoxy)</td>
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</tr>
<tr>
<td>Delineator Post</td>
<td>SHUR-FLEX Driveable</td>
<td></td>
<td>Ground Mounted</td>
<td>2015-147Q</td>
</tr>
<tr>
<td>Delineator Post</td>
<td>Delineator Item #SD0031</td>
<td></td>
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</tr>
<tr>
<td>Delineator Post</td>
<td>SHUR-FLEX Surface Mount</td>
<td></td>
<td>Surface Mounted</td>
<td>2015-149</td>
</tr>
<tr>
<td>Delineator Post</td>
<td>Delineator (#SF0140)</td>
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<td></td>
</tr>
</tbody>
</table>
Section 948: Steel Sign Structure

948 Steel Sign Structure

Preapproved Plants

These plants have been preapproved to fabricate overhead steel sign structures for PennDOT by the Structural Materials Engineer, Materials Testing Laboratory, Harrisburg, PA.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRFAB 15</td>
<td>Brookfield Fabricating Corporation, P. O. Box 406, Brookfield, MO 64628 [<a href="http://www.brookfieldfabricating.com/">http://www.brookfieldfabricating.com/</a>]</td>
<td>Brookfield</td>
<td>MO</td>
<td>-----</td>
</tr>
<tr>
<td>DURAB 15</td>
<td>Dura-Bond Steel Corporation, 2558 Puckety Drive, Export, PA 15632 [<a href="http://www.dura-bond.com/">http://www.dura-bond.com/</a>]</td>
<td>Export</td>
<td>PA</td>
<td>-----</td>
</tr>
<tr>
<td>HALL1 15</td>
<td>Hall Industries, Inc., Hall Equipment Division, 1 USS Industrial Park, Ellwood City, PA 16117 [<a href="http://hallindustries.com/">http://hallindustries.com/</a>]</td>
<td>Ellwood City</td>
<td>PA</td>
<td>-----</td>
</tr>
<tr>
<td>HALL3 15</td>
<td>Hall Industries, Inc., HGH Facility, 606 2nd Street, Ellwood City, PA 16117 [<a href="http://hallindustries.com/">http://hallindustries.com/</a>]</td>
<td>Ellwood City</td>
<td>PA</td>
<td>2017-029Q</td>
</tr>
<tr>
<td>HASSC 15</td>
<td>Harris Structural Steel Company, Inc., 1640 New Market Ave., South Plainfield, NJ 07080 [<a href="http://www.harrissteelco.com/">http://www.harrissteelco.com/</a>]</td>
<td>South Plainfield</td>
<td>NJ</td>
<td>-----</td>
</tr>
<tr>
<td>HEART 15</td>
<td>Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417 [<a href="https://www.hl-fabrication.com/">https://www.hl-fabrication.com/</a>]</td>
<td>Brownsville</td>
<td>PA</td>
<td>2018-220Q</td>
</tr>
</tbody>
</table>
### Section 948: Steel Sign Structure

#### 948 Steel Sign Structure

**Preapproved Plants**

These plants have been preapproved to fabricate overhead steel sign structures for PennDOT by the Structural Materials Engineer, Materials Testing Laboratory, Harrisburg, PA.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HURFC 15</td>
<td>Hurtt Fabricating Corporation, 26707 E. Scott Road, Mareline, MO 64658 <a href="http://www.hurttfab.com/">http://www.hurttfab.com/</a></td>
<td>Mareline</td>
<td>MO</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not approved to fabricate structures with T, Y or K pipe-to-pipe connections.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L&amp;FM 15</td>
<td>L&amp;M Fabrication &amp; Machine, Inc., 6814 Chrisphalt Drive, P. O. Box 124, Bath, PA 18014</td>
<td>Bath</td>
<td>PA</td>
<td>-----</td>
</tr>
<tr>
<td>Facility</td>
<td>6814 Chrisphalt Dr., Bath, PA 18014</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEHUA 15</td>
<td>Lehigh Utility Associates, Inc., 1300 New Market Ave., South Plainfield, NJ 07080</td>
<td>South Plainfield</td>
<td>NJ</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not approved to fabricate structures with T, Y or K pipe-to-pipe connections.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCS-1</td>
<td>Mission Critical Solutions, LLC, 271 Industrial Lane, Alum Bank, PA 15221 <a href="https://www.missioncriticalsolutions.com/">https://www.missioncriticalsolutions.com/</a></td>
<td>Alum Bank</td>
<td>PA</td>
<td>2019-131Q</td>
</tr>
<tr>
<td>Facility</td>
<td>271 Industrial Lane, Alum Bank, PA 15221</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2nd Facility: 20 Steel Rd., Morrisville, PA 19067</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PMWI1 15</td>
<td>Pleasant Mount Welding, Inc., 45 Dundaff Street, Carbondale, PA 18407 <a href="https://www.pmwi.net/">https://www.pmwi.net/</a></td>
<td>Carbondale</td>
<td>PA</td>
<td>2018-218Q</td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSFAB 15</td>
<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
<td>Bristol</td>
<td>PA</td>
<td>2016-281</td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCCFI 15</td>
<td>RCC Fabricators, Inc., 2035 Route 206 South, Southampton, NJ 18434</td>
<td>Southampton</td>
<td>NJ</td>
<td>2015-079Q</td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Section 948: Steel Sign Structure

## 948 Steel Sign Structure

### Preapproved Plants

These plants have been preapproved to fabricate overhead steel sign structures for PennDOT by the Structural Materials Engineer, Materials Testing Laboratory, Harrisburg, PA.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFGD 15</td>
<td>Safety Guard Steel Fabricating Company, 113 Lincoln Avenue, Pittsburgh, PA 15209 <a href="http://www.safetyguardsteel.com/">http://www.safetyguardsteel.com/</a></td>
<td>Millvale</td>
<td>PA</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not approved to fabricate structures with T, Y or K pipe-to-pipe connections.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly at 2027 South 12th Street, Bldg. 507, Allentown, PA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly located at 2027 South 12th Street, Bldg. 507, Allentown, PA 18103</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not approved to fabricate structures with T, Y or K pipe-to-pipe connections.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
<td>Elizabethtown</td>
<td>KY</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Steel Sign Structure Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not approved to fabricate structures with T, Y or K pipe-to-pipe connections.</td>
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<td>UMIC1 15</td>
<td>Union Metal Industries Corporation, 1432 Maple Avenue NE Canton, Ohio 44705, Canton, OH 44705</td>
<td>Canton</td>
<td>OH</td>
<td>2018-177Q</td>
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<td>Steel Sign Structure Fabricator</td>
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<td>Steel Sign Structure Fabricator</td>
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<td>Also approved for induction bending of monopipe.</td>
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<td>VAL-2 15</td>
<td>Valmont Specialty Structures/Plymouth, 1545 Pidco Drive, Plymouth, IN 46563 <a href="http://www.valmont.com/">http://www.valmont.com/</a></td>
<td>Plymouth</td>
<td>IN</td>
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## 948.3(b) Steel Sign Structures, Foundations

Approved product alternatives for Section 948.3(b)
## Section 948: Steel Sign Structure

### 948.3(b) Steel Sign Structures, Foundations

Approved product alternatives for Section 948.3(b)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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Steel Sign Structure Foundation

*The alternate foundation design for cantilever and center mount sign structure poles has been approved under CMS Special Provision S00(ID09103B) and ECMS Special Provision I-C09103-B.*
Section 960: Hot Thermoplastic Pavement Markings

960.2 Hot Thermoplastic Pavement Markings

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

<table>
<thead>
<tr>
<th></th>
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<td>ENN-1 15</td>
<td>Ennis-Flint, Inc., 4161 Piedmont Parkway, Suite 370, Greensboro, NC 27410</td>
<td>Plant 1509 South Kaufman Street Ennis, TX 75120</td>
<td>HTPM-06</td>
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<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>No</td>
<td>M247</td>
<td>Lines and Other Uses</td>
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Section 960: Hot Thermoplastic Pavement Markings

960.2 Hot Thermoplastic Pavement Markings

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

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Lot numbers start with N. (Tested on 2005 Pennsylvania NTPEP Test Desk: PMM-2005-PA-023)

Lot numbers start with N. (Tested on 2005 Pennsylvania NTPEP Test Desk: PMM-2005-PA-024)

Provisional Approval based on requirement that the manufacturer must supply independent testing data for the first 10 lots of material manufactured for PennDOT projects. Lot numbers start with N. (Tested on 2008 Pennsylvania NTPEP Test Desk: PMM-2008-PA-069)
Section 960: Hot Thermoplastic Pavement Markings

960.2 Hot Thermoplastic Pavement Markings
Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

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Section 960: Hot Thermoplastic Pavement Markings

960.2 Hot Thermoplastic Pavement Markings

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

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<tr>
<td>SWAR1 15</td>
<td>Swarco Industries LLC, 270 Rutherford Lane, P.O. Box 89, Columbia, TN 38402 <a href="https://www.swarco.com/northamerica">https://www.swarco.com/northamerica</a></td>
<td>HTPM-03</td>
<td>White</td>
<td>Lighted and Unlighted</td>
<td>Asphalt</td>
<td>No</td>
<td>M247</td>
<td>Lines and Other Uses</td>
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<td>M247</td>
<td>Lines Only</td>
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<td>M247</td>
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960.2 Hot Thermoplastic Decorative Crosswalks (Conditionally Approved)

See [Standard Drawing TC-8600 Pavement Markings (Publication 111)](http://www.trafficcalmingusa.com/services.html)

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<tr>
<td>TRACA 15</td>
<td>Traffic Calming, 110 Thompson Road, Suite 102A, Hiram, GA 30141 <a href="http://www.trafficcalmingusa.com/services.html">http://www.trafficcalmingusa.com/services.html</a></td>
<td></td>
<td>2010-179</td>
</tr>
<tr>
<td></td>
<td>Alternate System - Hot Applied Synthetic Asphalt</td>
<td>Brinkprint 45 Decorative Crosswalks</td>
<td>For decorative crosswalks only. Marking Surface: Asphalt only. Conditionally Approved as an alternate.</td>
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</tbody>
</table>
**Section 961: Cold Plastic Pavement Markings or Legends**

**961.2 Cold Plastic Pavement Markings or Legends**

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

|-------------------------------------|------------|-------|---------------|--------------------------------|-----------------|---------|-------------|------------------|----------|

Last Revised: 1/29/2018
### Section 961: Cold Plastic Pavement Markings or Legends

#### 961.2 Cold Plastic Pavement Markings or Legends

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

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<td>SWAR15</td>
<td>Swarco Industries LLC, 270 Rutherford Lane, P.O. Box 89, Columbia, TN 38402 <a href="https://www.swarco.com/northamerica">https://www.swarco.com/northamerica</a></td>
<td>Director 60</td>
<td>CPPM-06</td>
<td>White</td>
<td>Lighted Roadways Only</td>
<td>Asphalt</td>
<td>Yes</td>
<td>SP</td>
<td>Lines and Other Uses</td>
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<td></td>
<td>Restricted Use: surface applied on existing pavements only.</td>
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<td>CPPM-06</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
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<td>Director 60</td>
<td>CPPM-06</td>
<td>White</td>
<td>Lighted Roadways Only</td>
<td>Asphalt and Concrete</td>
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Section 962: Waterborne Pavement Markings

962.2 Waterborne Pavement Markings

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<th>Marking Color</th>
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<td>Plant</td>
<td>1509 South Kaufman Street Ennis, TX 75120</td>
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<tr>
<td>Waterborne Pavement Marking</td>
<td>991022</td>
<td>WP-01</td>
<td>White</td>
<td>2007-074Q</td>
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<tr>
<td>Waterborne Pavement Marking</td>
<td>991028</td>
<td>WP-01</td>
<td>Yellow</td>
<td>2007-070Q</td>
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<tr>
<td>Waterborne Pavement Marking</td>
<td>991152</td>
<td>WP-01</td>
<td>White</td>
<td>2011-237Q</td>
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<td>Waterborne Pavement Marking</td>
<td>991158</td>
<td>WP-01</td>
<td>Yellow</td>
<td>2011-231Q</td>
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<td>Plant</td>
<td>4400 Vawter Avenue Richmond, VA 23222</td>
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<td>FRAPC 15</td>
<td>Franklin Paint Company, 259 Cottage Street, Franklin, MA 02038</td>
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<td>Waterborne Pavement Marking</td>
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Section 962: Waterborne Pavement Markings

962.2 Waterborne Pavement Markings

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<th>Product</th>
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<th>NTPEP Test Number</th>
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<tr>
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<td>2325 Hollins Ferry Road  Baltimore, MD 21230</td>
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<td>Waterborne Pavement Marking</td>
<td>058-004 (TM2382)</td>
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Section 964: Epoxy Pavement Markings

964.2 Epoxy Pavement Markings

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

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<td>ACCST 15</td>
<td>Accent Stripe, 3275 Benzing Road, Orchard Park, NY 14127 <a href="http://www.accentstripe.com/">http://www.accentstripe.com/</a></td>
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<td>ACNT-W-S</td>
<td>EPM-01</td>
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<td>Lighted and Unlighted Roads</td>
<td>Asphalt and Concrete</td>
<td>Lines Only</td>
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<td>EPM-01</td>
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<td>Asphalt</td>
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<td>EPM-01</td>
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<td>Lighted and Unlighted Roads</td>
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<td>BALTP 15</td>
<td>Baltimore Paint &amp; Chemical, Division of Sherwin Williams, 2325 Hollins Ferry Road, Baltimore, MD 21230</td>
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<td>Concrete No</td>
<td>M247</td>
<td>Lines Only</td>
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</table>
Section 964: Epoxy Pavement Markings

964.2 Epoxy Pavement Markings

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

<table>
<thead>
<tr>
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<td>EPM-05</td>
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<td>Lighted and Unlighted Roadways</td>
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<td>No</td>
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<td><strong>Note:</strong> Beads vary by type and rate of application. Refer to Certificate of Approval.</td>
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<td>Lighted and Unlighted Roadways</td>
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<td>EPM-05</td>
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<td>Lines and Other Uses</td>
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</table>
Section 964: Epoxy Pavement Markings

964.2 Epoxy Pavement Markings

Lines are defined as Center, Lane, and Edge Lines. Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

<table>
<thead>
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<tbody>
<tr>
<td>ENN-3 15 Plant</td>
<td>Ennis-Flint, Inc., 4161 Piedmont Parkway, Suite 370, Greensboro, NC 27410</td>
<td><a href="http://www.ennisflintamericas.com/">http://www.ennisflintamericas.com/</a></td>
<td>EPM-05</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
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<td>Vary</td>
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<td>EPM-05</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>Vary</td>
<td>Lines and Other Uses</td>
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<td>EPM-05</td>
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<td>Asphalt and Concrete</td>
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<td>Lines and Other Uses</td>
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<td>HPS-4</td>
<td>EPM-05</td>
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<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
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<td>Vary</td>
<td>Lines and Other Uses</td>
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</tbody>
</table>
Section 964: Epoxy Pavement Markings

964.2 Epoxy Pavement Markings

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

<table>
<thead>
<tr>
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Beads vary by type and rate of application. Refer to Certificate of Approval.

Provisionally Approved
### Section 964: Epoxy Pavement Markings

**964.2 Epoxy Pavement Markings**

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Color</th>
<th>Illumination</th>
<th>Surface</th>
<th>Primer?</th>
<th>Beads</th>
<th>Application</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>POLYC 15 Plant</td>
<td>Olin Epoxy-POLY-CARB, 8440 Tower Dr., Twinsburg, OH 44087</td>
<td><a href="http://www.poly-carb.com/">http://www.poly-carb.com/</a></td>
<td>EPM-04</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>M237 Type 1 Lines and Other Uses</td>
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<td>Epoxy Pavement Marking</td>
<td>Mark-55.3</td>
<td>EPM-04</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
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<td>EPM-04</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>M237 Type 1 Lines Only</td>
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<td>EPM-04</td>
<td>Yellow</td>
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<td>SWAR3 15 Colorado Paint Company, the SWARCO Group, 4747 Holly Street, Denver, CO 80216</td>
<td><a href="http://www.swarco.com/cpc">http://www.swarco.com/cpc</a></td>
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<td>1180</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
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<td>2017-036Q</td>
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Section 965: Preformed Thermoplastic Pavement Markings

965.2 Preformed Thermoplastic Pavement Markings

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Marking Color (Thermoplastic)</th>
<th>Illumination</th>
<th>Marking Surface</th>
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<th>Beads</th>
<th>Application Uses</th>
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<td>9WPASTR96</td>
<td>PTPM-02 White</td>
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<td>PT260</td>
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<td>9WPASTR96</td>
<td>PTPM-02 White</td>
<td>Lighted and Unlighted Roadways</td>
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<td>Lines and Other Uses</td>
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<td>LD981035</td>
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**Provisionally Approved. (Formerly ENN-1 15 product)**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Marking Color (Thermoplastic)</th>
<th>Illumination</th>
<th>Marking Surface</th>
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**Formerly ENN-1 15 product**

<table>
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<th>Name</th>
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<th>Marking Color (Thermoplastic)</th>
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<th>Beads</th>
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<td>PreMark</td>
<td>PTPM-02 White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>Lines and Other Uses</td>
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</table>
Section 965: Preformed Thermoplastic Pavement Markings

965.2 Preformed Thermoplastic Pavement Markings

Lines are defined as Center, Lane, and Edge Lines.

Other Uses are defined as Crosswalks, Stop Lines, Legends, and Crosshatching.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Marking Color (Thermoplastic)</th>
<th>Illumination</th>
<th>Marking Surface</th>
<th>Primer?</th>
<th>Beads</th>
<th>Application Uses</th>
<th>Ref. No.</th>
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<tr>
<td>OZARK 15</td>
<td>Ozark Materials, LLC, 591 Glendale Avenue, Greenville, AL 36037</td>
<td><a href="http://ozarkmaterials.net">http://ozarkmaterials.net</a></td>
<td>Preformed Thermoplastic Pavement Marking</td>
<td>Preformed Thermoplastic</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and *Concrete</td>
<td>No</td>
<td>*Lines and **Other Uses</td>
</tr>
</tbody>
</table>

* For use as a Line on concrete surfaces, the preformed thermoplastic must be preheated before placing on concrete surface.
** The preformed thermoplastic is NOT approved for Other Uses on concrete surfaces.
The product is approved for both Lines and Other Uses on asphalt surfaces.

965.2 Preformed Thermoplastic Decorative Crosswalks (Conditionally Approved)

Per MUTCD, no glass beads are allowed for decorative crosswalks.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Marking Color (Thermoplastic)</th>
<th>Illumination</th>
<th>Marking Surface</th>
<th>Primer?</th>
<th>Beads</th>
<th>Application Uses</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

Conditionally approved per manufacturer's specifications (150 mil thickness, brick-looking stamped material). The stamping templates and StreetPrint/StreetHeat reciprocating infrared heating equipment is supplied by Ennis-Flint. TrafficPatterns XD Manufacturer's Specification

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Marking Color (Thermoplastic)</th>
<th>Illumination</th>
<th>Marking Surface</th>
<th>Primer?</th>
<th>Beads</th>
<th>Application Uses</th>
<th>Ref. No.</th>
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<tr>
<td>Interconnected Surface Applied Decorative Crosswalk</td>
<td>TrafficPatterns</td>
<td>PTPM-02</td>
<td>Non-Reflective White, Black, Brown, Silver-Gray, Maroon, or Tan</td>
<td>N/A</td>
<td>Asphalt and Concrete</td>
<td>N/A</td>
<td>Decorative Crosswalk</td>
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</table>
Section 965: Preformed Thermoplastic Pavement Markings

965.2 Preformed Thermoplastic Decorative Crosswalks (Conditionally Approved)

Per MUTCD, no glass beads are allowed for decorative crosswalks.

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Marking Color (Thermoplastic)</th>
<th>Illumination</th>
<th>Marking Surface</th>
<th>Primer?</th>
<th>Beads</th>
<th>Application Uses</th>
<th>Ref. No.</th>
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<tr>
<td>Plant</td>
<td>115 Todd Court Thomasville, NC 27360</td>
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<td>Conditionally approved per manufacturer's specifications (125 mil thickness).</td>
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## Section 966: Snowplowable Raised Pavement Markers

### 966.2 Snowplowable Raised Pavement Marker (RPM) Castings

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Direction</th>
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</thead>
<tbody>
<tr>
<td>ENN-1 15</td>
<td>Ennis-Flint, Inc., 4161 Piedmont Parkway, Suite 370, Greensboro, NC 27410</td>
<td><a href="http://www.ennisflintamericas.com/">http://www.ennisflintamericas.com/</a></td>
<td>1509 South Kaufman Street Ennis, TX 75120</td>
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</tr>
<tr>
<td>RPM Casting</td>
<td>101 LP</td>
<td>One Way / Two Way</td>
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</tr>
<tr>
<td>RPM Casting</td>
<td>101 LPS, Bridge Deck Only</td>
<td>One Way / Two Way</td>
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</tr>
<tr>
<td>RPM Casting</td>
<td>101 LP</td>
<td>One Way / Two Way</td>
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<tr>
<td>RPM Casting</td>
<td>101 LPS, Bridge Deck Only</td>
<td>One Way / Two Way</td>
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<tr>
<td>RAYOL 15</td>
<td>Rayolite, 4500 N. Sam Houston Parkway West, Suite 120, Houston, TX 77086</td>
<td><a href="http://www.rayolite.com/">http://www.rayolite.com/</a></td>
<td>4500 N. Sam Houston Parkway West Suite 120 Houston, TX 77086</td>
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</tr>
<tr>
<td>RPM Casting</td>
<td>H-1010 Low Profile (Narrow)</td>
<td>RPM-C2</td>
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<td>H-960 Low Profile</td>
<td>RPM-C2</td>
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### 966.2 Snowplowable Raised Pavement Marker (RPM) Reflector Units

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Reflector Unit Color</th>
<th>Direction</th>
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# BULLETIN 15 (Publication 35)
## Qualified Products List for Construction

### Section 966: Snowplowable Raised Pavement Markers

#### 966.2 Snowplowable Raised Pavement Marker (RPM) Reflector Units

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Reflector Unit Color</th>
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Section 966: Snowplowable Raised Pavement Markers

966.2 Snowplowable Raised Pavement Marker (RPM) Reflector Units

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# Section 966: Snowplowable Raised Pavement Markers

## 966.2 Snowplowable Raised Pavement Marker (RPM) Reflector Units

Last Revised: 1/25/2018

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Section 966: Snowplowable Raised Pavement Markers

966.2 Snowplowable Raised Pavement Marker (RPM) Reflector Units

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Section 1001: Cement Concrete Structures

1001.2(h)2 Metal Bridge Deck Forms

Steel Products Procurement Act applies.

ASTM A924/A924M and ASTM A653/A653M. **Standard Drawing BC-732M (Publication 219M)**

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<td>Structural Steel (SS) 50, Class 2</td>
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<td>FOST0 15</td>
<td>L.B. Foster Company, 415 Holiday Drive, Pittsburgh, PA 15220 <a href="http://www.lbfoster.com/">http://www.lbfoster.com/</a></td>
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Section 1001: Cement Concrete Structures

1001.2(h)2 Metal Bridge Deck Forms

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<td>Structural Steel (SS) 33</td>
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<td>SIPDE 15</td>
<td>SIP Inc. of Delaware, 2204 Chestnut Street, P.O. Box 4347, Gadsden, AL 35904 <a href="http://wmsi.com/subsidiaries/sip/">http://wmsi.com/subsidiaries/sip/</a></td>
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<td>UNSDK 15</td>
<td>United Steel Deck, 14 Harmish Road, South Plainfield, NJ 07080 <a href="http://www.unitedsteel.com/">http://www.unitedsteel.com/</a></td>
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### Section 1002: Reinforcement Bars

**1002.2(c) Mechanical Splice System**

NOTE: Assemble mechanical splices per manufacturer's recommended procedure.

Assemble three splices for each size reinforcing bar plus an unassembled set of each size used. Submit to the LTS for testing to verify the procedure.

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<td>Mechanical Splice System</td>
<td>BPI-Grip &quot;BarGrip&quot; System</td>
<td>4’ - 18</td>
</tr>
<tr>
<td></td>
<td>Taper Threaded Grip-Twist</td>
<td># 4, 5, 6, 7, 8, 9, 10, 11, 14, 18</td>
<td>2006-042Q</td>
</tr>
<tr>
<td></td>
<td>Mechanical Splice System</td>
<td>ZAP Screwlok Type 2 Series</td>
<td># 4’ , 5, 6, 7, 8, 9, 10, 11</td>
</tr>
<tr>
<td></td>
<td>Mechanical Splice System</td>
<td>ZAP Screwlok Type 2 Series</td>
<td># 18</td>
</tr>
<tr>
<td></td>
<td>Mechanical Splice System</td>
<td>ZAP Screwlok Type 2 Series</td>
<td># 14</td>
</tr>
<tr>
<td>DAYT0 15</td>
<td>Dayton Superior Corporation, 1125 Byers Road, Miamisburg, OH 45342-5765 <a href="http://www.daytonsuperior.com/">http://www.daytonsuperior.com/</a></td>
<td>3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 18</td>
<td>1992-351</td>
</tr>
<tr>
<td></td>
<td>D/B/DI Splice Connector</td>
<td>(D101A, D101)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>US/MC-SAE Rebar Splice</td>
<td>(D110, D111, D112)</td>
<td></td>
</tr>
<tr>
<td>DAYT2 15</td>
<td>Dayton Superior Corporation, 1125 Byers Road, Miamisburg, OH 45342 <a href="http://www.daytonsuperior.com/">http://www.daytonsuperior.com/</a> Bellingham, WA</td>
<td>3, 4, 5, 6, 7, 8, 9, 10, 11, 14</td>
<td>1992-351</td>
</tr>
<tr>
<td></td>
<td>D/B/DI Splice Connector</td>
<td>(D101A, D101)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>US/MC-SAE Rebar Splice</td>
<td>(D110, D111, D112)</td>
<td></td>
</tr>
</tbody>
</table>
Section 1002: Reinforcement Bars

1002.2(c) Mechanical Splice System

NOTE: Assemble mechanical splices per manufacturer's recommended procedure.

Assemble three splices for each size reinforcing bar plus an unassembled set of each size used. Submit to the LTS for testing to verify the procedure.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Bar Sizes</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAYT3 15 Plant</td>
<td>Dayton Superior Corporation, 1125 Byers Road, Miamisburg, OH 45342</td>
<td>D250L Bar Lock L-Series Coupler</td>
<td>1992-351</td>
</tr>
<tr>
<td></td>
<td></td>
<td># 3, 4, 5, 6, 7, 8, 9, 10, 11, 14</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DB/DC Splice Connector (D101A, D101)</td>
<td>1989-288</td>
</tr>
<tr>
<td></td>
<td></td>
<td>US/ME-5 A Rebar Splice (D110, D111, D112)</td>
<td>1994-219</td>
</tr>
<tr>
<td>DAYT6 15 Plant</td>
<td>Dayton Superior Corporation, 1125 Byers Road, Miamisburg, OH 45342-5765</td>
<td>D310 Taper-Lock Standard Coupler</td>
<td>2018-018Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td># 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 18</td>
<td></td>
</tr>
<tr>
<td>ERIC-15 Plant</td>
<td>nVent (Formerly Erico, Inc), 34600 Solon Road, Solon, OH 44139</td>
<td>nVent Lenton Form Saver (SA) Coupler</td>
<td>2013-078Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td># 4, 5, 6, 7, 8, 9, 10, 11, 14, 18</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>nVent Lenton Standard (A2) Coupler</td>
<td>1996-118</td>
</tr>
<tr>
<td>MDSP2 15 Plant</td>
<td>Meadow Burke Products, 6467 S. Falkenburg Road, Riverview, FL 33578</td>
<td>Standard-Lok Coupler Mech. Splice System</td>
<td>2006-009Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 - 18</td>
<td></td>
</tr>
<tr>
<td>SSNA-15 Plant</td>
<td>Splice Sleeve North America, 38777 West Six Mile Rd, Suite 205, Livonia, MI 48152</td>
<td>NMB Splice Sleeve with SS Mortar (Grout)</td>
<td>1995-102</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 - 18</td>
<td></td>
</tr>
</tbody>
</table>

1002.2(c) Epoxy Coaters of Mechanical Splice Couplers

Per letter dated September 19, 2014: Meadow Burke has elected to suspend shipments to PennDOT temporarily.
Section 1002: Reinforcement Bars

1002.2(c) Epoxy Coaters of Mechanical Splice Couplers

Epoxy coaters may only use approved epoxy powders and patching materials from manufacturers listed in Section 709.1(c). Properly equipped epoxy coaters listed in Section 709.1(c) may also coat mechanical splice couplers and systems in section 1002.2(c).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCOAT 15</td>
<td>Miamisburg Coating, 925 N. Main St., Miamisburg, OH 45342</td>
<td>2013-242Q</td>
</tr>
<tr>
<td>SIMCT 15</td>
<td>Simcote, Inc., Ohio Division, 250 North Greenwood, Marion, OH 43302 <a href="http://simcote.com/">http://simcote.com/</a></td>
<td>1985-022</td>
</tr>
</tbody>
</table>

1002.3(d)2 Reinforcement Bar Support Systems

CRSI, Concrete Reinforcing Steel Institute, Manual of Standard Practice, Chapter 3 - Bar Supports

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Size</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZTEC 15</td>
<td>Aztec Concrete Accessories, Inc., 14760 Santa Ana Ave., Fontana, CA 92337</td>
<td>2&quot; and 2-1/2&quot;, Molded Plastic</td>
<td>1997-063</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Bolster</td>
<td>2&quot;, 2-1/2&quot;, 3&quot;, 4&quot; and 5&quot; Molded Plastic</td>
<td>1997-064</td>
</tr>
<tr>
<td>BIPCO 15</td>
<td>Bip Company, LLC, 901 Ne Gilsan Street, Portland, OR 97232 <a href="http://bipclipcompany.com/">http://bipclipcompany.com/</a></td>
<td>#4 and #5 Rebar with 2&quot; Cover</td>
<td>2013-007QA</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Chair</td>
<td>#6 Rebar with 2.5&quot; Cover</td>
<td>2013-007QA</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Chair</td>
<td>#4 and #5 Rebar with 1.5&quot;, 2.5&quot; and 3&quot; Cover</td>
<td>2013-160Q</td>
</tr>
</tbody>
</table>
### Section 1002: Reinforcement Bars

#### 1002.3(d)2 Reinforcement Bar Support Systems

CRSI, Concrete Reinforcing Steel Institute, Manual of Standard Practice, Chapter 3 - Bar Supports

BC - Individual Bar Chair; BB - Beam Bolster; BBU - Beam Bolster Upper; CHC - Continuous High Chair; CHCU - Continuous High Chair Upper; HC - Individual High Chair; HCM - High Chairs for Metal Decking; JC - Joist Chair; SB - Slab Bolster; SBU - Slab Bolster Upper

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Size</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Metal Reinforcing Bar Supports</td>
<td>Galvanized Chairs, Bolsters, including SBU</td>
<td>1987-374B</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Chair</td>
<td>Galvanized HCM with Plastic Tips</td>
<td>1987-374A</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Bolster</td>
<td>GTI Composite Slab and Beam Bolster - Black, Series 209</td>
<td>2009-039QB</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Bolster</td>
<td>GTI Composite Slab and Beam Bolster - Grey, Series 215</td>
<td>2009-039QB</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Bolster</td>
<td>GTI Composite Slab Bolster Upper, Series 260</td>
<td>2009-140</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Chair</td>
<td>GTI Composite Bar Chair, Series 210</td>
<td>2009-039QE</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Chair</td>
<td>GTI Composite High Chair, Series 208</td>
<td>2009-039QD</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Chair</td>
<td>GTI Composite PC Chair, Series 216</td>
<td>2009-039QF</td>
</tr>
<tr>
<td></td>
<td>Rebar Support Chair</td>
<td>GTI Extended High Chair, Series 211</td>
<td>2009-039QC</td>
</tr>
</tbody>
</table>
Section 1002: Reinforcement Bars

1002.3(d)2 Reinforcement Bar Support Systems

CRSI, Concrete Reinforcing Steel Institute, Manual of Standard Practice, Chapter 3 - Bar Supports

BC - Individual Bar Chair; BB - Beam Bolster; BBU - Beam Bolster Upper; CHC - Continuous High Chair; CHCU - Continuous High Chair Upper; HC - Individual High Chair; HCM - High Chairs for Metal Decking; JC - Joist Chair; SB - Slab Bolster; SBU - Slab Bolster Upper

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Size</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HHUL 15</td>
<td>H &amp; H Hulls, Inc., 35 Industrial Tract, Hudson, NY 12534</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rebar Support Chair</td>
<td>Q3 Void Chair 1&quot;</td>
<td>2003-186Q</td>
</tr>
<tr>
<td></td>
<td>For use in box beam tops only.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDSP1 15</td>
<td>Meadow Burke Products, 6467 S. Falkenburg Road, Riverview, FL 33578 <a href="http://meadowburke.com/">http://meadowburke.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Humboldt Industrial Park 565 Oak Ridge Road Hazle Township, PA 18202</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Metal Reinforcing Bar Supports</td>
<td>Epoxy Coated Chairs, Bolsters</td>
<td>2000-056Q</td>
</tr>
<tr>
<td></td>
<td>Metal Reinforcing Bar Supports</td>
<td>Galvanized Chairs, Bolsters, including BB</td>
<td>2000-058Q</td>
</tr>
<tr>
<td></td>
<td>Metal Reinforcing Bar Supports</td>
<td>Epoxy Coated Chairs, Bolsters; including BB, BBU, CHC, CHCU, HC, SB, SBU</td>
<td>2008-135Q</td>
</tr>
<tr>
<td></td>
<td>Metal Reinforcing Bar Supports</td>
<td>Galvanized Chairs, Bolsters</td>
<td>1984-006</td>
</tr>
<tr>
<td></td>
<td>Metal Reinforcing Bar Supports</td>
<td>Stainless Steel Chairs, Bolsters with Plastic Tips</td>
<td>1984-006</td>
</tr>
</tbody>
</table>
Section 1005: Piles

1005.2(b) Cast-In-Place Concrete Piles (Steel Shells)
Manufacturers of cast-in-place piles (steel shells) must conform to Department Specifications, Publication 408, Section 1005.2(b).

1005.2(c) Steel H-Piles
The Companies listed in this Section are the owners of the designs/patterns only.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel H-Pile Tip</td>
<td>Hard Bite H-Pile Tip HP-77600-B</td>
<td>1994-286</td>
</tr>
<tr>
<td>Steel H-Pile Tip</td>
<td>Hard Bite H-Pile Tip HP-77750-B</td>
<td>1994-286</td>
</tr>
<tr>
<td>Steel H-Pile Tip</td>
<td>PAR-T Series H-Pile Points</td>
<td>1994-042</td>
</tr>
<tr>
<td>CONSC 15</td>
<td>Construction Supply Company, P. O. Box 1682, Tualatin, OR 97062</td>
<td></td>
</tr>
<tr>
<td>Steel H-Pile Tip</td>
<td>HT 3300 Series H-Pile Points</td>
<td>2004-053Q</td>
</tr>
<tr>
<td>Steel H-Pile Tip</td>
<td>VS-300 N Series H-Pile Points</td>
<td>2002-063Q</td>
</tr>
</tbody>
</table>
### Section 1012: Pedestrian Railing

#### 1012.2 Aluminum Pedestrian Railing

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
</table>

Last Revised: 3/8/2018
# Section 1013: Aluminum Bridge Railing

## 1013.2 Aluminum Bridge Railing

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
## Section 1013: Aluminum Bridge Railing

### 1013.2 Aluminum Bridge Railing

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELCC 15</td>
<td>Reliable Casting Corporation, 3530 Spring Grove Avenue, Cincinnati, OH 45223 <a href="http://reliablecastings.com/">http://reliablecastings.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>RPS Machinery Sales, Inc., 175 Old Route 220 Highway, P. O. Box 507, Jersey Shore, PA 17740 <a href="http://www.rpsmachinery.com/">http://www.rpsmachinery.com/</a></td>
<td>2004-096Q</td>
<td></td>
</tr>
</tbody>
</table>
### Section 1014: Steel Bridge Railing

#### 1014.2 Steel Bridge Railing

Steel Products Procurement Act applies.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADVSC 15</td>
<td>Advantage Steel &amp; Construction, LLC, 2300 South Noah Drive, Saxonburg, PA 16056 <a href="http://www.advsteel.com/">http://www.advsteel.com/</a></td>
<td>2015-023Q</td>
</tr>
<tr>
<td>CAPST 15</td>
<td>Capital Steel Service, LLC, 82 Stokes Avenue, Trenton, NJ 08638 <a href="http://www.capitalsteel.org/">http://www.capitalsteel.org/</a></td>
<td>2013-102Q</td>
</tr>
<tr>
<td>CIANB 15</td>
<td>Cianbro Fabrication &amp; Coating Corporation, 3 Farm Lane, Georgetown, MA 01833 <a href="http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx">http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx</a> Formerly Foster Precise Structural Products (FOSPR).</td>
<td>2010-249Q</td>
</tr>
<tr>
<td>FOST0 15</td>
<td>L.B. Foster Company, 415 Holiday Drive, Pittsburgh, PA 15220 <a href="http://www.lbfoster.com/">http://www.lbfoster.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>FOST2 15</td>
<td>L.B. Foster Company, 202 Weber Lane, Bedford, PA 15522 <a href="http://www.lbfoster.com/">http://www.lbfoster.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>FUTFAB15</td>
<td>Future Fabricating, 23450 Regency Park Drive, Warren, MI 48089 <a href="http://futurefabricating.com/">http://futurefabricating.com/</a></td>
<td>2017-097Q</td>
</tr>
<tr>
<td>HALL1 15</td>
<td>Hall Industries, Inc., Hall Equipment Division, 1 USS Industrial Park, Ellwood City, PA 16117 <a href="http://hallindustries.com/">http://hallindustries.com/</a></td>
<td>2002-178Q</td>
</tr>
</tbody>
</table>
# Section 1014: Steel Bridge Railing

## 1014.2 Steel Bridge Railing

Steel Products Procurement Act applies.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HALL3 15</td>
<td>Hall Industries, Inc., HGH Facility, 606 2nd Street, Ellwood City, PA 16117 <a href="http://hallindustries.com/">http://hallindustries.com</a></td>
<td>2017-029Q</td>
</tr>
<tr>
<td>HEART 15</td>
<td>Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417 <a href="https://www.hl-fabrication.com/">https://www.hl-fabrication.com</a> <strong>Formerly Brownsville Marine Products</strong></td>
<td>2018-220Q</td>
</tr>
<tr>
<td>MCS-1 15</td>
<td>Mission Critical Solutions, LLC, 271 Industrial Lane, Alum Bank, PA 15221 <a href="https://www.missioncriticalsolutions.com/">https://www.missioncriticalsolutions.com</a></td>
<td>2019-131Q</td>
</tr>
<tr>
<td>PMWI1 15</td>
<td>Pleasant Mount Welding, Inc., 45 Dundaff Street, Carbondale, PA 18407 <a href="https://www.pmwi.net/">https://www.pmwi.net</a></td>
<td>2018-218Q</td>
</tr>
<tr>
<td>PREC1 15</td>
<td>Precision International, 435 Burt Street, Sistersville, WV 26175 <a href="http://precisioninc.net/">http://precisioninc.net</a></td>
<td>2016-204</td>
</tr>
<tr>
<td>PSFAB 15</td>
<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
<td>2016-281</td>
</tr>
<tr>
<td>RP-MA 15</td>
<td>RPS Machinery Sales, Inc., 175 Old Route 220 Highway, P. O. Box 507, Jersey Shore, PA 17740 <a href="http://www.rpsmachinery.com/">http://www.rpsmachinery.com</a></td>
<td>2004-016Q</td>
</tr>
</tbody>
</table>
### Section 1014: Steel Bridge Railing

**1014.2 Steel Bridge Railing**

Steel Products Procurement Act applies.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSW-1 15</td>
<td><strong>Shawnee Steel &amp; Welding, 6124 Merriam Drive, Merriam, KS 66203</strong>&lt;br&gt;Steel Bridge Railing Fabricator</td>
<td>2017-187Q</td>
</tr>
<tr>
<td>STRUS 15</td>
<td><strong>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</strong>&lt;br&gt;Steel Bridge Railing Fabricator</td>
<td>2015-142QA</td>
</tr>
</tbody>
</table>
Section 1015: Protective Barrier

### 1015.2 Aluminum Protective Barrier

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOST0 15</td>
<td>L.B. Foster Company, 415 Holiday Drive, Pittsburgh, PA 15220 [<a href="http://www.lb">http://www.lb</a> foster.com/](<a href="http://www.lb">http://www.lb</a> foster.com/)</td>
<td>----</td>
</tr>
<tr>
<td>WATSB 15</td>
<td>Watson Bowman Acme Corporation, 95 Pineview Drive, Amherst, NY 14228 <a href="https://wbacorp.com/">https://wbacorp.com/</a></td>
<td>2006-073Q</td>
</tr>
</tbody>
</table>
## Section 1016: Protective Fence

### 1016.2(a)3 Protective Fence (Steel) Posts, Rails and Fittings (BC-701M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RG-ST 15</td>
<td>R. G. Steel Corporation, P. O. Box 356, Route 551, Pulaski, PA 16143 <a href="http://rgsteel.com/">http://rgsteel.com/</a></td>
<td>2010-017Q</td>
</tr>
</tbody>
</table>
Section 1019: Protective Coatings for Reinforced Concrete Surfaces

1019.2(a) Boiled Linseed Oil (AASHTO M233)  
See Section 503.2 for approved product listing.

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROSC 15</td>
<td>Groco Specialty Coatings, 10818 Hawn Freeway, Dallas, TX 75217 <a href="http://www.grocosc.com/">http://www.grocosc.com/</a></td>
<td>2009-074</td>
</tr>
<tr>
<td>Epoxy Resins (For Abutments, Pier Caps and Endwalls) Si-Rex03 Silicone Required Primers: Si-Prime™/Cremsil™ Conditionally approved as an alternate per manufacturer's specifications and usage guidelines.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1019.2(b) Epoxy Resins (For Abutments, Pier Caps and Endwalls)  
Last Revised: 10/30/2018

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROSC 15</td>
<td>Groco Specialty Coatings, 10818 Hawn Freeway, Dallas, TX 75217 <a href="http://www.grocosc.com/">http://www.grocosc.com/</a></td>
<td>2009-074</td>
</tr>
<tr>
<td>Epoxy Resins (For Abutments, Pier Caps and Endwalls) Si-Rex03 Silicone Required Primers: Si-Prime™/Cremsil™ Conditionally approved as an alternate per manufacturer's specifications and usage guidelines.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNICO 15</td>
<td>United Coatings, 2810 S. 18th Place, Phoenix, AZ 85034</td>
<td>2011-156</td>
</tr>
<tr>
<td>Epoxy Resins (For Abutments, Pier Caps and Endwalls) Canyon Tone Stain Approved as an aesthetic coating, not a protective coating. Conditionally approved as an alternate per manufacturer's specifications and usage guidelines.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1019.2(c) Penetrating Sealers (For Reinforced Concrete Substructure Surfaces)  
Last Revised: 6/10/2019

AASHTO T259 and T260, FHWA RD 78-35, Section 4.B.77

The use of some penetrating sealers may affect the frictional properties of concrete surfaces. Consult the manufacturer before using sealer on surfaces subject to vehicular or pedestrian traffic.

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetrating Sealer, Organo-Silicon Compounds in Solvents SIL-ACT ATS-100LV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AQRN 15</td>
<td>Aquron Corporation, P.O. Box 758, Rockwall, TX 75087 <a href="http://www.aquron.com/">http://www.aquron.com/</a></td>
<td>2000-298Q</td>
</tr>
<tr>
<td>Penetrating Sealer, Silicates in Water Aquron CPT-2000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetrating Sealer, Organo-Silicon Compounds in Water MasterProtect H 400 (previously Enviroseal 40)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 1019: Protective Coatings for Reinforced Concrete Surfaces

1019.2(c) Penetrating Sealers (For Reinforced Concrete Substructure Surfaces)

The use of some penetrating sealers may affect the frictional properties of concrete surfaces. Consult the manufacturer before using sealer on surfaces subject to vehicular or pedestrian traffic.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSE 15</td>
<td>Concrete Sealants, Inc., 9325 State Route 201, Tipp City, OH 45371</td>
<td><a href="http://www.conseal.com/">http://www.conseal.com/</a></td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799</td>
<td><a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
</tr>
<tr>
<td>XYPEX 15</td>
<td>Xypex Chemical Corporation, 13731 Mayfield Place, Richmond, British Columbia, Canada V6V 2G9</td>
<td><a href="http://www.xypex.com/">http://www.xypex.com/</a></td>
</tr>
</tbody>
</table>

1019.2(d) Penetrating Sealers (For Bridge Superstructure)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSE 15</td>
<td>Concrete Sealants, Inc., 9325 State Route 201, Tipp City, OH 45371</td>
<td><a href="http://www.conseal.com/">http://www.conseal.com/</a></td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799</td>
<td><a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
</tr>
<tr>
<td>XYPEX 15</td>
<td>Xypex Chemical Corporation, 13731 Mayfield Place, Richmond, British Columbia, Canada V6V 2G9</td>
<td><a href="http://www.xypex.com/">http://www.xypex.com/</a></td>
</tr>
</tbody>
</table>
## Section 1019: Protective Coatings for Reinforced Concrete Surfaces

### 1019.2(d) Penetrating Sealers (For Bridge Superstructure)

NCHRP 244 Test as described in Publication 408.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Penetrating Sealer (For Bridge Superstructure), Organo-Silicon in Water</td>
<td>MasterProtect H 400 (previously Enviroseal 40)</td>
</tr>
<tr>
<td></td>
<td>Penetrating Sealer (For Bridge Superstructure), Organo-Silicon Compounds in Solvents</td>
<td>MasterProtect H 1000 (previously Hydrozo 100)</td>
</tr>
<tr>
<td></td>
<td>Penetrating Sealer (For Bridge Superstructure), Silicates in Water</td>
<td>Baracade WB 244</td>
</tr>
</tbody>
</table>
# Section 1020: Tooth Expansion Dam with Drain Trough

## 1020.2 Tooth Expansion Dam Fabricators

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKBAY15</td>
<td>Ackerman &amp; Baynes, LLC, 4211 Erdman Ave., Baltimore, MD 21213</td>
<td>2018-282Q</td>
</tr>
<tr>
<td></td>
<td>Tooth Expansion Dam Fabricator</td>
<td></td>
</tr>
<tr>
<td>BROWD 15</td>
<td>D.S. Brown Company, 300 East Cherry Street, North Baltimore, OH 45872</td>
<td>2010-080Q</td>
</tr>
<tr>
<td></td>
<td>Tooth Expansion Dam Fabricator</td>
<td></td>
</tr>
<tr>
<td>FOST2 15</td>
<td>L.B. Foster Company, 202 Weber Lane, Bedford, PA 15522</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Tooth Expansion Dam Fabricator</td>
<td></td>
</tr>
<tr>
<td>KARDW 15</td>
<td>Kard Welding, Inc., 480 Osterloh Road, P. O. Box 124, Minster, OH 45865</td>
<td>2007-001Q</td>
</tr>
<tr>
<td></td>
<td>Tooth Expansion Dam Fabricator</td>
<td></td>
</tr>
<tr>
<td>MCS-1 15</td>
<td>Mission Critical Solutions, LLC, 271 Industrial Lane, Alum Bank, PA 15221</td>
<td>2019-131Q</td>
</tr>
<tr>
<td>Facility</td>
<td>271 Industrial Lane Alum Bank, PA 15221</td>
<td></td>
</tr>
<tr>
<td>OHSTR 15</td>
<td>Ohio Structures, Inc., 535 North Broad Street, Suite 5, Canfield, OH 44406</td>
<td>2013-230Q</td>
</tr>
<tr>
<td>Plant</td>
<td>6120 Pricetown Road Berlin Center, OH 44401</td>
<td></td>
</tr>
<tr>
<td>PELET 15</td>
<td>Pelet Welding, Inc., 19 North 12th Avenue, Coatesville, PA 19320</td>
<td>2009-042Q</td>
</tr>
<tr>
<td></td>
<td>Tooth Expansion Dam Fabricator</td>
<td></td>
</tr>
<tr>
<td>RP-MA 15</td>
<td>RPS Machinery Sales, Inc., 175 Old Route 220 Highway, P. O. Box 507, Jersey Shore, PA 17740</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Tooth Expansion Dam Fabricator</td>
<td></td>
</tr>
<tr>
<td>SAFGD 15</td>
<td>Safety Guard Steel Fabricating Company, 113 Lincoln Avenue, Pittsburgh, PA 15209</td>
<td>-----</td>
</tr>
<tr>
<td>Plant</td>
<td>220 Lincoln Avenue Pittsburgh, PA 15209</td>
<td></td>
</tr>
</tbody>
</table>
Section 1020: Tooth Expansion Dam with Drain Trough

1020.2 Tooth Expansion Dam Fabricators

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATSB</td>
<td>Watson Bowman Acme Corporation, 95 Pineview Drive, Amherst, NY 14228</td>
<td><a href="https://wbacorp.com/">https://wbacorp.com/</a></td>
</tr>
<tr>
<td></td>
<td>Tooth Expansion Dam Fabricator</td>
<td>-----</td>
</tr>
</tbody>
</table>

1020.2(h) Drain Trough Material for Tooth Expansion Dams

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRPMF</td>
<td>BRP Manufacturing Company, 637 North Jackson St., P.O. Box 389, Lima, OH 45802-0389</td>
<td><a href="http://www.brpmfg.com/">http://www.brpmfg.com/</a></td>
</tr>
<tr>
<td></td>
<td>Fabric Reinforced Rubberized Trough Material</td>
<td>2006-227Q</td>
</tr>
<tr>
<td>FABRK</td>
<td>Fabreeka International, Inc., 1023 Turnpike Street, P. O. Box 210, Stroughton, MA 02072</td>
<td><a href="http://www.fabreeka.com/">http://www.fabreeka.com/</a></td>
</tr>
<tr>
<td></td>
<td>Fabric Reinforced Rubberized Trough Material</td>
<td>1985-015</td>
</tr>
<tr>
<td>HBD-1</td>
<td>HBD/Thermoid, Inc., 240 Industrial Lane, P.O. Box 4310, Oneida, TN 37841</td>
<td><a href="http://www.hbdthermoid.com/">http://www.hbdthermoid.com/</a></td>
</tr>
<tr>
<td></td>
<td>Fabric Reinforced Rubberized Trough Material</td>
<td>2 Ply PNT 45 Black Nitrile 3/64 - Draintrough</td>
</tr>
</tbody>
</table>
### Section 1022: Steel Bridge Hand Railing

#### 1022.2 Steel Bridge Hand Railing (BC-720M or Alternate BC-718M)

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Reference Letter</th>
<th>Ref. No.</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Steel Bridge Railing Fabricator</td>
<td>2011-159Q</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIANB 15</td>
<td>Cianbro Fabrication &amp; Coating Corporation, 3 Farm Lane, Georgetown, MA 01833 <a href="http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx">http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx</a></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td>2010-250Q</td>
<td>Steel Bridge Hand Railing Fabricator</td>
</tr>
</tbody>
</table>

**Formerly Foster Precise Structural Products (FOSPR).**
## Section 1022: Steel Bridge Hand Railing

### 1022.2 Steel Bridge Hand Railing (BC-720M or Alternate BC-718M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Reference Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEART 15</td>
<td>Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417 <a href="https://www.hl-fabrication.com/">https://www.hl-fabrication.com/</a></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td>2018-220Q</td>
</tr>
<tr>
<td>MCS-1 15</td>
<td>Mission Critical Solutions, LLC, 271 Industrial Lane, Alum Bank, PA 15221 <a href="https://www.missioncriticalsolutions.com/">https://www.missioncriticalsolutions.com/</a></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td>2019-131Q</td>
</tr>
<tr>
<td>PMWI1 15</td>
<td>Pleasant Mount Welding, Inc., 45 Dundaff Street, Carbondale, PA 18407 <a href="https://www.pmwi.net/">https://www.pmwi.net/</a></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td>2018-218Q</td>
</tr>
<tr>
<td>PSFAB 15</td>
<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td>2016-281</td>
</tr>
</tbody>
</table>
# Section 1022: Steel Bridge Hand Railing

## 1022.2 Steel Bridge Hand Railing (BC-720M or Alternate BC-718M)

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td>2015-142QB</td>
<td></td>
</tr>
</tbody>
</table>
### Section 1023: Aluminum Bridge Hand Railing

#### 1023.2 Aluminum Bridge Hand Railing (BC-720M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Reference Letter</th>
<th>Last Revised</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
# Section 1023: Aluminum Bridge Hand Railing

## 1023.2 Aluminum Bridge Hand Railing (BC-720M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Reference Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

Aluminum Bridge Hand Railing Fabricator
## Section 1026: Neoprene Strip Seal Dam

Strip Seal Expansion Joint Retainer Drawings: Approved Bridge and Structure Products

### 1026.2 Neoprene Strip Seal Dam (Strip Seal Retainers)

Last Revised: 7/17/2017

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name Details</th>
<th>Retainer ID/Shop Drawing #</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Neoprene Strip Seal Dam (Strip Seal Retainer) 1.5&quot; depth per SOL 431-97-23</td>
<td>SSE2M</td>
<td>1996-196</td>
</tr>
<tr>
<td></td>
<td>Neoprene Strip Seal Dam (Strip Seal Retainer) 2&quot; depth per SOL 431-97-23</td>
<td>SSA2</td>
<td>1996-195</td>
</tr>
<tr>
<td></td>
<td>Neoprene Strip Seal Dam (Strip Seal Retainer)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Neoprene Strip Seal Dam (Strip Seal Retainer)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 1026.2(a) Neoprene Strip Seal Dam (Fabricators)

Last Revised: 11/26/2019

These plants have been pre-approved to fabricate Neoprene Strip Seal Dam as defined by BC 767M

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name Details</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Section 1026: Neoprene Strip Seal Dam

1026.2(a) Neoprene Strip Seal Dam (Fabricators)

These plants have been pre-approved to fabricate Neoprene Strip Seal Dam as defined by BC 767M

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAGE1 15</td>
<td>mageba USA LLC, 575 Lexington Ave, 4th Floor, New York 10022</td>
<td>Pottstown, PA</td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td>2018-021Q</td>
</tr>
<tr>
<td>Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCS-1 15</td>
<td>Mission Critical Solutions, LLC, 271 Industrial Lane, Alum Bank, PA 15221</td>
<td>Alum Bank, PA</td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td>2019-131Q</td>
</tr>
<tr>
<td>Facility</td>
<td>271 Industrial Lane Alum Bank, PA 15221</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIABR 15</td>
<td>Niagara Bridge &amp; Rail, 2212 Cory Drive, Sanborn, NY 14132</td>
<td>Sanborn, NY</td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td>2018-048Q</td>
</tr>
<tr>
<td>PELET 15</td>
<td>Pelet Welding, Inc., 19 North 12th Avenue, Coatesville, PA 19320</td>
<td>Coatesville, PA</td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td>2017-315Q</td>
</tr>
<tr>
<td>Facility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RP-MA 15</td>
<td>RPS Machinery Sales, Inc., 175 Old Route 220 Highway, P. O. Box 507, Jersey Shore, PA 17740</td>
<td>Jersey Shore, PA</td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td>-----</td>
</tr>
<tr>
<td>SAFGD 15</td>
<td>Safety Guard Steel Fabricating Company, 113 Lincoln Avenue, Pittsburgh, PA 15209</td>
<td>Pittsburgh, PA</td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td>-----</td>
</tr>
<tr>
<td>Plant</td>
<td>220 Lincoln Avenue Pittsburgh, PA 15209</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WATSB 15</td>
<td>Watson Bowman Acme Corporation, 95 Pineview Drive, Amherst, NY 14228</td>
<td>Amherst, NY</td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td>-----</td>
</tr>
</tbody>
</table>
### Section 1031: Timber Structures

#### 1031.2(a) Structural Timber

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMETS 15</td>
<td>American Timber and Steel Corp., 4832 Plank Road, P. O. Box 767, Norwalk, OH 44857-0767 <a href="http://www.americantimberandsteel.com/">http://www.americantimberandsteel.com/</a></td>
<td>1995-268</td>
</tr>
<tr>
<td>NORSO 15</td>
<td>North-South Wood Preserving Company, 160 Preserver Road, North, SC 29112</td>
<td>2012-116Q</td>
</tr>
<tr>
<td>STEJ2 15</td>
<td>Stella-Jones Corporation, R.R. 3, P. O. Box 275, Dubois, PA 15801 <a href="http://stella-jones.com/">http://stella-jones.com/</a></td>
<td>2002-079Q</td>
</tr>
</tbody>
</table>

*Formerly Burke-Parsons-Bowby Corp. (BURPB 15)*
## Section 1043: Shotcrete

### 1043.2(a) Shotcrete

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shotcrete (Pre-Packaged)</td>
<td>MasterEmaco S211 SP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved</td>
<td></td>
</tr>
<tr>
<td>Shotcrete (Pre-Packaged)</td>
<td>Eucoshot</td>
<td></td>
</tr>
<tr>
<td>Shotcrete (Pre-Packaged)</td>
<td>SureShot</td>
<td></td>
</tr>
<tr>
<td>QUIKR 15</td>
<td>The Quikrete Companies, One Securities Centre, 3490 Piedmont Road, N.E. Suite 1300, Atlanta, GA 30305 <a href="http://www.quikrete.com/">http://www.quikrete.com/</a></td>
<td>2002-014Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Latrobe, PA</td>
<td></td>
</tr>
<tr>
<td>Shotcrete (Pre-Packaged)</td>
<td>Commercial Grade QUIKRETE Shotcrete MS</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>1682 Marion Williamsport Road E Marion, OH 43302</td>
<td></td>
</tr>
<tr>
<td>Shotcrete (Pre-Packaged)</td>
<td>Sikacem 103</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Baltimore, MD</td>
<td></td>
</tr>
<tr>
<td>Shotcrete (Pre-Packaged)</td>
<td>GUNITE 7001d (dry-mix)</td>
<td></td>
</tr>
</tbody>
</table>
Section 1045: Polyester Polymer Concrete (PPC) Overlay

1045.2 Polyester Polymer Concrete (PPC)  

Per Standard Special Provision b10451 SECTION 1045 - POLYESTER POLYMER CONCRETE (PPC) OVERLAY (For use on projects let on or after April 11, 2019)

Concrete Deck Overlays - Usage Guidelines (Update to DM-4, Chapter 5, Section 5.6.4)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kwik Bond Polymers, 923 Teal Drive, Benicia, CA 94510 <a href="http://www.kwikbondpolymers.com">http://www.kwikbondpolymers.com</a></td>
<td>Kwik Bond Polymers</td>
<td>2015-900</td>
</tr>
</tbody>
</table>

Polyster Polymer Concrete PPC 1121 EC

Provisionally approved per Standard Special Provision b10451 SECTION 1045 - POLYESTER POLYMER CONCRETE (PPC) OVERLAY and usage guidelines per Pub 15M - Design Manual, Part 4 (DM-4), Chapter 5, Section 5.6.4. Concrete Deck Overlays - Usage Guidelines (Update to DM-4, Chapter 5, Section 5.6.4)
### Section 1051: Downspouting

#### 1051.2 Downspouting

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bridgeline Fiberglass Downspouting</td>
<td></td>
</tr>
<tr>
<td>GRACO 15</td>
<td>Grace Composites, 351 Ruth Road, Lonoke, AR 72086</td>
<td>2005-117Q</td>
</tr>
<tr>
<td></td>
<td>Fiberglass Downspouting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PVC Downspouting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fiberglass Downspouting</td>
<td></td>
</tr>
</tbody>
</table>
Section 1060: Shop Painting Structural Steel

1060.2 Coating System for Structural Steel

NEPCOAT Approved and Maintained paint systems. ([NEPCOAT - Northeast Protective Coating Committee](http://www.carboline.com/))

Mixing portions of paint systems by hand without powered mechanical homogenization available to contractors is not recommended.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Primer Coat</th>
<th>VOC (g/L)</th>
<th>Intermediate Coat</th>
<th>VOC (g/L)</th>
<th>Finish Coat</th>
<th>VOC (g/L)</th>
<th>NEPCOAT Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBL 15</td>
<td>Carboline Company, 2150 Schuetz Road, St. Louis, MO 63146</td>
<td>Three Coat Paint System (using Inorganic, Zinc-Rich Primer)</td>
<td>Carbonzinc 11 HS</td>
<td>267</td>
<td>Carboguard 893</td>
<td>207</td>
<td>Carbothane 133 LV</td>
<td>255</td>
<td>SCC(12) -03</td>
</tr>
</tbody>
</table>

Plants in Lake Charles, LA and Green Bay, WI
Section 1070: Painting Existing Structural Steel

1070.2 Coating System for Existing Structural Steel

NEPCOAT Approved and Maintained paint systems. (NEPCOAT - Northeast Protective Coating Committee)

Mixing portions of paint systems by hand without powered mechanical homogenization available to contractors is not recommended.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Primer Coat</th>
<th>VOC (g/L)</th>
<th>Intermediate Coat</th>
<th>VOC (g/L)</th>
<th>Finish Coat</th>
<th>VOC (g/L)</th>
<th>NEPCOAT Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBL 15</td>
<td>Carboline Company, 2150 Schuetz Road, St. Louis, MO 63146 <a href="http://www.carboline.com/">http://www.carboline.com/</a></td>
<td>Carbonzinc 859</td>
<td>322</td>
<td>Carboguard 893</td>
<td>207</td>
<td>Carbothane 133 VOC</td>
<td>316</td>
<td>SSC(12)</td>
<td>2015-037QA BC</td>
</tr>
</tbody>
</table>

Primer Plants: Andover, KS, Greensboro, NC - Stagecoach
Intermediate Plants: Andover, KA, Victorville, CA, and Greensboro, NC - Howard
Finish Plants: Andover, KS, Cincinnati, OH, and Richmond, KY
Section 1071: Spot/Zone Maintenance Painting of Existing Structural Steel

1071.2 Field Maintenance Structural Paint Systems (Aluminum-Filled Mastic)  
Mixing portions of paint systems by hand without powered mechanical homogenization available to contractors is not recommended.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Primer Coat</th>
<th>Primer VOC (g/L)</th>
<th>Intermediate Coat</th>
<th>Intermediate VOC (g/L)</th>
<th>Finish Coat</th>
<th>Finish VOC (g/L)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CarBol 15</td>
<td>Carboline Company, 2150 Schuetz Road, St. Louis, MO 63146 <a href="http://www.carboline.com/">www.carboline.com</a></td>
<td>Carbomastic 242</td>
<td>Carbomastic 242</td>
<td>Carbothane 336</td>
<td>Carbothane 336</td>
<td>----</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Aluminum-Filled Mastic)</td>
<td>245</td>
<td>245</td>
<td>134HS</td>
<td>134HS</td>
<td>336</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>CarBol 15</td>
<td>Three Coat Paint System</td>
<td>Carbomastic 90</td>
<td>Carbomastic 90</td>
<td>Carbothane 336</td>
<td>Carbothane 336</td>
<td>----</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Aluminum-Filled Mastic)</td>
<td>245</td>
<td>245</td>
<td>134HS</td>
<td>134HS</td>
<td>336</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Three Coat Paint System</td>
<td>AL</td>
<td>AL</td>
<td>HS</td>
<td>HS</td>
<td>340</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Aluminum-Filled Mastic)</td>
<td>240</td>
<td>240</td>
<td></td>
<td></td>
<td>340</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>

1071.2 Field Maintenance Structural Paint Systems (Non-Zinc Primer)  
Mixing portions of paint systems by hand without powered mechanical homogenization available to contractors is not recommended.

1071.2 Field Maintenance Structural Paint Systems (Organic Zinc Primer)  
Mixing portions of paint systems by hand without powered mechanical homogenization available to contractors is not recommended.
Section 1080: Prestressed Concrete Bridge Superstructure

1080.2(c) Nonshrink Grout (Cement-Based)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5STAR 15</strong></td>
<td>Five Star Products, Inc., 750 Commerce Drive, Fairfield, CT 06825 <a href="http://www.fivestarproducts.com/">http://www.fivestarproducts.com/</a></td>
<td>5 STAR 15</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>5 Star Grout</td>
<td>1970-012</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>5 Star Instant Grout</td>
<td>1976-060</td>
</tr>
<tr>
<td></td>
<td><strong>One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ADMXT 15</strong></td>
<td>Admixtures, Inc., 200 Furnace Road, P. O. Box 225, Wernersville, PA 19565-0225</td>
<td>ADMXT 15</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>BC Grout</td>
<td>1976-053</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>MasterFlow 100 (previously Construction Grout)</td>
<td>2007-097Q</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>MasterFlow 713</td>
<td>1976-006</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>MasterFlow 816</td>
<td>1975-005</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Set Grout</td>
<td>1987-058</td>
</tr>
<tr>
<td></td>
<td><strong>One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CGM-N 15</strong></td>
<td>CGM Inc., 1463 Ford Road, Bensalem, PA 19020 <a href="http://cgmbuildingproducts.com/">http://cgmbuildingproducts.com/</a></td>
<td>CGM-N 15</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Pro-Grout 90</td>
<td>1987-083</td>
</tr>
<tr>
<td></td>
<td><strong>One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).</strong></td>
<td></td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Conset Grout</td>
<td>1992-241</td>
</tr>
<tr>
<td></td>
<td><strong>One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).</strong></td>
<td></td>
</tr>
<tr>
<td><strong>CONSM 15</strong></td>
<td>Concrete Service Materials Company, Elm &amp; Walnut St., P. O. Box 447, Conshohocken, PA 19428-0447 <a href="http://www.concreteservicematerials.com/">http://www.concreteservicematerials.com/</a></td>
<td>CONSM 15</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Metallic Grout Admixture)</td>
<td>CSMC Shrink Proof Grout</td>
<td>1972-067</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Diamondcrete</td>
<td></td>
</tr>
</tbody>
</table>
## Section 1080: Prestressed Concrete Bridge Superstructure

### 1080.2(c) Nonshrink Grout (Cement-Based)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>One-day Compressive Strength</th>
<th>Ref. No.</th>
<th>Last Revised: 3/9/2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAYT1 15</td>
<td>Dayton Superior Corporation, 4226 Kansas Avenue, Kansas City, KS 66106</td>
<td>1107 Advantage Grout</td>
<td>2019-212Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sure-Grip High Performance Grout</td>
<td></td>
<td>1982-094</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sure-Grip Precision Grout (formerly Multi-Purpose Grout)</td>
<td></td>
<td>1986-040</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suregrip Util.</td>
<td></td>
<td>1991-055</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>One-day Compressive Strength</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799</td>
<td>2004-008Q</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Euco Cable Grout PTX</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Euco NS Grout</td>
<td></td>
<td>1976-019</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hi-Flow Grout</td>
<td></td>
<td>2002-152Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NC Grout</td>
<td></td>
<td>2000-281Q</td>
<td></td>
</tr>
<tr>
<td>GILLI 15</td>
<td>Gill Industries, Inc., 3462 Kershaw-Camden Highway, Lancaster, SC 29720</td>
<td>1972-050</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gill 33B&amp;P</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HBFUL 15</td>
<td>H. B. Fuller Construction Products Inc., 1200 Willow Lake Boulevard, St. Paul, MN 55110-5101</td>
<td>1972-054</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>59 Brunswick Avenue Edison, NJ 08817</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ProSpec High Strength Precision Grout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Penn Grout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KAUFM 15</td>
<td>Kaufman Products, Inc., 3811 Curtis Ave., Baltimore, MD 21226-1131</td>
<td>1981-052</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Metallic, Non-Staining)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sure Grout-Met</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sure Grout</td>
<td></td>
<td>1976-048</td>
<td></td>
</tr>
</tbody>
</table>

One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).
Section 1080: Prestressed Concrete Bridge Superstructure

### 1080.2(c) Nonshrink Grout (Cement-Based)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEDW1 15 Plant</td>
<td>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338 <a href="http://www.wrmeadows.com/">http://www.wrmeadows.com/</a> 2100 Monroe Street P. O. Box 7550 York, PA 17404-0550</td>
<td>1993-292</td>
</tr>
<tr>
<td>NATPC 15</td>
<td>National Permacrete Company, 590 N. Valley Forge Rd., P. O. Box 886, Devon, PA 19333</td>
<td>1976-088</td>
</tr>
</tbody>
</table>
Section 1080: Prestressed Concrete Bridge Superstructure

1080.2(c) Nonshrink Grout (Cement-Based)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latrobe, PA</td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Commercial Grade QUIKRETE Non-Shrink General Purpose Grout (No. 1585-01)</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Commercial Grade QUIKRETE Non-Shrink Precision Grout (No. 1585-00)</td>
</tr>
<tr>
<td></td>
<td>One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).</td>
<td></td>
</tr>
</tbody>
</table>

| Facility | 201 Polito Avenue Lyndhurst, NJ 07071 | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) | Sikagrout 212 |
| Plant | 1682 Marion Williamsport Road E Marion, OH 43302 | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) | Sikagrout 300 PT |
| | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) | SC Multipurpose Grout |
| | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) | Certi-Grout 1000 |
| | One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi). | |

1080.2(e) Modified Mortar for Beam Seat Leveling

Mortars listed in the Miscellaneous Section - MISC Polymer Modified and Special Cements, Mortars, and Concrete conforming to the Pub 408, Section 1080.2(e) specifications are also approved for PennDOT projects.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIKA0 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>201 Polito Avenue Lyndhurst, NJ 07071</td>
<td></td>
</tr>
</tbody>
</table>
Section 1080: Prestressed Concrete Bridge Superstructure

1080.2(e) Modified Mortar for Beam Seat Leveling

Mortars listed in the Miscellaneous Section - MISC Polymer Modified and Special Cements, Mortars, and Concrete conforming to the Pub 408, Section 1080.2(e) specifications are also approved for PennDOT projects.

| Product | Name | Ref. No.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikatop Plus 122</td>
<td>1979-036</td>
</tr>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikatop Plus 123</td>
<td>1982-007</td>
</tr>
</tbody>
</table>

1080.2(g) Nonshrink Epoxy Grout for Shear Keys in Adj. Prestressed Concrete Box Beam Bridges

Required minimum compressive strength per ASTM C579:
*4,000 pounds per square inch at 24 hours
*5,000 pounds per square inch at 28 days
### Section 1085: Precast Reinforced Concrete Box Culvert

**1085.2 Precast Box Culverts**

For Protective Coatings, see MISC Coal Tar Epoxy (RCC Pipe Coating)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Reference Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRAYP 15</td>
<td>Brayman Precast Solutions, LLC, 2900 South Noah Drive, Saxonburg, PA 16056 <a href="http://www.braymanprecast.com/">http://www.braymanprecast.com/</a></td>
<td>Precast Box Culvert</td>
<td>2015-004QA</td>
</tr>
<tr>
<td>CONCR 15</td>
<td>Concrete Concepts, Inc., 1095 Thompson Avenue, P.O. Box 272, McKees Rocks, PA 15136 <a href="https://bryanmaterialsgroup.com/">https://bryanmaterialsgroup.com/</a></td>
<td>Precast Box Culvert</td>
<td>2016-053Q</td>
</tr>
<tr>
<td>HYDR4 15</td>
<td>Hydro Conduit Corporation dba Rinker Materials/Concrete Pipe Division, 2000 Gregg Station Road, Oakdale, PA 15071 <a href="http://www.rinkerpipe.com/">http://www.rinkerpipe.com/</a></td>
<td>Precast Box Culvert</td>
<td>2001-171Q</td>
</tr>
<tr>
<td>LIND1 15</td>
<td>Lindsay Precast, 6845 Erie Avenue NW, P.O. Box 578, Canal Fulton, OH 44614 <a href="http://www.lindsayprecast.com/">http://www.lindsayprecast.com/</a></td>
<td>Precast Box Culvert</td>
<td>2016-081</td>
</tr>
<tr>
<td>MACK0 15</td>
<td>Mack Industries of PA, Inc., 2207 Sodom-Hutchings Road, Vienna, OH 44573 <a href="http://www.mackconcrete.com/">http://www.mackconcrete.com/</a></td>
<td>Precast Box Culvert</td>
<td>-</td>
</tr>
</tbody>
</table>
Section 1085: Precast Reinforced Concrete Box Culvert

1085.2 Precast Box Culverts

For Protective Coatings, see MISC Coal Tar Epoxy (RCC Pipe Coating)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Reference Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILL0 15</td>
<td>A. C. Miller Concrete Products, P.O. Box 93, 9588 Route 22, Blairsville, PA 15717 <a href="http://www.acmiller.com/">http://www.acmiller.com/</a></td>
<td>11/20/1987</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Precast Bridge Structures</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NITT0 15</td>
<td>Nitterhouse Concrete Products Inc., P. O. Box N, Chambersburg, PA 17201 <a href="http://nitterhouseconcrete.com/">http://nitterhouseconcrete.com/</a></td>
<td>01/02/1992</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OLP-2 15</td>
<td>Oldcastle Infrastructure, Inc., a CRH Company, 3900 Glover Road, Easton, PA 18040 <a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
<td>2016-080</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Oldcastle Precast</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TERH0 15</td>
<td>Terre Hill Concrete Products, PLANT #2:, P.O. Box 10, Terre Hill, PA 17581 <a href="http://www.terrehill.com/">http://www.terrehill.com/</a></td>
<td>2016-138</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>PLANT #2: P.O. Box 10 Terre Hill, PA 17581</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TERH1 15</td>
<td>Terre Hill Concrete Products, PLANT #4:, 42 South Butler Road, Lebanon, PA 17042 <a href="http://www.terrehill.com/">http://www.terrehill.com/</a></td>
<td>05/17/1989</td>
<td>----</td>
</tr>
<tr>
<td>Plant</td>
<td>PLANT #4: 42 South Butler Road Lebanon, PA 17042</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
<td>05/17/1989</td>
<td>----</td>
</tr>
<tr>
<td>WHICO 15</td>
<td>L. C. Whitford Company, 164 North Main Street, P.O. Box 663, Wellsville, NY 14895 <a href="http://www.lcwhitford.com/">http://www.lcwhitford.com/</a></td>
<td>2016-138</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
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</tr>
</tbody>
</table>
Section 1085: Precast Reinforced Concrete Box Culvert

### 1085.2(m) Neoprene Joint Material

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

### 1085.3(m) Protective Coating (SSPC-PS 16-82)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>COOPC 15</td>
<td>Coopers Creek Chemical Corporation, 884 River Road, West Conshohocken, PA 19428-2699 <a href="http://cooperscreekchemical.com/">http://cooperscreekchemical.com/</a></td>
<td>Black No. 775 Epoxy Tar Coating, 2010-325Q</td>
</tr>
</tbody>
</table>
### Section 1086: Sound Barriers

#### 1086.2(b) Sound Barrier Wall Panels (Alternates)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTR 15</td>
<td>Centria, 1005 Beaver Grade Road, Moon Township, PA 15108 <a href="http://www.centria.com/Pages/default.aspx">http://www.centria.com/Pages/default.aspx</a></td>
<td>2006-206</td>
</tr>
<tr>
<td>EVCYR 15</td>
<td>Evonik Cyro, LLC, 1796 Main Street, Sanford, ME 04073 <a href="http://www.acrylitesoundstop.com">http://www.acrylitesoundstop.com</a></td>
<td>2012-050</td>
</tr>
</tbody>
</table>

Note: Approved Bridge and Structure Products

**Product Name Ref. No.**

**CENTR 15**

- Centria, 1005 Beaver Grade Road, Moon Township, PA 15108
- Sound Barrier Wall Panel (Alternate)
- Vesapanel Sound Barrier (Reflective Barrier Only)

**DIAMC 15**

- Diamond Manufacturing Company, 243 West Eighth Street, P.o. Box 4174, Wyoming, PA 18644
- Sound Barrier Wall Panel (Alternate)
- Acoustax Sound Barrier (Structure Mount Only)

**EVCYR 15**

- Evonik Cyro, LLC, 1796 Main Street, Sanford, ME 04073
- Sound Barrier Wall Panel (Alternate)
- Acrylite Soundstop Structures Mounted Sound Barrier System

---

Clear Structure Mounted Sound Barrier, per SOL 483-14-02. Acrylite Soundstop Structure Mounted Sound Barrier System has the following restrictions:

- Maximum panel height: 6ft.-6in.
- Maximum wall height and post spacing (see below)

**A. Bridge Barrier Mounted:**

- 10 ft. Post Spacing: Wall Height of 2 ft. thru 9 ft.
- 8 ft. Post Spacing: Wall Height of > 9 ft. thru 10 ft.

**B. Retaining Wall Barrier or Moment Slab Barrier Mounted:**

- 10 ft. Post Spacing: Wall Height of 2 ft. thru 12 ft.
- 8 ft. Post Spacing: Wall Height of > 12 ft. thru 13 ft.

**C. Retaining Wall Mounted:**

- 10 ft. Post Spacing: Wall Height of 2 ft. thru 13 ft.
Section 1086: Sound Barriers

1086.2(b) Sound Barrier Wall Panels (Alternates)

Note: Approved Bridge and Structure Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FABCO 15</td>
<td>Fabcon Precast Concrete Products, 1200 Morea Road, Mahanoy City, PA 17948 <a href="http://www.fabcon-usa.com/">http://www.fabcon-usa.com/</a></td>
<td>2011-275</td>
</tr>
<tr>
<td>FABCO 15</td>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td></td>
</tr>
<tr>
<td>FACADE15</td>
<td>1441 Stoneridge Drive Middletown, PA 17057</td>
<td></td>
</tr>
<tr>
<td>FACADE15</td>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td></td>
</tr>
<tr>
<td>FADD1 15</td>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td></td>
</tr>
<tr>
<td>FADD2 15</td>
<td>Faddis Concrete Products, 205 West Washington Street, New Castle, PA 16101 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td>2016-190</td>
</tr>
<tr>
<td>FADD2 15</td>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td></td>
</tr>
<tr>
<td>FADD2 15</td>
<td>Precast Absorptive Sound Panel Wall System, per SOL 431-08-16</td>
<td></td>
</tr>
<tr>
<td>HOOOTW 15</td>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td></td>
</tr>
<tr>
<td>J&amp;RS1 15</td>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td></td>
</tr>
<tr>
<td>J&amp;RS1 15</td>
<td>Absorbive Sound Barrier System, per SOL 431-08-01</td>
<td></td>
</tr>
<tr>
<td>MACK0 15</td>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td></td>
</tr>
<tr>
<td>MACK0 15</td>
<td>Concrete Innovation Series / Whisper Wall</td>
<td></td>
</tr>
<tr>
<td>MACK0 15</td>
<td>Absorbive Sound Barrier System, per SOL 431-08-01</td>
<td></td>
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</tbody>
</table>
### Section 1086: Sound Barriers

**1086.2(b) Sound Barrier Wall Panels (Alternates)**

**Note:** Approved Bridge and Structure Products

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STNB1 15</td>
<td>Superior Transparent Noise Barriers, LLC, 220 E Golfview Road, Ardmore, PA 19003</td>
<td>Superior Transparent Sound Barrier System</td>
<td>2017-332</td>
</tr>
</tbody>
</table>

Sound Barrier Wall Panel (Alternate)

Clear Structure Mounted Sound Barrier, per SOL 483-18-01. Superior Transparent Sound Barrier System has the following restrictions:

- Maximum panel height: 13 ft. - 3 1/2 in.
- Maximum wall height and post spacing (see below)

A. Bridge Barrier Mounted:

<table>
<thead>
<tr>
<th>Post Spacing</th>
<th>Wall Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 ft.</td>
<td>2 ft. thru 9 ft.</td>
</tr>
<tr>
<td>8 ft.</td>
<td>&gt; 9 ft. thru 10 ft.</td>
</tr>
</tbody>
</table>

B. Retaining Wall Barrier or Moment Slab Barrier Mounted:

<table>
<thead>
<tr>
<th>Post Spacing</th>
<th>Wall Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 ft.</td>
<td>2 ft. thru 12 ft.</td>
</tr>
<tr>
<td>8 ft.</td>
<td>&gt; 12 ft. thru 13 ft.</td>
</tr>
</tbody>
</table>

C. Retaining Wall Mounted:

<table>
<thead>
<tr>
<th>Post Spacing</th>
<th>Wall Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 ft.</td>
<td>2 ft. thru 13 ft.</td>
</tr>
<tr>
<td>8 ft.</td>
<td>&gt; 13 ft. thru 14 ft.</td>
</tr>
</tbody>
</table>
### Section 1087: PA HT Bridge Barrier

**1087.2 PA HT Bridge Barrier Railing (BC-707M)**

These plants have been pre-approved to fabricate steel barrier railings as defined by BC 707M (PA, HT Bridge Barrier).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIANB 15</td>
<td>Cianbro Fabrication &amp; Coating Corporation, 3 Farm Lane, Georgetown, MA 01833 <a href="http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx">http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx</a></td>
<td>Georgetown</td>
<td>MA</td>
<td>-----</td>
</tr>
<tr>
<td>GSIHP 15</td>
<td>GSI Highway Products, 720 W. Wintergreen Road, Hutchins, TX 75141 <a href="https://www.gsihighway.com/">https://www.gsihighway.com/</a></td>
<td>Hutchins</td>
<td>TX</td>
<td>2017-353Q</td>
</tr>
<tr>
<td>HEART 15</td>
<td>Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417 <a href="https://www.hl-fabrication.com/">https://www.hl-fabrication.com/</a></td>
<td>Brownsville</td>
<td>PA</td>
<td>2018-220Q</td>
</tr>
</tbody>
</table>
Section 1087: PA HT Bridge Barrier

1087.2 PA HT Bridge Barrier Railing (BC-707M)

These plants have been pre-approved to fabricate steel barrier railings as defined by BC 707M (PA, HT Bridge Barrier).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PENNF 15</td>
<td>PennFab, Inc., 1431 Ford Rd., Bensalem, PA 19020</td>
<td>Bensalem</td>
<td>PA</td>
<td>2015-154QG</td>
</tr>
<tr>
<td>PMWI1 15</td>
<td>Pleasant Mount Welding, Inc., 45 Dundaff Street, Carbondale, PA 18407</td>
<td>Carbondale</td>
<td>PA</td>
<td>2018-218Q</td>
</tr>
<tr>
<td>PREC1 15</td>
<td>Precision International, 435 Burt Street, Sistersville, WV 26175</td>
<td>Carbondale</td>
<td>PA</td>
<td>2016-204Q</td>
</tr>
<tr>
<td>PSFAB 15</td>
<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
<td>Bristol</td>
<td>PA</td>
<td>2016-281</td>
</tr>
<tr>
<td>QUABF 15</td>
<td>Quality Bridge and Fab, Inc., 3608 Sharon Road, West Middlesex, PA 16159</td>
<td>West Middlesex</td>
<td>PA</td>
<td>2015-187Q</td>
</tr>
<tr>
<td>RP-MA 15</td>
<td>RPS Machinery Sales, Inc., 175 Old Route 220 Highway, P. O. Box 507, Jersey Shore, PA 17740</td>
<td>Jersey Shore</td>
<td>PA</td>
<td>2004-016Q</td>
</tr>
<tr>
<td>SAFGD 15</td>
<td>Safety Guard Steel Fabricating Company, 113 Lincoln Avenue, Pittsburgh, PA 15209</td>
<td>Pittsburgh</td>
<td>PA</td>
<td>2016-016Q</td>
</tr>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
<td>Elizabethtown</td>
<td>KY</td>
<td>2015-142QC</td>
</tr>
</tbody>
</table>

Last Revised: 11/26/2019
Section 1088: PA Type 10M Bridge Barrier

These plants have been pre-approved to fabricate steel barrier railings as defined by BC 709M (PA Type, 10M Bridge Barrier).

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKBAY15</td>
<td>Ackerman &amp; Baynes, LLC, 4211 Erdman Ave., Baltimore, MD 21213</td>
<td>Baltimore</td>
<td>MD</td>
<td>2018-282Q</td>
</tr>
<tr>
<td>ADVSC</td>
<td>Advantage Steel &amp; Construction, LLC, 2300 South Noah Drive, Saxonburg, PA 16056</td>
<td>Saxonburg</td>
<td>PA</td>
<td>2015-025Q</td>
</tr>
<tr>
<td>AUCEL15</td>
<td>Auciello Iron Works, Inc., 560 Main St., Hudson, MA 01749</td>
<td>Hudson</td>
<td>MA</td>
<td>2007-120Q</td>
</tr>
<tr>
<td>BROWD15</td>
<td>D.S. Brown Company, 300 East Cherry Street, North Baltimore, OH 45872</td>
<td>North Baltimore</td>
<td>OH</td>
<td>2008-039Q</td>
</tr>
<tr>
<td>CAPST15</td>
<td>Capital Steel Service, LLC, 82 Stokes Avenue, Trenton, NJ 08638</td>
<td>Trenton</td>
<td>NJ</td>
<td>2013-077Q</td>
</tr>
<tr>
<td>CIANB15</td>
<td>Cianbro Fabrication &amp; Coating Corporation, 3 Farm Lane, Georgetown, MA 01833</td>
<td>Georgetown</td>
<td>MA</td>
<td>2010-246Q</td>
</tr>
<tr>
<td>ELDER15</td>
<td>Elderlee, Inc., 729 Cross Road, Oaks Corners, NY 14518</td>
<td>Oaks Corner</td>
<td>NY</td>
<td>2009-025Q</td>
</tr>
<tr>
<td>FOST215</td>
<td>L.B. Foster Company, 202 Weber Lane, Bedford, PA 15522</td>
<td>Bedford</td>
<td>MA</td>
<td>2008-056Q</td>
</tr>
<tr>
<td>HALL15</td>
<td>Hall Industries, Inc., Hall Equipment Division, 1 USS Industrial Park, Ellwood City, PA 16117</td>
<td>Ellwood City</td>
<td>PA</td>
<td>-----</td>
</tr>
<tr>
<td>HALL315</td>
<td>Hall Industries, Inc., HGH Facility, 606 2nd Street, Ellwood City, PA 16117</td>
<td>Ellwood City</td>
<td>PA</td>
<td>2017-029Q</td>
</tr>
<tr>
<td>HEART15</td>
<td>Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417</td>
<td>Brownsville</td>
<td>PA</td>
<td>2018-220Q</td>
</tr>
</tbody>
</table>
### Section 1088: PA Type 10M Bridge Barrier

1088.2 PA Type 10M Bridge Barrier Railing (BC-709M)

These plants have been pre-approved to fabricate steel barrier railings as defined by BC 709M (PA Type, 10M Bridge Barrier).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCS-1 15 Facility</td>
<td>Mission Critical Solutions, LLC, 271 Industrial Lane, Alum Bank, PA 15221 <a href="https://www.missioncriticalsolutions.com/">https://www.missioncriticalsolutions.com/</a></td>
<td>Alum Bank</td>
<td>PA</td>
<td>2019-131Q</td>
</tr>
<tr>
<td>PMWI1 15</td>
<td>Pleasant Mount Welding, Inc., 45 Dundaff Street, Carbondale, PA 18407 <a href="https://www.pmwi.net/">https://www.pmwi.net/</a></td>
<td>Carbondale</td>
<td>PA</td>
<td>2018-218Q</td>
</tr>
<tr>
<td>PSFAB 15</td>
<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
<td>Bristol</td>
<td>PA</td>
<td>2016-281</td>
</tr>
<tr>
<td>QUABF 15</td>
<td>Quality Bridge and Fab, Inc., 3608 Sharon Road, West Middlesex, PA 16159 <a href="http://www.qualitybridgeandfab.com/">http://www.qualitybridgeandfab.com/</a></td>
<td>West Middlesex</td>
<td>PA</td>
<td>2012-246Q</td>
</tr>
<tr>
<td>SAFGD 15 Plant</td>
<td>Safety Guard Steel Fabricating Company, 113 Lincoln Avenue, Pittsburgh, PA 15209 <a href="http://www.safetyguardsteel.com/">http://www.safetyguardsteel.com/</a></td>
<td>Pittsburgh</td>
<td>PA</td>
<td>2010-223Q</td>
</tr>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
<td></td>
<td></td>
<td>2015-142QD</td>
</tr>
</tbody>
</table>
Section 1089: PA Bridge Barrier

1089.2 PA Bridge Barrier Railing (BC-713M)

These plants have been pre-approved to fabricate steel barrier railings as defined by BC 713M (PA Bridge Barrier).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIANB 15</td>
<td>Cianbro Fabrication &amp; Coating Corporation, 3 Farm Lane, Georgetown, MA 01833 <a href="http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx">http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx</a></td>
<td>Georgetown</td>
<td>MA</td>
<td>2010-250Q</td>
</tr>
<tr>
<td>HEART 15</td>
<td>Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417 <a href="https://www.hl-fabrication.com/">https://www.hl-fabrication.com/</a></td>
<td>Brownsville</td>
<td>PA</td>
<td>2018-220Q</td>
</tr>
<tr>
<td>MCS-1 15</td>
<td>Mission Critical Solutions, LLC, 271 Industrial Lane, Alum Bank, PA 15221 <a href="https://www.missioncriticalsolutions.com">https://www.missioncriticalsolutions.com</a></td>
<td>Alum Bank</td>
<td>PA</td>
<td>2019-131Q</td>
</tr>
</tbody>
</table>
Section 1089: PA Bridge Barrier

### 1089.2 PA Bridge Barrier Railing (BC-713M)

These plants have been pre-approved to fabricate steel barrier railings as defined by BC 713M (PA Bridge Barrier).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMWI 15</td>
<td>Pleasant Mount Welding, Inc., 45 Dundaff Street, Carbondale, PA 18407 <a href="https://www.pmwi.net/">https://www.pmwi.net/</a></td>
<td>Carbondale</td>
<td>PA</td>
<td>2018-218Q</td>
</tr>
<tr>
<td>PSFAB 15</td>
<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
<td>Bristol</td>
<td>PA</td>
<td>2016-281</td>
</tr>
<tr>
<td>QUABF 15</td>
<td>Quality Bridge and Fab, Inc., 3608 Sharon Road, West Middlesex, PA 16159 <a href="http://www.qualitybridgeandfab.com/">http://www.qualitybridgeandfab.com/</a></td>
<td>West Middlesex</td>
<td>PA</td>
<td>2013-012Q</td>
</tr>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
<td>Elizabethtown</td>
<td>KY</td>
<td>2015-142QE</td>
</tr>
</tbody>
</table>
### Section 1101: Highway Lighting

#### 1101.02 Highway Lighting Poles (Aluminum)

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Address</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAPCO 15</td>
<td>Hapco/American Flagpole, 26252 Hillman Highway, Abington, VA 24210</td>
<td><a href="http://hapco.com/">http://hapco.com/</a></td>
<td></td>
</tr>
<tr>
<td>METPL 15</td>
<td>MPL (Metal Pole-Lite, Inc.), 375 &amp; 375B St. Louis, Saint-Jean-Sur-Richelieu, Quebec Canada J3B 1Y4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P&amp;KTP 15</td>
<td>P&amp;K Tubular Products/Flagpoles, Inc., 95 Gnarled Hollow Road, East Setauket, NY 11733</td>
<td><a href="http://pktubularproducts.com/">http://pktubularproducts.com/</a></td>
<td></td>
</tr>
<tr>
<td>PHIHA 15</td>
<td>Philips Hadco, 100 Craftway, Littlestown, PA 17340</td>
<td><a href="http://www.hadco.com/Hadco/home.html">http://www.hadco.com/Hadco/home.html</a></td>
<td></td>
</tr>
<tr>
<td>SCEMC 15</td>
<td>Spring City Electrical Manufacturing Company, Inc., Hall &amp; Main St., P.O. Box 19, Spring City, PA 19475</td>
<td><a href="http://www.springcity.com/">http://www.springcity.com/</a></td>
<td></td>
</tr>
<tr>
<td>STEVL 15</td>
<td>Sternberg Vintage Lighting, 555 Lawrence Avenue, Roselle, IL 60172</td>
<td><a href="http://www.sternberglighting.com/www-sternberglighting-com/">http://www.sternberglighting.com/www-sternberglighting-com/</a></td>
<td></td>
</tr>
<tr>
<td>UMIC1 15</td>
<td>Union Metal Industries Corporation, 1432 Maple Avenue NE Canton, Ohio 44705, Canton, OH 44705</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VALM1 15 Plant</td>
<td>Valmont Industries, Inc., 7002 N 288th Street, Valley, NE 68064</td>
<td><a href="http://www.valmont.com/">http://www.valmont.com/</a></td>
<td></td>
</tr>
<tr>
<td>VALM2 15 Plant</td>
<td>Valmont Industries, Inc., 58027 Charlotte Ave., Elkhart, IN 46517</td>
<td><a href="http://www.valmont.com/">http://www.valmont.com/</a></td>
<td></td>
</tr>
</tbody>
</table>
## Section 1101: Highway Lighting

### 1101.02 Highway Lighting Poles (Cast Iron)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Cast iron)</td>
<td>----</td>
</tr>
</tbody>
</table>

### 1101.02 Highway Lighting Poles (Steel)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
<td>----</td>
</tr>
<tr>
<td>HEART 15</td>
<td>Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417</td>
<td><a href="https://www.hl-fabrication.com/">https://www.hl-fabrication.com/</a></td>
</tr>
<tr>
<td></td>
<td>Formerly Brownsville Marine Products</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
<td>2018-220Q</td>
</tr>
<tr>
<td>MCS-15</td>
<td>Mission Critical Solutions, LLC, 271 Industrial Lane, Alum Bank, PA 15221</td>
<td><a href="https://www.missioncriticalsolutions.com/">https://www.missioncriticalsolutions.com/</a></td>
</tr>
<tr>
<td>Facility</td>
<td>271 Industrial Lane, Alum Bank, PA 15221</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
<td>2019-131Q</td>
</tr>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
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</tr>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
<td>----</td>
</tr>
<tr>
<td>UMIC15</td>
<td>Union Metal Industries Corporation, 1432 Maple Avenue NE Canton, Ohio 44705, Canton, OH 44705</td>
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<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
<td>2018-177Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Valley, NE 68064</td>
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<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
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</tr>
<tr>
<td>VALM515</td>
<td>Valmont Industries, Inc., 2551 Valmont Drive, Brenham, TX 77833</td>
<td><a href="http://www.valmont.com/">http://www.valmont.com/</a></td>
</tr>
<tr>
<td>Plant</td>
<td>Brenham, TX</td>
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</tr>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
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</table>
### Section 1101: Highway Lighting

#### 1101.06(c) Arm Mount Luminaires - LED - (Cobra Head)

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</tr>
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<tbody>
<tr>
<td><strong>ACUITY15</strong></td>
<td>Acuity Brands Lighting, Inc., 1170 Peachtree Street, NE, Suite 2300, Atlanta, GA 30309-7676 Guadalupe, Mexico</td>
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</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>Autobahn ATB0</td>
<td>2017-348Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>Autobahn ATB2</td>
<td>2017-349Q</td>
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<tr>
<td>Conventional LED Luminaire</td>
<td>Streetworks ARCH Archeon Small</td>
<td>2018-098Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>Streetworks ARCH-L Archeon Large</td>
<td>2018-099Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>Streetworks ARCH-M Archeon Medium</td>
<td>2018-068Q</td>
</tr>
<tr>
<td><strong>GELED 15</strong></td>
<td>General Electric Company, 1975 Noble Road, East Cleveland, OH 44112 <a href="https://products.currentbyge.com/">https://products.currentbyge.com/</a> GE Lighting East Flat Rock, NC</td>
<td></td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>GE Evolve ERL1</td>
<td>2018-101Q</td>
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<tr>
<td>Conventional LED Luminaire</td>
<td>GE Evolve ERL2</td>
<td>2018-045Q</td>
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<tr>
<td>Conventional LED Luminaire</td>
<td>GE Evolve ERLH</td>
<td>2018-044Q</td>
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<tr>
<td><strong>LEOECC 15</strong></td>
<td>Leotek Electronics USA, LLC, 1955 Lundy Avenue, San Jose, CA 95131 <a href="http://www.leotek.com/">http://www.leotek.com/</a></td>
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<tr>
<td>Conventional LED Luminaire</td>
<td>ComfortView Neighborhood LED Streetlight, CV1-H</td>
<td>2019-119Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>GC2-96G GreenCobra LED Street Light - GC2 G-Series</td>
<td>2017-291Q</td>
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<tr>
<td>Conventional LED Luminaire</td>
<td>GCJ0-15H GreenCobra LED Street Light - GCJ Series</td>
<td>2018-099Q</td>
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<td>Conventional LED Luminaire</td>
<td>GCJ1-20H GreenCobra LED Street Light - GCJ Series</td>
<td>2018-099Q</td>
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<tr>
<td>Conventional LED Luminaire</td>
<td>GCJ2-20H GreenCobra LED Street Light - GCJ Series</td>
<td>2018-099Q</td>
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<tr>
<td>Conventional LED Luminaire</td>
<td>GCM2-30H GreenCobra Midsize LED Street Light - GCM H-Series</td>
<td>2017-351Q</td>
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<tr>
<td>Conventional LED Luminaire</td>
<td>GCM2-40H GreenCobra Midsize LED Street Light - GCM H-Series</td>
<td>2017-351Q</td>
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Section 1101: Highway Lighting

1101.06(c) Arm Mount Luminaires - LED - (Cobra Head)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</tr>
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<tbody>
<tr>
<td>SIGN1 15</td>
<td>Signify (formerly Philips Lighting), 200 Franklin Square Drive, Somerset, NJ 08873</td>
<td><a href="https://www.signify.com/en-us">https://www.signify.com/en-us</a></td>
</tr>
<tr>
<td>Camargo Chihuahua, Mexico</td>
<td></td>
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</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>RoadFocus LED Cobra Head - Large (RFL)</td>
<td>2018-152Q</td>
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<tr>
<td>Conventional LED Luminaire</td>
<td>RoadFocus LED Cobra Head - Medium (RFM)</td>
<td>2018-152Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>RoadFocus LED Cobra Head - Small (RFS)</td>
<td>2018-152Q</td>
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</table>

1101.09 Highway Lighting Conduit

In lieu of certification, submit catalog cuts or shop drawings to the Engineer for approval, as specified in Publication 408, Section 1101.01.

Refer to the Project Office Manual for material information requirements.

1101.10 Highway Lighting Junction Boxes

Steel or Cast Iron Junction Boxes and Frames: See Section 605.2(a).

Precast Concrete Junction Boxes: See Section 714.
Section 1103: Traffic Signing and Marking

1103.02 Extruded Aluminum Channel Signs (Post Mounted Types A and E; and Structure Mounted)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M-03 15</td>
<td>3M Company, Traffic Control Devices Department, 3M Center, Building 582-1-15, St. Paul, MN 55144-1000</td>
<td><a href="http://www.3m.com/3M/en_US/company-us/">http://www.3m.com/3M/en_US/company-us/</a></td>
<td>15</td>
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<tr>
<td>Plant</td>
<td>Traffic Control Devices Department 3M Center, Building 582-1-15 St. Paul, MN 55144-1000</td>
<td>15</td>
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</tr>
<tr>
<td>ELDER 15</td>
<td>Elderlee, Inc., 729 Cross Road, Oaks Corners, NY 14518</td>
<td><a href="http://www.elderlee.com/">http://www.elderlee.com/</a></td>
<td>15</td>
</tr>
<tr>
<td>INSHS 15</td>
<td>Interstate Highway Sign Company, 7415 Lindsey Road, Little Rock, AR 72206</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>LIGH1 15</td>
<td>Lightle Enterprises of Ohio, LLC, P.O. Box 329, 22 East Springfield Street, Frankfort, OH 45628</td>
<td><a href="http://www.lightleenterprisesohio.com/">http://www.lightleenterprisesohio.com/</a></td>
<td>15</td>
</tr>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
<td>15</td>
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<tr>
<td>STRBK 15</td>
<td>Strongstown's B&amp;K Enterprises, Inc., 260 Route 403 South, P. O. Box 124, Strongstown, PA 15957</td>
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## Section 1103: Traffic Signing and Marking

### 1103.02 Extruded Aluminum Channel Signs (Post Mounted Types A and E; and Structure Mounted)

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Sheeting Type</th>
<th>Colors</th>
<th>Restricted Use</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRFSC 15</td>
<td>Trafco Supply Company, 1420 Ford Avenue, Harrisburg, PA 17109</td>
<td>TRFSC 15</td>
<td>Fabricated Aluminum Sign Manufacturer</td>
<td>-----</td>
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</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Sheeting Type</th>
<th>Colors</th>
<th>Restricted Use</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>USMUS 15</td>
<td>U. S. Municipal Supply, Inc., P. O. Box 574, Huntingdon, PA 16652</td>
<td>USMUS 15</td>
<td>Fabricated Aluminum Sign Manufacturer</td>
<td>-----</td>
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</tbody>
</table>

### 1103.02(c) Reflective Sheeting

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Sheeting Type</th>
<th>Colors</th>
<th>Restricted Use</th>
<th>Ref. No.</th>
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</table>

<table>
<thead>
<tr>
<th>Reflective Sheeting</th>
<th>Name</th>
<th>COA</th>
<th>Sheeting Type</th>
<th>Colors</th>
<th>Restricted Use</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Reflective Sheeting</td>
<td>3314</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>Orange</td>
<td>Tubular Markers / Drums / Channelizers / Flexible Delineators</td>
<td>-----</td>
</tr>
<tr>
<td>Reflective Sheeting</td>
<td>334/336</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>White/Orange</td>
<td>Provisionally Approved</td>
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<tr>
<td>Reflective Sheeting</td>
<td>3340</td>
<td>RS-1</td>
<td>Type VIII</td>
<td>White</td>
<td>Tubular Markers / Drums / Channelizers / Flexible Delineators</td>
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<tr>
<td>Reflective Sheeting</td>
<td>3811-I</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>Yellow</td>
<td>Tubular Markers / Drums / Channelizers / Flexible Delineators</td>
<td>-----</td>
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<tr>
<td>Reflective Sheeting</td>
<td>3872</td>
<td>RS-1</td>
<td>Type III</td>
<td>Red</td>
<td>No Restrictions</td>
<td>-----</td>
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<tr>
<td>Reflective Sheeting</td>
<td>3910</td>
<td>RS-1</td>
<td>Type III / Type IV (reboundable)</td>
<td>White</td>
<td>Tubular Markers / Drums / Channelizers / Flexible Delineators</td>
<td>-----</td>
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<tr>
<td>Reflective Sheeting</td>
<td>3914</td>
<td>RS-1</td>
<td>Type III / Type IV (reboundable)</td>
<td>Fluorescent Orange</td>
<td>Tubular Markers / Drums / Channelizers / Flexible Delineators</td>
<td>-----</td>
</tr>
<tr>
<td>Reflective Sheeting</td>
<td>3924</td>
<td>RS-1</td>
<td>Type VII</td>
<td>Fluorescent Orange</td>
<td>Work Zones and Incidents Only</td>
<td>1991-311</td>
</tr>
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</table>
## Section 1103: Traffic Signing and Marking

### 1103.02(c) Reflective Sheeting

**Product** | **Name** | **COA** | **Sheeting Type** | **Colors** | **Restricted Use** | **Ref. No.**
--- | --- | --- | --- | --- | --- | ---

| Reflective Sheeting | 3930 | RS-1 | Type III / Type IV | White | No Restrictions | 1999-165Q |
| Reflective Sheeting | 3931 | RS-1 | Type III / Type IV | Yellow | No Restrictions | 1999-165Q |
| Reflective Sheeting | 3934 | RS-1 | Type III / Type IV | Orange | Work Zones Only | 2014-144Q |
| Reflective Sheeting | 3935 | RS-1 | Type III / Type IV | Blue | No Restrictions | 1999-165Q |
| Reflective Sheeting | 3937 | RS-1 | Type III / Type IV | Green | No Restrictions | 1999-165Q |
| Reflective Sheeting | 3981 | RS-1 | Type IX | Fluorescent Yellow | No Restrictions | 2010-078QG |
| Reflective Sheeting | 3990 | RS-1 | Type IX | White | No Restrictions | 2010-078QG |
| Reflective Sheeting | 3990T | RS-1 | Type VIII | Translucent | Internally Illuminated Signs Only | 2010-078QG |
| Reflective Sheeting | 3991 | RS-1 | Type IX | Yellow | No Restrictions | 2010-078QG |
| Reflective Sheeting | 3992 | RS-1 | Type IX | Red | No Restrictions | 2010-078QG |
| Reflective Sheeting | 3995 | RS-1 | Type IX | Blue | No Restrictions | 2010-078QG |
| Reflective Sheeting | 3997 | RS-1 | Type IX | Green | No Restrictions | 2010-078QG |
| Reflective Sheeting | 4081 | RS-1 | Type XI | Fluorescent Yellow | No Restrictions | 2010-078QG |
| Reflective Sheeting | 4083 | RS-1 | Type XI | Fluorescent Yellow Green | No Restrictions | 2010-078QG |
| Reflective Sheeting | 4084 | RS-1 | Type XI | Fluorescent Orange | Work Zones and Incidents Only | 2010-078QG |
| Reflective Sheeting | 4090 | RS-1 | Type XI | White | No Restrictions | 2010-078QG |
| Reflective Sheeting | 4091 | RS-1 | Type XI | Yellow | No Restrictions | 2010-078QG |
| Reflective Sheeting | 4092 | RS-1 | Type XI | Red | No Restrictions | 2010-078QG |
| Reflective Sheeting | 4095 | RS-1 | Type XI | Blue | No Restrictions | 2010-078QG |
| Reflective Sheeting | 4097 | RS-1 | Type XI | Green | No Restrictions | 2010-078QG |
| Reflective Sheeting | 444/446 | RS-1 | Type XI | White/Orange | No Restrictions | 2010-078QG |
| Reflective Sheeting | RS24 | RS-1 | Type VI (reboundable) | Fluorescent Orange | Work Zones and Incidents Only | 2010-078QG |
## Section 1103: Traffic Signing and Marking

### 1103.02(c) Reflective Sheeting

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Sheeting Type</th>
<th>Colors</th>
<th>Restricted Use</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Reflective Sheeting</td>
<td>3334 Flexible Prismatic Reflective Barricade Sheeting (4-inch)</td>
<td>Type IV</td>
<td>Orange and White</td>
<td>Barricades / Panels Only</td>
<td>2016-076Q</td>
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<tr>
<td>Reflective Sheeting</td>
<td>3336 Flexible Prismatic Reflective Barricade Sheeting (6-inch)</td>
<td>Type IV</td>
<td>Orange and White</td>
<td>Barricades / Panels Only</td>
<td>2016-076Q</td>
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</tr>
<tr>
<td>Reflective Sheeting</td>
<td>3334 Flexible Prismatic Reflective Barricade Sheeting (4-inch)</td>
<td>Type IV</td>
<td>Orange and White</td>
<td>Barricades / Panels Only</td>
<td>2016-076Q</td>
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<tr>
<td>Reflective Sheeting</td>
<td>3336 Flexible Prismatic Reflective Barricade Sheeting (6-inch)</td>
<td>Type IV</td>
<td>Orange and White</td>
<td>Barricades / Panels Only</td>
<td>2016-076Q</td>
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<tr>
<td>Reflective Sheeting</td>
<td>4081 RS-1 Type XI Fluorescent Yellow</td>
<td>No Restrictions</td>
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<td>2010-078QG</td>
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<tr>
<td>Reflective Sheeting</td>
<td>4083 RS-1 Type XI Fluorescent Yellow Green</td>
<td>No Restrictions</td>
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<td>2010-078QH</td>
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<tr>
<td>Reflective Sheeting</td>
<td>4084 RS-1 Type XI Fluorescent Orange</td>
<td>No Restrictions</td>
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<td>2010-078QJ</td>
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<tr>
<td>Reflective Sheeting</td>
<td>4090 RS-1 Type XI White</td>
<td>No Restrictions</td>
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<tr>
<td>Reflective Sheeting</td>
<td>4091 RS-1 Type XI Yellow</td>
<td>No Restrictions</td>
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<tr>
<td>Reflective Sheeting</td>
<td>4092 RS-1 Type XI Red</td>
<td>No Restrictions</td>
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<td>2010-078QC</td>
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<tr>
<td>Reflective Sheeting</td>
<td>4095 RS-1 Type XI Blue</td>
<td>No Restrictions</td>
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<td>2010-078QD</td>
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<tr>
<td>Reflective Sheeting</td>
<td>4097 RS-1 Type XI Green</td>
<td>No Restrictions</td>
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<td>2010-078QE</td>
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<td>Reflective Sheeting</td>
<td>444/446 RS-1 Type XI White/Orange</td>
<td>No Restrictions</td>
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<td>2010-078QK</td>
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<td>Reflective Sheeting</td>
<td>R560 Type VI White</td>
<td>No Restrictions</td>
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<td>2016-228Q</td>
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<td>Reflective Sheeting</td>
<td>RS64I Type VI Fluorescent Orange</td>
<td>No Restrictions</td>
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<td>2016-243Q</td>
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</tbody>
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### Section 1103: Traffic Signing and Marking

#### 1103.02(c) Reflective Sheeting

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Sheeting Type</th>
<th>Colors</th>
<th>Restricted Use</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>Avery Dennison Reflective Solutions, 7542 North Natchez Avenue, Niles, IL 60714</td>
<td>AVERY 15 Plant 902 Feehanville Drive Mount Prospect, IL 60056</td>
<td><a href="http://reflectives.averydennison.com/en/home.html">http://reflectives.averydennison.com/en/home.html</a></td>
<td>Reflective Sheeting</td>
<td>T-11500</td>
<td>RS-6</td>
<td>Type XI</td>
</tr>
<tr>
<td>Reflective Sheeting</td>
<td>T-11501</td>
<td>RS-6</td>
<td>Type XI</td>
<td>Yellow</td>
<td>No Restrictions</td>
<td>2012-081QC</td>
</tr>
<tr>
<td>Reflective Sheeting</td>
<td>T-11505</td>
<td>RS-6</td>
<td>Type XI</td>
<td>Blue</td>
<td>No Restrictions</td>
<td>2012-081QB</td>
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<td>Reflective Sheeting</td>
<td>T-11507</td>
<td>RS-6</td>
<td>Type XI</td>
<td>Green</td>
<td>No Restrictions</td>
<td>2012-081QA</td>
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<tr>
<td>Reflective Sheeting</td>
<td>T-11508*</td>
<td>RS-6</td>
<td>Type XI</td>
<td>Red</td>
<td>No Restrictions</td>
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<td>Reflective Sheeting</td>
<td>T-11511</td>
<td>RS-6</td>
<td>Type XI</td>
<td>Fluorescent Yellow</td>
<td>No Restrictions</td>
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<td>Reflective Sheeting</td>
<td>T-11513</td>
<td>RS-6</td>
<td>Type XI</td>
<td>Fluorescent Yellow Green</td>
<td>No Restrictions</td>
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<tr>
<td>Reflective Sheeting</td>
<td>T-6500</td>
<td>RS-6</td>
<td>Type III / Type IV</td>
<td>White</td>
<td>No Restrictions</td>
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</tr>
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<td>Reflective Sheeting</td>
<td>T-6501</td>
<td>RS-6</td>
<td>Type III / Type IV</td>
<td>Yellow</td>
<td>No Restrictions</td>
<td>1996-158B</td>
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<td>Reflective Sheeting</td>
<td>T-6505</td>
<td>RS-6</td>
<td>Type III / Type IV</td>
<td>Blue</td>
<td>No Restrictions</td>
<td>1996-158D</td>
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<td>Reflective Sheeting</td>
<td>T-6507</td>
<td>RS-6</td>
<td>Type III / Type IV</td>
<td>Green</td>
<td>No Restrictions</td>
<td>1996-158C</td>
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<td>Reflective Sheeting</td>
<td>T-6508</td>
<td>RS-6</td>
<td>Type III / Type IV</td>
<td>Red</td>
<td>No Restrictions</td>
<td>1996-158E</td>
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<td>T-7500</td>
<td>RS-6</td>
<td>Type VIII</td>
<td>White</td>
<td>No Restrictions</td>
<td>2006-214Q</td>
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<td>Reflective Sheeting</td>
<td>T-7511</td>
<td>RS-6</td>
<td>Type VIII</td>
<td>Fluorescent Yellow</td>
<td>No Restrictions</td>
<td>2001-115Q</td>
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### Section 1103: Traffic Signing and Marking

#### 1103.02(c) Reflective Sheeting

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<tr>
<th>Product</th>
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<th>COA</th>
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<th>Colors</th>
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<tr>
<td>AVERY 15</td>
<td>Avery Dennison Reflective Solutions, 7542 North Natchez Avenue, Niles, IL 60714 <a href="http://reflectives.averydennison.com/en/home.html">http://reflectives.averydennison.com/en/home.html</a> 902 Feehanville Drive, Mount Prospect, IL 60056</td>
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Provisional approval is granted through calendar year 2016 or until such time as NTPEP testing data is available from the Arizona testing site.
### Section 1103: Traffic Signing and Marking

#### 1103.02(c) Reflective Sheeting

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### Section 1103: Traffic Signing and Marking

**1103.02(c) Reflective Sheeting**

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Last Revised: 5/10/2019
Section 1103: Traffic Signing and Marking

1103.02(c) Reflective Sheeting

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Provisionally Approved

1103.03 Electrically Powered Traffic Signs

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<td>All Traffic Solutions, 3100 Research Drive, State College, PA 16801</td>
<td><a href="http://www.alltrafficsolutions.com/">http://www.alltrafficsolutions.com/</a></td>
<td>Speed Display Sign SA18 ATS-004P 12/1/2011</td>
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<td>Speed Display Sign SS12 ATS-003P 12/1/2011</td>
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<td>CARMH 15</td>
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<td>Formerly Spot Devices, Inc. (SPODE 15)</td>
<td>School Warning Sign System R829C CTC-003P 12/9/2009</td>
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### Section 1103: Traffic Signing and Marking

**1103.03 Electrically Powered Traffic Signs**

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## Section 1103: Traffic Signing and Marking

### 1103.03 Electrically Powered Traffic Signs

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<td>ORANG 15</td>
<td>Orange Traffic, 18195 Rue J A Bombardier, Mirabel, Quebec J7J 0E7 <a href="https://www.orangetraffic.com/">https://www.orangetraffic.com/</a></td>
<td>LED Blank Out Sign</td>
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**Section 1103: Traffic Signing and Marking**

### 1103.03 Electrically Powered Traffic Signs

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<td>Warning Sign System</td>
<td>BlinkerBeacon LED Beacons</td>
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Section 1103: Traffic Signing and Marking

1103.03 Electrically Powered Traffic Signs

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
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<tr>
<td>WELSM 15</td>
<td>Wells Sign Manufacturing, Inc., 109 Brothers Road, Woodland, WA 98674</td>
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<tr>
<td></td>
<td>Blankout Sign BO</td>
<td>WEL-001P</td>
<td>10/10/1992</td>
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<td>Internally Illuminated Sign II</td>
<td>WEL-003P</td>
<td>10/10/1992</td>
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1103.03 Flat Sheet Aluminum Signs with Stiffeners (Post Mounted Types A, D, and E; and Structure)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
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<tbody>
<tr>
<td>Plant</td>
<td>Traffic Control Devices Department 3M Center, Building 582-1-15 St. Paul, MN 55144-1000</td>
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<tr>
<td></td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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<td>Fabricated Aluminum Sign Manufacturer</td>
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<tr>
<td>ESTTC 15</td>
<td>Established Traffic Control, Inc., 3162 Unionville Pike, Hatfield, PA 19440</td>
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<td>Fabricated Aluminum Sign Manufacturer</td>
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<td></td>
<td>-</td>
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<tr>
<td>INSHS 15</td>
<td>Interstate Highway Sign Company, 7415 Lindsey Road, Little Rock, AR 72206</td>
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<tr>
<td></td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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Section 1103: Traffic Signing and Marking

1103.03 Flat Sheet Aluminum Signs with Stiffeners (Post Mounted Types A, D, and E; and Structure)

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</thead>
<tbody>
<tr>
<td>MAISI 15</td>
<td>Main Stream Industries, Inc., 7340 Bernville Road, Bernville, PA 19506</td>
<td>MAISI 15</td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
<td>PROTE 15</td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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<tr>
<td>STRBK 15</td>
<td>Strongstown’s B&amp;K Enterprises, Inc., 260 Route 403 South, P. O. Box 124, Strongstown, PA 15957</td>
<td>STRBK 15</td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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<tr>
<td>TRFSC 15</td>
<td>Trafco Supply Company, 1420 Ford Avenue, Harrisburg, PA 17109</td>
<td>TRFSC 15</td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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<tr>
<td>USMUS 15</td>
<td>U. S. Municipal Supply, Inc., P. O. Box 574, Huntingdon, PA 16652</td>
<td>USMUS 15</td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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</tbody>
</table>

1103.04 Flat Sheet Signs (Post Mounted Types B, C and F; and Distance Markers)

All listed manufacturers are approved to make signs using prepared faces.

Signs shall be manufactured from aluminum sign blanks in accordance with Publication 236 and appropriate specs., unless otherwise indicated. Other Department approved substrates include, but are not limited to: plywood, fiberglass, steel, and plastic. Plywood substrate shall be indicated with a (P). Fiberglass substrate shall be indicated with a (F). [Publication 236 "Handbook of Approved Signs"]

| Product | Name | COA | Sign Special Approvals | Sign Manufacturer Restrictions | Ref. No. |
Section 1103: Traffic Signing and Marking

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<th>Sign Special Approvals</th>
<th>Sign Manufacturer Restrictions</th>
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<tbody>
<tr>
<td>3DS1 15</td>
<td>3D Specialties, Inc., 1110 25th Avenue N, Fargo, ND 58102</td>
<td>PDT 2150-19</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-</td>
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<tr>
<td>3M-03 15 Plant</td>
<td>3M Company, Traffic Control Devices Department, 3M Center, Building 582-1-15, St. Paul, MN 55144-1000</td>
<td>PDT 110-68</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
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<tr>
<td>ACESI 15</td>
<td>Ace of Signs, 500 Airport Road, Selinsgrove, PA 17870</td>
<td>PDT 1870-04</td>
<td></td>
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<tr>
<td>AMEFT 15</td>
<td>American Fiber Technologies, 500 Bostwick Avenue, Bridgeport, CT 06605</td>
<td>PDT 2040-11</td>
<td>Only faces manufactured by 3M, PDT 110-68</td>
<td>-----</td>
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<tr>
<td>ASSPR 15</td>
<td>Associated Products Company, 2 East Road, Mechanicsburg, PA 17050</td>
<td>PDT 820-78</td>
<td>Cut Out Characters</td>
<td>Black on Orange Construction Series Only</td>
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<tr>
<td>ATLAS 15</td>
<td>Atlas Flasher &amp; Supply Company, 2949 Felton Road, Norristown, PA 19401</td>
<td>PDT 1100-84</td>
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</tbody>
</table>
Section 1103: Traffic Signing and Marking

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<tbody>
<tr>
<td></td>
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<tr>
<td>BLAIR 15</td>
<td>Blair Excavating Company Inc., R. R. #5, Box 308A, Tyrone, PA 16686</td>
<td>PDT 1400-91</td>
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<tr>
<td>CASSI 15</td>
<td>Cassidy Signs, 7 Cassidy Drive, Burgettstown, PA 15021</td>
<td>PDT 2050-11</td>
<td>Cut Out Characters</td>
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<td>Sign Manufacturer</td>
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<tr>
<td>CENTS 15</td>
<td>Keystone Sign Systems DBA Central Sign Systems, 5215 Simpson Ferry Road, Mechanicsburg, PA 17050</td>
<td>PDT 1560-95</td>
<td>Cut Out Characters and Silk Screen</td>
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<td>Sign Manufacturer</td>
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</table>
Section 1103: Traffic Signing and Marking

1103.04 Flat Sheet Signs (Post Mounted Types B, C and F; and Distance Markers)

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Plywood substrate shall be indicated with a (P). Fiberglass substrate shall be indicated with a (F). Publication 236 "Handbook of Approved Signs"

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<th>Sign Manufacturer Restrictions</th>
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<tr>
<td>COMSG 15</td>
<td>Compusign &amp; Graphic, 1295 Baltimore Pike, Toughkenamon, PA 19374-0271</td>
<td>PDT 1820-03</td>
<td>Cut Out Characters and Silk Screen</td>
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<tr>
<td>CORCG 15</td>
<td>Corson Custom Graphics, 53 Corson Lane, Canonsburg, PA 15317</td>
<td>PDT 1850-04</td>
<td>Cut Out Characters and Silk Screen</td>
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<td>CORRE 15</td>
<td>Correctional Industries Sign Shop, State Correctional Institute - Fayette, 50 Overlook Drive, Labelle, PA 15450</td>
<td>PDT 1730-01</td>
<td>Cut Out Characters and Silk Screen</td>
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<tr>
<td>COSDS 15</td>
<td>C.O. Signs &amp; Designs, Inc., 10125 Route 56, Box B, Homer City, PA 15748</td>
<td>PDT 1770-02</td>
<td>Cut Out Characters and Silk Screen</td>
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<tr>
<td>CUSTP 15</td>
<td>Custom Products Corporation, P.O. Box 54091, Jackson, MS 39288-4091</td>
<td>PDT 1790-02</td>
<td>Silk Screen</td>
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<tr>
<td>D&amp;BLE 15</td>
<td>D &amp; D Leasing, LLC, 1621 Middle Road, Gibsonia, PA 15044</td>
<td>PDT 1550-95</td>
<td>Cut Out Characters and Silk Screen</td>
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<tr>
<td>DAYCS 15</td>
<td>Dayton Computer &amp; Sign, Inc., 107 N. School Street, Apt. 3, P. O. Box 616, Dayton, PA 16222</td>
<td>PDT 1890-05</td>
<td>Cut Out Characters</td>
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</table>
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<td>DECAL 15</td>
<td>Decal Driven.com, Box 108, Walston, PA 15781</td>
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<td>Cut Out Characters</td>
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<td>DECKR 15</td>
<td>Decker Supply Company, Inc., 1115 O'Neill Avenue, Madison, WI 53704</td>
<td>PDT 1010-81</td>
<td>Cut Out Characters</td>
<td>and Silk Screen</td>
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<td>DICKE 15</td>
<td>Dicke Tool Company, 1201 Warren Avenue, Downers Grove, IL 60515</td>
<td>PDT 750-76</td>
<td>Silk Screen</td>
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<td>DONLN 15</td>
<td>Donlyn Company/Osburn Associates, Inc., P.O. Box 912, Logan, OH 43138</td>
<td>PDT 1760-01</td>
<td>Cut Out Characters</td>
<td>and Silk Screen</td>
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<tr>
<td>DTRAF 15</td>
<td>Directional Traffic LLC, 1580 Gabler Road, Suite 103, Chambersburg, PA 17201</td>
<td>PDT 2130-18</td>
<td>Cut Out Characters</td>
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<td>EASTM 15</td>
<td>Eastern Metal of Elmira, 1430 Sullivan Street, Elmira, NY 14901</td>
<td>PDT 020-68</td>
<td>Cut Out Characters</td>
<td>and Silk Screen</td>
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<td>Sign Manufacturer</td>
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<tr>
<td>ELDRE 15</td>
<td>Elderlee, Inc., 729 Cross Road, Oaks Corners, NY 14518</td>
<td>PDT 610-74</td>
<td>Silk Screen</td>
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<tbody>
<tr>
<td>ESTTC 15</td>
<td>Established Traffic Control, Inc., 3162 Unionville Pike, Hatfield, PA 19440</td>
<td>PDT 1910-06</td>
<td>Cut Out Characters</td>
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<tr>
<td>FISTC 15</td>
<td>C. R. Fisher Traffic Control, LLC, 10176 Chapel Church Road, Red Lion, PA 17356</td>
<td>PDT 1830-04</td>
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<td>GARDS 15</td>
<td>Garden State Highway Products, Inc., 1740 East Oak Road, Vineland, NJ 08361</td>
<td>PDT 1300-88</td>
<td>Cut Out Characters and Silk Screen</td>
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<tr>
<td>GEMML 15</td>
<td>D.E. Gemmill, Inc., 10174 Chapel Church Road, Red Lion, PA 17356</td>
<td>PDT 1720-01</td>
<td>Cut Out Characters</td>
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<tr>
<td>GRACI 15</td>
<td>Graphix City, 1760 Hancock Road, Homer City, PA 15748</td>
<td>PDT 1930-06</td>
<td>Manufactured by Lyle Signs Only</td>
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<td>GRIFN 15</td>
<td>Griffin Sign Company, 464 North Randolph Ave., Cinnaminson, NJ 08077</td>
<td>PDT 680-75</td>
<td>Cut Out Characters and Silk Screen</td>
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<tr>
<td>GRIMC 15</td>
<td>Grimco, Inc., 1585 Fencorp Drive, Fenton, MO 63026</td>
<td>PDT 290-69</td>
<td>Silk Screen</td>
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<tr>
<td>HALLS 15</td>
<td>Hall Signs, Inc., 4495 West Vernel Pike, P.O. Box 515, Bloomington, IN 47402</td>
<td>PDT 560-73</td>
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<tr>
<td>IBITK 15</td>
<td>Ibis Tek, LLC, 496 Pittsburgh Road, Butler, PA 16002</td>
<td>PDT 2010-08</td>
<td>Silk Screen</td>
<td>Street Name Signs D 3-1</td>
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<td>IMAGE 15</td>
<td>Image Signs Inc., 1720 B. Margaret Ave., Altoona, PA 16601</td>
<td>PDT 1460-93</td>
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<tr>
<td>IMPRS 15</td>
<td>Impact Recovery Systems, Inc., 4955 Stout Drive, San Antonio, TX 78219</td>
<td>PDT 1810-03</td>
<td>Silk Screen</td>
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<td>INSHS 15</td>
<td>Interstate Highway Sign Company, 7415 Lindsey Road, Little Rock, AR 72206</td>
<td>PDT 670-75</td>
<td>Cut Out Characters and Silk Screen</td>
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<tr>
<td>INTER 15</td>
<td>Interstate Logos, L.L.C., 6696 Exchequer Drive, Baton Rouge, LA 70809</td>
<td>PDT 2110-17</td>
<td>Silk Screen</td>
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<tr>
<td>JLSCR 15</td>
<td>J. L. Screen Printing, Rt.#31, P.O. Box 324, Ruffs Dale, PA 15697</td>
<td>PDT 1140-84</td>
<td>Cut Out Characters and Silk Screen</td>
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<tr>
<td>KAGSW 15</td>
<td>KAG Signworks, 444 Saint Clair Ave., Clairton, PA 15025</td>
<td>PDT 030-68</td>
<td>Cut Out Characters and Silk Screen</td>
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<tr>
<td>KEMGR 15</td>
<td>Kemmerer Graphics, 6169 Sullivan Trail, Nazareth, PA 18064</td>
<td>PDT 2000-08</td>
<td>Cut Out Characters</td>
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<tr>
<td>KORMN 15</td>
<td>Korman Signs, Inc., 3029 Lincoln Ave., Henrico, VA 23228</td>
<td>PDT 1050-82</td>
<td>Silk Screen</td>
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<tr>
<td>KRIEG 15</td>
<td>Daniel B. Krieg, Inc., 4200 Paxton Street, Harrisburg, PA 17111</td>
<td>PDT 1470-93</td>
<td>Cut Out Characters</td>
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<tr>
<td>LETIN 15</td>
<td>Letterco, Inc., 1069 County Line Road, Souderton, PA 18964</td>
<td>PDT 1220-86</td>
<td>Cut Out Characters</td>
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<tr>
<td>LIGH1 15</td>
<td>Lightle Enterprises of Ohio, LLC, P.O. Box 329, 22 East Springfield Street, Frankfort, OH 45628</td>
<td>PDT 2100-17</td>
<td>Cut Out Characters, Silk Screen, Borders</td>
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<td></td>
</tr>
<tr>
<td>LYLE- 15</td>
<td>Lyle Signs, Inc., 6294 Bury Drive, Eden Prairie, MN 55346</td>
<td>PDT 260-68</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>MAISI 15</td>
<td>Main Stream Industries, Inc., 7340 Bernville Road, Bernville, PA 19506</td>
<td>PDT 1840-04</td>
<td>Cut Out Characters</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>MARKE 15</td>
<td>Marketing Displays, Inc., 38271 West 12 Mile Road, Farmington, MI 48331</td>
<td>PDT 1160-85</td>
<td>Silk Screen</td>
<td>Flexible Retroreflective Signs Only</td>
<td>-----</td>
</tr>
</tbody>
</table>
Section 1103: Traffic Signing and Marking

1103.04 Flat Sheet Signs (Post Mounted Types B, C and F; and Distance Markers)

All listed manufacturers are approved to make signs using prepared faces.

Signs shall be manufactured from aluminum sign blanks in accordance with Publication 236 and appropriate specs., unless otherwise indicated. Other Department approved substrates include, but are not limited to: plywood, fiberglass, steel, and plastic. Plywood substrate shall be indicated with a (P). Fiberglass substrate shall be indicated with a (F). Publication 236 "Handbook of Approved Signs"

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Sign Special Approvals</th>
<th>Sign Manufacturer Restrictions</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILLS 15</td>
<td>Miller Municipal Supply LLC, 1117 Snyder Road, West Lawn, PA 19609 [<a href="http://www.mmssigns.com/">http://www.mmssigns.com/</a>]</td>
<td>PDT 1180-85</td>
<td>Cut Out Characters and Silk Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUNSS 15</td>
<td>Municipal Signs &amp; Sales, 1219 Mccloskey Road, Columbiana, OH 44408</td>
<td>PDT 1130-84</td>
<td>Cut Out Characters and Silk Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NATSC 15</td>
<td>National Sign Company, Inc., P. O. Box 25, Ottawa, KS 66067</td>
<td>PDT 940-80</td>
<td>Cut Out Characters and Silk Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NEWMA 15</td>
<td>Newman Signs, Inc., Business Loop West, P. O. Box 1728, Jamestown, ND 58401 [<a href="http://www.newmansigns.com/">http://www.newmansigns.com/</a>]</td>
<td>PDT 930-80</td>
<td>Cut Out Characters and Silk Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NISSL 15</td>
<td>Andrew W. Nissly, Inc., 544 W. Mill Ave., P.O. Box 633, Lancaster, PA 17608</td>
<td>PDT 230-88</td>
<td>Cut Out Characters and Silk Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSBAI 15</td>
<td>Osburn Associates Inc., 11931 St Rt 93 N, P.O. Box 912, Logan, OH 43138 [<a href="http://www.osburns.com/">http://www.osburns.com/</a>]</td>
<td>PDT 1760-01</td>
<td>Cut Out Characters and Silk Screen</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 1103: Traffic Signing and Marking

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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Sign Special Approvals</th>
<th>Sign Manufacturer Restrictions</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PADER 15</td>
<td>Penn Nursery @ Wood Shop, DCNR Bureau Of Forestry, 137 Penn Nursery Road, Spring Mills, PA 16875 <a href="http://dcnr.state.pa.us/forestry/stateforests/pennnursery/index.htm">http://dcnr.state.pa.us/forestry/stateforests/pennnursery/index.htm</a></td>
<td>PDT 1150-85</td>
<td>Cut Out Characters and Silk Screen</td>
<td><a href="http://dcnr.state.pa.us/forestry/stateforests/pennnursery/index.htm">http://dcnr.state.pa.us/forestry/stateforests/pennnursery/index.htm</a></td>
<td>-----</td>
</tr>
<tr>
<td>POWEL 15</td>
<td>Powell Engineering Contractors Inc., P. O. Box 4100, Reading, PA 19606</td>
<td>PDT 1420-92</td>
<td>-----</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 1103: Traffic Signing and Marking

1103.04 Flat Sheet Signs (Post Mounted Types B, C and F; and Distance Markers)

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<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Sign Special Approvals</th>
<th>Sign Manufacturer Restrictions</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
<td>PDT 060-68</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>PSU-1 15</td>
<td>Penn State University, 101M Physical Plant, University Park, PA 16802</td>
<td>PDT 2160-19</td>
<td>Penn State Football Signs Only</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>RAELY 15</td>
<td>Rae-Lyn Enterprises, Inc., P.O. Box 50, Spring Church, PA 15686 <a href="http://www.raelynenterprises.com/">http://www.raelynenterprises.com/</a></td>
<td>PDT 1900-05</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>RAPGM 15</td>
<td>Gregory M. Rapp, 326 E. Broad St. Apt. 1R, Bethlehem, PA 18018</td>
<td>PDT 1970-08</td>
<td>Cut Out Characters</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>
### Section 1103: Traffic Signing and Marking

**1103.04 Flat Sheet Signs (Post Mounted Types B, C and F; and Distance Markers)**

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<th>Sign Special Approvals</th>
<th>Sign Manufacturer Restrictions</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>RPMSL 15</td>
<td>RPM Signs and Lighting, 631 South 17th Street, Harrisburg, PA 17104</td>
<td>PDT 2080-17</td>
<td>Cut Out Characters</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>RSTS1 15</td>
<td>RoadSafe Traffic Systems, 55 Bodwell Street, Avon, MA 02322</td>
<td>PDT 2090-17</td>
<td>Cut Out Characters, Silk Screen, Borders</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>S&amp;SS 15</td>
<td>S &amp; S Signs And Safety Equipment, Inc., P. O. Box 102, Big Flats, NY 14814 <a href="http://signssafety.com/">http://signssafety.com/</a></td>
<td>PDT 1530-95</td>
<td>Cut Out Characters and Silk Screen</td>
<td>Flexible Material, C-II and Non-Reflective</td>
<td>-----</td>
</tr>
<tr>
<td>SAFSG 15</td>
<td>Safety Sign Company, P. O. Box 360500, Cleveland, OH 44136 <a href="http://safetyssignco.com/">http://safetyssignco.com/</a></td>
<td>PDT 1060-82</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>SHANN 15</td>
<td>Shannon-Baum Signs, Inc., 105 Competitive Goals Drive, Eldersburg, MD 21784 <a href="http://www.shannonbaum.com/">http://www.shannonbaum.com/</a></td>
<td>PDT 950-80</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
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Section 1103: Traffic Signing and Marking

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<th>Sign Special Approvals</th>
<th>Sign Manufacturer Restrictions</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>SI&amp;BL 15</td>
<td>Signs &amp; Blanks, Inc., P.O. Box 2234, Cleveland, OH 44309-2234</td>
<td>PDT 1520-95</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>SIGUC 15</td>
<td>Sign-Up Corporation, P. O. Box 14624, Portland, OR 97293 <a href="http://signupcorp.com/moved.asp">http://signupcorp.com/moved.asp</a></td>
<td>PDT 1370-91</td>
<td>Silk Screen</td>
<td>Flexible Roll-up Type</td>
<td>-----</td>
</tr>
<tr>
<td>STRBK 15</td>
<td>Strongstown's B&amp;K Enterprises, Inc., 260 Route 403 South, P. O. Box 124, Strongstown, PA 15957</td>
<td>PDT 1040-82</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td>----</td>
</tr>
<tr>
<td>SULCO 15</td>
<td>Sullivan County COG, P.O. Box 239, Dushore, PA 18614 <a href="http://sullivancountycog.com/">http://sullivancountycog.com/</a></td>
<td>PDT 1980-08</td>
<td>Cut Out Characters</td>
<td>Street Name Signs D 3-1</td>
<td>-----</td>
</tr>
<tr>
<td>TCI-1 15</td>
<td>Traffic Control Industries, LLC, 805 W 5th Street, Unit 15, Lansdale, PA 19446</td>
<td>PDT 2140-18</td>
<td>Cut Out Characters</td>
<td>-----</td>
<td>----</td>
</tr>
</tbody>
</table>
Section 1103: Traffic Signing and Marking

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<th>Sign Manufacturer Restrictions</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRFSS 15</td>
<td>Traffic &amp; Safety Signs, Inc., 703 Terminal Way, Kennett Square, PA 19348</td>
<td>PDT 1230-86</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td>UNISO 15</td>
</tr>
<tr>
<td>TRREG 15</td>
<td>Traffic Regulators, LLC, 7 Regulators Lane, Suite 1, Avoca, PA 18641-1749</td>
<td>PDT 2070-16</td>
<td>Cut Out Characters</td>
<td>-----</td>
<td>USSSC 15</td>
</tr>
<tr>
<td>UNISO 15</td>
<td>UniqueSource, 500 Bent Creek Boulevard, Mechanicsburg, PA 17050-1876 <a href="https://www.uniquesource.com/">https://www.uniquesource.com/</a></td>
<td>PDT 1300-89</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>USMUS 15</td>
<td>U. S. Municipal Supply, Inc., P. O. Box 574, Huntingdon, PA 16652</td>
<td>PDT 210-68</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>
Section 1103: Traffic Signing and Marking

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<th>Name</th>
<th>COA</th>
<th>Sign Special Approvals</th>
<th>Sign Manufacturer Restrictions</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>VICSI 15</td>
<td>Victory Signs, 119 Fire Academy Road, Homer City, PA 15748</td>
<td>PDT 1950-07</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>VINGU 15</td>
<td>Vinyl Graphics Unlimited, 9912 Route 322, Shippenville, PA 16254</td>
<td>PDT 1700-00</td>
<td>Cut Out Characters</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>VITSI 15</td>
<td>Vital Signs, 1915 Park Manor Blvd., Pittsburgh, PA 15205</td>
<td>PDT 1960-07</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>VULSS 15</td>
<td>Vulcan Signs, 408 E. Berry Avenue, P. O. Box 1850, Foley, AL 36536-1850</td>
<td>PDT 570-73</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>WALSH 15</td>
<td>Stephenson Equipment, Inc., 796 Unionville Rd., Prospect, PA 16052</td>
<td>PDT 460-70</td>
<td>Cut Out Characters</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>WEIGL 15</td>
<td>H. A. Weigand, Inc., 1409 State Road, Phoenixville, PA 19460</td>
<td>PDT 740-76</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>WHELA 15</td>
<td>J.S. Whelan Co., Inc., 13810 Route 30, North Huntingdon, PA 15642</td>
<td>PDT 400-70</td>
<td>Cut Out Characters and Silk Screen</td>
<td>-----</td>
<td>-----</td>
</tr>
</tbody>
</table>
Section 1103: Traffic Signing and Marking

1103.04 Flat Sheet Signs (Post Mounted Types B, C and F; and Distance Markers)  
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Plywood substrate shall be indicated with a (P). Fiberglass substrate shall be indicated with a (F).  

Publication 236 "Handbook of Approved Signs"

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Sign Special Approvals</th>
<th>Sign Manufacturer Restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>WKZSS 15</td>
<td>Work Zone Safety Specialists Inc., 1764 Columbia Turnpike, Castleton, NY 12033</td>
<td>PDT 1740-01</td>
<td>Cut Out Characters</td>
<td>-----</td>
</tr>
</tbody>
</table>

1103.07(a) Steel S or W Beam Posts (For Post Mounted Signs, Type A)  
Mill Certification meeting the standard or contract specifications is required. No listings are required in Bulletin 15.

Steel Products Procurement Act Applies.

1103.07(b) Breakaway Systems (For Post Mounted Signs, Type A)  

Steel Products Procurement Act Applies.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

1103.08(a) Steel Channel Bar Posts (For Post Mounted Signs, Type B; and Distance Markers)  
Steel Products Procurement Act Applies.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Post Size</th>
<th>Posts Per 7' Path</th>
<th>Breakaway System</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIHS 15</td>
<td>Chicago Heights Steel, 211 E. Main Street, Chicago Heights, IL 60411 <a href="http://chs.com/">http://chs.com/</a></td>
<td>SP-4</td>
<td>4 lb/ft (5.94kg/m) or less</td>
<td>3</td>
<td>Bracer Bar System</td>
<td>-----</td>
</tr>
</tbody>
</table>
# BULLETIN 15 (Publication 35)
Qualified Products List for Construction

**Section 1103: Traffic Signing and Marking**

**1103.08(a) Steel Channel Bar Posts (For Post Mounted Signs, Type B; and Distance Markers)**

Steel Products Procurement Act Applies.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Post Size</th>
<th>Posts Per 7' Path</th>
<th>Breakaway System</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIHS 15</td>
<td>Chicago Heights Steel, 211 E. Main Street, Chicago Heights, IL 60411 <a href="http://chs.com/">http://chs.com/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td>SP-4</td>
<td>4 lb/ft (5.94kg/m) or less</td>
<td>2</td>
<td>Erect Ease</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td>SP-4</td>
<td>4 lb/ft (5.94kg/m) or less</td>
<td>3</td>
<td>Universal Spacer</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td>SP-4</td>
<td>1.12 lb/ft (1.66kg/m)</td>
<td></td>
<td>Multiple Sign Mounting Stringers</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>

| FRANK 15 | Franklin Industries, 645 Atlantic Ave., Franklin, PA 16323 [http://store.franklinindustriesco.com/](http://store.franklinindustriesco.com/) | | | | | |
| Steel Channel Bar Post (For Post Mount Sign, Type B) | SP-3 | 4 lb/ft (5.94kg/m) or less | 2 | EZE-Erect System | ----- |
| Steel Channel Bar Post (For Post Mount Sign, Type B) | SP-3 | 4 lb/ft (5.94kg/m) or less | 3 | Base Bolted System | ----- |
| Steel Channel Bar Post (For Post Mount Sign, Type B) | SP-3 | 1.12 lb/ft (1.66kg/m) | | Multiple Sign Mounting Stringers | ----- |

---

*Approved to manufacture steel channel bar posts from recycled train rail per Franklin Industries' Rail Identification & Traceability Procedure, Q113.003. In lieu of mill certifications, a Certificate of Conformance must be included with the 'Unidentified Steel' box checked on the CS-4171. [Franklin Industries' Certificate of Conformance](http://store.franklinindustriesco.com/)*
Section 1103: Traffic Signing and Marking

1103.08(a) Steel Channel Bar Posts (For Post Mounted Signs, Type B; and Distance Markers)

Steel Products Procurement Act Applies.

<table>
<thead>
<tr>
<th>Product</th>
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<th>Post Size</th>
<th>Posts Per 7' Path</th>
<th>Breakaway System</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUCR6 15</td>
<td>Nucor Steel Marion, Inc., 912 Cheney Ave., Marion, OH 43302 <a href="http://www.nucor.com/">http://www.nucor.com/</a></td>
<td>SP-1</td>
<td>1.12 lb/ft (1.66kg/m) or less</td>
<td>Multiple Sign Mounting Stringers</td>
<td></td>
</tr>
<tr>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td></td>
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</table>

1103.08(b) Steel Square Posts (For Post Mounted Signs, Type B; and Distance Markers)

Steel Products Procurement Act Applies. [Standard Drawing TC-8702B (Publication 111)]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Gauge</th>
<th>Size (in)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel Square Posts (For Post Mount Sign, Type B)</td>
<td></td>
<td>3/16&quot; (33 ksi)</td>
<td>3&quot;</td>
<td>1994-136B</td>
<td></td>
</tr>
</tbody>
</table>

Use 18" anchor stiffener sleeves with each Department-installed post system. No dual post approval.
### Section 1103: Traffic Signing and Marking

#### 1103.08(b) Steel Square Posts (For Post Mounted Signs, Type B; and Distance Markers)

Steel Products Procurement Act Applies. Standard Drawing TC-8702B (Publication 111)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Gauge</th>
<th>Size (in)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLTC 15 Allied Tube &amp; Conduit Corporation, 16100 South Lathrop Ave., Harvey, IL 60426 <a href="http://www.alliedeg.us/">http://www.alliedeg.us/</a></td>
<td>Steel Square Posts (For Post Mount Sign, Type B)</td>
<td>36&quot; Anchor Post</td>
<td>12 ga (60 ksi)</td>
<td>1.75&quot;, 2&quot;, 2.25&quot;</td>
<td>1994-136B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sign Posts</td>
<td>12 ga (33 ksi)</td>
<td>1.5&quot;, 1.75&quot;, 2&quot;, 2.25&quot;</td>
<td>1994-136A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sign Posts</td>
<td>10 ga (33 ksi)</td>
<td>2.5&quot;</td>
<td>1994-136A</td>
</tr>
<tr>
<td>STLSP 15 St. Louis Steel Products, Inc., 191 Rock Industrial Park Drive, St. Louis, MO 63044-1210</td>
<td>Steel Square Posts (For Post Mount Sign, Type B)</td>
<td>Sign Posts</td>
<td>14 ga (60 ksi)</td>
<td>1.5&quot;, 1.75&quot;, 2&quot;</td>
<td>1994-136A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anchor Post</td>
<td>SP-5</td>
<td>12 ga (50 ksi)</td>
<td>2&quot;, 2.25&quot;, 2.5&quot;</td>
</tr>
<tr>
<td>WESTH 15 Ultimate Highway Solutions, 11095 West Olive Road, Grand Haven, MI 49417 <a href="http://www.uhsolutions.net/">http://www.uhsolutions.net/</a></td>
<td>Steel Square Posts (For Post Mount Sign, Type B)</td>
<td>Anchor Post</td>
<td>SP-5</td>
<td>14 ga (60 ksi)</td>
<td>1.75&quot;, 2&quot;, 2.25&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sign Posts</td>
<td>SP-5</td>
<td>14 ga (60 ksi)</td>
<td>1.75&quot;, 2&quot;, 2.25&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sleeve</td>
<td>SP-5</td>
<td>12 ga (50 ksi)</td>
<td>2.25&quot;, 2.5&quot;</td>
</tr>
</tbody>
</table>

*Anchor sleeve is required only for concrete installation.*

#### 1103.09(a) Treated Wood Posts (For Post Mount Signs, Types C and E)

Last Revised: 9/29/2015

- Use 18" anchor stiffener sleeves with each Department-installed post system. No dual post approval.

- Anchor sleeve is required only for concrete installation.
Section 1103: Traffic Signing and Marking

1103.09(a) Treated Wood Posts (For Post Mount Signs, Types C and E)  
Last Revised: 9/29/2015

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMETS 15</td>
<td>American Timber and Steel Corp., 4832 Plank Road, P. O. Box 767, Norwalk, OH 44857-0767 <a href="http://www.americantimberandsteel.com/">http://www.americantimberandsteel.com/</a></td>
<td>Treated Wood Post (For Post Mount Sign, Type C and E)</td>
<td>1999-136Q</td>
</tr>
<tr>
<td>GRE-1 15</td>
<td>Great Southern Wood Preserving, P. O. Box 610, Abberville, AL 36310 <a href="http://greatsouthernwood.com/">http://greatsouthernwood.com/</a></td>
<td>Treated Wood Post (For Post Mount Sign, Type C and E)</td>
<td>2011-162Q</td>
</tr>
</tbody>
</table>
| WOOP 15 | Stella-Jones Corporation, 15839 Historyland Highway, P. O. Box 158, Warsaw, VA 22572 [http://www.woodpreservers.com/](http://www.woodpreservers.com/)  
Formerly McFarland Cascade Holdings, Inc. | Treated Wood Post (For Post Mount Sign, Type C and E) | 2009-127Q |

1103.12 Sign and Distance Marker Supports  
Last Revised: 1/5/2017

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
| Type A, Reflective Glass Bead  
Type C, Reflective Glass Bead | Visibeads | 1994-084 |

1103.14 Reflective Glass Beads (For Pavement Markings)  
Last Revised: 2/11/2016

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Bead Type</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Potters Industries, LLC, Customer Service Division, P.O. Box 841, Valley Forge, PA 19482-0840 | Type A, Reflective Glass Bead  
Type C, Reflective Glass Bead | Visibeads | 1994-084 |
Potters Industries, LLC, Customer Service Division, P.O. Box 841, Valley Forge, PA 19482-0840 | Type A, Reflective Glass Bead  
Type C, Reflective Glass Bead | Visibeads | 1994-084 |
### Section 1103: Traffic Signing and Marking

#### 1103.14 Reflective Glass Beads (For Pavement Markings)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Bead Type</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWAR0 15</td>
<td>Swarco Reflex LLC, 900 N. Denton, Mexia, TX 76667 <a href="https://www.swarco.com/northamerica">https://www.swarco.com/northamerica</a></td>
<td>Type B, Reflective Glass Bead Megalux</td>
<td>2005-016Q</td>
<td></td>
</tr>
<tr>
<td>SWAR1 15</td>
<td>Swarco Industries LLC, 270 Rutherford Lane, P.O. Box 89, Columbia, TN 38402 <a href="https://www.swarco.com/northamerica">https://www.swarco.com/northamerica</a></td>
<td>Type A, Reflective Glass Bead</td>
<td>2004-110Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type B, Reflective Glass Bead Megalux</td>
<td>GB-01</td>
<td>Type B</td>
<td>2005-016Q</td>
</tr>
<tr>
<td></td>
<td>Type E, Reflective Glass Bead Utah Blend</td>
<td>GB-01</td>
<td>2012-185Q</td>
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</tr>
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</table>
## Section 1104: Traffic Signals

### 1104.02 Traffic Signal Supports (Steel)

Steel Products Procurement Act applies. **Publication 148 Traffic Standards - Signals (TC-8800 Series)**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<th>Ref. No.</th>
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<tbody>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
<td>Traffic Signal Support Fabricator</td>
<td>2016-244</td>
</tr>
<tr>
<td>UMIC 15</td>
<td>Union Metal Industries Corporation, 1432 Maple Avenue NE Canton, Ohio 44705, Canton, OH 44705</td>
<td>Traffic Signal Support Fabricator</td>
<td>2018-177Q</td>
</tr>
<tr>
<td>VALM 15</td>
<td>Valmont Industries, Inc., 7002 N 288th Street, Valley, NE 68064</td>
<td>Traffic Signal Support Fabricator</td>
<td>----</td>
</tr>
<tr>
<td>VALM 5</td>
<td>Valmont Industries, Inc., 2551 Valmont Drive, Brenham, TX 77833</td>
<td>Traffic Signal Support Fabricator</td>
<td>----</td>
</tr>
</tbody>
</table>

### 1104.02(e) Traffic Signal Anchor Bolts, Hex Nuts, and Washers

Refer to **Hardware Manufacturing Symbols**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>AMBBO 15</td>
<td>Ameribolt, Inc., 18060 AL Highway 21, Sycamore, AL 35149</td>
<td>Anchor Bolts</td>
<td>2012-150QA</td>
</tr>
<tr>
<td>ATLRC 15</td>
<td>Atlanta Rod and Manufacturing Company, Inc., 144 Schokbeton Street, Lavonia, GA 30553</td>
<td>Anchor Bolts</td>
<td>2011-088Q</td>
</tr>
<tr>
<td>BBC-F 15</td>
<td>BBC Fasteners, Inc., 4210 Shirley Lane, Alsip, IL 60803</td>
<td>Anchor Bolts, Hex Nuts and Washers</td>
<td>1989-238</td>
</tr>
<tr>
<td>BIRFM 15</td>
<td>Birmingham Fastener Manufacturing, 931 Avenue W, P.O. Box 10323, Birmingham, AL 35234</td>
<td>Galvanized Anchor Bolts</td>
<td>2015-033Q</td>
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</tbody>
</table>
Section 1104: Traffic Signals

1104.02(e) Traffic Signal Anchor Bolts, Hex Nuts, and Washers

Refer to Hardware Manufacturing Symbols

<table>
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<th>Product</th>
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<tbody>
<tr>
<td>GAFBC 15</td>
<td>Gaffney Bolt Company, Inc., 6100 Material Avenue, Rockford, IL 61111 [<a href="http://gaffneybolt.com/">http://gaffneybolt.com/</a>]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PORBM 15</td>
<td>Portland Bolt and Manufacturing, Inc., 3441 NW Guam Street, P.O. Box 2866, Portland, OR 97210 [<a href="http://www.portlandbolt.com/">http://www.portlandbolt.com/</a>]</td>
<td>A-449</td>
<td>2008-112Q</td>
</tr>
<tr>
<td>STCBS 15</td>
<td>Steel City Bolt and Screw, LLC, 230 West Valley Road, Birmingham, AL 35201 [<a href="http://www.steelfcitybolt.com/">http://www.steelfcitybolt.com/</a>]</td>
<td>A-449</td>
<td>1990-037</td>
</tr>
<tr>
<td>UNIQU 15</td>
<td>Unique Industries, P.O. Box 683, 13488 Highway 25 North, Calera, AL 35040 [<a href="http://www.uiind.com/">http://www.uiind.com/</a>]</td>
<td>A-449</td>
<td>1990-145</td>
</tr>
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1104.03(a)4 Traffic Signal Flashers

Last Revised: 6/10/2015
### Section 1104: Traffic Signals

#### 1104.03(a)4 Traffic Signal Flashers

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBERL 15</td>
<td>Eberle Design Inc., 3819 East Lasalle, Phoenix, AZ 85040</td>
<td>EBD-001S</td>
<td>10/6/1987</td>
</tr>
<tr>
<td>ELECT 15</td>
<td>Electrotechnics Corporation, 1310 Commerce Street, Marshall, TX 75672</td>
<td>ECH-026P</td>
<td>2/17/2012</td>
</tr>
<tr>
<td>PDC- 15</td>
<td>PDC, 210 Estates Drive, Suite 110, Roseville, CA 95678</td>
<td>PDC-005S</td>
<td>1/9/1989</td>
</tr>
<tr>
<td>TRAPA 15</td>
<td>Traffic Parts, Inc., P. O. Box 837, Spring, TX 77383</td>
<td>TPI-005P</td>
<td>11/23/2010</td>
</tr>
<tr>
<td>Facility</td>
<td>Chapel Hill Manufacturing 27895 Robinson Road Conroe, TX 77385</td>
<td></td>
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#### 1104.03(b)1 Traffic Signal Controller Assembly: NEMA TS-1

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0 15</td>
<td>Econolite Control Products, 1250 N. Tustin Avenue, Anaheim, CA 92807</td>
<td>ECO-117P</td>
<td>10/21/2009</td>
</tr>
<tr>
<td>ECON0 15</td>
<td>Econolite Control Products, 1250 N. Tustin Avenue, Anaheim, CA 92807</td>
<td>ECO-116P</td>
<td>5/19/2006</td>
</tr>
</tbody>
</table>
Section 1104: Traffic Signals

1104.03(b)1 Traffic Signal Controller Assembly: NEMA TS-1

<table>
<thead>
<tr>
<th>Product</th>
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<th>COA Date</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller X-1</td>
<td>INT-004P</td>
<td>9/24/2013</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller X-1L</td>
<td>INT-003P</td>
<td>9/24/2013</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller X-2</td>
<td>INT-005P</td>
<td>9/24/2013</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller 980</td>
<td>TFW-003P (NAZ-011P)</td>
<td>4/13/2016</td>
<td>-</td>
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<tr>
<td></td>
<td>NEMA TS-1 Signal Controller 3000 E Series</td>
<td>PTS-022P</td>
<td>3/21/1994</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller LMD-9200 Series</td>
<td>PTS-040P</td>
<td>5/15/1995</td>
<td>-</td>
</tr>
<tr>
<td>SIEME 15</td>
<td>Siemens ITS, 8004 Cameron Road, Austin, TX 78754-3899 <a href="http://www.usa.siemens.com/entry/en/">http://www.usa.siemens.com/entry/en/</a></td>
<td>SIEME 15</td>
<td>1/9/1989</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller Eagle EPA C300 Series</td>
<td>SMS-211S</td>
<td>1/9/1989</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller Eagle EPAC 3108 M40</td>
<td>SMS-001P</td>
<td>9/27/2004</td>
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</tr>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller Eagle EPAC 3608 M40</td>
<td>SMS-002P</td>
<td>9/27/2004</td>
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<tr>
<td></td>
<td>NEMA TS-1 Signal Controller Eagle EPAC M50</td>
<td>SMS-208P</td>
<td>1/3/2003</td>
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<td>NEMA TS-1 Signal Controller Eagle MARC 360</td>
<td>SMS-210P</td>
<td>8/1/1985</td>
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<td>NEMA TS-1 Signal Controller Eagle MARC 390 M34</td>
<td>SMS-208P</td>
<td>6/4/2003</td>
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<tr>
<td>ÜSTRA 15</td>
<td>U. S. Traffic Corporation, 2906 Corporate Way, Palmetto, FL 34221</td>
<td>ÜSTRA 15</td>
<td>10/6/1987</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller 820A</td>
<td>ÜST-137S</td>
<td>10/6/1987</td>
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1104.03(b)1 Traffic Signal Controller Assembly: NEMA TS-2

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>USTRA 15</td>
<td>U. S. Traffic Corporation, 2906 Corporate Way, Palmetto, FL 34221</td>
<td>ÜSTRA 15</td>
<td>10/6/1987</td>
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</table>
# Section 1104: Traffic Signals

## 1104.03(b)1 Traffic Signal Controller Assembly: NEMA TS-2

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Controller Type</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0 15 Econolite Control Products, 1250 N. Tustin Avenue, Anaheim, CA 92807 <a href="http://www.econolite.com/">http://www.econolite.com/</a></td>
<td>NEMA TS-2 Signal Controller ASC/2S-1000</td>
<td>Type 1</td>
<td>ECO-118P</td>
<td>10/21/2009</td>
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<tr>
<td></td>
<td>NEMA TS-2 Signal Controller ASC/3 Rack Mounted</td>
<td>Types 1 and 2</td>
<td>ECO-117P</td>
<td>10/21/2009</td>
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<tr>
<td></td>
<td>NEMA TS-2 Signal Controller ASC/3-1000</td>
<td>Type 1</td>
<td>ECO-115P</td>
<td>5/19/2006</td>
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<tr>
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<td>NEMA TS-2 Signal Controller ASC/3-2100</td>
<td>Types 1 and 2</td>
<td>ECO-116P</td>
<td>5/19/2006</td>
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</tr>
<tr>
<td></td>
<td>NEMA TS-2 Signal Controller Cobalt</td>
<td>Types 1 and 2</td>
<td>ECO-127P</td>
<td>4/15/2015</td>
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<tr>
<td></td>
<td>NEMA TS-2 Signal Controller Cobalt C</td>
<td>Types 1 and 2</td>
<td>ECO-128P</td>
<td>10/3/2017</td>
<td>2016-229Q</td>
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<td>NEMA TS-2 Signal Controller Rackmount C</td>
<td>Types 1 and 2</td>
<td>ECO-129P</td>
<td>10/3/2017</td>
<td>2016-230</td>
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<tr>
<td></td>
<td>NEMA TS-2 Signal Controller 2070LC</td>
<td>Types 1 and 2</td>
<td>INT-012P</td>
<td>7/7/2017</td>
<td>2016-259</td>
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<td>NEMA TS-2 Signal Controller ATC TS2</td>
<td>Types 1 and 2</td>
<td>INT-001P</td>
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<td>NEMA TS-2 Signal Controller ATC TS2</td>
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<td>INT-002P</td>
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<tr>
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<td>NEMA TS-2 Signal Controller X-1</td>
<td>Types 1 and 2</td>
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<td>NEMA TS-2 Signal Controller X-1L</td>
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<td>INT-005P</td>
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<tr>
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<td>NEMA TS-2 Signal Controller X3C</td>
<td>Types 1 and 2</td>
<td>INT-009P</td>
<td>7/7/2017</td>
<td>2016-262</td>
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<td>NEMA TS-2 Signal Controller X3L</td>
<td>Types 1 and 2</td>
<td>INT-010P</td>
<td>7/7/2017</td>
<td>2016-261</td>
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<td>NEMA TS-2 Signal Controller X3LT</td>
<td>Types 1 and 2</td>
<td>INT-011P</td>
<td>7/7/2017</td>
<td>2016-222</td>
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<td>NEMA TS-2 Signal Controller 980 ATC</td>
<td>Types 1 and 2</td>
<td>TFW-011P</td>
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<td>NEMA TS-2 Signal Controller 981</td>
<td>Types 1 and 2</td>
<td>TFW-004P (NAZ-01)</td>
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<td>NEMA TS-2 Signal Controller ATC Controller</td>
<td>Types 1 and 2</td>
<td>TFW-013P</td>
<td>8/14/2018</td>
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</table>
## Section 1104: Traffic Signals

### 1104.03(b)1 Traffic Signal Controller Assembly: NEMA TS-2

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Controller Type</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Pek 15</td>
<td>Peek Traffic Corporation, 2906 Corporate Way, Palmetto, FL 34221</td>
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<tr>
<td>NEMA TS-2 Signal Controller</td>
<td>3000 E Series</td>
<td>Types 1 and 2</td>
<td>PTS-022P</td>
<td>3/21/1994</td>
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<tr>
<td>NEMA TS-2 Signal Controller</td>
<td>ATC-1000</td>
<td>Type 2</td>
<td>PTS-042P</td>
<td>7/11/2011</td>
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<tr>
<td>NEMA TS-2 Signal Controller</td>
<td>LMD-9200 Series</td>
<td>Type 2</td>
<td>PTS-040P</td>
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<tr>
<td>Siemens ITS, 8004 Cameron Road, Austin, TX 78754-3899</td>
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<tr>
<td>NEMA TS-2 Signal Controller</td>
<td>Eagle EPA C300 Series</td>
<td>Types 1 and 2</td>
<td>SMS-211S</td>
<td>1/9/1989</td>
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<td>NEMA TS-2 Signal Controller</td>
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<td>SMS-207P</td>
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<td>NEMA TS-2 Signal Controller</td>
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<td>SMS-208P</td>
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<td>NEMA TS-2 Signal Controller</td>
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### 1104.03(b)2 Traffic Signal Controller Assembly: Type 170E

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<tr>
<td>Dynamic Traffic Systems, Inc., 5050 Cohasset Road, Bldg. #4, Chico, CA 95973</td>
<td>Type 170E Signal Controller</td>
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<td>DTS-001P</td>
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<tr>
<td>McCain Inc., 2365 Oak Ridge Way, Vista, CA 92081</td>
<td>Type 170E Signal Controller</td>
<td>170E</td>
<td>MCC-013S</td>
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<td>Safetran Traffic Systems, 1485 Garden Of The God's Road, Colorado Springs, CO 80904</td>
<td>Type 170E Signal Controller</td>
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### 1104.03(c)5 Traffic Signal Time Clock

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Last Revised: 9/4/2018, 6/10/2015, 7/2/2019
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1104.03(c)5 Traffic Signal Time Clock

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1104.04 Traffic Signal Systems and Communications

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Section 1104: Traffic Signals

### 1104.04 Traffic Signal Systems and Communications

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### 1104.05(c) Junction Boxes, Traffic Signal

See [Standard Drawing TC-8804 - Electrical Distribution (Publication 148)](http://www.usa.siemens.com/entry/en/)

Also, see Section 605.2(a) for Steel or Cast Iron Junction Boxes and Section 714.2 for Precast Concrete Junction Boxes that may be used for this Section.

<table>
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<th>Product</th>
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Section 1104: Traffic Signals

1104.05(c) Junction Boxes, Traffic Signal

See **Standard Drawing TC-8804 - Electrical Distribution (Publication 148)**

Also, see Section 605.2(a) for Steel or Cast Iron Junction Boxes and Section 714.2 for Precast Concrete Junction Boxes that may be used for this Section.

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<tr>
<td>CDRSC 15</td>
<td>CDR Systems Corporation, 146 South Atlantic Ave., Ormond Beach, FL 32176</td>
<td>JB-26, Reinforced Plastic Mortar</td>
<td>SA13-1212-12</td>
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<td>HIL-0 15</td>
<td>Highline Products, 131 Hartwell Ave., Lexington, MA 02421</td>
<td>JB-26, Reinforced Plastic Mortar</td>
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<td>JB-27, Reinforced Plastic Mortar</td>
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<td>JB-27, Reinforced Plastic Mortar</td>
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<td>JB-27, Reinforced Plastic Mortar</td>
<td>132418PC T8</td>
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<td>NEWBA 15</td>
<td>Newbasis, 2626 Kansas Avenue, Riverside, CA 92507</td>
<td>JB-26, Reinforced Plastic Mortar</td>
<td>PCA 121212-10006</td>
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<td>OLES1 15</td>
<td>Oldcastle Enclosure Solutions, 801 South Pine Street, Madera, CA 96367</td>
<td>JB-27, Reinforced Plastic Mortar</td>
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Section 1104: Traffic Signals

1104.05(c) Junction Boxes, Traffic Signal

See Standard Drawing TC-8804 - Electrical Distribution (Publication 148)

Also, see Section 605.2(a) for Steel or Cast Iron Junction Boxes and Section 714.2 for Precast Concrete Junction Boxes that may be used for this Section.

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1104.06(a) Vehicular Signal Head Housings

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<td>BRTPI 15 Brown Traffic Products, Inc.</td>
<td>SIG 10X A</td>
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<td>BTP-005P</td>
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<td>SIG 10X A</td>
<td>BTP-005P</td>
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<td>8-inch Aluminum Housing</td>
<td>SIG 1X0 A</td>
<td>BTP-006P</td>
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<td>BTP-004P</td>
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<td>CHMAI 15 C H Manufacturing Inc.</td>
<td>SIG-TAY-305-TTP-EVN-00</td>
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## Section 1104: Traffic Signals

### 1104.06(a) Vehicular Signal Head Housings

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<td>ECO-104S</td>
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<td>GTE-004P</td>
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### Section 1104: Traffic Signals

#### 1104.06(a) Vehicular Signal Head Housings

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<td>U. S. Traffic Corporation, 2906 Corporate Way, Palmetto, FL 34221</td>
<td>12-inch Aluminum Housing</td>
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#### 1104.06(b) LED Circular Vehicle Traffic Signal Modules

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<td>433-3270-901XL</td>
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<td>433-2120-001XL</td>
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## Section 1104: Traffic Signals

### 1104.06(b) LED Circular Vehicle Traffic Signal Modules

Last Revised: 8/4/2017

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## Section 1104: Traffic Signals

### 1104.06(b) LED Circular Vehicle Traffic Signal Modules

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<td>DR6-GCFB-17A</td>
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<td>GEL-046P</td>
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<td>12-inch Red, LED Module</td>
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Section 1104: Traffic Signals

1104.06(b) LED Circular Vehicle Traffic Signal Modules

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## Section 1104: Traffic Signals

### 1104.06(b) LED Circular Vehicle Traffic Signal Modules

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### Section 1104: Traffic Signals

**1104.06(b) LED Circular Vehicle Traffic Signal Modules**

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# Section 1104: Traffic Signals

## 1104.06(b) LED Vehicle Arrow Traffic Signal Modules

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#### 1104.06(b) LED Vehicle Arrow Traffic Signal Modules

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<td>GE Lighting Solutions, 2713 N.E. 14th Street, Fort Lauderdale, FL 33304 <a href="http://www.gelighting.com/">http://www.gelighting.com/</a></td>
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| **LEOEC 15** | Leotek Electronics USA, LLC, 1955 Lundy Avenue, San Jose, CA 95131 [http://www.leotek.com/](http://www.leotek.com/) | | | |
| 12-inch Green Arrow, LED Module | TSL-12GA- IL6-A1 | LEO-102P | 1/4/2012 | ----- |
| 12-inch Red Arrow, LED Module | TSL-12RA- IL6-A1 | LEO-098P | 1/4/2012 | ----- |
| 12-inch Yellow Arrow, LED Module | TSL-12YA-IL6-A1 | LEO-100P | 1/4/2012 | ----- |
| 12-inch Yellow Arrow, LED Module | TSL-12YA-IL6-A1-CLR | LEO-101P | 1/4/2012 | ----- |
| 12-inch Yellow Arrow, LED Module | TSL-12YA-LD-A1 | LEO-063P | 4/22/2009 | ----- |
| 12-inch Yellow Arrow, LED Module | TSL-12YA-LD-A1-CLR | LEO-071P | 2/17/2010 | ----- |
# Bulletin 15

**Qualified Products List for Construction**

**Section 1104: Traffic Signals**

## 1104.06(b) LED Vehicle Arrow Traffic Signal Modules

Last Revised: 8/11/2017

<table>
<thead>
<tr>
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<tr>
<td>TRAST 15</td>
<td>TraStar, Inc., 860 N. Dorothy Dr. Suite 600, Richardson, TX 75081 <a href="http://www.trastarusa.com/">http://www.trastarusa.com/</a></td>
<td>TRA-028P</td>
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## 1104.06(c) LED Optically Programmed Signal Heads

Last Revised: 6/10/2015

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<td>GELUM 15</td>
<td>GE Lighting Solutions, 2713 N.E. 14th Street, Fort Lauderdale, FL 33304 <a href="http://www.gelighting.com/">http://www.gelighting.com/</a></td>
<td>GEL-020P</td>
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<td>Leotek Electronics USA, LLC, 1955 Lundy Avenue, San Jose, CA 95131 <a href="http://www.leotek.com/">http://www.leotek.com/</a></td>
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## 1104.06(d) Pedestrian Signal Housings

Last Revised: 5/9/2019

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### Section 1104: Traffic Signals

#### 1104.06(d) Pedestrian Signal Housings

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<td>C H Manufacturing Inc., 200 Elder Road, Conroe, TX 77385</td>
<td>Pedestrian Signal Housing SIG-PAY-315-TCG-EVN-00</td>
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**Section 1104: Traffic Signals**

### 1104.06(d) Pedestrian Signal Housings

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| Facility | | Pedestrian Signal Housing 7057 | 12 x 12 | UST-186S | 5/26/1982 |
|         | | Pedestrian Signal Housing 7090 | 12 x 12 | UST-187S | 5/26/1982 |

### 1104.06(e) LED Pedestrian Signal Modules

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|          | | Pedestrian Signal, LED Module, Upraised Hand PS6-PFH1-26A | 16 x 18 | GEL-029P | 1/4/2008 |
|          | | Pedestrian Signal, LED Module, Walking Person PS6-WFM3-26A | 16 x 18 | GEL-029P | 1/4/2008 |
# Section 1104: Traffic Signals

## 1104.06(e) LED Pedestrian Signal Modules

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<td>TSL-PED-16-DIL</td>
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## 1104.06(f) LED Countdown Pedestrian Signal Modules

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Section 1104: Traffic Signals

1104.06(f) LED Countdown Pedestrian Signal Modules

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<td>GELUM 15</td>
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1104.06(g) LED Lane Use Traffic Control Signal Heads

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<tr>
<td>ORANG 15</td>
<td>Orange Traffic, 18195 Rue J A Bombardier, Mirabel, Quebec J7J 0E7 [<a href="https://www.orangetraffic.com/">https://www.orangetraffic.com/</a>]</td>
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#### 1104.06(g) LED Lane Use Traffic Control Signal Heads

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#### 1104.07(a)1 Loop Detector Sealants

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<td>RAI Products, P.O. Box 240772, Charlotte, NC 28224 <a href="http://raiproducts.com/">http://raiproducts.com/</a></td>
<td>Loop Detector Sealant</td>
<td>Pro-Seal 6006</td>
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## Section 1104: Traffic Signals

### 1104.07(b)1 Vehicular Detection: Loop Amplifier Systems

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### Section 1104: Traffic Signals

#### 1104.07(b)1 Vehicular Detection: Loop Amplifier Systems

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## Section 1104: Traffic Signals

### 1104.07(b)1 Vehicular Detection: Loop Amplifier Systems

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### 1104.07(b)2 Vehicular Detection: Video Detection Systems

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### Section 1104: Traffic Signals

#### 1104.07(b)2 Vehicular Detection: Video Detection Systems

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<td>Econolite Control Products, 1250 N. Tustin Avenue, Anaheim, CA 92807 <a href="http://www.econolite.com/">http://www.econolite.com/</a></td>
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<td>2140 Redbud Boulevard</td>
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1104.07(b)2 Vehicular Detection: Video Detection Systems

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1104.07(b)3 Vehicular Detection: Microwave Radar Detection Systems

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### 1104.07(b)3 Vehicular Detection: Microwave Radar Detection Systems

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<td>SMART 15</td>
<td>Smart Microwave Sensors, 3921 Coachman Circle, Mississauga ON, L5M 6R1 Canada</td>
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#### 1104.07(c)1 Pedestrian Detection: Pedestrian Pushbuttons

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#### 1104.07(c)1 Pedestrian Detection: Pedestrian Pushbuttons

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#### 1104.07(c)2 Pedestrian Detection: Accessible Pedestrian Signals (APS)

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#### 1104.07(c)2 Pedestrian Detection: Accessible Pedestrian Signals (APS)

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#### 1104.07(d) LED Preemption Confirmation Lights

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<td>LEOEC 15</td>
<td>Leotek Electronics USA, LLC, 1955 Lundy Avenue, San Jose, CA 95131 <a href="http://www.leotek.com/">http://www.leotek.com/</a></td>
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<td>8-inch White, LED Module</td>
<td>TP08B-WS</td>
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#### 1104.07(d) Traffic Signal Preemption Systems

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<td>EMTRAC (STC, Inc.), 1201 West Randolph Street, McLeansboro, IL 62859 <a href="https://www.emtracsystems.com/">https://www.emtracsystems.com/</a></td>
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1104.07(d) Traffic Signal Preemption Systems

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<td>TOMEI 15</td>
<td>Tomar Electronics, Inc., 2100 West Obispo Ave., Gilbert, AZ 85233</td>
<td>Strobecom I</td>
<td>TEL-002S</td>
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<td>TRASY 15</td>
<td>Traffic Systems LLC, 15207 North 75th St., Scottsdale, AZ 85259-2638</td>
<td>SONEM 2000</td>
<td>TSL-001S</td>
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<td>WAPEN 15</td>
<td>Wapiti Engineering, LLC, 4565 Glenbrook Rd., Willoughby, OH 44094</td>
<td>Right O’ Way (ROW-2)</td>
<td>WAP-001S</td>
<td>4/30/2008</td>
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</table>
Section 1105: Fabricated Structural Steel and Aluminum
Steel Products Procurement Act applies.

1105 Fabricated Structural Steel: Fabricators and Machine Shops
Any manufacturer approved by the American Institute of Steel Construction (AISC) and PennDOT will be qualified for steel fabrication as specified in this Section. For listing of approved fabricators, see Bulletin 15 Section, "AISC - Department Register of Certified Structural Steel Fabricators (AISC)".

For a listing of approved Machine Shops that provide services and materials to structural steel fabricators, see Bulletin 15 Section, "MACH - PennDOT Register of Certified Machine Shops".

1105.02(a) Structural Steel
For Producers of Fabricated Structural Steel, PennDOT accepts material supplied from any Steel Mill as long as the material complies with the requirements of Publication 408, Section 106, "Control of Material".

1105.02(c)1 Bolts, Nuts and Washers for General Application
Several ASTM A307 Bolt and Nut manufacturers also are listed in Section 1109 "Guide Rail and Metal Median Barrier".

See Hardware Manufacturing Symbols

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Company Name</th>
<th>Address</th>
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<td>AUTBN 15</td>
<td>Auto Bolt Company, 4740 Manufacturing Avenue, Cleveland, OH 44135</td>
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<td>BIRFM 15</td>
<td>Birmingham Fastener Manufacturing, 931 Avenue W, P.O. Box 10323, Birmingham, AL 35234</td>
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</table>
Section 1105: Fabricated Structural Steel and Aluminum

1105.02(c)1 Bolts, Nuts and Washers for General Application

Several ASTM A307 Bolt and Nut manufacturers also are listed in Section 1109 "Guide Rail and Metal Median Barrier".

See Hardware Manufacturing Symbols

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<tr>
<th>Product</th>
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<tr>
<td>MNP-C 15</td>
<td>MNP Corporation, 44225 Utica Road, Utica, MI 48318</td>
<td><a href="http://www.mnp.com/">http://www.mnp.com/</a></td>
</tr>
<tr>
<td>NUCR0 15</td>
<td>Nucor Fastner, 6730 County Rd. 60, St. Joe, IN 46785</td>
<td><a href="http://nucor-fastener.com/">http://nucor-fastener.com/</a></td>
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<td>PORBM 15</td>
<td>Portland Bolt and Manufacturing, Inc., 3441 NW Guam Street, P.O. Box 2866, Portland, OR 97210</td>
<td><a href="http://www.portlandbolt.com/">http://www.portlandbolt.com/</a></td>
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<tr>
<td>ROCBC 15</td>
<td>Rockford Bolt and Steel Company, 126 Mill Street, Rockford, IL 61101</td>
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<tr>
<td>SOEBS 15</td>
<td>Southeastern Bolt and Screw, Inc., 1037 16th Avenue West, Birmingham, AL 35204</td>
<td><a href="http://www.sebolt.com/index.html">http://www.sebolt.com/index.html</a></td>
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<td>STLSB 15</td>
<td>St. Louis Screw &amp; Bolt, P.O. Box 260, 2000 Access Blvd., Madison, IL 62060</td>
<td><a href="http://www.stlouisscrewbolt.com/">http://www.stlouisscrewbolt.com/</a></td>
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<tr>
<td>TELFI 15</td>
<td>Telefast Industries, Inc., 777 West Bagley Road, Berea, OH 44017</td>
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Section 1105: Fabricated Structural Steel and Aluminum

1105.02(c)2 Anchor Bolts (AASHTO M270), Nuts, and Washers

For Anchoring Adhesives and Mechanical Anchors, see Miscellaneous Section, "Anchoring Devices for Use in Vertical Positions Only".

See Hardware Manufacturing Symbols

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<tr>
<th>Product</th>
<th>Name</th>
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<td>BIRFM 15</td>
<td>Birmingham Fastener Manufacturing, 931 Avenue W, P.O. Box 10323, Birmingham, AL 35234</td>
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<td>PABOL 15</td>
<td>Pennsylvania Bolt Corporation, P.O. Box 256, Manatawny Road, Pine Forge, PA 19548-0256</td>
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</table>
Section 1105: Fabricated Structural Steel and Aluminum

1105.02(c)2 Anchor Bolts (AASHTO M270), Nuts, and Washers
For Anchoring Adhesives and Mechanical Anchors, see Miscellaneous Section, "Anchoring Devices for Use in Vertical Positions Only".

See Hardware Manufacturing Symbols

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<tr>
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<tr>
<td>Washers (ASTM F436)</td>
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<td>Anchor Bolt (AASHTO M270, Grade 36)</td>
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1105.02(c)3 Anchor Bolts (ASTM F1554), Nuts, and Washers
For Anchoring Adhesives and Mechanical Anchors, see Miscellaneous Section, "Anchoring Devices for Use in Vertical Positions Only".

See Hardware Manufacturing Symbols

<table>
<thead>
<tr>
<th>Product</th>
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<tr>
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<td>Anchor Bolt (ASTM F1554, Grade 36)</td>
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<td>Anchor Bolt (ASTM F1554, Grade 55)</td>
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<td>Anchor Bolt (ASTM F1554, Grade 105)</td>
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<tr>
<td>Anchor Bolt (ASTM F1554, Grade 36)</td>
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<td>Anchor Bolt (ASTM F1554, Grade 55)</td>
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<tr>
<td>Nut (ASTM A563)</td>
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<td>Anchor Bolt (ASTM F1554, Grade 105)</td>
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<td>Anchor Bolt (ASTM F1554, Grade 55)</td>
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Section 1105: Fabricated Structural Steel and Aluminum

1105.02(c)3 Anchor Bolts (ASTM F1554), Nuts, and Washers

For Anchoring Adhesives and Mechanical Anchors, see Miscellaneous Section, "Anchoring Devices for Use in Vertical Positions Only".

See Hardware Manufacturing Symbols

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<td>Anchor Bolt (ASTM F1554, Grade 105)</td>
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<td>Nut (ASTM A563)</td>
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<td>EASCT 15 East Coast Threading Company, 1520 Manatawny Road, P.O. Box 347, Pine Forge, PA 19548 <a href="http://eastcoastthreading.com/">http://eastcoastthreading.com/</a></td>
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Section 1105: Fabricated Structural Steel and Aluminum

1105.02(c)3 Anchor Bolts (ASTM F1554), Nuts, and Washers

For Anchoring Adhesives and Mechanical Anchors, see Miscellaneous Section, "Anchoring Devices for Use in Vertical Positions Only".

See Hardware Manufacturing Symbols

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<th>Product Name</th>
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<td>Foundation Systems and Anchors, Inc., 2300 Allen Avenue, SE, Canton, OH 44707 <a href="http://fsabolt.com/">http://fsabolt.com/</a></td>
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<td>Nut (ASTM A563)</td>
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<td>HALL2 15</td>
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<td>Hall 15</td>
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<td>HERBC 15</td>
<td>Hercules Bolt Company, 1010 River Bluff Drive, Madison, TN 37115 <a href="http://herculesbolt.com/">http://herculesbolt.com/</a></td>
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<td>PORBM 15</td>
<td>Portland Bolt and Manufacturing, Inc., 3441 NW Guam Street, P.O. Box 2866, Portland, OR 97210 <a href="http://www.portlandbolt.com/">http://www.portlandbolt.com/</a></td>
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Section 1105: Fabricated Structural Steel and Aluminum

1105.02(c)3 Anchor Bolts (ASTM F1554), Nuts, and Washers

For Anchoring Adhesives and Mechanical Anchors, see Miscellaneous Section, "Anchoring Devices for Use in Vertical Positions Only".

See Hardware Manufacturing Symbols

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<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>STCBS 15</td>
<td>Steel City Bolt and Screw, LLC, 230 West Valley Road, Birmingham, AL 35201 <a href="http://www.steelcitybolt.com/">http://www.steelcitybolt.com/</a></td>
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<tr>
<td>TFI-1 15</td>
<td>Threaded Fasteners, Inc., 3200 Crichton Street, Mobile, AL 36607</td>
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<td>TRISB 15</td>
<td>Tristate Bolt Company, 1110 Fuller Drive, Garrett, IN 46738 <a href="http://www.tristateboltinc.com/">http://www.tristateboltinc.com/</a></td>
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</table>
### Section 1105: Fabricated Structural Steel and Aluminum

#### 1105.02(c)3 Anchor Bolts (ASTM F1554), Nuts, and Washers

For Anchoring Adhesives and Mechanical Anchors, see Miscellaneous Section, "Anchoring Devices for Use in Vertical Positions Only".

See [Hardware Manufacturing Symbols](#).

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#### 1105.02(d) High Strength Bolt Assemblies

See [Hardware Manufacturing Symbols](#).

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<th>Name</th>
<th>Ref. No.</th>
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<tr>
<td>ALPHA 15</td>
<td>Washer (ASTM F436)</td>
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<td>AMBBO 15</td>
<td>Nut, Galvanized (ASTM A563)</td>
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<td>ATLRC 15</td>
<td>Nut, Non-Galvanized (plain), (ASTM A194)</td>
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<td>BBC-F 15</td>
<td>High Strength Bolt (ASTM A490, Type 3)</td>
<td>1996-171</td>
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<td>BIRFM 15</td>
<td>High Strength Bolt (ASTM A325)</td>
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<td>CHIFM 15</td>
<td>High Strength Bolt (ASTM A325)</td>
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Section 1105: Fabricated Structural Steel and Aluminum

1105.02(d) High Strength Bolt Assemblies

See Hardware Manufacturing Symbols

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<td>MNP-C 15</td>
<td>MNP Corporation, 44225 Utica Road, Utica, MI 48318 [<a href="http://www.mnp.com/">http://www.mnp.com/</a>]</td>
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Section 1105: Fabricated Structural Steel and Aluminum

1105.02(d) High Strength Bolt Assemblies

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<td>ROCBC 15</td>
<td>Rockford Bolt and Steel Company, 126 Mill Street, Rockford, IL 61101</td>
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<td>High Strength Bolt (ASTM A325)</td>
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<td>STCBS 15</td>
<td>Steel City Bolt and Screw, LLC, 230 West Valley Road, Birmingham, AL 35201 <a href="http://www.steelcitybolt.com/">http://www.steelcitybolt.com/</a></td>
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<td>Washer (ASTM F436)</td>
<td>1984-194</td>
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<td>Washer (ASTM F436)</td>
<td>2006-078Q</td>
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<td></td>
<td>Direct Tension Indicator Device (DTI)</td>
<td>2010-256Q</td>
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<tr>
<td>TXBLT 15</td>
<td>Texas Bolt Company, 3233 West 11th Street, Houston, TX 77008</td>
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<tr>
<td></td>
<td>High Strength Bolt (ASTM A325)</td>
<td>1989-029</td>
</tr>
<tr>
<td></td>
<td>Nut, Non-Galvanized (plain), (ASTM A194)</td>
<td>1989-031</td>
</tr>
<tr>
<td>UNITT 15</td>
<td>Unytite, Inc., 1 Unytite Drive, Peru, IL 61354 <a href="http://www.unytiteusa.com/">http://www.unytiteusa.com/</a></td>
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<tr>
<td></td>
<td>High Strength Bolt (ASTM A325)</td>
<td>1991-117</td>
</tr>
<tr>
<td></td>
<td>Nut, Galvanized (ASTM A563)</td>
<td>1991-117</td>
</tr>
<tr>
<td>WWASH 15</td>
<td>Wrought Washer Manufacturing, Inc., 2100 South Bay Street, Milwaukee, WI 53207</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Washer (ASTM F436)</td>
<td>1993-279</td>
</tr>
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### Section 1105: Fabricated Structural Steel and Aluminum

#### 1105.02(e) Welded Stud Shear Connectors

**AASHTO 10.3.1.9**

**Last Revised: 6/8/2015**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Size (in.)</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Welded Stud Shear Connector</td>
<td>1/2</td>
<td>2011-076Q</td>
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<tr>
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<td>Welded Stud Shear Connector</td>
<td>3/8</td>
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<td>5/8</td>
<td>2011-076Q</td>
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<td>Welded Stud Shear Connector</td>
<td>3/4</td>
<td>2011-076Q</td>
</tr>
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<td>Welded Stud Shear Connector</td>
<td>7/8</td>
<td>2011-076Q</td>
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<tr>
<td>COXND 15</td>
<td>Cox Industries, P. O. Box 366, New Haven, MI 48048 <a href="http://cox-industries.com/">http://cox-industries.com/</a></td>
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<td>Welded Stud Shear Connector</td>
<td>3/8</td>
<td>1991-104</td>
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<td>Welded Stud Shear Connector</td>
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<td>1991-104</td>
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<td>3/4</td>
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<td>Welded Stud Shear Connector</td>
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<td>Welded Stud Shear Connector</td>
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<td>1992-290C</td>
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<td>Welded Stud Shear Connector</td>
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<td>1992-290D</td>
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<td>Welded Stud Shear Connector</td>
<td>7/8</td>
<td>1992-290F</td>
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<td>Welded Stud Shear Connector</td>
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<td>2011-274QA</td>
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Section 1105: Fabricated Structural Steel and Aluminum

1105.02(e) Welded Stud Shear Connectors

AASHTO 10.3.1.9

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Size (in.)</th>
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<td></td>
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<td>3/8</td>
<td>1992-221</td>
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<td>1992-221</td>
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<td>3/4</td>
<td>1992-221</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7/8</td>
<td>1992-221</td>
</tr>
</tbody>
</table>

| TRUFT 15 Tru-Fit Products, Tru-Weld Division, 460 Lake Road, Medina, OH 44256 [http://tfpcorp.com/](http://tfpcorp.com/) | Welded Stud Shear Connector | 1/4 | 1993-224 |
| | | 3/8 | 1993-224 |
| | | 1/2 | 1993-224 |
| | | 5/8 | 1993-224 |
| | | 3/4 | 1993-224 |
| | | 7/8 | 1993-224 |
| | | 1 | 1993-224 |

1105.02(j) Steel Pipe, Couplings, and Fittings

For Producers of Fabricated Structural Steel, PennDOT accepts material supplied from any Steel Mill as long as the material complies with the requirements of Publication 408, Section 106, "Control of Material".

1105.02(s) Galvanizers

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tank Size (L x W x D)</th>
<th>Ref. No.</th>
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## Section 1105: Fabricated Structural Steel and Aluminum

### 1105.02(s) Galvanizers

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<tr>
<th>Product</th>
<th>Name</th>
<th>Tank Size (L x W x D)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>AZZ-1 15</td>
<td>AZZ Galvanizing Services, Dixon, 310 East Progress Drive, Dixon, IL 61021 <a href="http://www.azz.com/">http://www.azz.com/</a>&lt;br&gt;Formerly AAA Galvanizing of Dixon, IL (AAAIL 15)&lt;br&gt;Galvanizer: Hot Dip</td>
<td>51 ft. x 7 ft. x 10 ft.</td>
<td>2003-059Q</td>
</tr>
<tr>
<td>AZZ-1115</td>
<td>AZZ Galvanizing Services, Muncie, 2415 South Walnut Street, Muncie, IN 47302 <a href="http://www.azz.com/">http://www.azz.com/</a>&lt;br&gt;Formerly Witt Industries, Inc. (WITT1 15)&lt;br&gt;Galvanizer: Hot Dip</td>
<td>42’ x 5’-6” x 7’</td>
<td>2006-033Q</td>
</tr>
<tr>
<td>AZZ-1215</td>
<td>AZZ Galvanizing Services, Plymouth, 2631 Jim Neu Drive, Plymouth, IN 46563 <a href="http://www.azz.com/">http://www.azz.com/</a>&lt;br&gt;Formerly Witt Industries (WITT2 15)&lt;br&gt;Galvanizer: Hot Dip</td>
<td>45’ x 6’ x 8’</td>
<td>2007-035Q</td>
</tr>
<tr>
<td>AZZ-3 15</td>
<td>AZZ Galvanizing Services, Joliet, 625 Mills Road, Joliet, IL 60433 <a href="http://www.azz.com/">http://www.azz.com/</a>&lt;br&gt;Formerly AAA Galvanizing of Joliet, IL (AAAJO 15)&lt;br&gt;Galvanizer: Hot Dip</td>
<td>51’ x 6’-6” x 9’-3”</td>
<td>2007-069Q</td>
</tr>
<tr>
<td>AZZ-4 15</td>
<td>AZZ Galvanizing Services, Peoria, 6718 West Plank Road, Peoria, IL 61604 <a href="http://www.azz.com/">http://www.azz.com/</a>&lt;br&gt;Formerly AAA Galvanizing of Peoria, IL (AAAPE 15)&lt;br&gt;Galvanizer: Hot Dip</td>
<td>51’ x 8’-6” x 8’-8”</td>
<td>2006-105Q</td>
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</table>
## Section 1105: Fabricated Structural Steel and Aluminum

### 1105.02(s) Galvanizers

<table>
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<tr>
<th>Product</th>
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<th>Tank Size (L x W x D)</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>AZZ-6</td>
<td>AZZ Galvanizing Services, Kansas City, 770 East 12th Street, Kansas City, MO 64126 <a href="http://www.azz.com/">http://www.azz.com/</a></td>
<td>30' x 4'-6&quot; x 5'-6&quot;</td>
<td>2002-091Q</td>
</tr>
<tr>
<td>AZZ-7</td>
<td>AZZ Galvanizing Services, Canton, 1723 Cleveland Avenue SW, Canton, OH 44707 <a href="http://www.azz.com/">http://www.azz.com/</a></td>
<td>51' x 6'-6&quot; x 8'-6&quot;</td>
<td>2005-046Q</td>
</tr>
<tr>
<td>AZZ-9</td>
<td>AZZ Galvanizing Services, Louisville, 6310 Kenloy Drive, Louisville, KY 40214 <a href="http://www.azz.com/">http://www.azz.com/</a></td>
<td>42' x 5' x 6'</td>
<td>2010-108QB</td>
</tr>
<tr>
<td>BALGV</td>
<td>Baltimore Galvanizing, 7110 Quad Avenue, Baltimore, MD 21237 <a href="http://www.baltimoregalv.com/">http://www.baltimoregalv.com/</a></td>
<td>13' x 4'-6&quot; x 4'-6&quot;</td>
<td>1995-078</td>
</tr>
<tr>
<td>BBGAL</td>
<td>Big Bend Galvanizing LLC, 1000 Industrial Park Drive, Trenton, TN 38382</td>
<td>33' x 5'-6&quot; x 8'</td>
<td>2017-210Q</td>
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<tr>
<td>CANTG</td>
<td>Canton Galvanizing, 1821 Moore Avenue Southeast, Canton, OH 44707</td>
<td>20 ft. x 6 ft. x 10 ft.</td>
<td>2019-156Q</td>
</tr>
<tr>
<td>COLUB</td>
<td>V&amp;S Columbus Galvanizing, LLC, 987 Buckeye Park Road, Columbus, OH 43207 <a href="http://www.hotdipgalvanizing.com/">http://www.hotdipgalvanizing.com/</a></td>
<td>48' x 6' x 11'</td>
<td>-----</td>
</tr>
<tr>
<td>CONGV</td>
<td>Connecticut Galvanizing, 239 Commerce Street, Glastonbury, CT 06033-0358 <a href="http://ctgalv.com/">http://ctgalv.com/</a></td>
<td>30'-6&quot; x 5' x 7'-6&quot;</td>
<td>2004-006Q</td>
</tr>
<tr>
<td>DUNGV</td>
<td>Duncan Galvanizing, 69 Norman Street, Everett, MA 02149 <a href="http://www.duncangalvanizing.com/">http://www.duncangalvanizing.com/</a></td>
<td>70' x 5'-2&quot; x 7'</td>
<td>1997-012</td>
</tr>
<tr>
<td>ELDER</td>
<td>Elderlee, Inc., 729 Cross Road, Oaks Corners, NY 14518 <a href="http://www.elderlee.com/">http://www.elderlee.com/</a></td>
<td>38'-6&quot; x 5' x 6'</td>
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<tr>
<td>GALVA</td>
<td>Galvan Industries, Inc., 7320 Millbrook Road, P.O. Box 369, Harrisburg, NC 28075 <a href="http://www.galvanelectrical.com/">http://www.galvanelectrical.com/</a></td>
<td>42' x 4'-6&quot; x 7'</td>
<td>1995-177</td>
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### Section 1105: Fabricated Structural Steel and Aluminum

1105.02(s) Galvanizers

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tank Size (L x W x D)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREGV 15</td>
<td>Gregory Industries, Inc., 4100 13th Street SW, P.O. Box 80508, Canton, OH 44708 <a href="http://www.gregorycorp.com/gccorp.htm">http://www.gregorycorp.com/gccorp.htm</a></td>
<td>16’ x 5’ x 9’</td>
<td>2011-137Q</td>
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<tr>
<td>HUBBL 15</td>
<td>O. W. Hubbell and Sons, P.O. Box 37, New York Mills, NY 13417 <a href="http://www.whyrust.com">http://www.whyrust.com</a></td>
<td>46’ x 5’ x 10’</td>
<td>1995-034</td>
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<tr>
<td>INDGA 15</td>
<td>Indiana Galvanizing, LLC, 51702 Lovejoy Drive, Middlebury, IN 46540</td>
<td>33’ x 5’-4” x 8’</td>
<td>2013-175Q</td>
</tr>
<tr>
<td>INGAL 15</td>
<td>Valmont Birmingham Galvanizing, 475 Dietrich Road, Steele, AL 35987 <a href="http://www.valmontcoatings.com">http://www.valmontcoatings.com</a></td>
<td>58’ x 7’-2” x 9’</td>
<td>2010-160Q</td>
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<tr>
<td>KORS 15</td>
<td>Korns Galvanizing Company, 75 Bridge Street, Johnstown, PA 15902 <a href="http://www.kornsgalvanizing.com">http://www.kornsgalvanizing.com</a></td>
<td>12’ x 3’-6” x 5’</td>
<td>1994-101</td>
</tr>
<tr>
<td>KTGAL 15</td>
<td>K-T Galvanizing Company, Inc., 2500 Chambers Road, Venus, TX 76084 <a href="http://www.ktgalvanizing.com">http://www.ktgalvanizing.com</a></td>
<td>24’ x 3’-6” x 6’</td>
<td>2011-218Q</td>
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<tr>
<td>KTGAL115</td>
<td>K-T Galvanizing Company, Inc., 5105 East 3rd Street, P.O. Box 560, Katy, TX 77493 <a href="http://www.ktgalvanizing.com">http://www.ktgalvanizing.com</a></td>
<td>16’ x 4’ x 6’</td>
<td>2011-217Q</td>
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<tr>
<td>MANDR 15</td>
<td>M&amp;R Plating, Inc., 303 Westlink Industrial Dr., Washington, MO 63090 <a href="http://www.mrplating.com">http://www.mrplating.com</a></td>
<td>N/A</td>
<td>2015-121Q</td>
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<tr>
<td>MECGV 15</td>
<td>Mechanical Galv-Plating Corporation, 933 Oak Avenue, P.O. Box 56, Sidney, OH 45365 <a href="http://www.mechanicalgalv-plating.com">http://www.mechanicalgalv-plating.com</a></td>
<td>N/A</td>
<td>1994-015</td>
</tr>
<tr>
<td>MONNG 15</td>
<td>Monnig Industries, Inc., P.O. Box 98, Glasgow, MO 65254-0098 <a href="http://monnigindustries.com">http://monnigindustries.com</a></td>
<td>24’ x 4’ x 5’-6”</td>
<td>1991-027</td>
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<tr>
<td>MPGV1 15</td>
<td>Metalplate Galvanizing, Inc., 757 44th Street North, Birmingham, AL 35201 <a href="http://www.metalplate.com">http://www.metalplate.com</a></td>
<td>2 barrels, 10 cu. ft. each</td>
<td>1991-027</td>
</tr>
<tr>
<td>MPGV2 15</td>
<td>Metalplate Galvanizing, Inc., 1120 39th Street North, Birmingham, AL 35201 <a href="http://www.metalplate.com">http://www.metalplate.com</a></td>
<td>22’ x 4’-4” x 5’-6”</td>
<td>1984-203</td>
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Last Revised: 12/26/2019
### Section 1105: Fabricated Structural Steel and Aluminum

#### 1105.02(s) Galvanizers

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<th>Tank Size (L x W x D)</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>MPGV3 15</td>
<td>Metalplate Galvanizing, Inc., 500 Selig Drive, Atlanta, GA 30336</td>
<td>42' x 5' x 6'</td>
<td>1984-203</td>
</tr>
<tr>
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<td>Galvanizer: Hot Dip</td>
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<tr>
<td>MPGV4 15</td>
<td>Metalplate Galvanizing, Inc., 7123 Moncrief Road West, Jacksonville, FL 32219</td>
<td>28' x 5' x 6'</td>
<td>1984-203</td>
</tr>
<tr>
<td></td>
<td>Galvanizer: Hot Dip</td>
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<tr>
<td>MPGV5 15</td>
<td>Metalplate Galvanizing, Inc., 10625 Needham Street, Houston, TX 77013</td>
<td>42' x 5' x 6'</td>
<td>1984-203</td>
</tr>
<tr>
<td></td>
<td>Galvanizer: Hot Dip</td>
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<tr>
<td>NEVGV 15</td>
<td>Neville Galvanizing, 3005 Grand Avenue, Neville Island, Pittsburgh, PA 15225</td>
<td>21' x 4'-6&quot; x 3'-2&quot;</td>
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<tr>
<td></td>
<td>Galvanizer: Hot Dip</td>
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<tr>
<td>NICG 15</td>
<td>Nicholas Galvanizing Company, 120 Duffield Avenue, Jersey City, NJ 07306</td>
<td>21' x 3' x 3'-4&quot;</td>
<td>1989-005</td>
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<tr>
<td></td>
<td>Galvanizer: Hot Dip</td>
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<tr>
<td>NJG&amp;T 15</td>
<td>New Jersey Galvanizing and Tinning Works, 139 Hayes Avenue, Newark, NJ 07114</td>
<td>40'-6&quot; x 4'-4&quot; x 4'-6&quot;</td>
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<tr>
<td></td>
<td>Galvanizer: Hot Dip</td>
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<tr>
<td>OH-GV 15</td>
<td>Ohio Galvanizing Corporation, 467 West Fairground Street, Marion, OH 43302</td>
<td>30'-6&quot; x 5' x 7'-6&quot;</td>
<td>1996-254</td>
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<tr>
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<td>Galvanizer: Hot Dip</td>
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<tr>
<td>PLTCO 15</td>
<td>Plateco, Inc., 1375 Industrial St., Reedsburg, WI 53959</td>
<td>6'-7&quot; x 2'-4&quot; x 3'-6&quot;</td>
<td>2012-078Q</td>
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<td>Galvanizer: Mechanical (Not Hot Dip)</td>
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</tr>
<tr>
<td>QUAG-15</td>
<td>Quality Galvanizing, 1110 Fuller Drive, Garrett, IN 46738</td>
<td>12' x 3' x 4'</td>
<td>1995-214</td>
</tr>
<tr>
<td></td>
<td>Galvanizer: Hot Dip</td>
<td>22' x 4' x 5' (2 tanks)</td>
<td>1995-214</td>
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<tr>
<td>RRGBV 15</td>
<td>Rogers Brothers Inc., 2007 Kishwaukee Street, Rockford, IL 61104</td>
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<td>Galvanizer: Hot Dip</td>
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<tr>
<td>SAGV0 15</td>
<td>South Atlantic Galvanizing, P.O. Box 1042, US Highway 276 West, Travelers Rest, SC 29690</td>
<td>28' x 4' x 6'-6&quot;</td>
<td>-----</td>
</tr>
<tr>
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<td>Galvanizer: Hot Dip</td>
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<tr>
<td>SAGV1 15</td>
<td>South Atlantic Galvanizing, 3025 Steel Way Drive, P.O. Box 1380, Graham, NC 27253</td>
<td>51' x 5' x 10'</td>
<td>1983-142</td>
</tr>
<tr>
<td></td>
<td>Galvanizer: Hot Dip</td>
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<td></td>
</tr>
<tr>
<td>SAGV2 15</td>
<td>South Atlantic Galvanizing, P.O. Box 876, Highway 280 West, Claxton, GA 30417</td>
<td>28' x 4' x 6'-6&quot;</td>
<td>1983-142</td>
</tr>
<tr>
<td></td>
<td>Galvanizer: Hot Dip</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAGV3 15</td>
<td>South Atlantic Galvanizing, 4186 South Creek Road East, Chattanooga, TN 37406</td>
<td>45' x 5'-6&quot; x 9'</td>
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</tbody>
</table>
Section 1105: Fabricated Structural Steel and Aluminum

1105.02(s) Galvanizers

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<tbody>
<tr>
<td>SAGV 15</td>
<td>South Atlantic Galvanizing, 11022 Lewistown Road, Ashland, VA 23005 <a href="http://www.southatlanticllc.com/">http://www.southatlanticllc.com/</a></td>
<td>42' x 6'-6&quot; x 8'-6&quot;</td>
<td>1997-053</td>
</tr>
<tr>
<td>SOUGV 15</td>
<td>Southern Galvanizing, Inc., 1620 Bush Street, Baltimore, MD 21230 <a href="http://southerngalvanizing.com/">http://southerngalvanizing.com/</a></td>
<td>35' x 6'-6&quot; x 8'</td>
<td>-----</td>
</tr>
<tr>
<td>SWGLV 15</td>
<td>Southwest Galvanizing, Inc., 737 Aileen Street, P.O. Box 24188, Houston, TX 77229-4188 <a href="http://www.swgalvanizing.com/">http://www.swgalvanizing.com/</a></td>
<td>42' x 5' x 5'-6&quot;</td>
<td>1998-210</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32'-6&quot; x 4'-2&quot; x 5'</td>
<td>1998-210</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30'-6&quot; x 4' x 5'</td>
<td>1998-210</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14' x 3' x 4'-2&quot;</td>
<td>1998-210</td>
</tr>
<tr>
<td>TENNG 15</td>
<td>Tennessee Galvanizing, Inc., 1535 Industrial Boulevard, P.O. Box 609, Jasper, TN 37347 <a href="http://tennesseegalvanizing.com/">http://tennesseegalvanizing.com/</a></td>
<td>42' x 5' x 7'</td>
<td>2001-083Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18' x 2'-2&quot; x 6'-6&quot;</td>
<td>2001-083Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14' x 4' x 5'</td>
<td>2001-083Q</td>
</tr>
<tr>
<td>TRIN3 15</td>
<td>Trinity Highway Products, LLC, 2548 NE 28th Street, Ft. Worth, TX 76111 <a href="http://www.highwayguardrail.com/">http://www.highwayguardrail.com/</a></td>
<td>42' x 13' x 9'</td>
<td>2010-271Q</td>
</tr>
<tr>
<td>TRIN6 15</td>
<td>Trinity Highway Products, LLC, 2525 Stemmons Freeway, Dallas, TX 75207</td>
<td>42 ft. x 12 ft. x 8 ft. - 6 in.</td>
<td>2017-260Q</td>
</tr>
<tr>
<td></td>
<td>600 Prosperity Drive, Orangeburg, SC 29115</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VALM0 15</td>
<td>Valmont Industries, Inc., P. O. Box 358, Highway #275, Valley, NE 68064 <a href="http://www.valmont.com/">http://www.valmont.com/</a></td>
<td>58' x 6' x 8'-6&quot;</td>
<td>1991-142</td>
</tr>
</tbody>
</table>
### Section 1105: Fabricated Structural Steel and Aluminum

#### 1105.02(s) Galvanizers

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tank Size (L x W x D)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Galvanizer: Hot Dip 26' x 5' x 7'</td>
<td>2000-152Q</td>
</tr>
<tr>
<td>VALM7 15</td>
<td>Valmont Coatings Gateway Galvanizing, 1117 Brown Forman Road, Jeffersonville, IN 47130 <a href="http://www.valmont.com/">http://www.valmont.com/</a></td>
<td>Galvanizer: Hot Dip 44' x 6'-5&quot; x 7'-5&quot;</td>
<td>2000-310Q</td>
</tr>
<tr>
<td>VALM8 15</td>
<td>Valmont Virginia Galvanizers, 3535 Halifax Road, Petersburg, VA 23805 <a href="http://www.valmont.com/">http://www.valmont.com/</a></td>
<td>Galvanizer: Hot Dip 49' x 5'-8&quot; x 8'-8&quot;</td>
<td>1998-092</td>
</tr>
<tr>
<td>VOISG 15</td>
<td>V&amp;S Detroit Galvanizing, LLC, 12600 Arnold Street, Redford, MI 48239 <a href="http://www.hotdipgalvanizing.com/">http://www.hotdipgalvanizing.com/</a></td>
<td>Galvanizer: Hot Dip 42' x 6' x 8'-6&quot;</td>
<td>2000-311Q</td>
</tr>
<tr>
<td>VSDGV 15</td>
<td>V&amp;S Delaware Galvanizing, LLC, 511 Carroll Drive, New Castle, DE 19720 <a href="http://www.hotdipgalvanizing.com/">http://www.hotdipgalvanizing.com/</a></td>
<td>Galvanizer: Hot Dip 29' x 6' x 10'</td>
<td>2010-239Q</td>
</tr>
<tr>
<td>VSMDG 15</td>
<td>V&amp;S Memphis Galvanizing, LLC, 3348 Fite Road, Millington, TN 38053</td>
<td>Galvanizer: Hot Dip 48' x 6'-4&quot; x 11'</td>
<td>2017-279Q</td>
</tr>
<tr>
<td>YOUNG 15</td>
<td>Young Galvanizing, Inc., P. O. Box 334, Route 551, Pulaski, PA 16143 <a href="http://younggalvanizing.com/">http://younggalvanizing.com/</a></td>
<td>Galvanizer: Hot Dip 48' x 5' x 8'-6&quot;</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Galvanizer: Hot Dip 24' x 5' x 6'</td>
<td>-----</td>
</tr>
</tbody>
</table>
### Section 1107: Prestressed Concrete Bridge Beams

#### 1107.02 Prestressed Concrete Bridge Beams

Note: Applicable Prestressed Concrete Institute (PCI) Plant Certification codes listed after product name. [Approved Bridge and Structure Products](https://example.com)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Previous Supplier Codes: SRST0 15 &amp; ADVPS 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prestressed Plank Beam - Post Tensioned</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prestressed Straight-Strand Bridge Member Only</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(PCI Code: B3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allowable Bed Moment = 48,114 in-kips</td>
<td>2017-162Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Working Load = 3937 kips</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prestressed Straight-Strand Bridge Member Only</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(PCI Code: B3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allowable Bed Moment = 15,146 in-kips</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Working Load = 946 kips</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HIGCG 15</strong></td>
<td>High Concrete Group, LLC, 125 Denver Road, Denver, PA 17517 <a href="http://www.high.net/">http://www.high.net/</a></td>
<td>2011-113Q</td>
<td>HIGCG 15</td>
</tr>
<tr>
<td></td>
<td>Next Beam Producer (SOL 483-13-07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allowable Bed Moment = 12,900,000 pound-inches.</td>
<td>2011-113Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Working Load = 2,150,000 pounds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Note: Previously assigned J&amp;RS2 15 for same facility</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Next Beam Producer (SOL 483-13-07)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allowable Bed Moment = 34,250,000 pound inches.</td>
<td>2012-016Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Working Load = 1,352,000 pounds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prestressed Straight-Strand Bridge Member Only</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(PCI Code: B3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Allowable Bed Moment = 34,250,000 pound inches.</td>
<td>8/13/1997</td>
<td>1995-044</td>
</tr>
<tr>
<td></td>
<td>Working Load = 1,352,000 pounds.</td>
<td></td>
<td>1995-044</td>
</tr>
<tr>
<td></td>
<td>Total Precast Bridge Structures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section 1107: Prestressed Concrete Bridge Beams

**1107.02 Prestressed Concrete Bridge Beams**

Note: Applicable Prestressed Concrete Institute (PCI) Plant Certification codes listed after product name. [Approved Bridge and Structure Products](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACIN 15</td>
<td>PennStress, Division of MacInnis Group, LLC, 8180 Woodbury Pike, Roaring Spring, PA 16673 <a href="http://www.pennstress.com/">http://www.pennstress.com/</a></td>
<td>Formerly NEW-0 15.</td>
<td>2011-077Q</td>
</tr>
<tr>
<td>MILL0 15</td>
<td>A. C. Miller Concrete Products, P.O. Box 93, 9588 Route 22, Blairsville, PA 15717 <a href="http://www.acmiller.com/">http://www.acmiller.com/</a></td>
<td>Precast Plank Beam - Post Tensioned</td>
<td>2017-198Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Allowable Bed Moment = 34,250,000 pound inches.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Working Load = 1,352,000 pounds.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prestressed Deflected and Straight-Strand Bridge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Member (PCI Code: B4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prestressed Deflected and Straight-Strand Bridge</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Member (PCI Code: B4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Precast Bridge Structures</td>
<td></td>
</tr>
</tbody>
</table>
## Section 1107: Prestressed Concrete Bridge Beams

### 1107.02 Prestressed Concrete Bridge Beams

Note: Applicable Prestressed Concrete Institute (PCI) Plant Certification codes listed after product name. [Approved Bridge and Structure Products](#).

<table>
<thead>
<tr>
<th>WHICO 15</th>
<th>L. C. Whitford Company, 164 North Main Street, P.O. Box 663, Wellsville, NY 14895 <a href="http://www.lcwhitford.com/">http://www.lcwhitford.com/</a></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prestressed Deflected and Straight-Strand Bridge</td>
</tr>
<tr>
<td></td>
<td>Member (PCI Code: B4)</td>
</tr>
<tr>
<td></td>
<td>Total Precast Bridge Structures</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHICO 15</td>
<td><a href="http://www.lcwhitford.com/">http://www.lcwhitford.com/</a></td>
<td>----</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>L. C. Whitford Company, 164 North Main Street, P.O. Box 663, Wellsville, NY 14895</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 1107.02(m) Box Beam Void Forms

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Box Beam Void Form</td>
</tr>
<tr>
<td></td>
<td>Cellofoam EPS</td>
</tr>
<tr>
<td></td>
<td>Box Beam Void Form</td>
</tr>
<tr>
<td></td>
<td>Styrofoam (EPS)</td>
</tr>
<tr>
<td>INSUC 15</td>
<td>Insulation Corporation of America, 2571 Mitchell Avenue, Allentown, PA 18103 <a href="http://insulationcorp.com/">http://insulationcorp.com/</a></td>
</tr>
<tr>
<td></td>
<td>Box Beam Void Form</td>
</tr>
<tr>
<td></td>
<td>Ica-Lite (EPS)</td>
</tr>
<tr>
<td>INSUL 15</td>
<td>Insul-Board, Inc., 2120 Colonial Ave., P. O. Box 8103, Erie, PA 16505 <a href="http://insulboard.com/">http://insulboard.com/</a></td>
</tr>
<tr>
<td></td>
<td>Box Beam Void Form</td>
</tr>
<tr>
<td></td>
<td>Insul-Board (EPS)</td>
</tr>
<tr>
<td></td>
<td>Box Beam Void Form</td>
</tr>
<tr>
<td></td>
<td>Op-Foam (EPS)</td>
</tr>
<tr>
<td>PACEM 15</td>
<td>Pacemaker Plastics Co., 126 New Pace Rd., Newcomertown, OH 43832</td>
</tr>
<tr>
<td></td>
<td>Box Beam Void Form</td>
</tr>
<tr>
<td></td>
<td>Chemform Polyvoid (EPS)</td>
</tr>
<tr>
<td></td>
<td>Box Beam Void Form</td>
</tr>
<tr>
<td></td>
<td>Poly Foam</td>
</tr>
</tbody>
</table>

Last Revised: 1/5/2018

Last Revised: 7/9/2015
Section 1107: Prestressed Concrete Bridge Beams

1107.02(m) Box Beam Void Forms

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Web Address</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPRCC 15</td>
<td>Spring Cove Container, 301 Cove Lane, Roaring Spings, PA 16673</td>
<td><a href="http://www.springcove.com/">http://www.springcove.com/</a></td>
<td>----</td>
</tr>
</tbody>
</table>

1107.02(n)3.d Tendons: 7-Wire, Uncoated, Low-Relaxation Strand

AASHTO M 203 (ASTM A 416), Grade 270. Steel Products Procurement Act applies.

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Web Address</th>
<th>Strength</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BKERT 15</td>
<td>Bekaert Corporation, 1395 South Marietta Parkway, Building 500, Suite 100, Marietta, GA 30067</td>
<td><a href="http://www.bekaert.com/en/">http://www.bekaert.com/en/</a></td>
<td>0.500”, 0.520”, 0.600”</td>
<td>2016-181Q</td>
</tr>
</tbody>
</table>
Section 1107: Prestressed Concrete Bridge Beams

1107.02(n)3.d Tendons: 7-Wire, Uncoated, Low-Relaxation Strand

AASHTO M 203 (ASTM A 416), Grade 270. Steel Products Procurement Act applies.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Strength</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMCSC 15</td>
<td>Wire Mesh Corporation, 25219 Kuykendahl Rd Ste 290, The Woodlands, TX 77375</td>
<td>0.500&quot;, 0.520&quot;, 0.600&quot; WMC Strand</td>
<td>2016-176Q</td>
</tr>
</tbody>
</table>

1107.02(p) Neoprene Joint Material

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMCL 15</td>
<td>Armacell, LLC, 7600 Oakwood Street Extension, P. O. Box 1038, Mebane, NC 27302</td>
<td>2005-107Q</td>
</tr>
<tr>
<td>MONRP 15</td>
<td>Monmouth Rubber and Plastics, 75 Longbranch Avenue, Long Branch, NJ 07740</td>
<td>2005-094Q</td>
</tr>
<tr>
<td>RUBAT 15</td>
<td>Rubatex International, LLC, 906 Adams Street, Bedford, VA 24523-2168</td>
<td>2005-116Q</td>
</tr>
</tbody>
</table>
Section 1108: Post-Tensioning Operations

1108.03(f) Bonding and Grouting (Admixtures)

Concrete admixtures previously referenced in this section were moved to Section 711.3, Concrete Admixtures, and are listed as Grout Fluidifiers (GF).
Section 1109: Guide Rail and Metal Median Barrier
Steel Products Procurement Act applies

For Attenuation Devices, see Section 619

**1109.01 Guide Rail: Rail Elements and Rubbing Rails**
Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

Important Notice: [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DI-HS 15</td>
<td><strong>Rail Element</strong></td>
<td>1991-345</td>
</tr>
<tr>
<td></td>
<td><strong>Rubbing Rail</strong></td>
<td>1991-345</td>
</tr>
<tr>
<td>GREGV 15</td>
<td><strong>Rail Element</strong></td>
<td>1994-014</td>
</tr>
<tr>
<td></td>
<td><strong>Rubbing Rail</strong></td>
<td>1994-014</td>
</tr>
<tr>
<td>HIGSC 15</td>
<td><strong>Rail Element</strong></td>
<td>1989-180</td>
</tr>
<tr>
<td></td>
<td><strong>Rubbing Rail</strong></td>
<td>1989-180</td>
</tr>
<tr>
<td>QUABF 15</td>
<td><strong>Rubbing Rail</strong></td>
<td>2012-194Q</td>
</tr>
<tr>
<td>RG-ST 15</td>
<td><strong>Rail Element</strong></td>
<td>1996-230</td>
</tr>
<tr>
<td></td>
<td><strong>Rubbing Rail</strong></td>
<td>1999-077Q</td>
</tr>
</tbody>
</table>

[AASHTO/FHWA Joint Implementation Agreement for MASH 2016](http://dihighway.com/)
Section 1109: Guide Rail and Metal Median Barrier

1109.01 Guide Rail: Rail Elements and Rubbing Rails

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail Element</td>
<td>21G Anchor Post Rail Element (RC-54M)</td>
<td>2010-132QA</td>
</tr>
<tr>
<td>Rail Element</td>
<td>9G (12’ 6” p/6’ 3” Guide Rail), 11G (12’ 6” p/3’ x 1 1/2” Guide Rail)</td>
<td>2010-132QA</td>
</tr>
<tr>
<td>* Approved MM-USA marking as Identifiable Steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rail Element</td>
<td>Bridge Barrier Transition Rail Element (RC-50M)</td>
<td>2010-132QA</td>
</tr>
<tr>
<td>Rubbing Rail</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRIN6 15</td>
<td>Trinity Highway Products, LLC, 2525 Stemmons Freeway, Dallas, TX 75207 600 Prosperity Drive Orangeburg, SC 29115</td>
<td></td>
</tr>
<tr>
<td>Rail Element</td>
<td>11G (12’ 6” p/3’ x 1 1/2” Guide Rail)</td>
<td>2018-104Q</td>
</tr>
<tr>
<td>Rubbing Rail</td>
<td></td>
<td>1994-046</td>
</tr>
</tbody>
</table>

1109.02 Guide Rail: Terminal Sections

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary).

Terminal Section Bridge Connection: Standard Drawing RC-51M (Sheet 2 of 14) & RC-739M [Type 31 Strong Post Guide Rail to Standard Bridge Barrier]

Flared Terminal Section: Standard Drawing RC-53M (Sheet 2 of 3)

Guide Rail Terminal Section, Single: Standard Drawing RC-51M (Sheet 3 of 14)

Publication 13M, Design Manual, Part 2 Highway Design, Chapter 12, Guide Rail End Treatments and Terminals

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Section 1109: Guide Rail and Metal Median Barrier

1109.02 Guide Rail: Terminal Sections

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary).

Terminal Section Bridge Connection: Standard Drawing RC-51M (Sheet 2 of 14) & RC-739M [Type 31 Strong Post Guide Rail to Standard Bridge Barrier]

Flared Terminal Section: Standard Drawing RC-53M (Sheet 2 of 3)

Guide Rail Terminal Section, Single: Standard Drawing RC-51M (Sheet 3 of 14)

Publication 13M, Design Manual, Part 2 Highway Design, Chapter 12, Guide Rail End Treatments and Terminals

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Alternate Terminal Section</td>
<td>1994-281B</td>
</tr>
<tr>
<td></td>
<td>Alternate Terminal Section</td>
<td>1994-281B</td>
</tr>
<tr>
<td></td>
<td>Fiared Terminal Section</td>
<td>1994-281A</td>
</tr>
<tr>
<td></td>
<td>Guide Rail Terminal Section</td>
<td>1994-281</td>
</tr>
<tr>
<td></td>
<td>Terminal Section Bridge Connection</td>
<td>1994-281C</td>
</tr>
<tr>
<td>HIGSC 15</td>
<td>Highway Safety Corporation, 239 Commerce Street, P. O. Box 358, Glastonbury, CT 06033-0358 [<a href="http://www.highwaysafety.net/">http://www.highwaysafety.net/</a>]</td>
<td>1989-180</td>
</tr>
<tr>
<td></td>
<td>Alternate Terminal Section</td>
<td>1989-180</td>
</tr>
<tr>
<td></td>
<td>Flared Terminal Section</td>
<td>1989-180</td>
</tr>
<tr>
<td></td>
<td>Guide Rail Terminal Section</td>
<td>1989-180</td>
</tr>
<tr>
<td></td>
<td>Terminal Section Bridge Connection</td>
<td>1989-180</td>
</tr>
<tr>
<td>RG-ST 15</td>
<td>R. G. Steel Corporation, P. O. Box 356, Route 551, Pulaski, PA 16143 [<a href="http://rgsteel.com/">http://rgsteel.com/</a>]</td>
<td>1996-230</td>
</tr>
<tr>
<td></td>
<td>Alternate Terminal Section</td>
<td>1996-230</td>
</tr>
<tr>
<td></td>
<td>Flared Terminal Section</td>
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</tr>
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<td></td>
<td>Guide Rail Terminal Section</td>
<td>1996-230</td>
</tr>
<tr>
<td></td>
<td>Terminal Section Bridge Connection</td>
<td>1996-230</td>
</tr>
</tbody>
</table>
Section 1109: Guide Rail and Metal Median Barrier

1109.02 Guide Rail: Terminal Sections

Last Revised: 11/15/2019

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary).

Terminal Section Bridge Connection: Standard Drawing RC-51M (Sheet 2 of 14) & RC-739M [Type 31 Strong Post Guide Rail to Standard Bridge Barrier]

Flared Terminal Section: Standard Drawing RC-53M (Sheet 2 of 3)

Guide Rail Terminal Section, Single: Standard Drawing RC-51M (Sheet 3 of 14)

Publication 13M, Design Manual, Part 2 Highway Design, Chapter 12, Guide Rail End Treatments and Terminals

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Alternate Terminal Section</td>
<td>907G Circular Terminal (RC-51M)</td>
<td>2010-132QA</td>
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<tr>
<td>Alternate Terminal Section</td>
<td>974G Guide Rail to Bridge Barrier Transition Section</td>
<td>2010-132QA</td>
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<tr>
<td>(RC-50M)</td>
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<tr>
<td>Flared Terminal Section</td>
<td>901G Flared Terminal (RC-53M, Sheet 2, Detail F)</td>
<td>2010-132QA</td>
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<tr>
<td>Guide Rail Terminal Section</td>
<td>926G Terminal Section Bridge Connection - Straight</td>
<td>2010-132QA</td>
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<td>(RC-51M, Sheet 2)</td>
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<tr>
<td>Terminal Section Bridge Connection</td>
<td>928G Terminal Section Bridge Connection (RC-51M, Sheet 2, Detail A)</td>
<td>2010-132QA</td>
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1109.03 Guide Rail: Posts

Last Revised: 11/15/2019

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

See <a href="Standard Drawing of Type 31 Strong Post Guide Rail RC-51M (Publication 72M)">Standard Drawing of Type 31 Strong Post Guide Rail RC-51M (Publication 72M)</a>

Or <a href="Standard Drawing of Type 2 Weak Post Guide Rail RC-53M (Publication 72M)">Standard Drawing of Type 2 Weak Post Guide Rail RC-53M (Publication 72M)</a>

Important Notice: <a href="AASHTO/FHWA Joint Implementation Agreement for MASH 2016">AASHTO/FHWA Joint Implementation Agreement for MASH 2016</a>
Section 1109: Guide Rail and Metal Median Barrier

1109.03 Guide Rail: Posts

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

See Standard Drawing of Type 31 Strong Post Guide Rail RC-51M (Publication 72M)

Or Standard Drawing of Type 2 Weak Post Guide Rail RC-53M (Publication 72M)

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>AMETS 15</td>
<td>American Timber and Steel Corp., 4832 Plank Road, P. O. Box 767, Norwalk, OH 44857-0767 <a href="http://www.americantimberandsteel.com/">http://www.americantimberandsteel.com/</a></td>
<td>1995-252</td>
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<tr>
<td></td>
<td>Breakaway Terminal Foundation Wood Post</td>
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<td>Breakaway Terminal Wood Post</td>
<td>1995-252</td>
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<tr>
<td></td>
<td>Timber Guide Rail Post</td>
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<tr>
<td></td>
<td>Welded Steel Post</td>
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</tr>
<tr>
<td>CNWPI 15</td>
<td>Central Nebraska Wood Preservers, Inc., P.O. Box 630, Sutton, NE 68979 <a href="http://www.nebraskawood.com/">http://www.nebraskawood.com/</a></td>
<td>2014-241QD</td>
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<td>Facility</td>
<td>105 North Owen Street Sutton, NE 68979</td>
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<td></td>
<td>Long Breakaway Timber Post</td>
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<td>Steel I-Beam Post</td>
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<td>Steel I-Beam Post</td>
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</table>
Section 1109: Guide Rail and Metal Median Barrier

1109.03 Guide Rail: Posts

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

See Standard Drawing of Type 31 Strong Post Guide Rail RC-51M (Publication 72M)

Or Standard Drawing of Type 2 Weak Post Guide Rail RC-53M (Publication 72M)

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

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<thead>
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<th>Product</th>
<th>Name</th>
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<td>GRE-2 15</td>
<td>Great Southern Wood Preserving, P. O. Box 610, Abberville, AL 36310 <a href="http://greatsouthernwood.com/">http://greatsouthernwood.com/</a></td>
<td>2011-163QABC</td>
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<td>Breakaway Terminal Foundation Wood Post</td>
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<td>Timber Guide Rail Post</td>
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</tr>
<tr>
<td></td>
<td>Steel I-Beam Post</td>
<td></td>
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<tr>
<td>HIGSC 15</td>
<td>Highway Safety Corporation, 239 Commerce Street, P. O. Box 358, Glastonbury, CT 06033-0358 <a href="http://www.highwaysafety.net/">http://www.highwaysafety.net/</a></td>
<td>1989-180</td>
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<td>Steel C-Post and Channel Post</td>
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<td>Steel I-Beam Post</td>
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<tr>
<td></td>
<td>Welded Steel Post</td>
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<tr>
<td>IAWP1 15</td>
<td>Iowa Wood Preservers, Inc., 2102 South 17th Street, Oskaloosa, IA 52577</td>
<td>2014-047QD</td>
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<tr>
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<td>Long Breakaway Timber Post</td>
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<td></td>
<td>Short Breakaway Timber Post</td>
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<td>Timber Guide Rail Post</td>
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<tr>
<td>QUABF 15</td>
<td>Quality Bridge and Fab, Inc., 3608 Sharon Road, West Middlesex, PA 16159 <a href="http://www.qualitybridgeandfab.com/">http://www.qualitybridgeandfab.com/</a></td>
<td>2012-156Q</td>
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<td>Steel I-Beam Post</td>
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</table>
Section 1109: Guide Rail and Metal Median Barrier

**1109.03 Guide Rail: Posts**  
Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)  

See [Standard Drawing of Type 31 Strong Post Guide Rail RC-51M (Publication 72M)](http://rgsteel.com/)

Or [Standard Drawing of Type 2 Weak Post Guide Rail RC-53M (Publication 72M)](http://stella-jones.com/)

Important Notice: [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](http://rgsteel.com/)

<table>
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<tr>
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<td>Steel I-Beam Post</td>
<td>1999-022Q</td>
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<td>Welded Steel Post</td>
<td>2005-134Q</td>
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<tr>
<td>STEJ1 15</td>
<td>Stella-Jones Corporation, 3424 Parkersburg Road, Reedy, WV 25270-9402</td>
<td>1998-101</td>
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<td></td>
<td>Formerly Burke-Parsons Bowly (BURPB 15)</td>
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<td>Timber Guide Rail Post</td>
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<tr>
<td>STOREY15</td>
<td>S.I. Storey Lumber Company, 285 Sike Storey Road, Armuchee, GA 30105</td>
<td>2016-041QA</td>
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<tr>
<td></td>
<td>Long Breakaway Timber Post</td>
<td>2016-041QA</td>
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<td>Short Breakaway Timber Post</td>
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<td></td>
<td>Timber Guide Rail Post</td>
<td>2016-041QC</td>
</tr>
<tr>
<td>TRIN2 15</td>
<td>Trinity Highway Products, LLC, 550 East Robb Ave., Lima, OH 45801</td>
<td>2010-132QB</td>
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<tr>
<td></td>
<td>Steel I-Beam Post</td>
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<td></td>
<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>Welded Steel Post</td>
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<td>TRIN4 15</td>
<td>Trinity Highway Products, LLC, 200 Dynatex Road, Sunbright, TN 37872</td>
<td>2010-224QA</td>
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<td>Breakaway Terminal Wood Post</td>
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<tr>
<td>V&amp;SSE 15</td>
<td>V &amp; S Schuler Engineering, 2240 Allen Ave. S.E., Canton, OH 44707</td>
<td>1994-046</td>
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<td>Steel I-Beam Post</td>
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</table>
Section 1109: Guide Rail and Metal Median Barrier

1109.04 Guide Rail: Offset Brackets

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>AMETS 15</td>
<td>American Timber and Steel Corp., 4832 Plank Road, P. O. Box 767, Norwalk, OH 44857-0767</td>
<td><a href="http://www.americantimberandsteel.com/">http://www.americantimberandsteel.com/</a></td>
</tr>
<tr>
<td>Wood Offset Bracket (4&quot; x 8&quot; x 14&quot;)</td>
<td>2003-116</td>
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<tr>
<td>Wood Offset Bracket (6&quot; x 8&quot; x 14&quot;)</td>
<td>1995-185</td>
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</tr>
<tr>
<td>CNWPI 15</td>
<td>Central Nebraska Wood Preservers, Inc., P.O. Box 630, Sutton, NE 68979</td>
<td><a href="http://www.nebraskawood.com/">http://www.nebraskawood.com/</a></td>
</tr>
<tr>
<td>105 North Owen Street</td>
<td>Sutton, NE 68979</td>
<td></td>
</tr>
<tr>
<td>Wood Offset Bracket - Routed for Steel Posts (6&quot; x 8&quot; x 14&quot;)</td>
<td>2014-241QB</td>
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<tr>
<td>CREAT 15</td>
<td>Creative Building Products, 4307 Arden Drive, Fort Wayne, IN 46804-4446</td>
<td><a href="http://creativebuildingproducts.com/">http://creativebuildingproducts.com/</a></td>
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<tr>
<td>Plastic Offset Bracket</td>
<td>1996-199</td>
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<tr>
<td>DEKLB 15</td>
<td>DeKALB Molded Plastics, 550 West Main Street, Butler, IN 46721</td>
<td><a href="http://www.dekalbplastics.com/">http://www.dekalbplastics.com/</a></td>
</tr>
<tr>
<td>Composite Offset Bracket</td>
<td>Lightweight</td>
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<tr>
<td>IAWP1 15</td>
<td>Iowa Wood Preservers, Inc., 2102 South 17th Street, Oskaloosa, IA 52577</td>
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<tr>
<td>Wood Offset Bracket - Routed for Steel Posts (6&quot; x 8&quot; x 14&quot;)</td>
<td>2014-047B</td>
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<tr>
<td>MOND 15</td>
<td>Mondo Polymer Technologies, State Route 7, P.O. Box 250, Reno, OH 45773</td>
<td><a href="http://www.mondopolymer.com/">http://www.mondopolymer.com/</a></td>
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<td>Composite Offset Bracket</td>
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<td>Plastic Offset Bracket</td>
<td>2002-062Q</td>
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<td>MONM1 15</td>
<td>Monroeville Industrial Molding, 75 Ontario St., Norwalk, OH 44857</td>
<td><a href="http://www.monroevillemoldings.com/">http://www.monroevillemoldings.com/</a></td>
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<td>Plastic Offset Bracket</td>
<td>2003-017Q</td>
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<tr>
<td>RAMC1 15</td>
<td>Ramco International, 3102 Estate Drive, Bldg. 1, Oakdale, PA 15071</td>
<td><a href="http://www.ramcointernational.com/">http://www.ramcointernational.com/</a></td>
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<td>Plastic Offset Bracket</td>
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Section 1109: Guide Rail and Metal Median Barrier

1109.04 Guide Rail: Offset Brackets
Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>STEJ15</td>
<td>Stella-Jones Corporation, 3424 Parkersburg Road, Reedy, WV 25270-9402 <a href="http://stella-jones.com/">http://stella-jones.com/</a> Formerly Burke-Parsons Bowlby (BURPB 15) Wood Offset Bracket (6&quot; x 8&quot; x 14&quot;)</td>
<td>1998-101</td>
</tr>
<tr>
<td>STOREY15</td>
<td>S.I. Storey Lumber Company, 285 Sike Storey Road, Armuchee, GA 30105 <a href="http://www.sistoreylumber.com/">http://www.sistoreylumber.com/</a> Wood Offset Bracket - Non-Routed for Wood Posts (6&quot; x 8&quot; x 14&quot;)</td>
<td>2016-232Q</td>
</tr>
<tr>
<td>TRIN15</td>
<td>Trinity Highway Products, LLC, 200 Dynatex Road, Sunbright, TN 37872 <a href="http://www.highwayguardrail.com/">http://www.highwayguardrail.com/</a> Wood Offset Bracket - Routed for Steel Posts (6&quot; x 8&quot; x 14&quot;)</td>
<td>2010-224QB</td>
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1109.05 Guide Rail: Miscellaneous Material
Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

For miscellaneous material, including nuts, bolts, and washers, see Standard Drawing of Type 31 Strong Post Guide Rail RC-51M (Publication 72M)

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>ASPEC15</td>
<td>Assembly Specialty Products, 14700 Brookpark Road, Cleveland, OH 44135 <a href="https://www.assemblyspecialty.com/">https://www.assemblyspecialty.com/</a> 3/4&quot; (6x19) Swaged Galvanized Cable (RC-51M) BCT Cable Assembly Fabricator</td>
<td>2019-106Q</td>
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<tr>
<td>AUTBN15</td>
<td>Auto Bolt Company, 4740 Manufacturing Avenue, Cleveland, OH 44135 <a href="http://autobolt.net">http://autobolt.net</a> Bolt</td>
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<td>Bolt</td>
<td>2017-132Q</td>
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<td>Post Bolt (ASTM A307, Grade A)</td>
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<td>Splice Bolt (ASTM A307, Grade A)</td>
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### Section 1109: Guide Rail and Metal Median Barrier

**1109.05 Guide Rail: Miscellaneous Material**

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

For miscellaneous material, including nuts, bolts, and washers, see [Standard Drawing of Type 31 Strong Post Guide Rail RC-51M (Publication 72M)](http://www.bennettboltworks.com/)

<table>
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<tr>
<th>Product</th>
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<tr>
<td>BENNE 15 Bennett Bolt Works, Inc., 12 Elbridge Street, P. O. Box 922, Jordan, NY 13080</td>
<td>2&quot; x 3/8&quot; x 6&quot; Galvanized Anchor Bar (BC-709M) PLA 37x200x600H Plate Washer ASTM A307, Grade A Bolt</td>
<td>2015-145Q, 1985-135A</td>
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<tr>
<td>BIRFM 15 Birmingham Fastener Manufacturing, 931 Avenue W, P.O. Box 10323, Birmingham, AL 35234</td>
<td>Nut, Bolt, and Washer ASTM A307, Grade A Guiderail Bolt, ASTM F436 Washer, and ASTM A-563 Heavy Hex Nut</td>
<td>2011-127Q</td>
</tr>
<tr>
<td>CENMC 15 CenMac Metalworks, 1339 E. Fairground Road, Marion, OH 43302</td>
<td>Base Plate, Post Plate, End Post Support Angle, and Hardware</td>
<td>2014-048Q</td>
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<tr>
<td>CGLP1 15 Commercial Group Lifting Products, 12801 Universal Drive, Taylor, MI 48180</td>
<td>3/4&quot; (6x19) Swaged Galvanized Cable (RC-51M) BCT Cable Assembly Fabricator</td>
<td>2016-142Q</td>
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<td>DAYT3 15 Dayton Superior Corporation, 1125 Byers Road, Miamisburg, OH 45342</td>
<td>Anchor Insert Assemblies (A, B, C, and D per BC-734)</td>
<td>2008-070QABCD</td>
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<td>DI-HS 15 Di Highway Sign &amp; Structure Corporation, P. O. Box 123, New York Mills, NY 13417-0123</td>
<td>Base Plate, Post Plate, End Post Support Angle, and Hardware</td>
<td>1991-344</td>
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<td>ELDER 15 Elderlee, Inc., 729 Cross Road, Oaks Corners, NY 14518</td>
<td>Base Plate, Post Plate, End Post Support Angle, and Hardware</td>
<td>1987-158</td>
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*Actual Dimensions of Threaded Section of Swaged Fitting: 1" diameter x 8 TPI x 7" long, where Standard Drawing RC-51 shows 15/16" diameter x 9 TPI. (Original approval from 1990-078A, former supplier code: CWR&S 15)*
### Section 1109: Guide Rail and Metal Median Barrier

**1109.05 Guide Rail: Miscellaneous Material**

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

For miscellaneous material, including nuts, bolts, and washers, see [Standard Drawing of Type 31 Strong Post Guide Rail RC-51M (Publication 72M)](http://www.qualitybridgeandfab.com/)

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<tr>
<th>Product</th>
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<tr>
<td>Highway Safety Corporation, 239 Commerce Street, P. O. Box 358, Glastonbury, CT 06033-0358 <a href="http://www.highwaysafety.net/">http://www.highwaysafety.net/</a></td>
<td>Bolt</td>
<td>1989-180</td>
</tr>
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<td></td>
<td>Base Plate, Post Plate, End Post Support Angle, and Hardware</td>
<td>1989-180</td>
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<td>Nut, Bolt, and Washer</td>
<td>1989-180</td>
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<td>Rotating Bracket</td>
<td>1989-180</td>
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<td>Steel Spacer Tube</td>
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<tr>
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<td>Nut</td>
<td>ASTM A-563 Heavy Hex Nut</td>
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<td>QUABF 15</td>
<td>Quality Bridge and Fab, Inc., 3608 Sharon Road, West Middlesex, PA 16159 <a href="http://www.qualitybridgeandfab.com/">http://www.qualitybridgeandfab.com/</a></td>
<td>2012-160Q</td>
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<td>Base Plate, Post Plate, End Post Support Angle, and Hardware</td>
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<td>Anchor Plate (RC-51M)</td>
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<td>Base Plate, Post Plate, End Post Support Angle, and Hardware</td>
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<td>Rotating Bracket</td>
<td>1994-294Q</td>
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<td>Steel Spacer Tube</td>
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Section 1109: Guide Rail and Metal Median Barrier

1109.05 Guide Rail: Miscellaneous Material

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

For miscellaneous material, including nuts, bolts, and washers, see Standard Drawing of Type 31 Strong Post Guide Rail RC-51M (Publication 72M)

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<th>Product</th>
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<td>SILOF 15</td>
<td>Silo Fasteners - Ohio Rod Products, Elgin Fastener Group, 1415 South Benham Road, Versailles, IN 47042 <a href="http://elginfasteners.com/">http://elginfasteners.com/</a></td>
<td>1999-135Q</td>
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<td>Bolt</td>
<td>ASTM A307 Bolt</td>
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<td></td>
<td>* Approved MM-USA marking as Identifiable Steel</td>
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</tr>
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<td>Nut, Bolt, and Washer</td>
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</tr>
<tr>
<td>STCBS 15</td>
<td>Steel City Bolt and Screw, LLC, 230 West Valley Road, Birmingham, AL 35201 <a href="http://www.steelcitybolt.com/">http://www.steelcitybolt.com/</a></td>
<td>1990-036</td>
</tr>
<tr>
<td></td>
<td>Nut, Bolt, and Washer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Base Plate, Post Plate, End Post Support Angle, and Hardware</td>
<td>Excluding Steel Tube</td>
</tr>
<tr>
<td></td>
<td>Bolt and Nut</td>
<td>ASTM A307A Bolt and ASTM A-563 Heavy Hex Nut</td>
</tr>
<tr>
<td></td>
<td>Rotating Bracket</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Spacer Tube</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nut</td>
<td>ASTM A-563 Heavy Hex Nut</td>
</tr>
</tbody>
</table>

1109.08 Guide Rail: Welded Material

For Welded Steel Posts, see Section 1109.03.
Section 1110: Right-of-Way Fence

1110.01(a) Wire Fabric and Components, Type 1 Right-of-Way Fence

AASHTO M 181 Type I, Class D: Zinc-coated, Type II: Aluminum-coated, Type IV, Class A or B: Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric. Steel Products Procurement Act applies. See Standard Drawing RC-60M (Publication 72M)

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage 15</td>
<td>Formerly Anchor Fence Company.</td>
</tr>
<tr>
<td>ANCHR 15</td>
<td>Aluminum-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>1995-243</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Zinc-coated (Galvanized) Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Formerly Anchor Fence Company.</td>
</tr>
<tr>
<td></td>
<td>Aluminum-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>2003-191Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>2003-192Q</td>
</tr>
<tr>
<td></td>
<td>Zinc-coated (Galvanized) Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>2003-190Q</td>
</tr>
<tr>
<td></td>
<td>Formerly Anchor Fence Company.</td>
</tr>
<tr>
<td></td>
<td>Aluminum-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>2017-280Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>2017-281Q</td>
</tr>
<tr>
<td></td>
<td>Zinc-coated (Galvanized) Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>2017-207Q</td>
</tr>
<tr>
<td></td>
<td>Formerly Anchor Fence Company.</td>
</tr>
<tr>
<td></td>
<td>Aluminum-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>2016-118Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>2016-103Q</td>
</tr>
<tr>
<td></td>
<td>Formerly Anchor Fence Company.</td>
</tr>
<tr>
<td></td>
<td>Aluminum-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>2016-221Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>2016-220Q</td>
</tr>
</tbody>
</table>

651
Section 1110: Right-of-Way Fence

1110.01(a) Wire Fabric and Components, Type 1 Right-of-Way Fence

AASHTO M 181 Type I, Class D: Zinc-coated, Type II: Aluminum-coated, Type IV, Class A or B: Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric. Steel Products Procurement Act applies. See Standard Drawing RC-60M (Publication 72M)

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Stateside Steel and Wire, 304 Wyanoke Road, West Memphis, AR 72301 <a href="http://statesidesteel.com/">http://statesidesteel.com/</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>STASW 15</td>
<td>Zinc-coated Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>Zinc-coated (Galvanized) Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>Stateside Steel and Wire is approved to galvanize the wire used to manufacture the fence fabric.</td>
</tr>
<tr>
<td></td>
<td>Zinc-coated (Galvanized) Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>Stephens Pipe &amp; Steel is approved to galvanize the wire used to manufacture the fence fabric.</td>
</tr>
</tbody>
</table>

1110.01(b) Wire Fabric and Components, Type 2 and Type 5 Right-of-Way Fence

Steel Products Procurement Act applies. See Standard Drawing RC-60M (Publication 72M)

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BKERT 15</td>
<td>Galvanized Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>Bekaert Corporation is approved to galvanize (zinc-coat) the top, bottom, intermediate line, and stay wires used to manufacture the fence fabric.</td>
</tr>
<tr>
<td></td>
<td>Keystone Steel &amp; Wire Company, 7000 S. W. Adams Street, Peoria, IL 61641 <a href="http://keystonesteel.com/">http://keystonesteel.com/</a></td>
</tr>
<tr>
<td>KEYSW 15</td>
<td>Galvanized Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>Keystone Steel &amp; Wire Company is approved to galvanize (zinc-coat) the top, bottom, intermediate line, and stay wires to manufacturer the fence fabric.</td>
</tr>
<tr>
<td></td>
<td>Oklahoma Steel &amp; Wire, P.O. Box 220, Madill, OK 73446 <a href="http://www.okbrandwire.com/">http://www.okbrandwire.com/</a></td>
</tr>
<tr>
<td>OKSW1 15</td>
<td>Galvanized Steel Fabric</td>
</tr>
<tr>
<td></td>
<td>Oklahoma Steel &amp; Wire is approved to galvanize (zinc-coat) the top, bottom, intermediate line, and stay wires used to manufacture the fence fabric.</td>
</tr>
</tbody>
</table>
Section 1110: Right-of-Way Fence

1110.02 End Posts, Corner and Pull Posts, Line Posts, Braces, Stretcher Bars, Truss Rods, Fittings,

Steel Products Procurement Act applies. See Standard Drawing RC-60M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALLTC 15</td>
<td>Allied Tube &amp; Conduit Corporation, 16100 South Lathrop Ave., Harvey, IL 60426</td>
<td>ALLTC 15</td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td>2000-028Q</td>
</tr>
<tr>
<td>ANCHR 15</td>
<td>Master Halco, Inc., Anchor Fence Division, 1000 N. South Rd., Scranton, PA 18504</td>
<td>ANCHR 15</td>
</tr>
<tr>
<td></td>
<td>Fence Fittings and Hardware</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td></td>
</tr>
<tr>
<td>BENNE 15</td>
<td>Bennett Bolt Works, Inc., 12 Elbridge Street, P. O. Box 922, Jordan, NY 13080</td>
<td>BENNE 15</td>
</tr>
<tr>
<td></td>
<td>Fence Fittings and Hardware</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td></td>
</tr>
<tr>
<td>FRANK 15</td>
<td>Franklin Industries, 645 Atlantic Ave., Franklin, PA 16323</td>
<td>FRANK 15</td>
</tr>
<tr>
<td></td>
<td>Fence Fittings and Hardware</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved to manufacture fence parts from recycled train rail per Franklin Industries’ Rail Identification &amp; Traceability Procedure, Q113.003. In lieu of mill certifications, a Certificate of Conformance must be included with the 'Unidentified Steel' box checked on the CS-4171. Franklin Industries’ Certificate of Conformance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved to manufacture fence posts from recycled train rail per Franklin Industries’ Rail Identification &amp; Traceability Procedure, Q113.003. In lieu of mill certifications, a Certificate of Conformance must be included with the 'Unidentified Steel' box checked on the CS-4171. Franklin Industries’ Certificate of Conformance</td>
<td></td>
</tr>
</tbody>
</table>
Section 1110: Right-of-Way Fence

1110.02 End Posts, Corner and Pull Posts, Line Posts, Braces, Stretcher Bars, Truss Rods, Fittings,

Steel Products Procurement Act applies. See Standard Drawing RC-60M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fence Fittings and Hardware</td>
<td>1990-291</td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td>1990-291</td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td>1990-291A</td>
</tr>
<tr>
<td></td>
<td>C Fabric up to 5'</td>
<td>1990-291B</td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td>1990-291B</td>
</tr>
<tr>
<td></td>
<td>H Fabric up to 8'</td>
<td>1993-251</td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td>1993-251</td>
</tr>
<tr>
<td></td>
<td>Roll-formed C Section fence framework coated with Galfan 1&quot;, 2&quot;, and 2-3/8&quot;.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td>Composite Post 40</td>
</tr>
<tr>
<td></td>
<td>Provisional Approval: ECMS Special Provision P-C06241-A.</td>
<td></td>
</tr>
<tr>
<td>MTMINC15</td>
<td>Midwest Tube Mills, Inc., 2855 Michigan Road, Madison, IN 47250 <a href="http://www.midwesttubemills.com">http://www.midwesttubemills.com</a></td>
<td>2015-119Q</td>
</tr>
<tr>
<td></td>
<td>Braces</td>
<td>MT-40 Fence Tubing</td>
</tr>
<tr>
<td></td>
<td>End Posts (2 3/8&quot;)</td>
<td>MT-40 Fence Tubing</td>
</tr>
<tr>
<td></td>
<td>Approved for fabric heights of 4, 5, and 6 feet</td>
<td>2015-119Q</td>
</tr>
<tr>
<td></td>
<td>Line Posts (1 7/8&quot;)</td>
<td>MT-40 Fence Tubing</td>
</tr>
<tr>
<td></td>
<td>Approved for fabric heights of 4 feet</td>
<td>2015-119Q</td>
</tr>
</tbody>
</table>
# Section 1110: Right-of-Way Fence

1110.02 End Posts, Corner and Pull Posts, Line Posts, Braces, Stretcher Bars, Truss Rods, Fittings,

Steel Products Procurement Act applies. See Standard Drawing RC-60M (Publication 72M)

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fence Posts</strong></td>
<td>OnGuard SPS40E</td>
<td>2016-051Q</td>
</tr>
<tr>
<td><strong>End Posts (2 3/8&quot;)</strong></td>
<td>OnGuard SPS40E</td>
<td>2016-051Q</td>
</tr>
<tr>
<td><strong>Approved for fabric heights of 4, 5, and 6 feet</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fence Fittings and Hardware</strong></td>
<td>OnGuard SPS40E Tension Band, Dome Cap, Rail End, Brace Band</td>
<td>2016-051Q</td>
</tr>
<tr>
<td><strong>Fence Posts</strong></td>
<td>OnGuard SPS40E Tension Band, Dome Cap, Rail End, Brace Band</td>
<td>2016-051Q</td>
</tr>
<tr>
<td><strong>Line Posts (1 7/8&quot;)</strong></td>
<td>OnGuard SPS40E</td>
<td>2016-051Q</td>
</tr>
<tr>
<td><strong>Approved for fabric heights of 4 feet</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Facility 5975 South Highway 76  Russell Springs, KY 42642**

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stephens Pipe &amp; Steel, LLC, 2224 E. Highway 619, P.O. Box 618, Russell Springs, KY 42642</td>
<td><a href="http://www.spsfence.com/">http://www.spsfence.com/</a></td>
</tr>
<tr>
<td>Wheatland Tube Company, 1 Council Avenue, Wheatland, PA 16161</td>
<td><a href="http://www.wheatland.com/">http://www.wheatland.com/</a></td>
</tr>
</tbody>
</table>

*Last Revised: 8/10/2017*
### Section 1111: High Load Multi-Rotational Bearings

**1111.03 High Load Multi-Rotational Bearings**

Companies not listed must be preapproved by the Structural Materials Engineer, Materials Testing Laboratory, Harrisburg, PA before commencing fabrication. [Approved Bridge and Structure Products](#).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Disc Bearing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pot Bearing</td>
<td>2005-082Q</td>
</tr>
<tr>
<td></td>
<td>Spherical Bearing</td>
<td>2005-082Q</td>
</tr>
<tr>
<td></td>
<td>Disc Bearing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pot Bearing</td>
<td>2003-012Q</td>
</tr>
<tr>
<td></td>
<td>Spherical Bearing</td>
<td>2003-012Q</td>
</tr>
<tr>
<td></td>
<td>Pot Bearing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spherical Bearing</td>
<td>1990-146</td>
</tr>
<tr>
<td></td>
<td>Disc Bearing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pot Bearing</td>
<td>2001-022Q</td>
</tr>
<tr>
<td></td>
<td>Disc Bearing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pot Bearing</td>
<td>2017-029Q</td>
</tr>
<tr>
<td>LUBTC 15</td>
<td>Lubrite Technologies, 18649 Brake Shoe Road, Meadville, PA 16335-0458 <a href="http://www.usbfmi.com/lube1.htm">http://www.usbfmi.com/lube1.htm</a></td>
<td>1990-309AB</td>
</tr>
<tr>
<td></td>
<td>Pot Bearing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved to fabricate non-welded bearings only.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spherical Bearing</td>
<td>1990-309AB</td>
</tr>
<tr>
<td></td>
<td>Approved to fabricate non-welded bearings only.</td>
<td></td>
</tr>
</tbody>
</table>
## Section 1111: High Load Multi-Rotational Bearings

### 1111.03 High Load Multi-Rotational Bearings

Companies not listed must be preapproved by the Structural Materials Engineer, Materials Testing Laboratory, Harrisburg, PA before commencing fabrication. [Approved Bridge and Structures](#).

<table>
<thead>
<tr>
<th>Facility</th>
<th>Company Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAGE1 15</td>
<td>mageba USA LLC, 575 Lexington Ave, 4th Floor, New York 10022</td>
<td>2018-016Q</td>
</tr>
<tr>
<td>Pottstown, PA</td>
<td>Disc Bearing</td>
<td>Reston Disc</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NATBR 15</th>
<th>R. J. Watson / National Bridge Company Inc., 11035 Walden Avenue, Alden, NY 14004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disc Bearing</td>
<td>2013-239Q</td>
</tr>
</tbody>
</table>
# Section 1112: Glued Laminated Hardwood Timber Members

## 1112 Glued Laminated Hardwood Timber Members

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORSO 15</td>
<td>North-South Wood Preserving Company, 160 Preserver Road, North, SC 29112</td>
<td>2012-117Q</td>
</tr>
<tr>
<td>STEJ2 15</td>
<td>Stella-Jones Corporation, R.R. 3, P. O. Box 275, Dubois, PA 15801 <a href="http://stella-jones.com/">http://stella-jones.com/</a></td>
<td>2002-079Q</td>
</tr>
</tbody>
</table>

Formerly Burke-Parsons-Bowby Corp. (BURPB 15)
Section 1113: Plain and Laminated Neoprene Bearing Pads

### 1113 Plain and Laminated Neoprene Bearing Pads

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plain 50D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plain 60D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Laminated 50D Neoprene Bearing Pad</td>
<td></td>
<td>1986-119A</td>
</tr>
<tr>
<td></td>
<td>Steel Laminated 60D Neoprene Bearing Pad</td>
<td></td>
<td>1986-119B</td>
</tr>
<tr>
<td></td>
<td>Plain 50D Neoprene Bearing Pad</td>
<td></td>
<td>2001-174Q</td>
</tr>
<tr>
<td></td>
<td>Plain 60D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MURR1 15</td>
<td>MurRubber Technologies, Inc. (Formerly Bedell-Kraus), 1350 Commerce Drive, Stow, OH 44224 <a href="http://murrubber.com/">http://murrubber.com/</a></td>
<td>2012-251Q</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Plain 50D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plain 50D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plain 60D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Laminated 50D Neoprene Bearing Pad</td>
<td></td>
<td>1998-178</td>
</tr>
<tr>
<td></td>
<td>Steel Laminated 60D Neoprene Bearing Pad</td>
<td></td>
<td>1998-178</td>
</tr>
<tr>
<td></td>
<td>518 Progress Way Athens, TX 75751 (Formerly Seismic Energy Products, Inc.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plain 50D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plain 60D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Laminated 50D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Laminated 60D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plain 50D Neoprene Bearing Pad</td>
<td></td>
<td>2000-198Q</td>
</tr>
<tr>
<td></td>
<td>Plain 60D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Section 1113: Plain and Laminated Neoprene Bearing Pads

### 1113 Plain and Laminated Neoprene Bearing Pads

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plain 50D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plain 60D Neoprene Bearing Pad</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 1113.03(h) Bedding Material for Bridge Shoes

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bedding Material for Bridge Shoes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FABCO SA47, Type I</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabreeka, Type II</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>

| HBD-1 15         | HBD/Thermoid, Inc., 240 Industrial Lane, P.O. Box 4310, Oneida, TN 37841 [http://www.hbdtguedroid.com/](http://www.hbdtguedroid.com/) | 2008-096          |          |
|                  | Bedding Material for Bridge Shoes           |                   |          |
|                  | No. 24-34-5111-72 Type II                   |                   |          |

|                  | Bedding Material for Bridge Shoes           |                   |          |
|                  | SORBTEX, Type II                            |                   |          |
Section 1124: Temporary Traffic Control Signals

1124.03 Temporary Traffic Control Signals on Pedestal-Mounted Portable Traffic Control Signal Systems

See Section 901.2 Temporary Traffic Control Signals for product listings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Section MISC: Miscellaneous

MISC Anchoring Devices for Use in Vertical Positions Only

Adhesive anchors are not to be used for permanent installations which have the anchor in tension due to external loading regardless of whether the anchor is in a horizontal or vertical position. External loading can be from moment, moment and shear, or direct tension to cause tension in the anchor. Tension due to a torqued bolt is not an external load. See Section 516.2(k) for horizontal anchoring applications. Steel Products Procurement Act applies for mechanical anchors and threaded rods.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchoring Adhesive</td>
<td>ULTRABOND HS-200</td>
<td></td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>Keligrout 101-P</td>
<td></td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>Keligrout Polyester Adhesive</td>
<td>2004-132Q</td>
</tr>
<tr>
<td>DAYT0 15</td>
<td>Dayton Superior Corporation, 1125 Byers Road, Miamisburg, OH 45342-576</td>
<td>1997-169</td>
</tr>
<tr>
<td>Mechanical Anchor</td>
<td>Type A and B Anchors, per BC-734</td>
<td></td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>Dural 452 Gel</td>
<td></td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>Dural Fast Set Epoxy LV</td>
<td>1999-183Q</td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>Magnabond</td>
<td></td>
</tr>
<tr>
<td>HILT-15</td>
<td>Hilti, Inc., 5400 South 122nd East Ave., P.O. Box 21148, Tulsa, OK 74121 <a href="https://www.hilti.com/">https://www.hilti.com/</a></td>
<td>2001-101Q</td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>HIT-RE 500 Anchoring Epoxy</td>
<td></td>
</tr>
<tr>
<td>Anchoring Device (Adhesive &amp; Threaded Rod)</td>
<td>HVU Capsule Adhesive Anchoring System</td>
<td>2000-123Q</td>
</tr>
<tr>
<td>Approved two-component system consists of a self-contained adhesive capsule (HVU Adhesive Capsule) and a threaded rod with nut and washer (HAS Anchor Rod Assembly). Only approved for threaded rods manufactured in the United States.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant Kaufering, Germany</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>HIT-HY 10 PLUS Adhesive Anchor System</td>
<td></td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>HIT-HY 150 Injection Adhesive</td>
<td>1996-054</td>
</tr>
</tbody>
</table>
# Section MISC: Miscellaneous

## MISC Anchoring Devices for Use in Vertical Positions Only

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anchoring Adhesive EPCON C6+ High Strength Epoxy</td>
<td>1988-131</td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive EPCON G5 High Strength Epoxy</td>
<td>1993-276</td>
</tr>
<tr>
<td></td>
<td>Mechanical Anchor Trubolt Wedge Anchor, Galvanized</td>
<td>1992-363A</td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive Sure-Poxy 116</td>
<td>1992-169</td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive Sure-Poxy 117</td>
<td>1990-371</td>
</tr>
<tr>
<td>MEDW0 15</td>
<td>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338 <a href="http://www.wrmeadows.com/">http://www.wrmeadows.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive Rezi-Weld Gel Paste (Construction Epoxy)</td>
<td>1993-280</td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive Liquid Roc 300 Twin Tube</td>
<td>1996-092E</td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive Liquid Roc 500 Low Odor Twin Tube</td>
<td>1996-082F</td>
</tr>
<tr>
<td></td>
<td>Mechanical Anchor Sup-R-Stud Wedge Anchor</td>
<td>1996-092B</td>
</tr>
<tr>
<td></td>
<td>Mechanical Anchor Taper Bolt</td>
<td>1996-092A</td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive 1257 Epoxy Anchoring Adhesive</td>
<td>1993-270</td>
</tr>
<tr>
<td></td>
<td>Mechanical Anchor Power-Bolt</td>
<td>1991-206</td>
</tr>
<tr>
<td></td>
<td>Mechanical Anchor Power-Stud</td>
<td>1991-205</td>
</tr>
</tbody>
</table>

*Last Revised: 2/7/2019*
Section MISC: Miscellaneous

MISC Anchoring Devices for Use in Vertical Positions Only

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIK1 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td><a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
</tr>
<tr>
<td>Plant</td>
<td>1682 Marion Williamsport Road E Marion, OH 43302</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive</td>
<td>Sikadur DOT SP 3/4 DBA (Epoxy as Injection Gel)</td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive</td>
<td>Sikadur Injection Gel</td>
</tr>
<tr>
<td>SIK1 15</td>
<td>Sika Corporation / 2K Polymer Systems Limited, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td><a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
</tr>
<tr>
<td>Plant</td>
<td>2K Polymer Systems Limited 1682 Marion Williamsport Road Venture Crescent, DE55 7RA U.K.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive</td>
<td>Sikadur Anchor Fix 500</td>
</tr>
<tr>
<td>SIMST 15</td>
<td>Simpson Strong-Tie, Inc., 136 Official Road, Addison, IL 60101</td>
<td><a href="http://www.strongtie.com/">http://www.strongtie.com/</a></td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive</td>
<td>AT Acrylic Adhesive</td>
</tr>
<tr>
<td></td>
<td>(Formerly known as Acrylic-Tie)</td>
<td>ET-HP Epoxy Adhesive</td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive</td>
<td>(Formerly known as ET Epoxy-Tie)</td>
</tr>
<tr>
<td>UNITX 15</td>
<td>Dayton Superior Corporation - UNITEX, 3101 Gardner Ave., Kansas City, MO 64120</td>
<td><a href="http://www.daytonsuperior.com/brands/chemicals/unitex">http://www.daytonsuperior.com/brands/chemicals/unitex</a></td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive</td>
<td>Pro-Poxy 300</td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive</td>
<td>Pro-Poxy 300 Fast</td>
</tr>
<tr>
<td></td>
<td>Anchoring Adhesive</td>
<td>Pro-Poxy 400</td>
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</table>

MISC Asphalt Paving Course, FB Modified

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GORBR 15</td>
<td>Gorman Brother's, Church Street, Port Of Albany, Albany, NY 12202</td>
<td><a href="http://www.gormanroads.com/">http://www.gormanroads.com/</a></td>
<td>2003-196Q</td>
</tr>
<tr>
<td></td>
<td>FB Modified</td>
<td></td>
<td>2003-196Q</td>
</tr>
<tr>
<td></td>
<td>FB-3 Modified Wearing Course</td>
<td></td>
<td>2003-196Q</td>
</tr>
</tbody>
</table>
Section MISC: Miscellaneous

MISC Asphalt Paving Course, FB Modified

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FB Modified HEI-WAY (HGP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FB-3 Modified Wearing Course HEI-WAY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RUSS6 15</td>
<td>Russell Standard Corporation, P.O. Box 802, Mars, PA 16046 [<a href="http://www.russellstandard.com/">http://www.russellstandard.com/</a>]</td>
<td>1994-054</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>Mars, PA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FB Modified</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FB-3 Modified Wearing Course</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUIT0 15</td>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Rd, Cortland, NY 13045-5160 [<a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a>]</td>
<td>2003-088Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FB Modified</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FB-3 Modified Wearing Course</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Provisional Approval - Contact PennDOT Materials Testing Laboratory at 717-787-2707 before using on a Department project.

MISC Coal Tar Epoxy (RCC Pipe Coating)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBL 15</td>
<td>Carboline Company, 2150 Schuetz Road, St. Louis, MO 63146 [<a href="http://www.carboline.com/">http://www.carboline.com/</a>]</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Coal Tar Epoxy</td>
<td></td>
</tr>
<tr>
<td>ROYST 15</td>
<td>Chase Corporation, 295 University Avenue, Westwood, MA 02090 [<a href="http://www.chasecorp.com/">http://www.chasecorp.com/</a>]</td>
<td>1970-005</td>
</tr>
</tbody>
</table>
Section MISC: Miscellaneous

MISC Corrosion Inhibitor

Admixtures for inhibiting the corrosion of steel reinforcement in concrete.

ASTM C1582 - Standard Specification for Admixtures to Inhibit Chloride-Induced Corrosion of Reinforcing Steel in Concrete

ASTM G109 - Standard Test Method for Determining Effects of Chemical Admixtures on Corrosion of Embedded Steel Reinforcement in Concrete Exposed to Chloride Environments

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
## Section MISC: Miscellaneous

### MISC Corrosion Inhibitor
Admixtures for inhibiting the corrosion of steel reinforcement in concrete.

ASTM C1582 - Standard Specification for Admixtures to Inhibit Chloride-Induced Corrosion of Reinforcing Steel in Concrete

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAS-3 15</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td>MasterLife CI 30 (Rheocrete CNI)</td>
<td>1 to 6 gallons per cubic yard</td>
<td>CADD-2016-01-115</td>
</tr>
<tr>
<td>Plant</td>
<td>Tipp City, OH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrosion Inhibitor [CI]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provisional Approval: Contact PennDOT Materials Testing Laboratory at 717-787-2489 before using.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| BAS-8 15 | BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122 | MasterLife CI 30 (Rheocrete CNI) | 1 to 6 gallons per cubic yard | CADD-2016-01-115 | 1998-113 |
| Plant | St. Leonard, Quebec | | | | |
| | Corrosion Inhibitor [CI] | | | | |
| | Provisional Approval: Contact PennDOT Materials Testing Laboratory at 717-787-2489 before using. | | | | |

| EUCLD 15 | Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 | Eucon CIA | 2 to 6 gal/yd³ | CADD-2013-01-025 | 2015-122QC |
| | | | | | |
| | Provisional Approval: Contact PennDOT Materials Testing Laboratory at 717-787-2489 before using. | | | | |
### Section MISC: Miscellaneous

**MISC Corrosion Inhibitor**

Admixtures for inhibiting the corrosion of steel reinforcement in concrete.

ASTM C1582 - Standard Specification for Admixtures to Inhibit Chloride-Induced Corrosion of Reinforcing Steel in Concrete

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>62 Whittemore Ave. Cambridge, MA 02140-1692</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Formerly: W. R. Grace and Company</strong></td>
<td></td>
<td>Provisional Approval: Contact PennDOT Materials Testing Laboratory at 717-787-2489 before using.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrosion Inhibitor [CI]</td>
<td>DCI Calcium Nitrite</td>
<td>1980-040</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrosion Inhibitor [CI]</td>
<td>DCIS</td>
<td>1997-149</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Plant            | Augusta, GA                               |  |     |         |
| **Formerly: W. R. Grace and Company** |  | Provisional Approval: Contact PennDOT Materials Testing Laboratory at 717-787-2489 before using. |     |         |
| Corrosion Inhibitor [CI] | DCI Calcium Nitrite | 1980-040 |     |         |
| Corrosion Inhibitor [CI] | DCIS | 1997-149 |     |         |

| **Plant**        |  |  |     |         |         |
| **Provisional Approval: Contact PennDOT Materials Testing Laboratory at 717-787-2489 before using.** |     |         |         |         |
| Corrosion Inhibitor [CI] |  |  |     |         |         |

Section MISC: Miscellaneous

MISC Crumb Rubber Modifier (CRM) Additive

Use in accordance with project specification (CRM requirements for gradation, contaminants, moisture, and specific gravity).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIB-2 15</td>
<td>Liberty Tire Recycling, LLC, 100 Talbot Avenue, Braddock, PA 15104 <a href="http://libertytire.com/Home.aspx">http://libertytire.com/Home.aspx</a></td>
<td>2013-097A</td>
</tr>
<tr>
<td>NRIND 15</td>
<td>Edge Rubber, 1711 Opportunity Avenue, Chambersburg, PA 17201 <a href="http://www.edgerubber.com">http://www.edgerubber.com</a></td>
<td>----</td>
</tr>
</tbody>
</table>

MISC Crumb Rubber Modifier (CRM), Treated

No approved products for treated Crumb Rubber Modifier (CRM).

MISC Dust Palliatives

Moved to Section 901.3(b)
Section MISC: Miscellaneous

MISC Dust Palliatives

Moved to Section 901.3(b)

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUCLD 15</td>
<td>Embedded Galvanic Anodes - Point</td>
<td>Sentinel GL</td>
<td>2010-013Q</td>
</tr>
<tr>
<td>JARD-1 15 Plant</td>
<td>Embedded Galvanic Anodes - Point</td>
<td>MasterProtect 8065 CP Anodes</td>
<td>2014-117</td>
</tr>
<tr>
<td></td>
<td>Embedded Galvanic Anodes - Point</td>
<td>MasterProtect 8105 CP Anodes</td>
<td>2014-118</td>
</tr>
<tr>
<td></td>
<td>Embedded Galvanic Anodes - Point</td>
<td>MasterProtect 8150 CP Anodes</td>
<td>2014-119</td>
</tr>
</tbody>
</table>

MISC Embedded Galvanic Anodes

Cathodic Protection (CP) systems are intended to prevent or retard corrosion in concrete structures. There are several key factors that need to be considered and evaluated before CP is deemed a technically acceptable and cost effective solution on an individual project.

Establishing the required electrical continuity in new construction comes only with significant effort and, in rehabilitation work, it is exceedingly difficult. Therefore, the design and use of CP systems for any structure, or part thereof, needs to be approved by the C.O. Bridge Quality Assurance Division (BQAD).

Project designers should consider the CP System Guidelines (link below) prior to submitting their project designs to BQAD for review and approval.

Use & Approval Guidelines: Cathodic Protection (CP) Systems

All listings in this section are conditionally approved.
Cathodic Protection (CP) systems are intended to prevent or retard corrosion in concrete structures. There are several key factors that need to be considered and evaluated before CP is deemed a technically acceptable and cost effective solution on an individual project.

Establishing the required electrical continuity in new construction comes only with significant effort and, in rehabilitation work, it is exceedingly difficult. Therefore, the design and use of CP systems for any structure, or part thereof, needs to be approved by the C.O. Bridge Quality Assurance Division (BQAD).

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Use & Approval Guidelines: Cathodic Protection (CP) Systems

All listings in this section are conditionally approved.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sika FerroGard 650</td>
<td>2018-185</td>
</tr>
<tr>
<td>Sika Corporation, 2182 Marion Williamsport Road E, Marion, OH 43302</td>
<td>Sika FerroGard 670</td>
<td>2018-186</td>
</tr>
<tr>
<td>Vector Corrosion Technologies, 13312 North 56th Street, #102, Tampa, FL 33617</td>
<td>Galvanode DAS</td>
<td>2008-166</td>
</tr>
<tr>
<td>Vector Corrosion Technologies, 13312 North 56th Street, #102, Tampa, FL 33617</td>
<td>Galvashield XP</td>
<td>2001-145</td>
</tr>
<tr>
<td>Vector Corrosion Technologies, 13312 North 56th Street, #102, Tampa, FL 33617</td>
<td>Galvashield XP4</td>
<td>2011-075</td>
</tr>
</tbody>
</table>

MISC Epoxy Based Surface Treatment for Bridge Decks

Last Revised: 9/26/2019
## Section MISC: Miscellaneous

### MISC Epoxy Based Surface Treatment for Bridge Decks

ECMS Provisional Specification: c10431 ITEM 9043-2101 (ITEM 9043-0101) Epoxy-based Surface Treatment for Bridge Decks

This Provisional Specification may be withdrawn immediately.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epoxy Based Surface Treatment System for Bridge Decks</td>
<td>Safelane Surface Overlay System</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cargill aggregate must be used (SRL M).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>System can be used only on roads with Average Daily Traffic (ADT) of 3,000 vehicles or less.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved as an alternate per manufacturer's specifications.</td>
<td></td>
</tr>
<tr>
<td>CCMAT 15</td>
<td>Cornerstone Construction Material, LLC, 1618 East Elm Street, Harrisonville, MO 64701 <a href="http://ccmaterial.com">http://ccmaterial.com</a></td>
<td>2014-086A</td>
</tr>
<tr>
<td>Facility</td>
<td>101 East Walnut Street Archie, MO 64725</td>
<td></td>
</tr>
<tr>
<td>Epoxy Resin Binder</td>
<td>CE330 Epoxy Binder</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
<td></td>
</tr>
<tr>
<td>Epoxy Resin Binder</td>
<td>E-Bond 526</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
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</tr>
<tr>
<td>Epoxy Resin Binder</td>
<td>EPX50-Overlay</td>
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<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EPX50-Overlay Fast</td>
<td>2018-199</td>
</tr>
<tr>
<td>EUCL2 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
<td>2013-005</td>
</tr>
<tr>
<td>Plant</td>
<td>3835 State Route 72 Kirkland, IL 60146</td>
<td></td>
</tr>
<tr>
<td>Epoxy Resin Binder</td>
<td>Flexolith UR</td>
<td></td>
</tr>
</tbody>
</table>
**Section MISC: Miscellaneous**

**MISC Epoxy Based Surface Treatment for Bridge Decks**

ECMS Provisional Specification: c10431 ITEM 9043-2101 (ITEM 9043-0101) Epoxy-based Surface Treatment for Bridge Decks

This Provisional Specification may be withdrawn immediately.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
<td>1994-231</td>
</tr>
<tr>
<td></td>
<td>Epoxy Resin Binder</td>
<td>Flexolith</td>
</tr>
<tr>
<td></td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
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</tr>
<tr>
<td>KWI1 15</td>
<td>Kwik Bond Polymers, 923 Teal Drive, Benicia, CA 94510 <a href="http://www.kwikbondpolymers.com">http://www.kwikbondpolymers.com</a></td>
<td>2013-197B</td>
</tr>
<tr>
<td></td>
<td>Polyester Resin Binder</td>
<td>PPC-HFST</td>
</tr>
<tr>
<td></td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
<td></td>
</tr>
<tr>
<td>MAPEIB15 Plant</td>
<td>MAPEI Corporation, 1144 East Newport Center Drive, Deerfield Beach, FL 33442 <a href="http://www.mapei.com/US-EN/">http://www.mapei.com/US-EN/</a></td>
<td>2017-276</td>
</tr>
<tr>
<td></td>
<td>Epoxy Resin Binder</td>
<td>Planiseal Traffic Coat</td>
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<tr>
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<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
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</tr>
<tr>
<td></td>
<td>Epoxy Resin Binder</td>
<td>Impervious ME</td>
</tr>
<tr>
<td></td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly POLY-CARB, Inc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Epoxy Resin Binder</td>
<td>Flexogrid (Mark-163)</td>
</tr>
<tr>
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<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
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<td>Epoxy Resin Binder</td>
<td>Mark-154 PA</td>
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<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
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### Section MISC: Miscellaneous

#### MISC Epoxy Based Surface Treatment for Bridge Decks

ECMS Provisional Specification: c10431 ITEM 9043-2101 (ITEM 9043-0101) Epoxy-based Surface Treatment for Bridge Decks

This Provisional Specification may be withdrawn immediately.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant 1682 Marion Williamsport Road E Marion, OH 43302</td>
<td>Sikadur 22, Lo-Mod FS</td>
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<td>Epoxy Resin Binder</td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
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<tr>
<td></td>
<td>Epoxy Based Surface Treatment System for Bridge Decks</td>
<td>T-48 Polysulfide Epoxy Overlay System</td>
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<td></td>
<td>Conditionally Approved as an alternate per manufacturer's specifications.</td>
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<td>Epoxy Based Surface Treatment System for Bridge Decks</td>
<td>Pro-Poxy Type III DOT</td>
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<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
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<td>Epoxy Based Surface Treatment System for Bridge Decks</td>
<td>Pro-Poxy Type III DOT LT</td>
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<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
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</table>

#### MISC Expanded Foam Backfill For Post Mounted Signs Types B, C and E

Provisional Specification: ECMS Special Provision P-c09311-A, Type B (Only for use on projects let on or before July 1, 2019)

Provisional Specification: ECMS Special Provision P-c09321-A, Type C (Only for use on projects let on or before July 1, 2019)

Provisional Specification: ECMS Special Provision P-c09341-A, Type E (Only for use on projects let on or before July 1, 2019)

<table>
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<tr>
<th>Product</th>
<th>Name</th>
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</tr>
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<tbody>
<tr>
<td>FOREI 15</td>
<td>Forward Enterprises, Inc., 9430 Telephone Road, Houston, TX 77075</td>
<td>2000-089</td>
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<tr>
<td></td>
<td>Expanded Foam Backfill For Post Mounted Signs Types B, C and E</td>
<td>Poly-Set HD-2</td>
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<td>Provisionally approved for use on projects let on or before July 1, 2019.</td>
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<td>Expanded Foam Backfill For Post Mounted Signs Types B, C and E</td>
<td>Poly-Set HD-5</td>
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<td>Expanded Foam Backfill For Post Mounted Signs Types B, C and E</td>
<td>2000-089</td>
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</table>
Section MISC: Miscellaneous

MISC Expanded Foam Backfill For Post Mounted Signs Types B, C and E
Provisional Specification: ECMS Special Provision P-c09311-A, Type B (Only for use on projects let on or before July 1, 2019)
Provisional Specification: ECMS Special Provision P-c09321-A, Type C (Only for use on projects let on or before July 1, 2019)
Provisional Specification: ECMS Special Provision P-c09341-A, Type E (Only for use on projects let on or before July 1, 2019)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOREI 15</td>
<td>Forward Enterprises, Inc., 9430 Telephone Road, Houston, TX 77075</td>
<td>Provisionally approved for use on projects let on or before July 1, 2019.</td>
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MISC Flexible Weatherproofing Coating for Concrete
Last Revised: 4/8/2015

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799</td>
<td>Flexible Weatherproofing Coating for Concrete</td>
</tr>
<tr>
<td>PDI-N 15</td>
<td>PDI, Inc., P. O. Box 130, Circle Pines, MN 55014</td>
<td>Flexible Weatherproofing Coating for Concrete</td>
</tr>
<tr>
<td>WATSB 15</td>
<td>Watson Bowman Acme Corporation, 95 Pineview Drive, Amherst, NY 14228</td>
<td>Flexible Weatherproofing Coating for Concrete</td>
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MISC Geosynthetic Clay Liner (GCL)
Last Revised: 12/6/2019

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>BNTFX 15</td>
<td>TAG Environmental, Inc., Division of Terrafix, 23 Truman Road, Barrie, Ontario L4M 6E7</td>
<td>Geosynthetic Clay Liner (GCL)</td>
</tr>
</tbody>
</table>
Section MISC: Miscellaneous

MISC Geosynthetic Clay Liner (GCL)

ECMS Special Provision C02121 ITEM 9212-2101 (ITEM 9212-0101) - Geosynthetic Clay Liner

This Provisional Specification or any manufacturer or product may be withdrawn immediately, if experience demonstrates a problem with the use of Geosynthetic Clay Liner.

Product Name Ref. No.
(Ce
to) Formerly Colloid Environmental Technologies Company

- Geosynthetic Clay Liner (GCL)
  - Provisionally Approved
  - Bentomat CL
  - 2011-206Q

- Geosynthetic Clay Liner (GCL)
  - Provisionally Approved
  - Bentomat ST
  - 1999-075Q

MISC Geotextile and Fiberglass Reinforced Paving Fabrics and Grids (Asphalt)

See Section 466.2(a) Geotextile Paving Fabric

Product Name Ref. No.
MISC High-Tension Cable Median Barrier Systems

Publication 13M, Design Manual Part 2 (DM2), Chapter 12.6.D - High-Tension Cable Median Barrier & Table 12.10 (Design/Location Guidelines for High-Tension Cable Barrier Systems Installed in Medians)

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

Product Name Ref. No.
BRIF0 15 Brifen USA, Inc., 12501 North Santa Fe Avenue, Oklahoma City, OK 73114 [http://www.brifenuusa.com/](http://www.brifenuusa.com/)

- High-Tension Barrier System
  - Brifen TL-4 Wire Rope Safety Fence (WRSF) (4 Cable)
  - NCHRP 350
  - TL-4
  - B-82B
  - SGR07d
  - 2013-165M
Section MISC: Miscellaneous

MISC High-Tension Cable Median Barrier Systems

Publication 13M, Design Manual Part 2 (DM2), Chapter 12.6.D - High-Tension Cable Median Barrier & Table 12.10 (Design/Location Guidelines for High-Tension Cable Barrier Systems Installed in Medians)

Important Notice: AASHTO/FHWA Joint Implementation Agreement for MASH 2016

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested Level</th>
<th>FHWA Acc. Letter</th>
<th>Designator</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GIBRA 15</td>
<td>Gibraltar Global LLC, 4303 Innovation Loop, Marble Falls, TX 78654 <a href="https://gibraltarglobal.com/">https://gibraltarglobal.com/</a></td>
<td>Gibraltar TL-4 Cable Barrier System (4 Cable)</td>
<td>NCHRP 350</td>
<td>Multiple</td>
<td>TL-4</td>
<td>B-137A, B-137B, B-137D</td>
<td>SGM07b</td>
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</table>

CASS S3 MASH as a Test Level 4 roadside or median barrier on flat terrain only.
NCHRP-350 as a Test Level 4 on 1:6 slopes or flatter.


CASS S3 MASH as a Test Level 4 roadside or median barrier on flat terrain only.
NCHRP-350 as a Test Level 4 on 1:6 slopes or flatter.

MISC Hot Pour Mastics

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>121 Industrial Park Road Halls, TN 38040</td>
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</table>
# Section MISC: Miscellaneous

## MISC Hot Pour Mastics

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Product Name</th>
<th>Manufacturer</th>
<th>Location</th>
<th>Website</th>
<th>Last Revised</th>
<th>Conditionally approved to be used per manufacturer's specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>121 Industrial Park Road, Halls, TN 38040</td>
<td>Mastic One Part No. 33339</td>
<td>2014-270</td>
<td><a href="http://www.crafco.com/">Mastic One 33339 Product Data Sheet</a></td>
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</tr>
<tr>
<td>MAXPR 15 Plant</td>
<td>Hot Pour Mastic</td>
<td>Maxwell Products, Inc., 650 South Delong Street, Salt Lake City, UT 84104</td>
<td><a href="http://maxwellproducts.com">http://maxwellproducts.com</a></td>
<td>2/28/2020</td>
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<tr>
<td>RTPT2 15 Facility</td>
<td>Hot Pour Mastic</td>
<td>RIGHT/POINTE, LLC, 234 Harvestore Drive, Dekalb, IL 60115</td>
<td><a href="http://www.rightpointe.com/">http://www.rightpointe.com/</a></td>
<td>2/28/2020</td>
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## MISC Metal Cribbing

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<th>Product Ref. No.</th>
<th>Product Name</th>
<th>Manufacturer</th>
<th>Location</th>
<th>Website</th>
<th>Last Revised</th>
<th>Conditionally approved to be used per manufacturer's specifications</th>
</tr>
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<tbody>
<tr>
<td>CON00 15 Plant</td>
<td>Metal Cribbing</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328</td>
<td><a href="http://www.conteches.com/">http://www.conteches.com/</a></td>
<td>1/27/2016</td>
<td></td>
<td></td>
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<tr>
<td>CON06 15 Plant</td>
<td>Metal Cribbing</td>
<td>Contech Engineered Solutions LLC, a QUIKRETE Company, 9025 Centre Pointe Drive, West Chester, OH 45069</td>
<td><a href="http://www.conteches.com/">http://www.conteches.com/</a></td>
<td>1/27/2016</td>
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</tbody>
</table>
Section MISC: Miscellaneous

### MISC Modular Glare Screen

<table>
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<tr>
<th>Product</th>
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<tbody>
<tr>
<td></td>
<td>Modular Glare Screen</td>
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<td></td>
<td>Modular Glare Screen Anti-Glare Shield System</td>
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### MISC PA Structure Mounted Guide Rail Bridge Barrier (BD-609M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td></td>
<td>PA Structure Mounted Guide Rail Bridge Barrier</td>
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<tr>
<td></td>
<td>PA Structure Mounted Guide Rail Bridge Barrier</td>
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<tr>
<td></td>
<td>PA Structure Mounted Guide Rail Bridge Barrier</td>
<td></td>
</tr>
<tr>
<td>CIANB 15</td>
<td>Cianbro Fabrication &amp; Coating Corporation, 3 Farm Lane, Georgetown, MA 01833 <a href="http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx">http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx</a></td>
<td>2010-246Q</td>
</tr>
<tr>
<td></td>
<td>Formerly Foster Precise Structural Products (FOSPR).</td>
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<td></td>
<td>PA Structure Mounted Guide Rail Bridge Barrier</td>
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<tr>
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<td>PA Structure Mounted Guide Rail Bridge Barrier</td>
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<tr>
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<td>PA Structure Mounted Guide Rail Bridge Barrier</td>
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<tr>
<td>PMWI 15</td>
<td>Pleasant Mount Welding, Inc., 45 Dundaff Street, Carbondale, PA 18407 <a href="https://www.pmwi.net/">https://www.pmwi.net/</a></td>
<td>2018-218Q</td>
</tr>
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<td>PA Structure Mounted Guide Rail Bridge Barrier</td>
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BULLETIN 15 (Publication 35)
Qualified Products List for Construction

Section MISC: Miscellaneous

MISC PA Structure Mounted Guide Rail Bridge Barrier (BD-609M)  Last Revised: 7/23/2019

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>PSFAB 15</td>
<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
<td>2016-281</td>
</tr>
<tr>
<td>QUABF 15</td>
<td>Quality Bridge and Fab, Inc., 3608 Sharon Road, West Middlesex, PA 16159 <a href="http://www.qualitybridgeandfab.com/">http://www.qualitybridgeandfab.com/</a></td>
<td>2012-247Q</td>
</tr>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
<td>2015-142QF</td>
</tr>
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</table>

MISC Photovoltaic Modules  Last Revised: 4/13/2015

Must satisfy requirements of Section 910.3(u)3 and 910.3(v).

Approval for use granted only on a project-by-project basis by Special Provision in the contract.

Use in rural areas where cost-effectiveness can be demonstrated.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Section MISC: Miscellaneous

MISC Pipe Penetrating Sealers to Reduce Chlorine Penetration of Concrete

The products previously listed in this Section have been moved to Section 1019.2(c) Penetrating Sealers (For Reinforced Concrete Substructure Surfaces) and/or Section 1019.2(d) Penetrating Sealers (For Bridge Superstructure).

AASHTO T259, AASHTO T260, FHWA RD 78-35, Section 4.B.77

MISC Polymer Modified and Special Cements, Mortars, and Concrete

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Cement Usage</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Formerly Ceratech, Inc. (CETEC 15)</td>
<td>Pavemend SLQ</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Pavemend VR</td>
<td>Vertical and Overhead</td>
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<tr>
<td></td>
<td></td>
<td>Pavemend VR</td>
<td>Vertical and Overhead</td>
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<tr>
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<td>Pavemend VR</td>
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<td>Pavemend VR</td>
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AASHTO T259, AASHTO T260, FHWA RD 78-35, Section 4.B.77
# Section MISC: Miscellaneous

## MISC Polymer Modified and Special Cements, Mortars, and Concrete

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Cement Usage</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>CEMX6 15</td>
<td>Fairborn Cement Company (Eagle Materials, Inc.), 3811 Turtle Creek Blvd, Suite 1100, Dallas, TX 75219 <a href="http://www.eaglematerials.com">http://www.eaglematerials.com</a></td>
<td>Type M Masonry Cement, Type S Masonry Cement</td>
<td>2010-233QA</td>
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<tr>
<td>Plant</td>
<td>(Formerly CEMEX, Inc.)</td>
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<tr>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
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<tr>
<td></td>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
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<tr>
<td>Plant</td>
<td>121 Industrial Park Road Halls, TN 38040</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
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</tr>
<tr>
<td>CTS-1 15</td>
<td>CTS Cement Manufacturing Company, 12442 Knott Street, Garden Grove, CA 92841 <a href="http://www.ctscement.com/">http://www.ctscement.com/</a></td>
<td>Chem Comp III / Komponent, CTS Type K, Rapid Set Cement, Rapid Set Concrete Mix, Section 624.2(c)</td>
<td>1989-085</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
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<td>2001-161Q</td>
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<td>HD-25VÖ, formerly HD-25</td>
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<td>1999-207Q</td>
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Last Revised: 8/19/2019
### Section MISC: Miscellaneous

#### MISC Polymer Modified and Special Cements, Mortars, and Concrete

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<tr>
<th>Product</th>
<th>Name</th>
<th>Cement Usage</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
<td>Concrete Top Supreme</td>
<td>2002-159Q</td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Dural Top Gel</td>
<td>Vertical and Overhead</td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Eucocrete</td>
<td>2002-154Q</td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Speedcrete Red Line</td>
<td>Vertical and Overhead</td>
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<tr>
<td>EUCLD 15</td>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Thin Top Supreme</td>
<td>2002-158Q</td>
</tr>
<tr>
<td>FTECH 15</td>
<td>Fibrecrete Preservation Technologies, Inc., 401 Old 52 South, Mount Airy, NC 27030 <a href="https://www.fibcretept.com/">https://www.fibcretept.com/</a></td>
<td>Fibrecrete G</td>
<td>2014-244</td>
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Section MISC: Miscellaneous

### MISC Polymer Modified and Special Cements, Mortars, and Concrete

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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Approved per manufacturer's specifications: <a href="http://www.kaufmanproducts.net/">Duracrete II VOFT Product Datasheet</a></td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>HiCap (Light) Patching Compound</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>HiCap (Medium) Patching Compound</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>HiCap FT</td>
<td>2018-164Q</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>PipeWipe</td>
<td>Pre-cast, Prestressed and Dry-Cast Cosmetic Repairs Only</td>
</tr>
<tr>
<td>LAFR7 15</td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>T-SF Blended</td>
<td>Not Approved for ASR Mitigation</td>
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<tr>
<td>Plant</td>
<td>Whitehall Cement Plant  5160 Main Street  Whitehall, PA 18052</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Type I-E (Enhanced)</td>
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<tr>
<td>Plant</td>
<td>3938 Easton Nazareth Highway  Nazareth, PA 18064</td>
<td>(Formerly Essroc ESS-7 15)</td>
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<td></td>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Type M Cement</td>
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<tr>
<td></td>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Type N Cement</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Type S Cement</td>
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## Section MISC: Miscellaneous

### MISC Polymer Modified and Special Cements, Mortars, and Concrete

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<th>Product</th>
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<th>Cement Usage</th>
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<td>(Formerly Essroc ESS13 15)</td>
<td>Brixment Type N Cement</td>
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<td>Brixment Type S Cement</td>
<td>2012-163QC</td>
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<td></td>
<td>Fredericksburg, VA</td>
<td>Planitop XS</td>
<td>2017-302Q</td>
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<td>ASTM C928, R2 Repair Mortar - Planitop X Technical Data Sheet</td>
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<td>ASTM C928, R1 Repair Mortar - Planitop XS Technical Data Sheet</td>
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<tr>
<td>NATPC 15</td>
<td>National Permacrete Company, 590 N. Valley Forge Rd., P. O. Box 886, Devon, PA 19333</td>
<td>Permacrete</td>
<td>1998-168</td>
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<td>Pre-cast, Prestressed and Dry-Cast Cosmetic Repairs Only</td>
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### Section MISC: Miscellaneous

#### MISC Polymer Modified and Special Cements, Mortars, and Concrete

<table>
<thead>
<tr>
<th>Product Description</th>
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<th>Ref. No.</th>
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<tbody>
<tr>
<td>Polymer Modified and Special Cements, Mortars, and Concrete, Latrobe, PA</td>
<td>Commercial Grade QUIKRETE FastSet™ Concrete Mix</td>
<td>Vertical and Overhead</td>
<td>2000-288Q</td>
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<tr>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Commercial Grade QUIKRETE FastSet™ DOT Mix</td>
<td>Vertical and Overhead</td>
<td>2003-004Q</td>
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<tr>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Commercial Grade QUIKRETE FastSet™ Non-Shrink Grout</td>
<td>Vertical and Overhead</td>
<td>2000-292Q</td>
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<tr>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Commercial Grade QUIKRETE FastSet™ Repair Mortar</td>
<td>Vertical and Overhead</td>
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<tr>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>FastSet™ Cement</td>
<td>Vertical and Overhead</td>
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#### ROKLIN15 Facility

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<tr>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Roklin Concrete Welder Gray System For Concrete Repair with Pea Gravel Aggregates</td>
<td>2016-217</td>
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</table>

*Conditionally approved as a system per manufacturer's specifications. System includes Concrete Welder Gray two component liquid and bags of FairmountSantrol's 3/8 inch silica pea gravel & 1/8 inch silica sand (topping). Manufacturer's Specifications: [Roklin Concrete Welder System Technical Data Sheet](#)*
# Section MISC: Miscellaneous

## MISC Polymer Modified and Special Cements, Mortars, and Concrete

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Cement Usage</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sika Cem 133</td>
<td>Vertical and Overhead</td>
<td>1992-006</td>
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<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikadur 42 Grout Pak (for seating base plates)</td>
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<td>1992-005</td>
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<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikatop Plus 111</td>
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<td>1978-043</td>
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<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikatop Plus 121</td>
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<td>1980-016</td>
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<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikatop Plus 122</td>
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<td>1979-036</td>
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<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
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<td>1982-007</td>
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## SIKA1 15 Plant

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<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
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<td>1992-006</td>
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<tr>
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<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
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<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikatop Plus 121</td>
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<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikatop Plus 122</td>
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<td>1979-036</td>
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<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikatop Plus 123</td>
<td>Vertical and Overhead</td>
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</table>
Section MISC: Miscellaneous

### MISC Polymer Modified and Special Cements, Mortars, and Concrete

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
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<td>Sikadur 42 Grout Pak (for seating base plates)</td>
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<td>Sikatop Plus 123</td>
<td>Vertical and Overhead</td>
<td>1982-007</td>
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<td>US Concrete Products, 16 Green Meadow Drive, Suite 202, Timonium, MD 21093</td>
<td>High Power Cement</td>
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<td>2002-141Q</td>
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<td>High Power DOT Grade Repair Mortar</td>
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<td>High Power Fast Setting Concrete</td>
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### MISC Precast Concrete Products

Approval Guidelines: Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14

Strike Off Letters (SOL) and Drawings of approved Earth Retainment Systems, Precast and Alternate Concrete Arch Systems, and Precast Bridge Superstructures: Approved Bridge and Structure Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Infrastructure Technologies, LLC, 20 Godfrey Dr., Orono, ME 04473</td>
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Section MISC: Miscellaneous

MISC Precast Concrete Products

Approval Guidelines: Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14

Strike Off Letters (SOL) and Drawings of approved Earth Retainment Systems, Precast and Alternate Concrete Arch Systems, and Precast Bridge Superstructures: Approved Bridge and Structure Products

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
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</thead>
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<td></td>
<td>Alternate Concrete Arch System (Non-Precast) Composite Arch Bridge System</td>
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<tr>
<td></td>
<td>Clear Span Length: 20 feet to 65 feet; Skew Angle: 50 degrees to 90 degrees; Structure configuration: Simple Span; Roadways with ADTT less than 500</td>
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<tr>
<td></td>
<td>Previous Supplier Codes: SRST 15 &amp; ADVPS 15</td>
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<tr>
<td>CONAW 15</td>
<td>Conewago Precast Building Systems, 576 Edgegrove Road, P.O. Box 461, Hanover, PA 17331 <a href="http://www.conewago.com/capabilities/precast-concrete/">http://www.conewago.com/capabilities/precast-concrete/</a></td>
<td>2018-222Q</td>
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<tr>
<td>CONCR 15</td>
<td>Concrete Concepts, Inc., 1095 Thompson Avenue, P.O. Box 272, McKeess Rocks, PA 15136 <a href="https://bryanmaterialsgroup.com/">https://bryanmaterialsgroup.com/</a></td>
<td>431-01-06 (00-602-BQAD)</td>
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<td></td>
<td>Earth Retainment System</td>
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</tr>
<tr>
<td></td>
<td>Foster Geotechnical (MSE wall)</td>
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<tr>
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<td>Earth Retainment System</td>
<td>431-94-53 (94-603-BQAD)</td>
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<tr>
<td></td>
<td>Reinforced Earth Company (MSE Wall - Cross Panel)</td>
<td></td>
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<tr>
<td>CONSS 15</td>
<td>Concrete Safety Systems, LLC, 9190 Old Route 22, Bethel, PA 19507 <a href="http://concretessafety.com/">http://concretessafety.com/</a></td>
<td>431-01-06 (00-602-BQAD)</td>
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<td>Earth Retainment System</td>
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<td>Foster Geotechnical (MSE wall)</td>
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<tr>
<td>MEI 15</td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
<td>2002-135Q</td>
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<td>Earth Retainment System</td>
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<tr>
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<td>Lagging Walls</td>
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<td>Earth Retainment System</td>
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<td>Reinforced Earth Company (MSE Wall - Cross Panel)</td>
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<td>EAGLE 15</td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
<td>1995-070</td>
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## Section MISC: Miscellaneous

### MISC Precast Concrete Products

Approval Guidelines: Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14

Strike Off Letters (SOL) and Drawings of approved Earth Retainment Systems, Precast and Alternate Concrete Arch Systems, and Precast Bridge Superstructures: Approved Bridge and Structure Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>FADD1 15</td>
<td>Faddis Concrete Products, 3515 Kings Highway, Downingtown, PA 19335 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td>Earth Retainment System</td>
<td>Dura-Hold</td>
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<td>Earth Retainment System</td>
<td>Lagging Walls</td>
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<tr>
<td>Earth Retainment System</td>
<td>Reinforced Earth Company (MSE Wall - Cross Panel)</td>
<td>431-94-53 (94-603-BQAD)</td>
<td>2011-214Q</td>
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<tr>
<td>Earth Retainment System</td>
<td>Reinforced Earth Company (MSE Wall - Rectangular Panel)</td>
<td>431-04-10 (04-601-BQAD)</td>
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<tr>
<td>Earth Retainment System</td>
<td>SINE WALL (MSE wall)</td>
<td>483-17-4</td>
<td>2017-049Q</td>
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<tr>
<td>FADD2 15</td>
<td>Faddis Concrete Products, 205 West Washington Street, New Castle, PA 16101 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td>Earth Retainment System</td>
<td>Lagging Walls</td>
</tr>
<tr>
<td>Earth Retainment System</td>
<td>Reinforced Earth Company (MSE Wall - Cross Panel)</td>
<td>431-94-53 (94-603-BQAD)</td>
<td>2011-070Q</td>
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<tr>
<td>Earth Retainment System</td>
<td>Reinforced Earth Company (MSE Wall - Rectangular Panel)</td>
<td>431-04-10 (04-601-BQAD)</td>
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<td>Earth Retainment System</td>
<td>SINE WALL (MSE Wall)</td>
<td>483-17-4</td>
<td>2018-264Q</td>
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<td>Earth Retainment System</td>
<td>T-Wall Units (Reinforced Earth Company, formerly Neel)</td>
<td>483-17-01 rev. IV (2016-129)</td>
<td>2003-045Q</td>
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### Section MISC: Miscellaneous

**MISC Precast Concrete Products**

Approval Guidelines: [Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14](#)

Strike Off Letters (SOL) and Drawings of approved Earth Retainment Systems, Precast and Alternate Concrete Arch Systems, and Precast Bridge Superstructures: [Approved Bridge and Structure Products](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td><strong>FADD3 15</strong></td>
<td>Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
<td>Earth Retainment System Foster Geotechnical (MSE wall) 431-01-06 (00-602-BQAD)</td>
<td>2003-075Q</td>
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<td></td>
<td>Earth Retainment System Lagging Walls</td>
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<td>Earth Retainment System Reinforced Earth Company (MSE Wall - Cross Panel)</td>
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<td>Earth Retainment System Reinforced Earth Company (MSE Wall - Rectangular Panel)</td>
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<td></td>
<td>Earth Retainment System SINE WALL (MSE wall)</td>
<td>483-17-4</td>
<td>2015-110B</td>
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<td>Earth Retainment System T-Wall Units (Reinforced Earth Company, formerly Neel)</td>
<td>483-17-01 rev. IV (2016-129)</td>
<td>2005-019Q</td>
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<td>Precast Bridge Superstructure Inverset</td>
<td>431-96-49</td>
<td>1990-117</td>
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<td><strong>HYDR1 15</strong></td>
<td>Hydro Conduit Corporation dba Rinker Materials/Concrete Pipe Division, 2000 Gregg Station Road, Oakdale, PA 15071 <a href="http://www.rinkerpipe.com/">http://www.rinkerpipe.com/</a></td>
<td>Precast Concrete Arch System Con-Span Precast Structure Standard</td>
<td>483-17-4 (86-353PE Change #2)</td>
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*Provisional Approval: ECMS Special Provision I-c1084-A*
### Section MISC: Miscellaneous

**MISC Precast Concrete Products**

Approval Guidelines: [Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14](#)

Strike Off Letters (SOL) and Drawings of approved Earth Retainment Systems, Precast and Alternate Concrete Arch Systems, and Precast Bridge Superstructures: [Approved Bridge and Structure Products](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>HYDR 15</td>
<td>Hydro Conduit Corporation dba Rinker Materials/Concrete Pipe Division, 4200 Universal Drive, Diamond, OH 44412 <a href="http://www.rinkerpipe.com/">http://www.rinkerpipe.com/</a></td>
<td>483-17-4 (86-353PE Change #2)</td>
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<td>Precast Concrete Arch System</td>
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<td>Con-Span Precast Structure Standard</td>
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<td>Provisional Approval: ECMS Special Provision I-c1084-A.</td>
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<tr>
<td>INTSS 15</td>
<td>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
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<td>Earth Retainment System</td>
<td>Lagging Walls</td>
<td>2013-054Q</td>
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<tr>
<td>Note: Previously assigned J&amp;RS2 15 for same facility</td>
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<tr>
<td>Alternate Precast Concrete Parapet</td>
<td>Barlock</td>
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</tr>
<tr>
<td>Earth Retainment System</td>
<td>Foster Geotechnical (MSE wall)</td>
<td>431-01-06 (00-602-BQAD)</td>
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</tr>
<tr>
<td>Earth Retainment System</td>
<td>Lagging Walls</td>
<td></td>
<td></td>
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<tr>
<td>Earth Retainment System</td>
<td>Reinforced Earth Company (MSE Wall - Cross Panel)</td>
<td>431-94-53 (94-603-BQAD)</td>
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</tr>
<tr>
<td>Precast Bridge Superstructure</td>
<td>Inverset</td>
<td>431-96-49</td>
<td>2006-202Q</td>
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<td>Earth Retainment System</td>
<td>Rett Wall</td>
<td>483-13-10</td>
<td>2011-203</td>
</tr>
<tr>
<td>LIND 15</td>
<td>Lindsay Precast, 6845 Erie Avenue NW, P.O. Box 578, Canal Fulton, OH 44614 <a href="http://www.lindsayprecast.com/">http://www.lindsayprecast.com/</a></td>
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<tr>
<td>Plant</td>
<td>6845 Erie Avenue NW P.O. Box 578 Canal Fulton, OH 44614</td>
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<tr>
<td>Precast Concrete Arch System</td>
<td>ECO-SPAN Precast Arch-Box System</td>
<td>483-18-04 (2014-115A, PreTek Group)</td>
<td>2017-305Q</td>
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<tr>
<td>Earth Retainment System</td>
<td>Lagging Walls</td>
<td></td>
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<td>Earth Retainment System</td>
<td>Stone Strong Systems</td>
<td>483-13-04</td>
<td>2018-041Q</td>
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MISC Precast Concrete Products

Approval Guidelines: Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14

Strike Off Letters (SOL) and Drawings of approved Earth Retainment Systems, Precast and Alternate Concrete Arch Systems, and Precast Bridge Superstructures: Approved Bridge and Structure Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIDAP 15</td>
<td>Mid Atlantic Precast Inc., 401 Railroad Street, Monongahela, PA 15063</td>
<td>Earth Retainment System</td>
<td>Dura-Hold</td>
</tr>
<tr>
<td>MILL0 15</td>
<td>A. C. Miller Concrete Products, P.O. Box 93, 9588 Route 22, Blairsville, PA 15717</td>
<td>Earth Retainment System</td>
<td>Lagging Walls</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Precast Concrete Arch System</td>
<td>Con-Span Precast Structure Standard</td>
</tr>
<tr>
<td>MILL2 15</td>
<td>A. C. Miller Concrete Products, Inc., 31 E. Bridge Street, Spring City, PA 19475</td>
<td>Earth Retainment System</td>
<td>Lagging Walls</td>
</tr>
<tr>
<td></td>
<td>Plant Royersford Plant Royersford, PA</td>
<td>Evergreen Wall</td>
<td></td>
</tr>
<tr>
<td>NORPP 15</td>
<td>Northeast Prestressed Products LLC, 121 River Street, Cressona, PA 17929-1133</td>
<td>Earth Retainment System</td>
<td>Evergreen Wall</td>
</tr>
<tr>
<td>NORPR 15</td>
<td>Northeast Precast, 92 Reese Road, Millville, NJ 08332</td>
<td>Earth Retainment System</td>
<td>Reinforced Earth Company (MSE Wall - Rectangular Panel)</td>
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<tr>
<td></td>
<td></td>
<td>Earth Retainment System</td>
<td>SINE WALL (MSE Wall)</td>
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# Section MISC: Miscellaneous

## MISC Precast Concrete Products

Approval Guidelines: [Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14](#)

Strike Off Letters (SOL) and Drawings of approved Earth Retainment Systems, Precast and Alternate Concrete Arch Systems, and Precast Bridge Superstructures: [Approved Bridge and Structure Products](#)

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>OLP-1 15</td>
<td>Oldcastle Infrastructure, Inc., a CRH Company, 200 Keystone Drive, Telford, PA 18969</td>
<td><a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
<td>OL-15</td>
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<td>Earth Retainment System</td>
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<td>2015-185Q</td>
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<tr>
<td></td>
<td>T-Wall Units (Reinforced Earth Company, formerly Neel)</td>
<td>483-17-01 rev. IV (2016-129)</td>
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<tr>
<td></td>
<td>Precast Concrete Arch System</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bebo Precast Concrete Arch Bridge System</td>
<td>431-00-06 (1998-211)</td>
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<td>Precast Concrete Arch System</td>
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<td></td>
<td>Con-Span Precast Structure Standard</td>
<td>483-17-4 (86-353PE Change #2)</td>
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<td>Provisional Approval: ECMS Special Provision I-c1084-A</td>
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<tr>
<td>OLP-2 15</td>
<td>Redi Rock of Southeastern Pennsylvania, 451 East Reliance Road, Telford, PA 18969-0000</td>
<td><a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
<td>OL-15</td>
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<tr>
<td></td>
<td>Formerly Oldcastle Precast</td>
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<td>Earth Retainment System</td>
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<td>Lagging Walls</td>
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<td>2009-150Q</td>
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<td>T-Wall Units (Reinforced Earth Company, formerly Neel)</td>
<td>483-17-01 rev. IV (2016-129)</td>
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<tr>
<td>REDRK 15</td>
<td>Redi Rock of Southeastern Pennsylvania, 451 East Reliance Road, Telford, PA 18969-0000</td>
<td><a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></td>
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<td>Earth Retainment System</td>
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<td>2016-030M</td>
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<td>Redi-Rock Gravity Wall</td>
<td>483-18-02 (2016-030)</td>
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<td>Earth Retainment System</td>
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<td>2015-067A</td>
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<td></td>
<td>Redi-Rock Positive Connection Retaining Wall System</td>
<td>483-18-02 (2015-067)</td>
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<td>2017-356</td>
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<td>Lagging Walls</td>
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<td>483-18-02 (2015-067)</td>
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MISC Precast Concrete Products

Approval Guidelines: Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14

Strike Off Letters (SOL) and Drawings of approved Earth Retainment Systems, Precast and Alternate Concrete Arch Systems, and Precast Bridge Superstructures: Approved Bridge and Structure Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>TERH0 15 Plant</td>
<td>Terre Hill Concrete Products, PLANT #2; P.O. Box 10, Terre Hill, PA 17581 <a href="http://www.terrehill.com/">http://www.terrehill.com/</a></td>
<td>Con-Span Precast Structure Standard</td>
<td>483-17-4 (86-353PE Change #2)</td>
</tr>
<tr>
<td></td>
<td>Precast Concrete Arch System</td>
<td>Provisional Approval: ECMS Special Provision I-c1084-A</td>
<td></td>
</tr>
<tr>
<td>TERH1 15 Plant</td>
<td>Terre Hill Concrete Products, PLANT #4; 42 South Butler Road, Lebanon, PA 17042 <a href="http://www.terrehill.com/">http://www.terrehill.com/</a></td>
<td>Con-Span Precast Structure Standard</td>
<td>483-17-4 (86-353PE Change #2)</td>
</tr>
<tr>
<td></td>
<td>Precast Concrete Arch System</td>
<td>Provisional Approval: ECMS Special Provision I-c1084-A</td>
<td></td>
</tr>
<tr>
<td>WHICO 15 Plant</td>
<td>L. C. Whitford Company, 164 North Main Street, P.O. Box 663, Wellsville, NY 14895 <a href="http://www.lcwhitford.com/">http://www.lcwhitford.com/</a></td>
<td>Lagging Walls</td>
<td>2007-042Q</td>
</tr>
<tr>
<td>WILLA 15 Plant</td>
<td>K. J. Williams Concrete Company, Inc., P.O. Box 5137, Cresaptown, MD 21505-5137</td>
<td>Foster Geotechnical (MSE wall)</td>
<td>431-01-06 (00-602-BQAD)</td>
</tr>
<tr>
<td></td>
<td>Earth Retainment System</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Earth Retainment System</td>
<td>Reinforced Earth Company (MSE Wall - Cross Panel)</td>
<td>431-94-53 (94-603-BQAD)</td>
</tr>
<tr>
<td></td>
<td>Earth Retainment System</td>
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</tr>
<tr>
<td>MISC Sediment Filter Bag</td>
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For 15' x 15' pumped water filter bags, see Section 855.

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tr>
<td>MISC Sediment Filter Bag</td>
<td>ECMS Special Provision I-C08581-A</td>
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</tbody>
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Section MISC: Miscellaneous

MISC Sediment Filter Bag
For 15’ x 15’ pumped water filter bags, see Section 855.

ECMS Special Provision I-C08581-A

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Sediment Filter Bag</td>
<td>Dirt Bag</td>
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</tr>
<tr>
<td>ENVGE 15</td>
<td>Environmental Geosynthetics, 1314 State Road, Coopersburg, PA 18036 <a href="http://www.environmentalgeosynthetics.com/">http://www.environmentalgeosynthetics.com/</a></td>
<td>2005-036Q</td>
</tr>
<tr>
<td>Sediment Filter Bag</td>
<td>The Protector 1515 10 oz Sediment Filter Bag</td>
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<tr>
<td>Sediment Filter Bag</td>
<td>IVI 1515 Sediment Filter Bag</td>
<td></td>
</tr>
<tr>
<td>JOHNS 15</td>
<td>Johnston-Morehouse Dickey Company, 5401 Progress Boulevard, P.O. Box 173, Bethel Park, PA 15102 <a href="http://www.jmdcompany.com/">http://www.jmdcompany.com/</a></td>
<td>1997-122</td>
</tr>
<tr>
<td>Sediment Filter Bag</td>
<td>Enviro-Protection Filter Bag</td>
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</tr>
<tr>
<td>ROBER 15</td>
<td>Frank Roberts and Sons, Inc., 1130 Robertsville Road, Punxsutawney, PA 15767 <a href="http://www.frankrobertsandsons.com/">http://www.frankrobertsandsons.com/</a></td>
<td>1995-019</td>
</tr>
<tr>
<td>Sediment Filter Bag</td>
<td>FB-3 Filter Bag</td>
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</table>

MISC Special Asphalt Patching Material
Note: Volatile Organic Compound (VOC) Content is not considered in the approval process for products in this section.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLMM 15</td>
<td>Cold Mix Manufacturing Corporation, 65 Edison Avenue, Mount Vernon, NY 10550 <a href="https://www.greenpatch.com">https://www.greenpatch.com</a></td>
<td>2013-034M</td>
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<tr>
<td>Special Asphalt Patching Material</td>
<td>GreenPatch High Performance Cold Mix</td>
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</tr>
<tr>
<td>Plant</td>
<td>121 Industrial Park Road Halls, TN 38040</td>
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</tr>
<tr>
<td>Special Asphalt Patching Material</td>
<td>Crafco HP Cold Patch</td>
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</tr>
<tr>
<td>Provisionally Approved</td>
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<tr>
<td>Special Asphalt Patching Material</td>
<td>Mastic One Part No. 33339</td>
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## Section MISC: Miscellaneous

### MISC Special Asphalt Patching Material

Note: Volatile Organic Compound (VOC) Content is not considered in the approval process for products in this section.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>Plant</td>
<td>121 Industrial Park Road Halls, TN 38040</td>
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<tr>
<td>Special Asphalt Patching Material</td>
<td>Polypatch Type 1, Hot Applied</td>
<td>2000-064</td>
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<tr>
<td>Special Asphalt Patching Material</td>
<td>Polypatch Type 2, Hot Applied</td>
<td>2000-064</td>
</tr>
<tr>
<td>Special Asphalt Patching Material</td>
<td>Polypatch Type 3, Hot Applied</td>
<td>2000-064</td>
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<tr>
<td>Provisionally approved per manufacturer's specifications.</td>
<td><a href="http://www.crafco.com/">Mastic One 33339 Product Data Sheet</a> (manufacturer's specifications)</td>
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<tr>
<td>EZSCO 15</td>
<td>EZ Street Company, 1786 NW 82nd Avenue, Miami, FL 33126 <a href="http://www.asphaltrepair.net/">http://www.asphaltrepair.net/</a></td>
<td>EZSCO 15</td>
</tr>
<tr>
<td>Special Asphalt Patching Material</td>
<td>EZ Street Cold Asphalt Patching Material</td>
<td>2007-007Q</td>
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<tr>
<td>Provisionally approved per manufacturer's specifications.</td>
<td><a href="http://www.asphaltrepair.net/">EZ Street Cold Asphalt Patching Material - Manufacturer’s Specifications</a></td>
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</tr>
<tr>
<td>Special Asphalt Patching Material</td>
<td>HEI-Way General Purpose Permanent Patching Material</td>
<td>1983-128</td>
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<tr>
<td>Provisionally approved per manufacturer’s specifications.</td>
<td><a href="http://www.hei-way.com/">HEI-Way Permanent Patching Material</a></td>
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</tr>
<tr>
<td>INNMU 15</td>
<td>Innovative Municipal U.S., Inc., P.O. Box 712, Niagara Falls, NY 14302</td>
<td>INNMU 15</td>
</tr>
<tr>
<td>Special Asphalt Patching Material</td>
<td>Propatch High Performance</td>
<td>2008-146Q</td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td><a href="http://www.hei-way.com/">Propatch High Performance</a></td>
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</tr>
<tr>
<td>PERMA 15</td>
<td>Perma-Patch, Inc., 6123 Oakleaf Avenue, Baltimore, MD 21215 <a href="http://permapatch.com/">http://permapatch.com/</a></td>
<td>PERMA 15</td>
</tr>
<tr>
<td>Special Asphalt Patching Material</td>
<td>Perma-Patch</td>
<td>86-037</td>
</tr>
<tr>
<td>QPR-1 15</td>
<td>QPR, Division of the Quikrete Company, 12735 Morris Road, Alpharetta, GA 30004 <a href="http://www.quikrete.com/">http://www.quikrete.com/</a></td>
<td>QPR-1 15</td>
</tr>
<tr>
<td>Special Asphalt Patching Material</td>
<td>QPR High Performance Cold Patch</td>
<td>2004-153Q</td>
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<tr>
<td>Provisionally Approved</td>
<td><a href="http://www.quikrete.com/">QPR High Performance Cold Patch</a></td>
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## Section MISC: Miscellaneous

### MISC Special Asphalt Patching Material

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>ROAPR 15</td>
<td>Roadstone Production, LLC, 1230 River Road, Charlottesville, VA 22901</td>
<td><a href="http://aquaphalt.com/">http://aquaphalt.com/</a></td>
</tr>
<tr>
<td>Special Asphalt Patching Material</td>
<td>Aquaphalt 4.0 Fine</td>
<td>2012-198</td>
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<tr>
<td><strong>Provisionally approved per manufacturer's specifications:</strong></td>
<td><strong>Aquaphalt Technical Data Sheet - Specifications</strong></td>
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<tr>
<td>Special Asphalt Patching Material</td>
<td>Aquaphalt 6.0 Medium</td>
<td>2012-198</td>
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<tr>
<td><strong>Provisionally approved per manufacturer's specifications:</strong></td>
<td><strong>Aquaphalt Technical Data Sheet - Specifications</strong></td>
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<tr>
<td>Special Asphalt Patching Material</td>
<td>Aquaphalt 9.0 Coarse</td>
<td>2012-198</td>
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<tr>
<td><strong>Provisionally approved per manufacturer's specifications:</strong></td>
<td><strong>Aquaphalt Technical Data Sheet - Specifications</strong></td>
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<td>Special Asphalt Patching Material</td>
<td>Jasa HP Cold Patch</td>
<td>2011-123</td>
</tr>
<tr>
<td>RUSS2 15</td>
<td>Russell Standard Corporation, #2 Prestley Road, Bridgeville, PA 15017</td>
<td><a href="http://www.russellstandard.com/">http://www.russellstandard.com/</a></td>
</tr>
<tr>
<td>Special Asphalt Patching Material</td>
<td>Polypave Stockpile Patch</td>
<td>1982-025</td>
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<tr>
<td>Special Asphalt Patching Cutback Asphalt</td>
<td>JASA HP-5 Cutback Asphalt</td>
<td>2015-136Q</td>
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<tr>
<td><strong>This approval is for the liquid only. The cutback asphalt must be blended with aggregate that meets the quality requirements in Sections 703.1 and 703.2 of Pub 408 to be used as cold patching material. See Bulletin 27, Specifications for Special Bituminous (Asphalt) Mixtures, for composition of mixture requirements:</strong></td>
<td><strong>Bulletin 27, Chapter 3, Bituminous Patching Materials</strong></td>
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<td>Special Asphalt Patching Material</td>
<td>BOND-X Green Patching Material</td>
<td>2011-125</td>
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<td>Special Asphalt Patching Material</td>
<td>BOND-X High Performance Cold Patch</td>
<td>1994-280</td>
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<tr>
<td><strong>Product description and specifications:</strong></td>
<td><strong>BOND-X High Performance Cold Patch Product Data Sheet</strong></td>
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<tr>
<td>Special Asphalt Patching Material</td>
<td>SK-MOD</td>
<td>1994-066</td>
</tr>
<tr>
<td><strong>Modified stockpile patching material. Product description, recommended uses, and specifications:</strong></td>
<td><strong>SK-MOD Product Data Sheet</strong></td>
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MISC Special Asphalt Patching Material

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tr>
<td>SUIT8 15</td>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 SUIT8 15</td>
<td><a href="http://www.suit-kote.com/">http://www.suit-kote.com/</a></td>
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<tr>
<td>Facility</td>
<td>10965 McHenry Street Meadville, PA</td>
<td>2007-037Q</td>
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<td>Special Asphalt Patching Material</td>
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<td>Provisionally Approved. Coarse aggregate modified patch. Product description, recommended uses, and specifications: SK-CAMP Product Data Sheet</td>
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<th>Product</th>
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<tr>
<td>UPMCP 15</td>
<td>Unique Paving Materials Corporation, 3993 East 93rd Street, Cleveland, OH 44105-4096 UPMCP 15</td>
<td><a href="http://www.uniquepavingmaterials.com/">http://www.uniquepavingmaterials.com/</a></td>
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<td>Special Asphalt Patching Material</td>
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<td></td>
<td>(product name formerly listed as UPM High Performance Cold Patch) UPM Permanent Pavement Repair Material Usage Guidelines</td>
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MISC Steel Fibers For Fiber-Reinforced Concrete (ASTM A820)

ECMS Special Provision c10901 ITEM 3090 Steel Fiber Reinforced Concrete Wearing Surface

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BKERT 15</td>
<td>Bekaert Corporation, 1395 South Marietta Parkway, Building 500, Suite 100, Marietta, GA 30067 BKERT 15</td>
<td><a href="http://www.bekaert.com/en/">http://www.bekaert.com/en/</a></td>
</tr>
<tr>
<td>Facility</td>
<td>Van Buren, AR</td>
<td>1999-018Q</td>
</tr>
<tr>
<td></td>
<td>Steel Fibers for Reinforced Concrete, Type 1 Deformed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dramix 3D</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not for use with Ultra High Performance Concrete.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFIBR 15</td>
<td>Fibercon, International, 100 South Third Street, Evans City, PA 16033 MFIBR 15</td>
<td><a href="http://www.fiberconfiber.com/">http://www.fiberconfiber.com/</a></td>
</tr>
<tr>
<td></td>
<td>Steel Fibers for Reinforced Concrete, Type 2</td>
<td>1991-133</td>
</tr>
<tr>
<td></td>
<td>Fibercon Steel Fibers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not for use with Ultra High Performance Concrete.</td>
<td></td>
</tr>
</tbody>
</table>

MISC Subgrade Stabilization Treatment

Provisional Specification: ECMS Special Provision I-c02101B

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARML 15</td>
<td>Carmeuse Lime Company, Inc., Route 422 &amp; Clear Springs Road, Annville, PA 17003 CARML 15</td>
<td><a href="http://www.carmeusena.com/">http://www.carmeusena.com/</a></td>
</tr>
</tbody>
</table>
Section MISC: Miscellaneous

MISC Subgrade Stabilization Treatment

Provisional Specification: ECMS Special Provision I-c02101B

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Route 422 &amp; Clear Springs Road  Annville, PA 17003</td>
<td>2006-036Q</td>
</tr>
<tr>
<td>Subgrade Stabilization Treatment</td>
<td>Envirolime, Lime Pozzolan</td>
<td></td>
</tr>
<tr>
<td>Subgrade Stabilization Treatment</td>
<td>Quicklime</td>
<td></td>
</tr>
</tbody>
</table>

MISC Temporary Expansion Dam Systems

Last Revised: 3/1/2019

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Alternate System (Conditionally Approved)</td>
<td>V-300 Temporary Expansion Dam</td>
<td>2011-040A</td>
</tr>
<tr>
<td></td>
<td>Conditionally approved as an alternate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternate System (Conditionally Approved)</td>
<td>V-400 Temporary Expansion Dam</td>
<td>2011-040B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally approved as an alternate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>121 Industrial Park Road  Halls, TN 38040</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalitic Plug</td>
<td>Matrix 501 Asphalitic Plug Bridge Joint System</td>
<td>2013-017Q</td>
<td></td>
</tr>
<tr>
<td>Conditionally approved per manufacturer's specifications: <a href="http://www.crafco.com">Crafco Matrix 501 Product Data Sheet</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalitic Plug</td>
<td>Matrix 502 Asphalitic Plug Bridge Joint System</td>
<td>1995-189Q</td>
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</tr>
<tr>
<td>Conditionally approved per manufacturer's specifications: <a href="http://www.crafco.com">Crafco Matrix 502 Product Data Sheet</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Lyntal International, Inc.  4150 South Lapeer Road  Lake Orion, MI 48359</td>
<td></td>
<td></td>
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<tr>
<td>Two-component Urethane Sealant</td>
<td>Delastic-LS Pourable Bridge Seal</td>
<td>2011-030</td>
<td></td>
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<tr>
<td>Conditionally approved.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asphalitic Plug</td>
<td>BJS</td>
<td>9/3/1997</td>
<td></td>
</tr>
<tr>
<td>Asphalitic Plug</td>
<td>Thormo Joint</td>
<td>9/3/1997</td>
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</tr>
</tbody>
</table>
Section MISC: Miscellaneous

MISC Temporary Expansion Dam Systems

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WYEQS 15</td>
<td>Wyoming Equipment Sales, P.O. Box 287, West Wyoming, PA 18644-0287</td>
<td>Asphalitic Plug APJ</td>
<td>2000-059Q</td>
</tr>
</tbody>
</table>

MISC Warm Mix Asphalt (WMA) Technologies

The approved WMA Technologies are now located in Section 411.2(g).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

MISC Warm Mix Modified Performance Graded Asphalt Binders

See Section 702d PG Asphalt Cement for approved warm mix technology modified Performance Grade asphalt binders.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

MISC Waterproofing Fabric (Asphalt)

Last Revised: 3/1/2019

<table>
<thead>
<tr>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two Part Silicone XJS</td>
<td>Recommended for maintenance projects with service life up to five (5) years. Provisionally Approved</td>
<td>1993-157</td>
</tr>
<tr>
<td>Preformed Silicone Silicoflex SF 150</td>
<td>Provisionally Approved</td>
<td>1996-015</td>
</tr>
<tr>
<td>Preformed Silicone Silicoflex SF 225</td>
<td>Provisionally Approved</td>
<td>1996-015</td>
</tr>
<tr>
<td>Preformed Silicone Silicoflex SF 400</td>
<td>Provisionally Approved</td>
<td>1996-015</td>
</tr>
<tr>
<td>Asphalitic Plug APJ</td>
<td></td>
<td>2000-059Q</td>
</tr>
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</table>

Last Revised: 4/14/2015
Section MISC: Miscellaneous

MISC Waterproofing Fabric (Asphalt)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
BULLETIN 15 (Publication 35)
Qualified Products List for Construction

Section MISC: Miscellaneous Traffic

### MISC Automated Red Light Enforcement Systems (ARLE)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XERSL 15</td>
<td>Xerox State and Local Solutions, Inc., 12410 Milestone Center Drive, 4th Floor, Germantown, MD 20876 <a href="http://www.xerox.com/">http://www.xerox.com/</a></td>
<td>XSL-001P</td>
<td>-----</td>
</tr>
</tbody>
</table>

### MISC In Road Warning Lights

Department approval is required before purchase of in-roadway warning lights. Contact the Bureau of Maintenance and Operations for approval requirements at (717) 787-9787.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMASS 15</td>
<td>SmartStud Systems, Inc., 479 John Street, Victoria, BC V8T 5H1</td>
<td>SST-001E</td>
<td>6/16/2005</td>
<td>-----</td>
</tr>
</tbody>
</table>
Section MISC: Miscellaneous Traffic

MISC In Road Warning Lights

Department approval is required before purchase of in-roadway warning lights. Contact the Bureau of Maintenance and Operations for approval requirements at (717) 787-9787.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWAR2 15</td>
<td>Swarco Futurit America, 900 North Denton, Mexia, TX 76667 <a href="https://www.swarco.com/northamerica">https://www.swarco.com/northamerica</a></td>
<td>MLK 150</td>
<td>SFA-001E</td>
<td>10/15/2003</td>
</tr>
<tr>
<td>In Road Warning Light</td>
<td>TS600YYL4</td>
<td>TSC-003E</td>
<td>9/26/2012</td>
<td>-----</td>
</tr>
<tr>
<td>In Road Warning Light</td>
<td>ZA 230</td>
<td>1534-X001</td>
<td>4/11/2001</td>
<td>-----</td>
</tr>
</tbody>
</table>

MISC MISC Pavement Marking Systems, Integrated Multi-Polymer

Lines: Center, Lane and Edge Lines
Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

|---------|------|-----|---------------|--------------|-----------------|---------|-------|-----------------|---------|
# Section MISC: Miscellaneous Traffic

## MISC MISC Pavement Marking Systems, Integrated Multi-Polymer

*Last Revised: 5/21/2019*

- **Lines:** Center, Lane and Edge Lines

**Other Uses:** Crosshatching, Crosswalks, Legends and Stop Lines

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>ENN-6 15</td>
<td>Ennis-Flint, Inc., 4161 Piedmont Parkway, Greensboro, NC 27410 Atlanta, GA</td>
<td>HPS-8 Yellow</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>AASHTO M247, Type 4 beads at 10 lbs/gallon and Type 1 beads at 6 lbs/gallon</td>
<td>Other uses on asphalt and concrete, but not for long lines</td>
<td>2017-217 Q</td>
<td></td>
</tr>
</tbody>
</table>

## MISC Pavement Marking Systems, Methyl Methacrylate

*Last Revised: 12/26/2019*

- **Lines:** Center, Lane and Edge Lines

**Other Uses:** Crosshatching, Crosswalks, Legends and Stop Lines

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Pavement Marking Color</th>
<th>Illumination Conditions</th>
<th>Marking Surface</th>
<th>Primer?</th>
<th>Beads</th>
<th>Other Uses</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEXCE 15</td>
<td>Aexcel Coatings, 7373 Production Drive, Mentor, OH 44061-0780 <a href="http://www.aexcelcoatings.com/index.html">http://www.aexcelcoatings.com/index.html</a></td>
<td>SP01W-90</td>
<td>MMA-02</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Concrete</td>
<td>No</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>
## MISC Pavement Marking Systems, Methyl Methacrylate

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AEXCE 15</td>
<td>Aexcel Coatings, 7373 Production Drive, Mentor, OH 44061-0780 <a href="http://www.aexcelcoatings.com/index.html">http://www.aexcelcoatings.com/index.html</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyl Methacrylate Pavement Marking</td>
<td>SP01Y-40</td>
<td>MMA-02</td>
<td>Yellow</td>
<td>Lighted and Unlighted</td>
<td>Asphalt</td>
<td>No</td>
<td>-----</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyl Methacrylate Pavement Marking</td>
<td>SP01Y-90</td>
<td>MMA-02</td>
<td>Yellow</td>
<td>Lighted and Unlighted</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>-----</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1509 South Kaufman Street</td>
<td>Ennis, TX 75120</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyl Methacrylate Pavement Marking</td>
<td>Duraset 05MXW</td>
<td>MMA-01</td>
<td>White</td>
<td>Lighted and Unlighted</td>
<td>Asphalt and Concrete</td>
<td>Yes</td>
<td>2008-073QB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyl Methacrylate Pavement Marking</td>
<td>Duraset 05MXY</td>
<td>MMA-01</td>
<td>Yellow</td>
<td>Lighted Roadways Only</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>2008-073QA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyl Methacrylate Pavement Marking</td>
<td>HPS-7</td>
<td>MMA-01</td>
<td>White</td>
<td>Lighted and Unlighted</td>
<td>Asphalt</td>
<td>Yes</td>
<td>2011-139Q</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Also known as 999105 or Pathfinder-05MPW)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Salem, OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methyl Methacrylate Pavement Marking</td>
<td>MMAX EF Bike Lane Green with Corundum (999660G-KIT)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approval is for bike lanes only.</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Section MISC: Miscellaneous Traffic

MISC Pavement Marking Systems, Modified Polyacrylate

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SWAR3 15</td>
<td>Modified Polyacrylate Pavement Marking</td>
<td>MFUA-10</td>
<td>MPPM-01 White</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>12/12 (See note)</td>
<td>No</td>
<td>2014-065M</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Modified Polyacrylate Pavement Marking</td>
<td>MFUA-10</td>
<td>MPPM-01 Yellow</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>12/12 (See note)</td>
<td>No</td>
<td>2014-066M</td>
<td></td>
</tr>
</tbody>
</table>

This material can only be installed with the glass bead type and quantity indicated on the Certificate of Approval (12 lbs/gal each of AASHTO M247, type 1 and 12 lbs/gal each of AASHTO M247, type 4, for a total of 24 lbs/gal of Modified Polyacrylate. NTPEP Test # PMM-2011-01-083

This material can only be installed with the glass bead type and quantity indicated on the Certificate of Approval (12 lbs/gal each of AASHTO M247, type 1 and 12 lbs/gal each of AASHTO M247, type 4, for a total of 24 lbs/gal of Modified Polyacrylate. NTPEP Test # PMM-2011-01-084

MISC Pavement Marking Systems, Polyester

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>AEXCE 15</td>
<td>Polyester Pavement Marking</td>
<td>75W-DO12</td>
<td>PPM-01 White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>No</td>
<td>M247</td>
<td>No</td>
<td>-----</td>
</tr>
<tr>
<td>Polyester Pavement Marking 400</td>
<td>SP01W-90y</td>
<td>PPM-01 Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>No</td>
<td>M247</td>
<td>No</td>
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</tbody>
</table>

MISC Pavement Marking Systems, Polyurea

Last Revised: 6/23/2015

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>Gelcoating</td>
<td>THP-200</td>
<td>MPPM-01 White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>No</td>
<td>M247</td>
<td>No</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Gelcoating</td>
<td>THP-200</td>
<td>MPPM-01 Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>No</td>
<td>M247</td>
<td>No</td>
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</tr>
</tbody>
</table>
Section MISC: Miscellaneous Traffic

MISC Pavement Marking Systems, Polyurea

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>ENN-1 15 Plant</td>
<td>Ennis-Flint, Inc., 4161 Piedmont Parkway, Suite 370, Greensboro, NC 27410</td>
<td>Polyurea Pavement Marking</td>
<td>HPS-5</td>
<td>PUPM-01</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>M247</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Polyurea Pavement Marking</td>
<td>HPS-5</td>
<td>PUPM-01</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>M247</td>
<td>Yes</td>
</tr>
<tr>
<td>ENN-3 15 Plant</td>
<td>Ennis-Flint, Inc., 4161 Piedmont Parkway, Suite 370, Greensboro, NC 27410</td>
<td>Polyurea Pavement Marking</td>
<td>HPS-5</td>
<td>PUPM-01</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>M247</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Polyurea Pavement Marking</td>
<td>HPS-5</td>
<td>PUPM-01</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>M247</td>
<td>Yes</td>
</tr>
<tr>
<td>EP0PX 15</td>
<td>Epoplex, 1000 East Park Avenue, Maple Shade, NJ 08052</td>
<td>Polyurea Pavement Marking</td>
<td>LS90</td>
<td>PM-05-05</td>
<td>White</td>
<td>Asphal and Concrete</td>
<td>See COA</td>
<td>No</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Polyurea Pavement Marking</td>
<td>LS90</td>
<td>PM-05-05</td>
<td>Yellow</td>
<td>Asphal and Concrete</td>
<td>See COA</td>
<td>No</td>
<td>----</td>
</tr>
</tbody>
</table>

MISC Pavement Marking Systems, Preformed Wet Reflective Striping Tape

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines
## MISC Pavement Marking Systems, Preformed Wet Reflective Striping Tape

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Pavement Marking Color</th>
<th>Illumination Conditions</th>
<th>Marking Surface</th>
<th>Primer</th>
<th>Beads</th>
<th>Other Uses?</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preformed Wet Reflective Striping Tape</td>
<td>Stamark™ Series 380AW</td>
<td>WRST-01</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>Yes</td>
<td></td>
<td>Yes</td>
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</tr>
<tr>
<td></td>
<td>Preformed Wet Reflective Striping Tape</td>
<td>Stamark™ Series 380IES</td>
<td>WRST-01</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td></td>
<td>Preformed Wet Reflective Striping Tape</td>
<td>Stamark™ Series 380WR</td>
<td>WRST-01</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>P-50</td>
<td></td>
<td>Yes</td>
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<tr>
<td></td>
<td>Preformed Wet Reflective Striping Tape</td>
<td>Stamark™ Series 381AW</td>
<td>WRST-01</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
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<td>Yes</td>
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<tr>
<td></td>
<td>Preformed Wet Reflective Striping Tape</td>
<td>Stamark™ Series 381IES</td>
<td>WRST-01</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>Yes</td>
<td>No</td>
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</tr>
</tbody>
</table>
# Section MISC: Miscellaneous Traffic

## MISC Pavement Marking Systems, Preformed Wet Reflective Striping Tape

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Pavement Marking Color</th>
<th>Illumination Conditions</th>
<th>Marking Surface</th>
<th>Primer</th>
<th>Beads</th>
<th>Other Uses?</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M-03 15</td>
<td>3M Company, Traffic Control Devices Department, 3M Center, Building 582-1-15, St. Paul, MN 55144-1000</td>
<td>WRST-01</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>P-50</td>
<td>No</td>
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<td>WRST-01</td>
</tr>
<tr>
<td>Preformed Wet Reflective Striping Tape</td>
<td>Stamark™ Series 381WR</td>
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<td>Pavement Marking</td>
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</table>

## MISC Rectangular Rapid Flashing Beacon (RRFB) Systems 2

Department approval is required before purchasing Rectangular Rapid Flashing Beacons. Contact the Bureau of Maintenance and Operations for approval requirements at (717) 787-9787.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARMH 15</td>
<td>Carmanah Technologies Corporation, 250 Bay Street, Victoria, BC V9A 3K5</td>
<td>R920 Series</td>
<td>8/2/2013</td>
<td>-----</td>
</tr>
<tr>
<td>Formerly Spot Devices, Inc. (SPODE 15)</td>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>CTC-004X</td>
<td>8/2/2013</td>
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<tr>
<td></td>
<td>R920 Series</td>
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<td></td>
<td>RRFB Systems</td>
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<td></td>
<td>RRFB CTC-005X</td>
<td>7/25/2013</td>
<td>-----</td>
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<td></td>
<td>SB435HP</td>
<td>7/25/2013</td>
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</tbody>
</table>
## Section MISC: Miscellaneous Traffic

### MISC Rectangular Rapid Flashing Beacon (RRFB) Systems 2

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<tr>
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<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrotechnics Corporation, 1310 Commerce Street, Marshall, TX 75672</td>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>AC890371-X</td>
<td>ETC-001X</td>
<td>5/14/2010</td>
</tr>
<tr>
<td></td>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>AC890372</td>
<td>ETC-002X</td>
<td>5/14/2010</td>
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<tr>
<td></td>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>S891070-X</td>
<td>ETC-003X</td>
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<td></td>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>S891071</td>
<td>ETC-004X</td>
<td>5/14/2010</td>
</tr>
<tr>
<td>R.D. Jones, Stop Experts, Inc., 723 Commerce Drive, Venice, FL 34962</td>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>Enhancer</td>
<td>RDO-001X</td>
<td>11/19/2015</td>
</tr>
<tr>
<td>RTC Manufacturing Inc., P. O. Box 150189, Arlington, TX 76015</td>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>RFB-2</td>
<td>RTC-007X</td>
<td>9/30/2013</td>
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<tr>
<td></td>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>TOP RRFB-XL2</td>
<td>TCO-004X</td>
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### MISC Traffic Operations, Auxiliary

Last Revised: 9/4/2018

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambria Company Association for the Blind and Handicapped, 175 Industrial Park Road, RD 3 Box 164, Ebensburg, PA 15931-1813</td>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>TCO-001X</td>
<td>4/29/2014</td>
<td>2014-010</td>
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<tr>
<td></td>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>TOP RRFB-XL2</td>
<td>TCO-004X</td>
<td>1/27/2020</td>
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</table>
## Section MISC: Miscellaneous Traffic

### MISC Traffic Operations, Auxiliary

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCABH 15</td>
<td>Cambria Company Association for the Blind and Handicapped, 175 Industrial Park Road, RD 3 Box 164, Ebensburg, PA 15931-1813</td>
<td>1520-0000</td>
<td>10/22/1999</td>
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</tr>
<tr>
<td></td>
<td>Auxilliary Traffic Operations Item Cable Rings and Saddles, CAB</td>
<td></td>
<td></td>
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<tr>
<td>IBITK 15</td>
<td>Ibis Tek, LLC, 496 Pittsburgh Road, Butler, PA 16002</td>
<td>IBS-001P</td>
<td>1/11/2013</td>
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<tr>
<td></td>
<td>Auxilliary Traffic Operations Item Traffic Signal Police Control, Wireless</td>
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<tr>
<td>LINCO 15</td>
<td>Linear Corporation, 2055 Corte Del Nogal, P.O. Box 9003, Carlsbad, CA 92009</td>
<td>LIN-001P/002P</td>
<td>7/10/1997</td>
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<tr>
<td></td>
<td>Auxilliary Traffic Operations Item Mid Range Receiver XR-1</td>
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<tr>
<td></td>
<td>Auxilliary Traffic Operations Item Mid Range Transmitter XT-1</td>
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</tr>
<tr>
<td>NAZTC 15</td>
<td>Trafficware, Inc., 522 Gillingham Drive, Sugar Land, TX 77478 (Merger with Naztec, Inc.)</td>
<td>TFW-005P (NAZ-013P)</td>
<td>4/13/2016</td>
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<tr>
<td></td>
<td>Auxilliary Traffic Operations Item Cabinet Interface Panel, 150 LX Interface</td>
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<tr>
<td>QUIEI 15</td>
<td>Quindar Electronics, Inc., 60 Fadem Road, Springfield, NJ 07081</td>
<td>QEI-004S/005S/006S</td>
<td>7/14/1976</td>
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<tr>
<td></td>
<td>Auxilliary Traffic Operations Item Mounting Frames, QX Series</td>
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<tr>
<td></td>
<td>Auxilliary Traffic Operations Item Power Supply, QP Series</td>
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<tr>
<td></td>
<td>Auxilliary Traffic Operations Item Scanning System Receiver, QSR</td>
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<td></td>
<td>Auxilliary Traffic Operations Item Scanning System Transmitter, QST</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Auxilliary Traffic Operations Item Tone Receiver, QT Series</td>
<td>QEI-002S/003S</td>
<td>7/14/1976</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>Auxilliary Traffic Operations Item Tone Transmitter, QT Series</td>
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<td></td>
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</tbody>
</table>

### MISC Yield to Pedestrian (YTP) Channelizing Devices

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Yield Type</th>
<th>Size (in.)</th>
<th>Yield Mount</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

Last Revised: 9/4/2018

Last Revised: 2/19/2020
### Section MISC: Miscellaneous Traffic

#### MISC Yield to Pedestrian (YTP) Channelizing Devices

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Yield Type</th>
<th>Size (in.)</th>
<th>Yield Mount</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONSF 15</strong></td>
<td>Continental Safety Supply Company, Inc., 790 Bloomfield Avenue, Clifton, NJ 07012</td>
<td>Yield To Pedestrian (YTP) Channelizing Device</td>
<td>Soft Sandwich</td>
<td>Cone with Sign</td>
<td>18&quot; x 36&quot;</td>
<td>Surface (unfastened)</td>
</tr>
<tr>
<td></td>
<td>Yield To Pedestrian (YTP) Channelizing Device</td>
<td>SBL1236D-Y</td>
<td>PED-07</td>
<td>Vertical Panel</td>
<td>12&quot; x 36&quot; (one-sided)</td>
<td>Surface (unfastened)</td>
</tr>
<tr>
<td><strong>PROTE 15</strong></td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032</td>
<td>Yield To Pedestrian (YTP) Channelizing Device</td>
<td>Big Foot</td>
<td>Vertical Panel</td>
<td>12&quot; x 36&quot;</td>
<td>Surface (unfastened)</td>
</tr>
</tbody>
</table>
Section MISC: Miscellaneous Traffic

**MISC Yield to Pedestrian (YTP) Channelizing Devices**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Yield Type</th>
<th>Size (in.)</th>
<th>Yield Mount</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNISO 15</td>
<td>UniqueSource, 500 Bent Creek Boulevard, Mechanicsburg, PA 17050-1876</td>
<td><a href="https://www.uniquesource.com/">https://www.uniquesource.com/</a></td>
<td>R1-6 Pedestrian Sign</td>
<td>PED-10</td>
<td>Vertical Panel 12&quot; x 42&quot;</td>
<td>Surface (unfastened)</td>
</tr>
</tbody>
</table>

*NCHRP-350 Test Level: TL-2*
# Section MISC: Winter Road Maintenance

## MISC Snow and Ice Control Chemical Products

The exact product names listed have been accepted for listing in PA Bulletin 15 based upon the specific approval and listing on the Pacific Northwest SnowFighters (PNS) Qualified Product List. All specific compositional, usage approvals & restrictions, and other noted criteria listed on the PNS Qualified Product List will also apply to this product's use in Pennsylvania. If this product is removed from the PNS QPL, or fails to meet the minimum standards required for listing on the PNS QPL, it may be removed from the PA Bulletin 15. Refer to the manufacturer's website for product data sheet. Refer to the PNS website for approval information and resources including the PNS QPL: Pacific Northwest Snowfighters

PNS Experimental Category: Approved Liquid Corrosion Inhibited Products

PNS Inhibitor Category A3: Corrosion Inhibitor for Sodium Chloride (Minimum 15% NaCl)

PNS Category 4C: Corrosion Inhibited Solid Sodium Chloride - Standard Gradation (Corrosion Percent Effectiveness 31% to 85%)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARG0 15</td>
<td>Cargill, Inc., 24850 Country Club Blvd., Suite 450, North Olmsted, OH 44070</td>
<td>ClearLane enhanced deicer</td>
<td>2018-107</td>
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<tr>
<td>Facility</td>
<td>Salt Mines: Avery Island, LA; Cleveland, OH; Lansing, NY</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PNS Category 4C - Corrosion Inhibited Solid Sodium Chloride - Standard Gradation (Corrosion Percent Effectiveness 31% to 85%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer’s specifications for winter road maintenance. Liquid pre-wetting facility located in Newark, CA.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturer's specifications for ClearLane enhanced deicer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| ETECH 15 | EnviroTech Services, Inc., 4676 284th Street East, Randolph, MN 55065-0000 | AMP | 2016-075 |
| PNS Inhibitor Category A3 - Corrosion Inhibitor for Sodium Chloride (Minimum 15% NaCl) | | | |
| Conditionally approved per manufacturer's specifications for winter road maintenance. Material approved for addition to concentrated sodium chloride (salt) brine. | | | |
Section MISC: Winter Road Maintenance

MISC Snow and Ice Control Chemical Products

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<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNS Category 1 - Corrosion Inhibited Liquid Magnesium Chloride</td>
<td>ProMelt Ultra 1000 INH</td>
<td>2018-109Q</td>
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</tr>
<tr>
<td>Conditionally approved per manufacturer’s specifications for winter road maintenance.</td>
<td>Manufacturer’s specifications for ProMelt Ultra 1000</td>
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</tr>
<tr>
<td>PNS Experimental Category - Liquid Corrosion Inhibited Products</td>
<td>Magic Minus Zero (MAGIC-0) Concentrate</td>
<td>2014-007</td>
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</tr>
<tr>
<td>Conditionally approved per manufacturer’s specifications for winter road maintenance. Material approved as a pre-wet material to solid salt. Not for direct application.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNS Experimental Category - Liquid Corrosion Inhibited Products</td>
<td>ProMelt Ultra 2000 INH</td>
<td>2018-108Q</td>
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<tr>
<td>Conditionally approved per manufacturer’s specifications for winter road maintenance. Material approved as a pre-wet material to solid salt. Not for direct application.</td>
<td>Manufacturer’s specifications for ProMelt Ultra 2000</td>
<td></td>
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</tr>
<tr>
<td>KTECH 15 K-Tech Specialty Coatings, Inc., P.O. Box 428, Ashley, IN 46705-0000</td>
<td>K-Tech Specialty Coatings, Inc., P.O. Box 428, Ashley, IN 46705-0000</td>
<td></td>
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<tr>
<td>PNS Experimental Category - Liquid Corrosion Inhibited Products</td>
<td>BEET HEET Concentrate</td>
<td>2013-117</td>
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<tr>
<td>Conditionally approved per manufacturer’s specifications for winter road maintenance. Material approved as a pre-wet material to solid salt. Not for direct applications as a liquid deicer.</td>
<td></td>
<td></td>
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<tr>
<td>NATOS 15 NATURES OWN SOURCE LLC, 7033 Mill Road, Becksville, OH 44141-0000</td>
<td>NATURES OWN SOURCE LLC, 7033 Mill Road, Becksville, OH 44141-0000</td>
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<tr>
<td>PNS Experimental Category - Liquid Corrosion Inhibited Products</td>
<td>AquaSalina+</td>
<td>2014-043</td>
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<tr>
<td>Conditionally approved per manufacturer’s specifications for winter road maintenance.</td>
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</tbody>
</table>
Section MISC: Winter Road Maintenance

MISC Snow and Ice Control Chemical Products

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PNS Inhibitor Category A3: Corrosion Inhibitor for Sodium Chloride (Minimum 15% NaCl)

PNS Category 4C: Corrosion Inhibited Solid Sodium Chloride - Standard Gradation (Corrosion Percent Effectiveness 31% to 85%)

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>SNIS1 15</td>
<td>SNI SOLUTIONS, 205 North Stewart Street, Geneseo, IL 61254-0000</td>
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<td></td>
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<tr>
<td></td>
<td>PNS Inhibitor Category A3 - Corrosion Inhibitor for Sodium Chloride (Minimum 15% NaCl)</td>
<td>Biomelt AG</td>
<td>2016-024</td>
</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer's specifications for winter road maintenance. Material approved for addition to concentrated sodium chloride (salt) brine.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PNS Inhibitor Category A3 - Corrosion Inhibitor for Sodium Chloride (Minimum 15% NaCl)</td>
<td>Geomelt 55</td>
<td>2011-042</td>
</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer's specifications for winter road maintenance. Material approved for addition to concentrated sodium chloride (salt) brine.</td>
<td></td>
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</tr>
</tbody>
</table>
Section AISC: Certified Facilities

AISC Department Register of Certified Structural Steel Fabricators (AISC)

In accordance with Section 1105, the listed companies have been preapproved to fabricate items for PennDOT. Company approval to fabricate Penn DOT projects must be received before commencement of any work, from the Structural Materials Engineer, Materials Testing Laboratory, Harrisburg, PA.

ABR: Certified Bridge Fabricator - Advanced (Major) | CPT: Certified Component Manufacturer - Bridge | FCE: Fracture Critical Endorsement

IBR: Certified Bridge Fabricator - Intermediate (Major) | SBR: Certified Bridge Fabricator - Simple | AISC Certification

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACROW 15</td>
<td>Acrow Corporation of America, 6 Canal Street, Milton, PA 17847 <a href="http://acrow.com/">http://acrow.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges (CBR)</td>
</tr>
<tr>
<td>AMTHR 15</td>
<td>Amthor Steel, 1717 Gaskell Ave., Erie, PA 16503</td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>ANDBR 15</td>
<td>Anderson Bridges, LLC, 111 Willow Street, Colfax, WI 54730 <a href="http://www.andersonbridges.com/">http://www.andersonbridges.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Simple Steel Bridges (SBR)</td>
</tr>
<tr>
<td>ATFAB 15</td>
<td>American Tank &amp; Fabricating Co. (AT&amp;F), 12314 Elmwood Avenue, Cleveland, OH 44111 <a href="http://www.atfco.com">http://www.atfco.com</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
</tbody>
</table>
Section AISC: Certified Facilities

AISC Department Register of Certified Structural Steel Fabricators (AISC)  
Last Revised: 11/26/2019

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<th>Name</th>
<th>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>25581 Hillman Highway Abingdon, VA 24210 Certified Structural Steel Fabricator</td>
<td>Not approved to perform submerged arc welding.</td>
<td></td>
</tr>
<tr>
<td>BRFAB 15</td>
<td>Brookfield Fabricating Corporation, P.O. Box 406, Brookfield, MO 64628 <a href="http://www.brookfieldfabricating.com/">http://www.brookfieldfabricating.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>BROWD 15</td>
<td>D.S. Brown Company, 300 East Cherry Street, North Baltimore, OH 45872 <a href="http://www.dsbrown.com/">http://www.dsbrown.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Simple Steel Bridges (SBR)</td>
</tr>
</tbody>
</table>
Section AISC: Certified Facilities

AISC Department Register of Certified Structural Steel Fabricators (AISC)

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<th>Name</th>
<th>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBSS 15</td>
<td>Casco Bay Steel Structures, Inc., One Wallace Avenue, South Portland, ME 04106</td>
<td>Certified Structural Steel Fabricator</td>
<td>2016-131Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Casco Bay Steel Structures, Inc. has Fracture Critical Endorsement (CBR/F) for the following three facilities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1st Facility: One Wallace Avenue, South Portland, ME 04106</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2nd Facility: 1156 Broadway, South Portland, ME 04106</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3rd Facility: 75 Spring Hill Road, Saco, ME 04072</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIAFC 15</td>
<td>Cianbro Fabrication &amp; Coating Corporation, 605 Pittman Road, Baltimore, MD 21226 <a href="http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx">http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>2010-214</td>
</tr>
<tr>
<td></td>
<td>Formerly Foster Precise Structural Products (FOSPR).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CON13 15</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 <a href="http://www.conteches.com/">http://www.conteches.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>2017-113</td>
</tr>
</tbody>
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Section AISC: Certified Facilities

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<tr>
<td>DECKI 15</td>
<td>Cameron Bridge Works LLC, 1051 South Main Street, Elmira, NY 14904 <a href="http://www.cameronbridgeworks.com/">http://www.cameronbridgeworks.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>2009-052</td>
</tr>
<tr>
<td>DURBD 15</td>
<td>Dura-Bond Pipe, LLC, 2716 South Front Street, Steelton, PA 17113 <a href="http://www.dura-bond.com/">http://www.dura-bond.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>GOODS 15</td>
<td>Goodhart Sons, Inc., 2515 Horeshoe Road, P. O. Box 10308, Lancaster, PA 17605-0308 <a href="http://www.goodhartsongs.com/">http://www.goodhartsongs.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
</tbody>
</table>
Section AISC: Certified Facilities

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<tr>
<td>HEART 15</td>
<td>Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417 <a href="https://www.hl-fabrication.com/">https://www.hl-fabrication.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>IBR, FCE</td>
</tr>
</tbody>
</table>

Formerly Brownsville Marine Products

*(Original product evaluation - 2015-137Q)*
### Section AISC: Certified Facilities

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<tr>
<td>HIGH1 15</td>
<td>High Steel Structures, Inc., 1915 Old Philadelphia Pike, P.O. Box 10008, Lancaster, PA 17605-0008 <a href="http://www.highsteel.com/">http://www.highsteel.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td>HIR01 15</td>
<td>W&amp;W</td>
<td>AFCO STEEL Hirschfeld Division, 9035 West Market Street, Colfax, NC 27235 <a href="http://hirschfeld.wwafcosteel.com/">http://hirschfeld.wwafcosteel.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
</tr>
<tr>
<td>HIR02 15</td>
<td>W&amp;W</td>
<td>AFCO STEEL Hirschfeld Division, Nash County Plant, 241 Corbett Road, Nashville, NC 27856 <a href="http://hirschfeld.wwafcosteel.com/">http://hirschfeld.wwafcosteel.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
</tr>
<tr>
<td>HIR03 15</td>
<td>W&amp;W</td>
<td>AFCO STEEL Hirschfeld Division, Abingdon Plant, 15083 Industrial Park Road, Bristol, VA 24201 <a href="http://hirschfeld.wwafcosteel.com/">http://hirschfeld.wwafcosteel.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
</tr>
<tr>
<td>INDS1 15</td>
<td>Industrial Steel Construction, Inc., 86 North Bridge Street, Gary, IN 46404 <a href="http://www.iscbridge.com/">http://www.iscbridge.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
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</table>

*Approved to fabricate high performance steel.*
Section AISC: Certified Facilities

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<tbody>
<tr>
<td>JGM-1 15</td>
<td>JGM, 1201 Valley Road, Coatesville, PA 19320</td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td>KARDW 15</td>
<td>Kard Welding, Inc., 480 Osterloh Road, P. O. Box 124, Minster, OH 45865</td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges (CBR)</td>
</tr>
<tr>
<td>KIN-1 15</td>
<td>Kinsley Manufacturing, 1100 East Princess Street, York, PA 17403 <a href="http://www.kinsleymanufacturing.com/">http://www.kinsleymanufacturing.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges (CBR)</td>
</tr>
<tr>
<td>KIN-2 15</td>
<td>Kinsley Manufacturing, 3900 E. Market Street, York, PA 17402 <a href="http://www.kinsleymanufacturing.com/">http://www.kinsleymanufacturing.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges (CBR)</td>
</tr>
<tr>
<td>L&amp;MF2 15 Facility</td>
<td>L&amp;M Fabrication and Machine, Inc., 6814 Chrisphalt Drive, Bath, PA 18014</td>
<td>Certified Structural Steel Fabricator</td>
<td>IBR, FCE</td>
</tr>
<tr>
<td>L&amp;MFM 15 Facility</td>
<td>L&amp;M Fabrication &amp; Machine, Inc., 6814 Chrisphalt Drive, P. O. Box 124, Bath, PA 18014</td>
<td>Certified Structural Steel Fabricator</td>
<td>IBR, FCE</td>
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<tbody>
<tr>
<td>LEHUA 15</td>
<td>Lehigh Utility Associates, Inc., 1300 New Market Ave., South Plainfield, NJ 07080</td>
<td>Certified Structural Steel Fabricator</td>
<td>2010-310</td>
</tr>
<tr>
<td>LMCIC 15</td>
<td>LMC Industrial Contractors, Inc., 9431 Foster Wheeler Road, Dansville, NY 14437 <a href="https://www.lmcic.com">https://www.lmcic.com</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>2015-180Q</td>
</tr>
<tr>
<td>MCIWK 15</td>
<td>MC Ironworks, Inc., P.O. Box 20431, Lehigh Valley, PA 18002-0431 <a href="http://www.mcironworks.com">http://www.mcironworks.com</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>2006-023</td>
</tr>
<tr>
<td>MCS-1 15</td>
<td>Mission Critical Solutions, LLC, 271 Industrial Lane, Alum Bank, PA 15221 <a href="https://www.missioncriticalsolutions.com">https://www.missioncriticalsolutions.com</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>2019-131Q</td>
</tr>
</tbody>
</table>

Not approved to perform submerged arc welding.
Section AISC: Certified Facilities

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<tbody>
<tr>
<td>MICSE 15</td>
<td>Michelman Steel Enterprises, 3135 Schonersville Road, Bethlehem, PA 18017</td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td>MISUF 15</td>
<td>Missouri Fabricators, 3226 County Road 257, Fulton, MO 65251-3101</td>
<td>Certified Structural Steel Fabricator</td>
<td>Simple Steel Bridges (SBR)</td>
</tr>
<tr>
<td>OAKIW 15</td>
<td>Oakdale Iron Works, Inc., 1 Oakdale Industrial Park Dr., P.O. Box 240, Oakdale, PA 15071</td>
<td>Certified Structural Steel Fabricator</td>
<td>Simple Steel Bridges (SBR)</td>
</tr>
<tr>
<td>OHSTR 15</td>
<td>Ohio Structures, Inc., 535 North Broad Street, Suite 5, Canfield, OH 44406</td>
<td>Certified Structural Steel Fabricator</td>
<td>IBR, FCE</td>
</tr>
<tr>
<td>PELET 15</td>
<td>Pelet Welding, Inc., 19 North 12th Avenue, Coatesville, PA 19320</td>
<td>Certified Structural Steel Fabricator</td>
<td>IBR, FCE</td>
</tr>
<tr>
<td>PENNF 15</td>
<td>PennFab, Inc., 1431 Ford Rd., Bensalem, PA 19020</td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>PIOBR 15</td>
<td>Pioneer Bridges, Division of Bailey Bridges, Inc., 119 40th. Street N.E., Fort Payne, AL 35967</td>
<td>Certified Structural Steel Fabricator</td>
<td>IBR</td>
</tr>
<tr>
<td>PMWI1 15</td>
<td>Pleasant Mount Welding, Inc., 45 Dundaff Street, Carbondale, PA 18407</td>
<td>Certified Structural Steel Fabricator</td>
<td>IBR, FCE</td>
</tr>
</tbody>
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Section AISC: Certified Facilities

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<tbody>
<tr>
<td>PSFAB 15</td>
<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
<td>Simple Steel Bridges (SBR)</td>
<td>2016-281</td>
</tr>
<tr>
<td>RCCFI 15</td>
<td>RCC Fabricators, Inc., 2035 Route 206 South, Southampton, NJ 18434</td>
<td>Simple Steel Bridges (SBR)</td>
<td>2015-078Q</td>
</tr>
<tr>
<td>SCOUG 15</td>
<td>Scougal Rubber Corporation, 885 Denmark Dr. Ste. 103b, McCarran, NV 89434 <a href="http://www.scougalarubber.com/">http://www.scougalarubber.com/</a></td>
<td>SBR</td>
<td>2016-125</td>
</tr>
</tbody>
</table>
# Section AISC: Certified Facilities

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<tr>
<td>Plant</td>
<td>518 Progress Way  Athens, TX 75751 <em>(Formerly Seismic Energy Products, Inc.)</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SELMC 15</td>
<td>Selco Manufacturing Corp., 3 Fairfield Crescent, West Caldwell, NJ 07006</td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>Facility</td>
<td>3 Fairfield Crescent  West Caldwell, NJ 07006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHANE 15</td>
<td>Shane Felter Industries, P. O. Box 2022, Rt. 51, Uniontown, PA 15401 <a href="http://www.shanefelterindustries.com/">http://www.shanefelterindustries.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td>SPECF 15</td>
<td>Specialty Fab, Inc., 11950 South Avenue, North Lima, OH 44452 <a href="http://www.specialtyfab.com/">http://www.specialtyfab.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Simple Steel Bridges (SBR)</td>
</tr>
<tr>
<td>STRBR 15</td>
<td>Canam Bridges US, Inc., a Canam Group Business, 386 River Road, Claremont, NH 03743 <a href="https://www.canambridges.com/">https://www.canambridges.com/</a> <em>(Formerly Structural Bridges, Div. of Canam Steel Corporation)</em></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
</tbody>
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Approved to fabricate high performance steel.
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<tr>
<td>STSSI 15</td>
<td>STS Steel, Inc., 301 Nott Street, Building 304, Schenectady, NY 12305 <a href="http://stssteel.com/">http://stssteel.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td>UMIC1 15</td>
<td>Union Metal Industries Corporation, 1432 Maple Avenue NE Canton, Ohio 44705, Canton, OH 44705</td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>USBRG 15</td>
<td>U.S. Bridge, 201 Wheeling Avenue, P.O. Box 757, Cambridge, OH 43725 <a href="http://www.usbridge.com/">http://www.usbridge.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
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<tr>
<td>VETS 15</td>
<td>Veritas Steel, 2800 Melby Street, Eau Claire, WI 54703</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
<td>VETS1 15</td>
</tr>
<tr>
<td>Plant 2800 Melby Street Eau Claire, WI 54703</td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
<td>VETS2 15</td>
</tr>
<tr>
<td>WABST 15</td>
<td>Wabash Steel Company, LLC, 2007 Oliphant Drive, P.O. Box 117, Vincennes, IN 47591</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
<td>WABST 15</td>
</tr>
<tr>
<td>Plant 3526 W. Sherman Street Wausau, WI 54401</td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
<td>WALPR 15</td>
</tr>
<tr>
<td>WALPR 15</td>
<td>Walpar, Inc., 4200 Jefferson Ave., S.W., Birmingham, AL 35228</td>
<td>SBR</td>
<td>WALPR 15</td>
</tr>
<tr>
<td>Certified Structural Steel Fabricator</td>
<td></td>
<td>SBR</td>
<td>WATSB 15</td>
</tr>
<tr>
<td>Watson Bowman Acme Corporation, 95 Pineview Drive, Amherst, NY 14228</td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
<td>WATSB 15</td>
</tr>
<tr>
<td>WATSB 15</td>
<td>Wheeler Lumber, LLC, 1151 Chaparral Ave., Shakopee, MN 55379</td>
<td>Major Steel Bridges (CBR)</td>
<td>WHICO 15</td>
</tr>
<tr>
<td>Certified Structural Steel Fabricator</td>
<td>Approved to fabricate pedestrian bridge only.</td>
<td>Major Steel Bridges (CBR)</td>
<td>WHICO 15</td>
</tr>
<tr>
<td>WHEL 15</td>
<td>L. C. Whitford Company, 164 North Main Street, P.O. Box 663, Wellsville, NY 14895</td>
<td>SBR</td>
<td>WHEL 15</td>
</tr>
<tr>
<td>Certified Structural Steel Fabricator</td>
<td></td>
<td>SBR</td>
<td>WHICO 15</td>
</tr>
</tbody>
</table>
**Section AISC: Certified Facilities**

**AISC Department Register of Certified Paint Shops (AISC or SSPC)**

The listed companies have been preapproved to paint items for PennDOT. Company approval to paint PennDOT projects must be received before commencement of any work, from the Structural Materials Engineer, Materials Testing Laboratory, Harrisburg, PA.

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Reference No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCIND 15</td>
<td>B-C Industries, 12 Hawksley Rd., Oxford, MA 01540</td>
<td>2009-172Q</td>
</tr>
<tr>
<td>BRIDS 15</td>
<td>Bridge Deck Solutions, LLC, 298 Cherry Hill Drive, Latrobe, PA 15650 <a href="http://bridgedeckssolutions.com/">http://bridgedeckssolutions.com/</a></td>
<td>-----</td>
</tr>
</tbody>
</table>

*Shop has SSPC-QP3 required for removal and disposal of hazardous coatings.*
Section AISC: Certified Facilities

AISC Department Register of Certified Paint Shops (AISC or SSPC)

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBSSI 15</td>
<td>Casco Bay Steel Structures, Inc., One Wallace Avenue, South Portland, ME 04106</td>
<td>2016-209Q</td>
</tr>
<tr>
<td>CIAFC 15</td>
<td>Cianbro Fabrication &amp; Coating Corporation, 605 Pittman Road, Baltimore, MD 21226</td>
<td>2010-213</td>
</tr>
<tr>
<td>CIANB 15</td>
<td>Cianbro Fabrication &amp; Coating Corporation, 3 Farm Lane, Georgetown, MA 01833</td>
<td>-----</td>
</tr>
<tr>
<td>COLOR 15</td>
<td>Color Works Painting, Inc., 251 Edward Avenue, New Castle, DE 19720</td>
<td>2007-176Q</td>
</tr>
<tr>
<td>CON13 15</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328</td>
<td>2001-154</td>
</tr>
<tr>
<td>CONSV 15</td>
<td>Con-Serv, Inc., 2963 Interstate Parkway, Brunswick, OH 44212</td>
<td>-----</td>
</tr>
<tr>
<td>CORNL 15</td>
<td>Cornell &amp; Company, Inc., P. O. Box 807, Woodbury, NJ 08096</td>
<td>-----</td>
</tr>
</tbody>
</table>
Section AISC: Certified Facilities

AISC Department Register of Certified Paint Shops (AISC or SSPC)  

The listed companies have been preapproved to paint items for PennDOT. Company approval to paint PennDOT projects must be received before commencement of any work, from the Structural Materials Engineer, Materials Testing Laboratory, Harrisburg, PA.

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPMP1 15</td>
<td>Carney's Point Metal Processing, Inc., 351 North Virginia Avenue, Carneys Point, NJ 08069</td>
<td>2016-102Q</td>
</tr>
<tr>
<td>DECKI 15</td>
<td>Cameron Bridge Works LLC, 1051 South Main Street, Elmira, NY 14904 <a href="http://www.cameronbridgeworks.com/">http://www.cameronbridgeworks.com/</a></td>
<td>2016-094Q</td>
</tr>
</tbody>
</table>
Section AISC: Certified Facilities

AISC Department Register of Certified Paint Shops (AISC or SSPC)

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Plant</th>
<th>Certified Paint Shop</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPACI 15</td>
<td>EPACoat, Inc, 4500 Oakleys Lane, Richmond, VA 23231</td>
<td>4500 Oakleys Lane Richmond, VA 23231</td>
<td>Certified Paint Shop</td>
<td>2012-004Q</td>
</tr>
<tr>
<td>ESAFE 15</td>
<td>Envirosafe Stripping, Inc., 785 Arch Street, Carnegie, PA 15106</td>
<td>785 Arch Street Carnegie, PA 15106</td>
<td>Certified Paint Shop</td>
<td>2009-130Q</td>
</tr>
<tr>
<td>GATEW 15</td>
<td>Gateway Industrial Services, 805 Harrison Street, Allentown, PA 18103</td>
<td>805 Harrison Street Allentown, PA 18103</td>
<td>Certified Paint Shop</td>
<td>2013-139Q</td>
</tr>
<tr>
<td>HABSI 15</td>
<td>Haberle Steel, Inc., 1946 East Cherry Lane, Souderton, PA 18964</td>
<td><a href="http://haberlesteel.com/">http://haberlesteel.com/</a></td>
<td>Certified Paint Shop</td>
<td>2011-096</td>
</tr>
</tbody>
</table>
### Section AISC: Certified Facilities

#### AISC Department Register of Certified Paint Shops (AISC or SSPC)

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEART 15</td>
<td>Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417 <a href="https://www.hl-fabrication.com/">https://www.hl-fabrication.com/</a>&lt;br&gt;Formerly Brownsville Marine Products</td>
<td>2018-220Q</td>
</tr>
<tr>
<td>HIR01 15</td>
<td>W&amp;W</td>
<td>AFCO STEEL Hirschfeld Division, 9035 West Market Street, Colfax, NC 27235 <a href="http://hirschfeld.wwafcosteel.com/">http://hirschfeld.wwafcosteel.com/</a></td>
</tr>
<tr>
<td>HIR02 15</td>
<td>W&amp;W</td>
<td>AFCO STEEL Hirschfeld Division, Nash County Plant, 241 Corbett Road, Nashville, NC 27856 <a href="http://hirschfeld.wwafcosteel.com/">http://hirschfeld.wwafcosteel.com/</a></td>
</tr>
<tr>
<td>HIR03 15</td>
<td>W&amp;W</td>
<td>AFCO STEEL Hirschfeld Division, Abingdon Plant, 15083 Industrial Park Road, Bristol, VA 24201 <a href="http://hirschfeld.wwafcosteel.com/">http://hirschfeld.wwafcosteel.com/</a></td>
</tr>
<tr>
<td>INDPS 15 Plant</td>
<td>Industrial Painting Specialists, 5858 152nd Street North, Hugo, MN 55038&lt;br&gt;5858 152nd Street North Hugo, MN 55038</td>
<td>2012-007Q</td>
</tr>
</tbody>
</table>
### Section AISC: Certified Facilities

#### AISC Department Register of Certified Paint Shops (AISC or SSPC)

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KARDW</td>
<td>Kard Welding, Inc., 480 Osterloh Road, P. O. Box 124, Minster, OH 45865</td>
<td>2010-228Q</td>
</tr>
<tr>
<td>L&amp;MFD</td>
<td>L&amp;M Fabrication and Machine, Inc., 6814 Chrisphalt Drive, Bath, PA 18014</td>
<td>2017-347Q</td>
</tr>
<tr>
<td>MISUF</td>
<td>Missouri Fabricators, 3226 County Road 257, Fulton, MO 65251-3101 <a href="http://www.occimofab.com/">http://www.occimofab.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>NIAGC</td>
<td>Niagara Coatings Services, Inc., 8025 Quarry Road, Niagara Falls, NY 14304 <a href="http://niagaracoatings.com/">http://niagaracoatings.com/</a></td>
<td>-----</td>
</tr>
</tbody>
</table>

*Shop has SSPC-QP3 required for removal and disposal of hazardous coatings.*
Section AISC: Certified Facilities

**AISC Department Register of Certified Paint Shops (AISC or SSPC)**

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OESTE 15</td>
<td>Oesterling's Sandblasting &amp; Painting, 686 Glenwood Way, Butler, PA 16001</td>
<td>2001-168Q</td>
</tr>
<tr>
<td>Plant</td>
<td>686 Glenwood Way</td>
<td>Butler, PA 16001</td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td></td>
</tr>
<tr>
<td>OHSTR 15</td>
<td>Ohio Structures, Inc., 535 North Broad Street, Suite 5, Canfield, OH 44406 <a href="https://www.ohiostructures.com/">https://www.ohiostructures.com/</a></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>6120 Pricetown Road</td>
<td>Berlin Center, OH 44401</td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved for Shop Application Metalizing.</td>
<td></td>
</tr>
<tr>
<td>PDMB 15</td>
<td>Veritas Steel, 2800 Melby Street, Eau Claire, WI 54703 <a href="http://www.veritassteel.com/">http://www.veritassteel.com/</a></td>
<td></td>
</tr>
<tr>
<td>PMWI 15</td>
<td>Pleasant Mount Welding, Inc., 45 Dundaff Street, Carbondale, PA 18407 <a href="https://www.pmwi.net/">https://www.pmwi.net/</a></td>
<td>2018-218Q</td>
</tr>
<tr>
<td>POWSC 15</td>
<td>Powell Steel Corporation, 625 Baumgardner Road, Lancaster, PA 17603</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>

Last Revised: 10/29/2019
Section AISC: Certified Facilities

AISC Department Register of Certified Paint Shops (AISC or SSPC)  

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RP-MA 15</td>
<td>RPS Machinery Sales, Inc., 175 Old Route 220 Highway, P. O. Box 507, Jersey Shore, PA 17740 <a href="http://www.rpsmachinery.com/">http://www.rpsmachinery.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>SAFGD 15</td>
<td>Safety Guard Steel Fabricating Company, 113 Lincoln Avenue, Pittsburgh, PA 15209 <a href="http://www.safetyguardsteel.com/">http://www.safetyguardsteel.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>SCOUG 15</td>
<td>Scougal Rubber Corporation, 885 Denmark Dr. Ste. 103b, McCarran, NV 89434 <a href="http://www.scougalrubber.com/">http://www.scougalrubber.com/</a></td>
<td>2016-104</td>
</tr>
<tr>
<td>SECON 15</td>
<td>Secondary Service, 757 East Ferry, Buffalo, NY 14211</td>
<td>2010-199</td>
</tr>
</tbody>
</table>

Certified Paint Shop

Shop has SSPC-QP3 required for removal and disposal of hazardous coatings.

Approved for shop application of metalizing.
### Section AISC: Certified Facilities

**AISC Department Register of Certified Paint Shops (AISC or SSPC)**

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHANE 15</td>
<td>Shane Felter Industries, P. O. Box 2022, Rt. 51, Uniontown, PA 15401 <a href="http://www.shanefelterindustries.com/">http://www.shanefelterindustries.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>SRTSS 15</td>
<td>SRT Sales and Services, LLC, 4936 Southway Street SW, Canton, OH 44706 <a href="http://www.srtsands.com/">http://www.srtsands.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>STRBR 15</td>
<td>Canam Bridges US, Inc., a Canam Group Business, 386 River Road, Claremont, NH 03743 <a href="https://www.canambridges.com/">https://www.canambridges.com/</a> <strong>Formerly Structural Bridges, Div. of Canam Steel Corporation</strong></td>
<td>2014-015</td>
</tr>
<tr>
<td>TSFAB 15</td>
<td>Tuckerman Steel Fabricators, Inc., 256 Marginal St., East Boston, MA 02128</td>
<td>-----</td>
</tr>
<tr>
<td>Plant</td>
<td>256 Marginal St. East Boston, MA 02128</td>
<td></td>
</tr>
</tbody>
</table>
**Section AISC: Certified Facilities**

**AISC Department Register of Certified Paint Shops (AISC or SSPC)**  
Last Revised: 10/29/2019

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Valley, NE 68064</td>
<td></td>
</tr>
<tr>
<td>Certified Paint Shop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VETS1 15</td>
<td>Veritas Steel, 2800 Melby Street, Eau Claire, WI 54703 <a href="http://www.veritassteel.com/">http://www.veritassteel.com/</a></td>
<td>-----</td>
</tr>
<tr>
<td>Plant</td>
<td>2800 Melby Street  Eau Claire, WI 54703</td>
<td></td>
</tr>
<tr>
<td>Certified Paint Shop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>3526 W. Sherman Street  Wausau, WI 54401</td>
<td></td>
</tr>
<tr>
<td>Certified Paint Shop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WABST 15</td>
<td>Wabash Steel Company, LLC, 2007 Oliphant Drive, P.O. Box 117, Vincennes, IN 47591 <a href="http://www.wabashsteel.biz/">http://www.wabashsteel.biz/</a></td>
<td>2008-079Q</td>
</tr>
<tr>
<td>Certified Paint Shop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certified Paint Shop</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

In accordance with Section 1105, listed shops are eligible to manufacturer and furnish indicated machining operations on products for the Department. All products must conform to PennDOT Specifications in Publication 408 and approved shop drawings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2012-210Q</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2012-210Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2012-210Q</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2012-210Q</td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td>2012-210Q</td>
</tr>
<tr>
<td></td>
<td>Laser Cutting Operation</td>
<td>2012-210Q</td>
</tr>
<tr>
<td></td>
<td>Water Jet Cutting Operation</td>
<td>2012-210Q</td>
</tr>
<tr>
<td></td>
<td>Project by project approval by Chief Structural Materials Engineer. The Water Jet Cutting Operation approval is listed under the Washington, PA facility with a Supplier Code of ACCPS 15.</td>
<td>2012-210Q</td>
</tr>
<tr>
<td></td>
<td>Facility</td>
<td>75 Museum Road Washington, PA 15301</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2018-282Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2018-282Q</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2018-282Q</td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td>2018-282Q</td>
</tr>
<tr>
<td>ACMGS 15</td>
<td>Acme Grinding Services, Inc., 126 East Niagara St., Tonawanda, NY 14150</td>
<td>2015-198Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2015-198Q</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2015-198Q</td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td>2001-049Q</td>
</tr>
</tbody>
</table>
Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

In accordance with Section 1105, listed shops are eligible to manufacturer and furnish indicated machining operations on products for the Department. All products must conform to PennDOT Specifications in Publication 408 and approved shop drawings.

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Shop Name, Address and Website</th>
</tr>
</thead>
</table>
Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2011-157Q</td>
</tr>
<tr>
<td></td>
<td>Induction Bending Operation</td>
<td>2011-157Q</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2014-195QM</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2014-195QM</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2014-195QM</td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td>2014-195QM</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2007-123Q</td>
</tr>
<tr>
<td></td>
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<td>Drilling or Punching Operation</td>
<td>2007-123Q</td>
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<td>Grinding Operation</td>
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<td>Cutting Operation</td>
<td>2007-197Q</td>
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<td>Grinding Operation</td>
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<td>2007-199Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
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<td></td>
<td>Grinding Operation</td>
<td>2007-199Q</td>
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## Section MACH: PennDOT Register of Certified Machine Shops

**MACH Certified Machine Shops**

In accordance with Section 1105, listed shops are eligible to manufacturer and furnish indicated machining operations on products for the Department. All products must conform to PennDOT Specifications in Publication 408 and approved shop drawings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Product Name Ref. No.</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cutting Operation</td>
<td>2007-124Q</td>
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<td></td>
<td></td>
<td>Laser Cutting Operation</td>
<td>2015-076Q</td>
</tr>
</tbody>
</table>

Project by project approval by Chief Structural Materials Engineer.
### Section MACH: PennDOT Register of Certified Machine Shops

**MACH Certified Machine Shops**

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<th>Product Name</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATFAB 15</td>
<td>American Tank &amp; Fabricating Co. (AT&amp;F), 12314 Elmwood Avenue, Cleveland, OH 44111</td>
<td><a href="http://www.atfco.com">http://www.atfco.com</a></td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2015-152Q</td>
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<td>Cutting Operation</td>
<td>2015-152Q</td>
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<td>Laser Cutting Operation</td>
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<td>Project by project approval by Chief Structural Materials Engineer.</td>
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<tr>
<td></td>
<td>Press Brake (Tubular)</td>
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<td>Water Jet Cutting Operation</td>
<td>2015-152Q</td>
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<td>Project by project approval by Chief Structural Materials Engineer.</td>
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<tr>
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<td>Cutting Operation</td>
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<td>Drilling or Punching Operation</td>
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<tr>
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<td>Grinding Operation</td>
<td>2010-292Q</td>
</tr>
<tr>
<td>ATLRC 15</td>
<td>Atlanta Rod and Manufacturing Company, Inc., 144 Schokbeton Street, Lavonia, GA 30553</td>
<td><a href="http://www.atlrod.com">http://www.atlrod.com</a></td>
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<tr>
<td></td>
<td>Cutting Operation</td>
<td>2015-002Q</td>
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<tr>
<td>AXSAC 15</td>
<td>A &amp; X Steel and Aluminum Company, 2825 Annapolis Road, Baltimore, MD 21230</td>
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<td></td>
<td>Bending Operation</td>
<td>2013-155Q</td>
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<tr>
<td>BACWM 15</td>
<td>Bachle Welding &amp; Machine, Inc., 1685 Turkey Bottom Road, Muncy, PA 17756</td>
<td><a href="http://www.bachlewelding.com">http://www.bachlewelding.com</a></td>
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<tr>
<td></td>
<td>Cutting Operation</td>
<td>2007-145Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
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</tr>
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### Section MACH: PennDOT Register of Certified Machine Shops

**MACH Certified Machine Shops**  
Last Revised: 11/25/2019

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<tbody>
<tr>
<td></td>
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<td>Drilling or Punching Operation</td>
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<td></td>
<td></td>
<td>Grinding Operation</td>
<td>2014-172Q</td>
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<tr>
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<td></td>
<td>Press Brake (Tubular)</td>
<td>2014-172Q</td>
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<td></td>
<td>Water Jet Cutting Operation</td>
<td>2014-172Q</td>
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<td>Project by project approval by Chief Structural Materials Engineer.</td>
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<td></td>
<td>Drilling or Punching Operation</td>
<td>2011-131Q</td>
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<td></td>
<td></td>
<td>Bending Operation</td>
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<td>Cutting Operation</td>
<td>2015-144Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
<td>2015-144Q</td>
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<td>Grinding Operation</td>
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<td>Laser Cutting Operation</td>
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<td>Project by project approval by Chief Structural Materials Engineer.</td>
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<td>2010-189Q</td>
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<td>Drilling or Punching Operation</td>
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<td></td>
<td></td>
<td>Cutting Operation</td>
<td>2010-279Q</td>
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<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENS3 15</td>
<td>Benjamin Steel Company, Inc., 1825 Kuntz Road, Dayton, OH 45404</td>
<td>BENS3 15</td>
</tr>
<tr>
<td>Bending Operation</td>
<td>2010-298Q</td>
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<tr>
<td>Cutting Operation</td>
<td>2010-298Q</td>
<td></td>
</tr>
<tr>
<td>Grinding Operation</td>
<td>2010-298Q</td>
<td></td>
</tr>
</tbody>
</table>

| BENS4 15 | Benjamin Steel Company, Inc., 3111 St. Johns Road, Lima, OH 45804 | BENS4 15 |
| Bending Operation | 2010-280Q |
| Cutting Operation | 2010-280Q |
| Drilling or Punching Operation | 2010-280Q |
| Grinding Operation | 2010-280Q |

| BENTC 15 | BendTec, Inc., 366 Garfield Avenue, Duluth, MN 55802 | BENTC 15 |
| Bending Operation | 2013-087QA |
| Cutting Operation | 2013-087QA |
| Drilling or Punching Operation | 2013-087QA |
| Grinding Operation | 2013-087QA |
| Induction Bending Operation | 2013-087QA |

| BERMF 15 | Bear Ridge Machine & Fabrication, Inc., 10 Eleanor Avenue, Frackville, PA 17931 | BERMF 15 |
| Bending Operation | 2002-113Q |
| Cutting Operation | 2002-113Q |
| Drilling or Punching Operation | 2002-113Q |
| Grinding Operation | 2002-113Q |
| Stud Welding of Embed Plates Only | 2015-181Q |
| Water Jet Cutting Operation | 2015-177Q |

Project by project approval by Chief Structural Materials Engineer.
Section MACH: PennDOT Register of Certified Machine Shops

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<tr>
<th>Product</th>
<th>Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>BLALP 15</td>
<td>Black Lion Products, LLC, 3710 Henricks Road, Youngstown, OH 44515</td>
<td>Bending Operation, Cutting Operation, Drilling or Punching Operation, Grinding Operation</td>
</tr>
<tr>
<td>BREWF 15</td>
<td>S. R. Bressler Welding &amp; Fabrication, 558 Lake Drive, Curwensville, PA 16833 <a href="http://www.srbressler.com/">http://www.srbressler.com</a></td>
<td>Bending Operation, Cutting Operation, Drilling or Punching Operation, Grinding Operation</td>
</tr>
<tr>
<td>BRIDS 15</td>
<td>Bridge Deck Solutions, LLC, 298 Cherry Hill Drive, Latrobe, PA 15650 <a href="http://bridgedecksolutions.com/">http://bridgedecksolutions.com</a></td>
<td>Bending Operation, Cutting Operation, Drilling or Punching Operation, Grinding Operation</td>
</tr>
<tr>
<td>CBSSS 15</td>
<td>Casco Bay Steel Structures, Inc., One Wallace Avenue, South Portland, ME 04106</td>
<td>Bending Operation, Cutting Operation, Drilling or Punching Operation, Grinding Operation</td>
</tr>
</tbody>
</table>

The following Casco Bay Steel Structures, Inc. facilities are approved for bending, cutting, drilling/punching, and grinding operations:

1st Facility: One Wallace Avenue, South Portland, ME 04106
2nd Facility: 1156 Broadway, South Portland, ME 04106
3rd Facility: 75 Spring Hill Road, Saco, ME 04072
Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHASC 15</td>
<td>Chapel Steel Company, 191 South Keim Street, Pottstown, PA 19464 <a href="http://chapelsteel.com/">http://chapelsteel.com/</a></td>
<td>001-196Q</td>
</tr>
<tr>
<td>CONS0 15</td>
<td>Consolidated Steel Services, Inc., 632 Glendale Valley Blvd., Fallentimber, PA 16639 <a href="http://csteel.com/">http://csteel.com/</a></td>
<td>003-093Q</td>
</tr>
<tr>
<td>CUMPS 15</td>
<td>Pechter Inc. DBA Cumberland Pipe &amp; Steel Supply, 11901 Upper Potomac Ind. Park, P.O. Box 1320, Cumberland, MD 21501</td>
<td>012-052Q</td>
</tr>
<tr>
<td>CUSMC 15</td>
<td>Custom Manufacturing Company, 5501 S. Lamar Street, Dallas, TX 75215 <a href="http://custommfgco.com/">http://custommfgco.com/</a></td>
<td>010-328Q</td>
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</tbody>
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Section MACH: PennDOT Register of Certified Machine Shops

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<tr>
<td></td>
<td>Bending Operation</td>
<td>2001-118Q</td>
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<td>Cutting Operation</td>
<td>2001-118Q</td>
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<tr>
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<td>Drilling or Punching Operation</td>
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<tr>
<td></td>
<td>Grinding Operation</td>
<td>2001-118Q</td>
</tr>
<tr>
<td>DMSMF 15</td>
<td>DMS Machining and Fabrication, P.O. Box 477, 10 Transport Drive, Barre, VT 05641 <a href="http://www.dmsmachine.com/">http://www.dmsmachine.com/</a></td>
<td>2001-118Q</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2001-118Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
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<tbody>
<tr>
<td>DOLAN</td>
<td>Dolan's Welding &amp; Steel Fabricating, 118 Venture Street, Johnstown, PA 15909-4224</td>
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<td>Bending Operation</td>
<td>2017-167Q</td>
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<td>Cutting Operation</td>
<td>2017-167Q</td>
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<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
<td>2017-167Q</td>
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<td>Laser Cutting Operation</td>
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<td><em>Project by project approval by Chief Structural Materials Engineer.</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DSPSS</th>
<th>DS Pipe &amp; Steel Supply LLC, P.O. Box 6367, 1301 Wicomico Street, Baltimore, MD 21230 <a href="http://www.dspipeandsteel.com">http://www.dspipeandsteel.com</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>P.O. Box 6367  1301 Wicomico Street  Baltimore, MD 21230</td>
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<tr>
<td></td>
<td>Cutting Operation</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
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<tbody>
<tr>
<td></td>
<td>Water Jet Cutting Operation</td>
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<td><em>Project by project approval by Chief Structural Materials Engineer.</em></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>DVS-1</th>
<th>Delaware Valley Steel, 2249 Manor Ave, Upper Darby, PA 19082 <a href="http://www.delawarevalleysteel.com">http://www.delawarevalleysteel.com</a></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cutting Operation</td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</td>
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<td>2008-105Q</td>
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<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
<td>2008-105Q</td>
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<td></td>
<td>Cutting Operation</td>
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<td></td>
<td></td>
<td>Drilling or Punching Operation</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Grinding Operation</td>
<td>----</td>
</tr>
<tr>
<td>EASCT 15</td>
<td>East Coast Threading Company, 1520 Manatawny Road, P.O. Box 347, Pine Forge, PA 19548 <a href="http://eastcoastthreading.com/">http://eastcoastthreading.com/</a></td>
<td>Cutting Operation</td>
<td>2016-271Q</td>
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<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
<td>2016-271Q</td>
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<td>EASSM 15</td>
<td>Eastern Shaft &amp; Manufacturing, 160 Court St., Lancaster, NY 14086</td>
<td>Bending Operation</td>
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<th>Name</th>
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<tbody>
<tr>
<td>EXC-1 15</td>
<td>Excalibur Machine, LLC, 9723 Hwy 322, P.O. Box 605, Conneaut Lake, PA 16316 <a href="http://www.excaliburmachine.com/">http://www.excaliburmachine.com/</a></td>
<td>Plant 9723 Hwy 322 P.O. Box 605 Conneaut Lake, PA 16316</td>
</tr>
<tr>
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<td>Bending Operation</td>
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<tr>
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<td>Cutting Operation</td>
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<tr>
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<td>Drilling or Punching Operation</td>
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<td></td>
<td>Grinding Operation</td>
<td>2013-170Q</td>
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<tr>
<td>EXC-2 15</td>
<td>Excalibur Machine, LLC, 9723 Hwy 322, P.O. Box 605, Conneaut Lake, PA 16316 <a href="http://www.excaliburmachine.com/">http://www.excaliburmachine.com/</a></td>
<td>Plant 9723 Hwy 322 P.O. Box 605 Conneaut Lake, PA 16316</td>
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<td>Bending Operation</td>
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<td>2013-171Q</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2000-265Q</td>
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<td>FASCN 15</td>
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Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tr>
<td></td>
<td>Facility FEMCO - Pennsylvania 754 South Main Street Ext. Punxsutawney, PA 15767</td>
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<th>Name</th>
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<tbody>
<tr>
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<th>Ref. No.</th>
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<tbody>
<tr>
<td>HEART 15</td>
<td>Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417</td>
<td>Heartland Fabrication, LLC</td>
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<td>Formerly Brownsville Marine Products</td>
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<td>Press Brake (Tubular)</td>
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<td>Herr and Sacco, Incorporated, 1831 Auction Road, Manheim, PA 17545</td>
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<td>HIGH1 15</td>
<td>High Steel Structures, Inc., 1915 Old Philadelphia Pike, P.O. Box 10008, Lancaster, PA 17605-0008</td>
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<td>HWN-1 15</td>
<td>H. W. Nicholson Welding and Manufacturing Inc., 3899 Route 66, Apollo, PA 15613</td>
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<td>INFRA 15</td>
<td>Infra-Metals Company, 1900 Bessemer Road, Petersburg, VA 23805 <a href="http://www.infra-metals.com/">http://www.infra-metals.com/</a></td>
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<td>Press Brake (Tubular)</td>
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<td>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
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<tbody>
<tr>
<td>KARDW 15</td>
<td>Kard Welding, Inc., 480 Osterloh Road, P. O. Box 124, Minster, OH 45865</td>
<td>2010-228Q</td>
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<tr>
<td>KEYSN 15 Keystone North, Inc., 310 South Main Street, Mansfield 16933</td>
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Project by project approval by Chief Structural Materials Engineer.
section mach: penndot register of certified machine shops

mach certified machine shops

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<th>Ref. No.</th>
<th>Operations</th>
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project by project approval by chief structural materials engineer.
## MACH Certified Machine Shops

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LUBTC 15</td>
<td>Lubrite Technologies, 18649 Brake Shoe Road, Meadville, PA 16335-0458 <a href="http://www.usbfmi.com/lube1.htm">http://www.usbfmi.com/lube1.htm</a></td>
<td>2019-104Q</td>
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<tr>
<td>MADDEN15</td>
<td>Madden Bolt Corporation, 13420 Hempstead Road, Houston, TX 77040 <a href="https://maddenbolt.com/">https://maddenbolt.com/</a></td>
<td>2019-104Q</td>
</tr>
<tr>
<td>MARII 15</td>
<td>Marstrand Industries, Inc., 12 Rutgers Road, P.O. Box 44089, Pittsburgh, PA 15205 <a href="http://www.marstrand.us/">http://www.marstrand.us/</a></td>
<td>2001-214Q</td>
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<td>MARKL 15</td>
<td>Marmon/Keystone, LLC, 4521 Willow Parkway, Cleveland, OH 44125 <a href="https://www.marmonkeystone.com/ecomm/servlet/HomepageServlet">https://www.marmonkeystone.com/ecomm/servlet/HomepageServlet</a></td>
<td>2010-195Q</td>
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</tbody>
</table>
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MACH Certified Machine Shops

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<tr>
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<th>Ref. No.</th>
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<tbody>
<tr>
<td>MARMF 15</td>
<td>Martelli's Metal Fabrication, 4 Louise Drive, Ivyland, PA 18974</td>
<td><a href="http://martellismetalfab.com/">http://martellismetalfab.com/</a></td>
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<td>MCS-1 15</td>
<td>Mission Critical Solutions, LLC, 271 Industrial Lane, Alum Bank, PA 15221</td>
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<td>Facility</td>
<td>271 Industrial Lane  Alum Bank, PA 15221</td>
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<td></td>
<td>Project by project approval by Chief Structural Materials Engineer.</td>
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<tr>
<td></td>
<td>Press Brake (Tubular)</td>
<td>2014-059Q</td>
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<tr>
<td>MET-1 15</td>
<td>Metals USA, 50 Cabot Blvd., Langhorne, PA 19047</td>
<td><a href="http://www.metalsusa.com/">http://www.metalsusa.com/</a></td>
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<tr>
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<td>Drilling or Punching Operation</td>
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<tr>
<td>MET-4 15</td>
<td>Metals USA, 10 Tower Road, Seekonk, MA 02771 <a href="http://www.metalsusa.com/">http://www.metalsusa.com/</a></td>
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<td>Press Brake (Tubular)</td>
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<tr>
<td>MET-6 15</td>
<td>Metals USA, 75 Stonewood Road, York, PA 17402 <a href="http://www.metalsusa.com/">http://www.metalsusa.com/</a></td>
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<td>Drilling or Punching Operation</td>
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<td>MGLOS 15</td>
<td>M. Glosser &amp; Sons, Inc., 72 Messenger Street, Johnstown, PA 15902</td>
<td>2012-219Q</td>
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<tbody>
<tr>
<td>MIDATL15</td>
<td>Mid-Atlantic Steel, LLC, 1144 River Road, New Castle, DE 19720</td>
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<td>Bending Operation</td>
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<tr>
<td>MILMF 15</td>
<td>Miller Metal Fabrication, Inc., 16356 Sussex Hwy, P.O. Box 249, Bridgeville, DE 19933 <a href="http://www.millermetal.com/">http://www.millermetal.com/</a></td>
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<tr>
<td>Bending Operation</td>
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<td>Laser Cutting Operation</td>
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<td>Water Jet Cutting Operation</td>
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| Bending Operation | | ----- |
| Cutting Operation | | ----- |
| Drilling or Punching Operation | | ----- |
| Grinding Operation | | ----- |

| **NAMCO 15** | Namasco Corporation, 3835 Singleton Blvd., Dallas, TX 75212 | |
| Cutting Operation | | 2011-140Q |
| Drilling or Punching Operation | | 2011-140Q |
| Grinding Operation | | 2011-140Q |

| **NIABR 15** | Niagara Bridge & Rail, 2212 Cory Drive, Sanborn, NY 14132 [http://nbrfab.com/](http://nbrfab.com/) | |
| Bending Operation | | 2009-076Q |
| Cutting Operation | | 2009-076Q |
| Drilling or Punching Operation | | 2009-076Q |
| Grinding Operation | | 2009-076Q |
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<td>Niagara Manufacturing Company, 2725 West 17th St., Erie, PA 16505</td>
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<td>Grinding Operation</td>
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<td>Nivert Metal Supply, Inc., 1100 Marshwood Road, Throop, PA 18512</td>
<td>NIVERT15</td>
<td>1999-169Q</td>
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<td>Cutting Operation</td>
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<td>Olympic Steel, Cleveland Division, 5080 Richmond Road, Bedford Heights, OH 44146</td>
<td>OLYCD 15</td>
<td>2003-057Q</td>
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<td>O'Neal Steel Company, 2975 Duss Ave., Ambridge, PA 15003</td>
<td>ONL-1 15</td>
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<tr>
<td>O'Neal Steel Company, 11228 Hwy 14 East, New Haven, IN 46774</td>
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<td>2000-309Q</td>
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<td>Cutting Operation</td>
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<td>Grinding Operation</td>
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<tr>
<td>O'Neal Steel Company, 4005 East I-30, Grand Prairie, TX 75050</td>
<td>ONL-5 15</td>
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<td>Cutting Operation</td>
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<td>2011-199</td>
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<tbody>
<tr>
<td>PARTD 15</td>
<td>Paragon Tool &amp; Die, 15439 Akron-Canfield Road, P.O. Box 102, Berlin Ctr., OH 44401 <a href="https://www.paragontd.com/">https://www.paragontd.com/</a></td>
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<td>Drilling or Punching Operation</td>
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<td>PEIWF 15</td>
<td>Peirce Welding &amp; Fabricating, 170 Airport Rd., P.O. Box 369, Bethel, PA 19507 <a href="http://www.peircewelding.com/index.html">http://www.peircewelding.com/index.html</a></td>
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<td>Performance Processing Venture, LLC, 660 Martin Luther King Jr. Blvd., Farrell, PA 16121</td>
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<td>PKMAC 15</td>
<td>P. K. Machine, 9 Brooks Ave., Willow Street, PA 17584</td>
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<tr>
<td>PMWI15</td>
<td>Pleasant Mount Welding, Inc., 45 Dundaff Street, Carbondale, PA 18407</td>
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<td>PREC15</td>
<td>Precision International, 435 Burt Street, Sistersville, WV 26175</td>
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<td>PRESS15</td>
<td>Precision Steel Services Inc., 31 E. Sylvania Ave., Toledo, OH 43616</td>
<td><a href="http://precision-steel.com/">http://precision-steel.com/</a></td>
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<td>PRETC15</td>
<td>Premium Tool Company, Inc., 1082 Penn Avenue, Jersey Shore, PA 17740</td>
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<td>PROMA15</td>
<td>Professional Machine, 518 Maple Street, Holyoke, MA 01040</td>
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<td>PRSNY15</td>
<td>Cataract Steel Industries, 3774 Lakeshore Rd., Blasdell, NY 14219</td>
<td><a href="http://www.cataractsteel.com">http://www.cataractsteel.com</a></td>
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<td>(Formerly: Private Systems of WNY, Inc.)</td>
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<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
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<td>QUABF 15</td>
<td>Quality Bridge and Fab, Inc., 3608 Sharon Road, West Middlesex, PA 16159 <a href="http://www.qualitybridgeandfab.com/">http://www.qualitybridgeandfab.com/</a></td>
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Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

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<thead>
<tr>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RG-ST 15</td>
<td>R. G. Steel Corporation, P. O. Box 356, Route 551, Pulaski, PA 16143 <a href="http://rgsteel.com/">http://rgsteel.com/</a></td>
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<td>Bending Operation</td>
<td>2000-312Q</td>
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<td>Drilling or Punching Operation</td>
<td>2000-312Q</td>
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<td>Grinding Operation</td>
<td>2000-312Q</td>
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<tr>
<td>RP-MA 15</td>
<td>RPS Machinery Sales, Inc., 175 Old Route 220 Highway, P. O. Box 507, Jersey Shore, PA 17740 <a href="http://www.rpsmachinery.com/">http://www.rpsmachinery.com/</a></td>
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<tr>
<td>Bending Operation</td>
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<tr>
<td>Cutting Operation</td>
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<tr>
<td>Drilling or Punching Operation</td>
<td>----</td>
</tr>
<tr>
<td>Grinding Operation</td>
<td>----</td>
</tr>
<tr>
<td>RYER1 15</td>
<td>Ryerson Inc. (Joseph T Ryerson &amp; Son), 227 West Monroe Street, 27th Floor, Chicago, IL 60606 <a href="http://www.ryerson.com/">http://www.ryerson.com/</a></td>
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<tr>
<td>Facility</td>
<td>43 Century Drive Ambridge, PA 15003</td>
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<tr>
<td>RYER2 15</td>
<td>Ryerson Inc. (Joseph T Ryerson &amp; Son), 227 West Monroe Street, 27th Floor, Chicago, IL 60606 <a href="http://www.ryerson.com">http://www.ryerson.com</a></td>
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<tr>
<td>Facility</td>
<td>3915 Walden Avenue Lancaster, NY 14086</td>
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<td>Cutting Operation</td>
<td>2000-233Q</td>
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<tr>
<td>Drilling or Punching Operation</td>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RYER3 15</td>
<td>Ryerson Inc. (Joseph T Ryerson &amp; Son), 227 West Monroe Street, 27th Floor, Chicago, IL 60606 <a href="http://www.ryerson.com/">http://www.ryerson.com/</a></td>
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<tr>
<td>Facility</td>
<td>555 North Yearling Road  Columbus, OH 43213</td>
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<td>Grinding Operation</td>
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<tr>
<td>RYER4 15</td>
<td>Ryerson Inc. (Joseph T Ryerson &amp; Son), 227 West Monroe Street, 27th Floor, Chicago, IL 60606 <a href="http://www.ryerson.com">http://www.ryerson.com</a></td>
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<td>Facility</td>
<td>Ryerson Philadelphia, 20 Steel Road South Morrisville, PA 19067</td>
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<td>Grinding Operation</td>
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<tr>
<td>SABAL 15</td>
<td>Sabre Alloys, 6039 Thomas Road, Building B, Houston, TX 77041 <a href="http://www.sabrealloys.com/index.htm">http://www.sabrealloys.com/index.htm</a></td>
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<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
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<tr>
<td>Facility</td>
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<tr>
<td>Fabrication of bearing and beveled plates only</td>
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<tr>
<td>Fabrication of JJ-Hook connector plate assembly only</td>
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<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Address</th>
<th>Website</th>
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<tbody>
<tr>
<td>SAMPS 15</td>
<td>Samuel Plate Sales, 250 Lake Ave., Blasdell, NY 14219</td>
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<td><a href="http://scheirer.com/">http://scheirer.com/</a></td>
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<tr>
<td>SEISM 15</td>
<td>D.S. Brown Company, 300 East Cherry Street, North Baltimore, OH 45872</td>
<td>2010-198Q</td>
<td><a href="http://www.dsbrown.com/">http://www.dsbrown.com/</a></td>
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<td>SEISM 15 (Formerly Seismic Energy Products, Inc.)</td>
<td>518 Progress Way Athens, TX 75751</td>
<td>2010-198Q</td>
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<td>SEISM Plant</td>
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<td>SEISM 15 Plant</td>
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<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Facility Name and Address</th>
<th>Facility Location</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>STAAR Distributing, LLC, 560 Myrtle Street, Reynoldsville, PA 15851</td>
<td>130A Satterlee Road DuBois, PA 15801</td>
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<td>Stark Metal Sales, Inc., 432 E. Keystone St., Alliance, OH 44601</td>
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<td>Stark Metal Sales, Inc., 432 E. Keystone St., Alliance, OH 44601</td>
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<tr>
<td>Steel Services, Inc., 835 Boundary St., Salisbury, MD 21801</td>
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<td>STESE 15</td>
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<td>Steel Services, Inc., 835 Boundary St., Salisbury, MD 21801</td>
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<td>STESE 15</td>
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<tr>
<td>Steel Shearing, Inc., 5300 Lakeside Ave East Suite 2, Cleveland, OH 44114</td>
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<td>STESH 15</td>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>STEWK 15</td>
<td>Steelworks, Inc., P.O. Box 390, 2335 Toledo Ave., Trenton, MI 48183</td>
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<td>SUSTR 15</td>
<td>Summit Utility Structures, 2027 South 12th Street, Bldg 5, Allentown, PA 18103</td>
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<td>SVPRO 15</td>
<td>Steel Valley Processing, LLC, 3710 Hendricks Road, Youngstown, OH 44515</td>
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<tr>
<td>TBRSA 15</td>
<td>T. Bruce Sales, R. 18 &amp; Carbaugh Street, West Middlesex, PA 16159 <a href="http://tbrusesales.com/tbrusesales_3_010.htm">http://tbrusesales.com/tbrusesales_3_010.htm</a></td>
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<th>Facility</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>TEK1 15</td>
<td>Tektonics Design Group, LLC, 702 East 4th Street, Richmond, VA 23224</td>
<td>702 East 4th Street  Richmond, VA 23224</td>
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<td>THOMC 15</td>
<td>Thompson Machine Company, 1128 N. Fourth Ave., Altoona, PA 16601</td>
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<tr>
<td>TOLSS 15</td>
<td>Toledo Steel Supply, Inc., 222 LaVoy Road, Erie, MI 48133</td>
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<tr>
<td></td>
<td>Cutting Operation</td>
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<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
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<tr>
<td>TRISB 15</td>
<td>Tristate Bolt Company, 1110 Fuller Drive, Garrett, IN 46738 <a href="http://www.tristateboltinc.com/">http://www.tristateboltinc.com/</a></td>
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<td>Drilling or Punching Operation</td>
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<td></td>
<td>Grinding Operation</td>
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<tr>
<td>UMCI 15</td>
<td>Unverferth Manufacturing Co., Inc., P.O. Box 357, 601 S. Broad Street, Kalida, OH 45853 <a href="https://www.unverferth.com/">https://www.unverferth.com/</a></td>
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<tbody>
<tr>
<td>Vertech International, Inc., 420 Station Road, Quakertown, PA 18951</td>
<td>2011-248Q</td>
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<tr>
<td>Vicon Fabricating Company, 7200 Justin Way, Mentor, OH 44060</td>
<td>2009-008Q</td>
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<tr>
<td>Voss Manufacturing, Inc., 2345 Lockport Road, Sanborn, NY 14132</td>
<td>2009-008Q</td>
</tr>
<tr>
<td>Walter Long Manufacturing Company, Inc., 86 Walter Long Road, Finleyville, PA 15332</td>
<td>2003-010Q</td>
</tr>
<tr>
<td>Watson Steel Products, Inc., 264 Mystic Ave., Buffalo, NY 14206</td>
<td>2006-004Q</td>
</tr>
</tbody>
</table>

Last Revised: 11/25/2019
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<tbody>
<tr>
<td>WECAL 15</td>
<td>WeCall, Inc., 64 Penniman Road, Orwell, OH 44076 [<a href="http://www.wecallinc.com/">http://www.wecallinc.com/</a>]</td>
<td>WECAL 15 Facility 2678 Harvard Avenue Tulsa, OK 74115</td>
<td>2011-154Q</td>
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<tr>
<td></td>
<td>Cutting Operation</td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</td>
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<td>2011-154Q</td>
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<td>Grinding Operation</td>
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<td>WHICO 15</td>
<td>L. C. Whitford Company, 164 North Main Street, P.O. Box 663, Wellsville, NY 14895 [<a href="http://www.lcwhitford.com/">http://www.lcwhitford.com/</a>]</td>
<td>WHICO 15 Facility 2678 Harvard Avenue Tulsa, OK 74115</td>
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<td>Cutting Operation</td>
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<td>2014-170Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
<td></td>
<td>2014-170Q</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
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<td>2014-170Q</td>
</tr>
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<td>Cutting Operation</td>
<td></td>
<td>2014-170Q</td>
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<tr>
<td></td>
<td>Press Brake (Tubular)</td>
<td></td>
<td>2014-170Q</td>
</tr>
<tr>
<td></td>
<td>Fabrication of JJ-Hook connector plate assembly only</td>
<td></td>
<td>2015-054Q</td>
</tr>
<tr>
<td></td>
<td>Fabrication of JJ-Hook connector plate assembly with attached welded reinforcement, including Deflection Limiter and Bolt Down Bar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YOU-1 15</td>
<td>Youngstown Pipe &amp; Steel, LLC, 4100 Lake Park Road, Youngstown, OH 44513 [<a href="http://yopipe.com/">http://yopipe.com/</a>]</td>
<td>YOU-1 15 Facility 2678 Harvard Avenue Tulsa, OK 74115</td>
<td>2002-114Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td></td>
<td>2002-114Q</td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</td>
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<td>2002-114Q</td>
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</tbody>
</table>
Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

In accordance with Section 1105, listed shops are eligible to manufacturer and furnish indicated machining operations on products for the Department. All products must conform to PennDOT Specifications in Publication 408 and approved shop drawings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOU-2 15</td>
<td>Youngstown Pipe &amp; Steel, LLC, 45 S Mongomery Ave., P.O. Box 3467, Youngstown, OH 44506</td>
<td><a href="http://yopipe.com/">http://yopipe.com/</a></td>
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<tr>
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<td>Drilling or Punching Operation</td>
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