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 web-based Product Evaluation Application within the New Product Evaluation and Tracking System (NPETS) in PennDOT’s electronic Construction and Materials Management System (eCAMMS) is the means to submit products for consideration for approval and listing in Bulletin 15. To gain access to eCAMMS (NPETS) for completion and submission of a Product Evaluation Application, the individual Applicant must complete and return the User Request Form: Product Evaluation Applicant User Request Form. Even if you already have an existing eCAMMS user account as a Business Partner, you must request NPETS access by submitting this User Request form. Upon activation of your user account, you may access eCAMMS (NPETS) via the “Product Evaluation” menu in eCAMMS at www.ecamms.pa.gov, to submit a product evaluation application to PennDOT for listing in Bulletin 15, Qualified Products List for Construction.

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-pdBOPDPETS@pa.gov
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</td>
<td>Standard Certification</td>
<td>Ship on Certification with Form CS-4171*</td>
</tr>
<tr>
<td>Level 2</td>
<td>Standard Certification - Reduced</td>
<td>Ship on Certification with Form CS-4171*</td>
</tr>
<tr>
<td>Level 3</td>
<td>Lot Approval Certification</td>
<td>Ship only after Material Lot Approval using Modified Certification, with Form CS-4171*</td>
</tr>
<tr>
<td>Suspension or Removal</td>
<td>In accordance with the State’s Contractor Responsibility Program:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 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.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Failure of Producer to advance above Certification Level 3 will result in PennDOT’s initiating action for suspension or removal from Bulletin 15.</td>
<td></td>
</tr>
</tbody>
</table>

* 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

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 <a href="https://aeroaggregates.com/">https://aeroaggregates.com/</a></td>
<td>2017-048</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 Name Ref. No.</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLMD 15 POLMD 15</td>
<td>Poly Molding LLC, 96 Fourth Avenue, Haskell, NJ 07420</td>
<td><a href="http://polymoldingllc.com/">http://polymoldingllc.com/</a></td>
</tr>
<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>BAS-0 15</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td>[Air Entraining Admixture For Flowable Fill (AEA)]</td>
<td>As required by testing</td>
<td>CADD-2015-01-120</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MasterCell 25 (Rheocell/Rheofill)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAS-5 15</td>
<td>BASF, 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td>[Air Entraining Admixture For Flowable Fill (AEA)]</td>
<td>As required by testing</td>
<td>CADD-2010-02-016</td>
</tr>
<tr>
<td></td>
<td></td>
<td>MasterCell 30 (Rheocell 30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CELLC 15</td>
<td>Aerix Industries, 5902 McIntyre Street, Golden, CO 80403</td>
<td>[Air Entraining Admixture For Flowable Fill (AEA)]</td>
<td>Forta GoldenAir</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.aerixindustries.com/">Formerly Cellular Concrete, LLC</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799</td>
<td>[Air Entraining Admixture For Flowable Fill (AEA)]</td>
<td>Eucon Easy Fill</td>
<td></td>
</tr>
<tr>
<td>FRITZ 15</td>
<td>Fritz-Pak Corporation, 4821 Eastover Circle, Mesquite, TX 75149</td>
<td>[Air Entraining Admixture For Flowable Fill (AEA)]</td>
<td>Sika Lightcrete Powder</td>
<td></td>
</tr>
<tr>
<td>GRAC0 15</td>
<td>GCP Applied Technologies Inc., 62 Whittemore Ave., Cambridge, MA 02140-1692</td>
<td>[Air Entraining Admixture For Flowable Fill (AEA)]</td>
<td>Darafill</td>
<td></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></td>
<td>Formerly: W. R. Grace and Company</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture For Flowable Fill [AEA]</td>
<td>Darafill</td>
<td></td>
<td></td>
</tr>
</tbody>
</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>Aramid Fiber Blend</td>
<td>FORTA-FI</td>
</tr>
<tr>
<td></td>
<td>Aramid Fiber Blend</td>
<td>FORTA-FI for HMA</td>
</tr>
<tr>
<td>SURF1 15 Plant</td>
<td>Aramid Fiber Blend</td>
<td>ACE Fiber</td>
</tr>
</tbody>
</table>

- Forta Corporation, 100 Forta Drive, Grove City, PA 16127 [http://www.forta-fi.com/](http://www.forta-fi.com/)
Section 411: Superpave Mixture Design, Standard and RPS Construction of Plant-Mixed WMA Courses

411.2(g) 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</td>
<td>Rediset WMX</td>
<td>2017-072Q</td>
</tr>
<tr>
<td>AKZO1 15 Facility</td>
<td>AkzoNobel Surface Chemistry, LLC, 525 West Van Buren Street, Chicago, IL 60607</td>
<td>Rediset LQ-1102C</td>
<td>2017-072Q</td>
</tr>
<tr>
<td>ASTIN 15</td>
<td>Astec Industries, Inc., P.O. Box 72787, Chattanooga, TN 37407</td>
<td>Rediset LQ-1102C</td>
<td>2017-072Q</td>
</tr>
<tr>
<td>CECA 15</td>
<td>CECA, Subsidiary of Arkema, 89 Boulevard National, La Garenne-Colombes 92257</td>
<td>Rediset LQ-1102C</td>
<td>2017-072Q</td>
</tr>
<tr>
<td>CIS01 15</td>
<td>Cargill Industrial Specialties, 12201 South Torrence Avenue, Chicago, IL 60617</td>
<td>Rediset LQ-1102C</td>
<td>2017-072Q</td>
</tr>
<tr>
<td>EASIN 15</td>
<td>Eastern Industries, Inc., 4401 Camp Meeting Rd., Ste 200, Center Valley, PA 18034</td>
<td>Rediset LQ-1102C</td>
<td>2017-072Q</td>
</tr>
<tr>
<td>GENID 15</td>
<td>Gencor Industries, Inc., 5201 N. Orange Blossom Trail, Orlando, FL 32810</td>
<td>Rediset LQ-1102C</td>
<td>2017-072Q</td>
</tr>
<tr>
<td>MAXEQ 15</td>
<td>Maxam Equipment, Inc., 1575 Universal Ave., Kansas City, MO 64120</td>
<td>Rediset LQ-1102C</td>
<td>2017-072Q</td>
</tr>
<tr>
<td>MCCTE 15</td>
<td>McConnaughay Technologies, 1911 Lorings Crossing, Cortland, NY 13045</td>
<td>Rediset LQ-1102C</td>
<td>2017-072Q</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: Superpave Mixture Design, Standard and RPS Construction of Plant-Mixed WMA Courses**

### 411.2(g) 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 Name Ref. No.</th>
<th>COA</th>
<th>Product Name Ref. No.</th>
<th>COA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MEAWE 15</strong> 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>-----</td>
<td><strong>MEEEQ 15</strong> 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>-----</td>
</tr>
<tr>
<td>Chemical Additive</td>
<td>Evotherm DAT</td>
<td>Chemical Foaming Equipment/Process</td>
<td>Warm Mix System</td>
</tr>
<tr>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>Evotherm J1</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>
</tr>
<tr>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>Evotherm M1</td>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>Evotherm P25</td>
</tr>
<tr>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>Evotherm U3</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>
</tr>
<tr>
<td>Foaming Additive/Process</td>
<td>Advera WMA</td>
<td>Mechanical Foaming Equipment/Process</td>
<td>Reliable Asphalt Warm Mix System</td>
</tr>
<tr>
<td><strong>Ref. No.</strong></td>
<td></td>
<td><strong>Provisionally Approved:</strong> 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>2018-198Q</td>
</tr>
</tbody>
</table>
Section 411: Superpave Mixture Design, Standard and RPS Construction of Plant-Mixed WMA Courses

411.2(g) 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>ROAD1 15</td>
<td>Road Science, Division of ArrMaz, 6502 South Yale Avenue, Tulsa, OK 74136 Vanceboro, NC</td>
<td>Chemical Additive with Anti-Strip Additives</td>
<td>AD Here ULTRA 1</td>
</tr>
<tr>
<td>SASW- 15</td>
<td>Sasol Wax North America Corporation, 102 Cutting Blvd., Richmond, CA 94804</td>
<td>Organic Additive</td>
<td>Sasobit</td>
</tr>
<tr>
<td>SONNE 15</td>
<td>Sonneborn Refined Products, 600 Parsippany Road, Suite 100, Parsippany, NJ 07054</td>
<td>Organic Additive</td>
<td>SonneWarmix</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organic Additive with Anti-Strip Additives</td>
<td>SonneWarmix RT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sonnegreen as</td>
<td>2016-005Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sonnegreen as IV</td>
<td>2017-164</td>
</tr>
<tr>
<td></td>
<td></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>
</tr>
<tr>
<td>STAAS 15</td>
<td>Stansteel Asphalt Plant Products, 12700 Shelbyville Road, Louisville, KY 40243</td>
<td>Mechanical Foaming Equipment/Process</td>
<td>Accu-Sheer Warm Mix Asphalt System</td>
</tr>
</tbody>
</table>
## Section 411: Superpave Mixture Design, Standard and RPS Construction of Plant-Mixed WMA Courses

### 411.2(g) 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</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>Chemical Additive ZycoTherm</td>
<td></td>
<td>2015-126M</td>
</tr>
<tr>
<td></td>
<td>Chemical Additive with Anti-Strip Additives Zycotherm-SP</td>
<td></td>
<td>2018-073Q</td>
</tr>
</tbody>
</table>

#### Provisional Approval:
- Contact PennDOT Materials Testing Laboratory at (717) 346-1548 before using. Notification shall include the following information: ECMS Project No., State Route, County, and Bulletin 41 WMA Producer.
- 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 (2/15/2019 to 2/15/2021).

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

<table>
<thead>
<tr>
<th>Product</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>

#### Provisional Approval:
- For Aramid Fibers for WMA, contact PennDOT Materials Testing Laboratory at (717) 346-1548 before using. Notification shall include the following information: ECMS Project No., State Route, County, and Bulletin 41 WMA Producer.
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></td>
<td>Crumb Rubber (CR)</td>
<td>TR 20 Minus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WTG 20</td>
</tr>
<tr>
<td><strong>LIB-2</strong></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></td>
</tr>
<tr>
<td></td>
<td>Crumb Rubber (CR)</td>
<td>20 WMA</td>
</tr>
<tr>
<td><strong>MAHAN</strong></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></td>
</tr>
<tr>
<td></td>
<td>Crumb Rubber (CR)</td>
<td>MAH-1A</td>
</tr>
<tr>
<td><strong>NRIND</strong></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>
<tr>
<td>Plant</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)</td>
<td>58702 Ground Rubber</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 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>
</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>Tri State Materials / All States Materials Group, 325 Amherst Road, P.O. Box 91, Sunderland, MA 01375 <a href="http://www.asmg.com">http://www.asmg.com</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>901 River Road  Deerfield, MA 01342</td>
<td>(Formerly New England Emulsion Corporation, NEWEE 15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CRMB for Rubberized Asphalt Seal Coat (RASC)</td>
<td>2/12/2010</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditional approval per: Rubberized Asphalt Seal Coat, SRL-H Conditional Specification</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Section 501: Reinforced or Plain Cement Concrete Pavements

## 501.2 Fiberglass Dowel Sleeve

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creative Pultrusions, 214 Industrial Lane, P.O. Box 6, Alum Bank, PA 15521-0006 <a href="http://www.creativelppeulsions.com/">http://www.creativelppeulsions.com/</a></td>
<td>1992-199</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>DEGEN 15</td>
<td>Degen Oil &amp; Chemical Company, 200 Kellogg Street, P.O. Box 5240, Jersey City, NJ 07305</td>
<td>Boiled Linseed Oil 1998-173</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>Boiled Linseed Oil Treatment -----</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 <a href="http://www.eezimmermanco.com/contact.asp">http://www.eezimmermanco.com/contact.asp</a></td>
<td>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</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

516.2(k) Anchor Material

See [Standard Drawing RC-26M (Publication 72M)](http://www.atcepoxy.com/)

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.
Section 516: Concrete Pavement Patching

### 516.2(k) Anchor Material

See [Standard Drawing RC-26M (Publication 72M)](http://ccmaterial.com)  

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></td>
</tr>
<tr>
<td>Facility 1</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></td>
</tr>
<tr>
<td>Facility 1</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></td>
</tr>
<tr>
<td>Facility 1</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></td>
</tr>
<tr>
<td>Facility 1</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></td>
</tr>
<tr>
<td>Plant 1</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>Facility 1</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

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</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITWRH 15</td>
<td>ITW Commercial Construction N.A., 700 High Grove Blvd, Glendale Heights, IL 60139</td>
<td>2016-241</td>
</tr>
<tr>
<td>Plant</td>
<td>26501 Bourg Lès Valence, Valence, France</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Red Head A7+</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sure-Poxy 116</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sure-Poxy 117</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>1990-371</td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rezi-Weld Gel Paste (Construction Epoxy)</td>
<td></td>
</tr>
<tr>
<td>MKTFS 15</td>
<td>MKT Fastening, LLC, 1 Gunnebo Drive, Lonoke, AR 72086</td>
<td>1993-280</td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Liquid Roc 300 Twin Tube Polyester Resin</td>
<td></td>
</tr>
<tr>
<td>PLYGM 15</td>
<td>Polygem, Inc., 1105 Carolina Drive, West Chicago, IL 60185</td>
<td>1994-199</td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>#1257 Epoxy Anchoring Adhesive</td>
<td></td>
</tr>
<tr>
<td>Sika0 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>1993-270</td>
</tr>
<tr>
<td>Facility</td>
<td>201 Polito Avenue Lyndhurst, NJ 07071</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sikadur DOT SP 3/4 DBA (Epoxy as Injection Gel)</td>
<td>1989-236</td>
</tr>
<tr>
<td></td>
<td>Sikadur Injection Gel</td>
<td>1989-236</td>
</tr>
<tr>
<td>SIKA1 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>1989-236</td>
</tr>
<tr>
<td>Plant</td>
<td>1682 Marion Williamsport Road E Marion, OH 43302</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bar Adhesive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sikadur DOT SP 3/4 DBA (Epoxy as Injection Gel)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sikadur Injection Gel</td>
<td></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>SOCOM 15</td>
<td>Socom, Sogaris 196, 94656 Runngis Cdx, France Dowel Bar Adhesive EPO 9030 Acrylic Adhesive</td>
<td>2004-181Q</td>
</tr>
</tbody>
</table>

516.2(m) Preformed Cellular Polystyrene

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OWENC 15</td>
<td>Owens Corning, One Owens Corning Parkway, Toledo, OH 43659 <a href="http://www.owenscorning.com/">http://www.owenscorning.com/</a> Cellular Polystyrene Foamular 1000 Foamular 150 Foamular 250 Foamular 400 Foamular 600</td>
<td>2002-005Q</td>
</tr>
</tbody>
</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>
</tbody>
</table>

Virgin Polypropylene Fibers

### 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></td>
<td>Cementitious Repair Mortar</td>
<td>Cannot be used with aggregate extenders. Meets the requirements of R1, R2, and R3 material in ASTM C928.</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Plant Whitmore Lake, MI</td>
<td>Magnesium, Phosphate Cement-Based Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cannot be used with aggregate extenders. Meets the requirements of R1 and R2 material in ASTM C928.</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>1682 Marion Williamsport Road E Marion, OH 43302</td>
<td>Cementitious Repair Mortar</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cannot be used with aggregate extenders. Meets the requirements of R1 and R2 material in ASTM C928.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rapid-Setting Concrete</td>
<td>Sikacrete 421 CI Rapid RSCP-2017-01-005</td>
<td>2019-084Q</td>
</tr>
<tr>
<td></td>
<td>Phoscrete HC 2017-104QRSCP-2015-01-002</td>
<td>Cannot be used with aggregate extenders. Meets the requirements of R1 and R2 material in ASTM C928.</td>
<td></td>
</tr>
<tr>
<td>WMD1 15</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>FasTrac 246 Concrete RSCP-2017-01-004</td>
<td>2018-197Q</td>
</tr>
<tr>
<td>Plant</td>
<td>101 East Walnut Street Archie, MO 64725</td>
<td>Rapid-Setting Concrete</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cannot be used with aggregate extenders. Meets the requirements of R1 and R2 material in ASTM C928.</td>
<td></td>
</tr>
</tbody>
</table>

#### 527.2(d) Rapid Set Concrete Patching Material

See Section 525.2(c) for approved rapid set concrete patching material products.
## Section 530: Long-Life Concrete Pavement (LLCP)

### 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-15 Plant</td>
<td>Rolled Zinc Alloy Tubular Dowel Bar</td>
<td>2016-164Q</td>
</tr>
<tr>
<td>Jarden Zinc Products, 2500 Old Stage Road, Greeneville, TN 37744</td>
<td>LifeDowel</td>
<td>2016-164Q</td>
</tr>
</tbody>
</table>

*Last Revised: 7/25/2018*
## 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>
<tbody>
<tr>
<td>Plant</td>
<td>428 Rollins Industrial Blvd. Ringgold, GA 30736</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Woven Geotextile Interlayer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

601.2(a)3a 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></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>NPCA</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> Formerly Hanson Pipe &amp; Precast</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RC Pipe (Elliptical)</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>HANS3 15</td>
<td>Forterra, 1500 Haul Rd., Columbus, OH 43207 <a href="http://www.forterrabp.com">http://www.forterrabp.com</a> Formerly Hanson Pipe &amp; Precast</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RC Pipe (Elliptical)</td>
<td></td>
<td>NPCA</td>
<td></td>
</tr>
<tr>
<td>RC Pipe (Round)</td>
<td></td>
<td>NPCA</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></td>
<td></td>
</tr>
<tr>
<td>RC Pipe (Elliptical)</td>
<td></td>
<td>ACPA Q-Cast</td>
<td></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>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></td>
<td></td>
</tr>
<tr>
<td>RC Pipe (Elliptical)</td>
<td></td>
<td>ACPA Q-Cast</td>
<td></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>
</tbody>
</table>
Section 601: Pipe Culverts

601.2(a)3a 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>
</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>
</tr>
</tbody>
</table>

**RC Pipe (Elliptical)**

Only manufactures elliptical pipe with a major axis of 45" (1150mm) or greater

**RC Pipe (Round)**

Only manufactures round pipe with a diameter of 48" (1200mm) or greater

| OLDP1 15 | Oldcastle Infrastructure, Inc., a CRH Company, 1900 Pennsylvania Ave., Croydon, PA 19021 [http://www.oldcastleprecast.com/Pages/default.aspx](http://www.oldcastleprecast.com/Pages/default.aspx) |

Formerly Oldcastle Precast

**RC Pipe (End Section)**

ACPA Q-Cast

**RC Pipe (Round)**

ACPA Q-Cast


Formerly Oldcastle Precast

**RC Pipe (Elliptical)**

ACPA Q-Cast

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.

**RC Pipe (Round)**

ACPA Q-Cast

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.
Section 601: Pipe Culverts

601.2(a)3a 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>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>NPCA</td>
<td></td>
</tr>
<tr>
<td>RC Pipe (Elliptical)</td>
<td></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>NPCA</td>
<td></td>
</tr>
<tr>
<td>UPPCP 15</td>
<td>Upper Peninsula Concrete Pipe, P. O. Box 313, Escanaba, MI 49829 <a href="http://upconcretepipe.net/">http://upconcretepipe.net/</a></td>
<td>NPCA</td>
<td></td>
</tr>
<tr>
<td>RC Pipe (End Section)</td>
<td></td>
<td>NPCA</td>
<td></td>
</tr>
<tr>
<td>VIANN 15</td>
<td>Vianini Pipe Inc., P. O. Box 678, Somerville, NJ 08876 <a href="http://www.vianinipe.com/">http://www.vianinipe.com/</a></td>
<td>ACPA Q-Cast</td>
<td></td>
</tr>
<tr>
<td>RC Pipe (Elliptical)</td>
<td></td>
<td>ACPA Q-Cast</td>
<td></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>
</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>Plant</td>
<td>Allentown, PA</td>
<td></td>
</tr>
<tr>
<td>Plasticizing Admixture for Dry-Cast Manufacturing Only (S-PA)</td>
<td>MasterCast 900 (RheoFIT 900)</td>
<td></td>
</tr>
<tr>
<td>Recommended Dosage: 2 to 12 oz/cwt</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 601: Pipe Culverts

### 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></td>
<td>RC Pipe (Related Item)</td>
<td>Camlock Spacers (Pub. 280)</td>
</tr>
<tr>
<td></td>
<td>RC Pipe (Related Item)</td>
<td>Quik-Fit Stirrup Mat (Pub. 280)</td>
</tr>
<tr>
<td></td>
<td>RC Pipe (Related Item)</td>
<td>Camlock Spacers (Pub. 280)</td>
</tr>
<tr>
<td></td>
<td>RC Pipe (Related Item)</td>
<td>Quik-Fit Stirrup Mat (Pub. 280)</td>
</tr>
<tr>
<td></td>
<td>Plasticizing Admixture</td>
<td>“S” Stirrup Assemblies</td>
</tr>
<tr>
<td></td>
<td>Reinforced Concrete Pipe Cages</td>
<td>Fabricator of Welded Steel Cages for Reinforced Flared End Sections</td>
</tr>
<tr>
<td>KRETE 15</td>
<td>Krete Industries, P. O. Box 343, Butler, WI 53007 <a href="http://www.krete.com/">http://www.krete.com/</a></td>
<td>2016-245Q</td>
</tr>
<tr>
<td></td>
<td>Plasticizing Admixture</td>
<td>KreteMix 100 (formerly Krette Econo Plast)</td>
</tr>
<tr>
<td></td>
<td>Plasticizing Admixture for Dry-Cast Manufacturing Only (S-PA)</td>
<td>SikaMix PL-100</td>
</tr>
</tbody>
</table>

### 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>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ductile Iron Pipe</td>
<td></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>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>USPF1 15</td>
<td>United States Pipe and Foundry Company, Two Chase Corporate Drive, Suite 200, Birmingham, AL 35244 <a href="http://www.uspipe.com">http://www.uspipe.com</a></td>
<td>2015-087Q</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>
<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>----</td>
</tr>
<tr>
<td>CON05 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>CON07 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>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>----</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>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>Corrugated Steel Pipe, Metallic Coated</td>
</tr>
<tr>
<td>Plant</td>
<td>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>Corrugated Steel Pipe, Metallic Coated</td>
</tr>
<tr>
<td>Related Hardware</td>
<td>Band Angle</td>
<td>1984-073</td>
</tr>
<tr>
<td>LANE0 15</td>
<td>Lane Enterprises, Inc., 3905 Hartzdale Dr. (Suite 514), Camp Hill, PA 17011 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td>Corrugated Steel Pipe, Metallic Coated</td>
</tr>
<tr>
<td>Related Hardware</td>
<td>Pipe Bands</td>
<td>1982-024</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>Corrugated Steel Pipe, Metallic Coated</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>Corrugated Steel Pipe, Metallic Coated</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>
<tr>
<td>Related Hardware</td>
<td>A-307 Grade A, 6&quot; and 8&quot; Electroplated, CMP Band Bolts</td>
<td></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></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conyers, GA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Aluminum Alloy Pipe</td>
<td></td>
</tr>
<tr>
<td>CON04 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></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mitchell, IN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Aluminum Alloy Pipe</td>
<td></td>
</tr>
<tr>
<td>CON07 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></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shakopee, MN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Aluminum Alloy Pipe</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></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Palmer, MA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Aluminum Alloy Pipe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Raleigh, NC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated Aluminum Alloy Pipe</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 Aluminum Alloy Pipe</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 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></td>
<td>Coated Corrugated Galvanized Steel Pipe</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></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></td>
<td>----</td>
</tr>
<tr>
<td>Plant</td>
<td>Greencastle, PA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coated Corrugated Galvanized Steel Pipe</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>Coated Corrugated Galvanized Steel Pipe</td>
<td></td>
</tr>
<tr>
<td>Related Hardware</td>
<td>Trenchcoat DAF 625</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plastic coating for galvanized steel pipe</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coated Corrugated Galvanized Steel Pipe</td>
<td></td>
</tr>
<tr>
<td>Related Hardware</td>
<td>Culvert Mastic (Spray Grade)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Also listed under Section 702</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>
<tbody>
<tr>
<td>Plant</td>
<td>Springfield, IL</td>
<td>A2 liner pipe. Approved for 2' minimum fill height, 36' maximum fill height.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</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 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>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&quot; in. size pipe can only be used for maintenance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JMMC1 15</td>
<td>J-M Manufacturing Company, 9 Peach Tree Hill Road, Livingston, NJ 07039</td>
<td>Type S</td>
<td>18&quot;, 21&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SDR=21</td>
<td>18&quot;, 21&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SDR=26</td>
<td>21&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;</td>
<td></td>
<td></td>
</tr>
</tbody>
</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>PRIM1 15</td>
<td>Prime Conduit, Inc., 23240 Chagrin Blvd, Stuite 405, Cleveland, OH 44122</td>
<td>Polyvinyl Chloride (PVC)</td>
<td>Type S</td>
<td>21&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;</td>
<td>1995-114</td>
</tr>
<tr>
<td>Plant</td>
<td>Oklahoma City, OK</td>
<td>F 1803 Closed Profile Gravity Pipe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formerly PW Eagle</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROYAL 15</td>
<td>Royal Pipe Systems, 131 Regalcrest Court, Woodbridge, Ontario, Canada</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></td>
<td></td>
<td></td>
<td>30&quot;, 36&quot; (corrugated)</td>
<td></td>
<td>1997-007</td>
</tr>
</tbody>
</table>

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.

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>Pipe</td>
<td></td>
<td></td>
<td></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>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>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>Type S</td>
<td>15&quot;, 18&quot;, 21&quot;, 24&quot;, 30&quot;</td>
<td>-</td>
</tr>
<tr>
<td>Plant</td>
<td>Findlay South Plant #37 12370 County Road 172 Findlay, OH 45840</td>
<td>Formerly Hancor, Inc. (HANC0 15)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Hancor, Inc. (HANC1 15)</td>
<td></td>
<td></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>Type S</td>
<td>15&quot;, 18&quot;, 21&quot;, 24&quot;</td>
<td>-----</td>
</tr>
<tr>
<td>Plant</td>
<td>1 William Donnelly Parkway Waverly, NY 14892</td>
<td>Formerly Hancor, Inc. (HANC1 15)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Hancor, Inc. (HANC1 15)</td>
<td></td>
<td></td>
<td></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>Poly Smooth-Line</td>
<td></td>
<td>2001-013Q</td>
</tr>
<tr>
<td></td>
<td>Formerly Hancor, Inc. (HANC1 15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Hancor, Inc. (HANC1 15)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drainage Products, Inc., (Haviland Drainage Products), Main Street, Box 97, Haviland, OH 45851</td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Poly Smooth-Line</td>
<td></td>
<td>2001-014Q</td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Solid Poly-Drain</td>
<td></td>
<td></td>
<td>2000-040Q</td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>18&quot;, 21&quot;, 24&quot;, 30&quot;</td>
<td></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>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>JME-15</td>
<td>JM Eagle, 15661 Delano Road, Cochranton, PA 16314-0000</td>
<td>Type S</td>
<td>15&quot;</td>
<td>2015-042QA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) 15&quot; size pipe for maintenance only.</td>
<td>Type S</td>
<td>16&quot;</td>
<td>2015-042QB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE)</td>
<td>Type S</td>
<td>24&quot;</td>
<td>2015-042QC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE)</td>
<td>Type S</td>
<td>30&quot;</td>
<td>2015-042QD</td>
<td></td>
</tr>
<tr>
<td>LANE6 15</td>
<td>Lane Enterprises, Inc., 34 Strohm Road, Shippensburg, PA 17257</td>
<td>Type S</td>
<td>15&quot;, 18&quot;, 21&quot;, 24&quot;, 30&quot;</td>
<td>1996-190</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Plant Shippensburg, PA</td>
<td>Type S</td>
<td>24&quot;</td>
<td>1996-190</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE)</td>
<td>Type S</td>
<td>18&quot;</td>
<td>2016-068Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE)</td>
<td>Type S</td>
<td>24&quot;</td>
<td>2016-195Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE)</td>
<td>Type S</td>
<td>24&quot;</td>
<td>2016-195Q</td>
<td></td>
</tr>
</tbody>
</table>

*Last Revised: 5/17/2018*
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>15&quot; size pipe for maintenance only.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>High Density</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Polyethylene (HDPE)</td>
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<tr>
<td></td>
<td>Pipe</td>
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<tr>
<td></td>
<td>High Density</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Polyethylene (HDPE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pipe</td>
<td></td>
<td></td>
<td></td>
<td></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.

<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>High Density</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polyethylene (HDPE)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Pipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polyethylene (HDPE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polyethylene (HDPE)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Pipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polyethylene (HDPE)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pipe</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</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 Ref. No.</th>
<th>Name</th>
<th>Thermo Type</th>
<th>Pipe Size</th>
<th>SOL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S 42”</td>
<td>2000-003Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S 48”</td>
<td>2001-193Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S 60”</td>
<td>2003-069Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>N-12 42”, 48”</td>
<td>1997-128</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>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>N-12</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></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Findlay South Plant #37 12370 County Road 172 Findlay, OH 45840</td>
<td>Formerly Hancor, Inc. (HANC0 15)</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></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td></td>
<td>54&quot;, 60&quot;</td>
<td>1998-017</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td></td>
<td>Sure-Lok Annular Corrugated, PE</td>
<td>1997-134</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td></td>
<td></td>
<td></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 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>Type S</td>
<td>36&quot;</td>
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<tr>
<td>Plant</td>
<td>Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>54&quot;, 60&quot;</td>
<td>1997-134</td>
</tr>
<tr>
<td></td>
<td>Polyethylene (HDPE) Pipe</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe Sure-Lok Annular Corrugated, PE</td>
<td></td>
<td></td>
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</tr>
<tr>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>BAUGH 15</td>
<td>Type S</td>
<td>36&quot;</td>
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<td></td>
<td>Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>42&quot;, 48&quot;</td>
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<td>Polyethylene (HDPE) Pipe</td>
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</tr>
<tr>
<td>DRA PR 15</td>
<td>Type S</td>
<td>36&quot;, 42&quot;</td>
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<td>Polyethylene (HDPE) Pipe</td>
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</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>JME-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>36&quot;</td>
<td>2015-043QA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>42&quot;</td>
<td>2015-043QB</td>
</tr>
<tr>
<td>LANE6 15</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>Type S</td>
<td>36&quot;</td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>42&quot;, 48&quot;</td>
<td>2004-047</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100 Type S</td>
<td>60&quot;</td>
<td>2016-054Q</td>
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<tr>
<td>LANE7 15</td>
<td>Lane Enterprises, Inc., 510 Kents Lane, Wytheville, VA 24382</td>
<td><a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>36&quot;</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>
</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>
</table>
## Section 601: Pipe Culverts

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

**Last Revised: 6/12/2018**

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>
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<tbody>
<tr>
<td>Plant</td>
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<tr>
<td></td>
<td>High Density Polyethylene (HDPE)</td>
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<tr>
<td></td>
<td>Pipe</td>
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<td></td>
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<tr>
<td></td>
<td>15&quot; size pipe for maintenance use only.</td>
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<tr>
<td></td>
<td>High Density Polyethylene (HDPE)</td>
<td>Type C</td>
<td>24&quot;</td>
<td>2016-086Q</td>
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<tr>
<td></td>
<td>Pipe</td>
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</tbody>
</table>

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

**Last Revised: 12/11/2017**

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>
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<tbody>
<tr>
<td>Plant</td>
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<td>High Density Polyethylene (HDPE)</td>
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<td>Pipe</td>
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<tr>
<td>Plant</td>
<td>173 Industrial Park North  Muncy, PA 17756</td>
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<td>High Density Polyethylene (HDPE)</td>
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<tr>
<td></td>
<td>Pipe</td>
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</tr>
</tbody>
</table>

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## Section 601: Pipe Culverts

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

*Last Revised: 12/11/2017*

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>ADS-1 15</td>
<td>Advanced Drainage Systems Inc., 4640 Trueman Blvd, Hilliard, OH 43026</td>
<td>High Density Polyethylene (HDPE)</td>
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<tr>
<td>Plant</td>
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<td>N-12 Model No. 24850020IB</td>
<td>Type S</td>
<td>24”</td>
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<td>Revised Profile</td>
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<tr>
<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>
<tr>
<td></td>
<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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<tr>
<td></td>
<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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<tr>
<td></td>
<td>Polypropylene (PP) Pipe 60” HP Storm (6065 0020 IBPL)</td>
<td>Type S</td>
<td>60”</td>
<td>2017-010Q</td>
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<tr>
<td>ADS-2 15</td>
<td>Advanced Drainage Systems Inc., 4640 Trueman Blvd, Hilliard, OH 43026</td>
<td>High Density Polyethylene (HDPE)</td>
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<tr>
<td>Plant</td>
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<td>18”, 24”, 30”</td>
<td>Type S</td>
<td>432-04-01</td>
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<td>ADS-3 15</td>
<td>Advanced Drainage Systems Inc., 4640 Trueman Blvd, Hilliard, OH 43026</td>
<td>High Density Polyethylene (HDPE)</td>
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<tr>
<td>Plant</td>
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<td>18”, 24”, 30”, 36”, 42”</td>
<td>Type S</td>
<td>432-04-01</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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Polypropylene (PP) Pipe 21&quot; HP Storm (2165 0020 IBPL)</td>
<td>Type S</td>
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<td></td>
<td>Polypropylene (PP) Pipe 24&quot; HP Storm (2465 0020 IBPL)</td>
<td>Type S</td>
<td>24”</td>
<td>2017-015Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Polypropylene (PP) Pipe 36&quot; HP Storm (3665 0020 IBPL)</td>
<td>Type S</td>
<td>36”</td>
<td>2017-016Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Polypropylene (PP) Pipe 42&quot; HP Storm (4265 0020 IBPL)</td>
<td>Type S</td>
<td>42”</td>
<td>2017-017Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Polypropylene (PP) Pipe 48&quot; HP Storm (4865 0020 IBPL)</td>
<td>Type S</td>
<td>48”</td>
<td>2017-018Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Polypropylene (PP) Pipe 60&quot; HP Storm (6065 0020 IBPL)</td>
<td>Type S</td>
<td>60”</td>
<td>2017-019Q</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>
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</thead>
<tbody>
<tr>
<td>ADS10 15</td>
<td>Advanced Drainage Systems, Inc., 4640 Trueman Blvd., Hilliard, OH 43026</td>
<td>Type S</td>
<td>18&quot;, 21&quot;, 24&quot;, 30&quot;</td>
<td>432-04-01</td>
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<tr>
<td></td>
<td>Plant 1 William Donnelly Parkway, Waverly, NY 14892</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Formerly Hancor, Inc. (HANC1 15)</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
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<tr>
<td>BAUGH 15</td>
<td>Baughman Tile Company, 8516 Township Rd. #137, Paulding, OH 45879</td>
<td>Type S</td>
<td>18&quot;, 21&quot;, 24&quot;</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
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<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>42&quot;</td>
<td></td>
<td>2010-035QB</td>
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<tr>
<td>DRAPR 15</td>
<td>Drainage Products, Inc., (Haviland Drainage Products), Main Street, Box 97, Haviland, OH 45851</td>
<td>Type S</td>
<td>18&quot;, 21&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;</td>
<td>432-04-01</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
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</tr>
<tr>
<td>JME-1 15</td>
<td>JM Eagle, 15661 Delano Road, Cochranton, PA 16314-0000</td>
<td>Type S</td>
<td>18&quot;</td>
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<td>2015-044QA</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
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<tr>
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<td>High Density Polyethylene (HDPE) Pipe</td>
<td>Type S</td>
<td>24&quot;</td>
<td></td>
<td>2015-044QB</td>
</tr>
</tbody>
</table>
# Section 601: Pipe Culverts

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

Last Revised: 12/11/2017

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>
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<tbody>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
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<tr>
<td></td>
<td>HD100</td>
<td>Type S</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
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<td></td>
<td>HD100</td>
<td>Type S</td>
<td>24&quot;</td>
<td>2016-069Q</td>
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<td>High Density Polyethylene (HDPE) Pipe</td>
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<td>HD100</td>
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<td>18&quot;</td>
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## 601.2(a)6.g Thermoplastic Pipes - Group VII

Last Revised: 7/20/2017

<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>HD100</td>
<td>Type S</td>
<td>24&quot;</td>
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**Section 601: Pipe Culverts**

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

For projects let after October 19, 2017, Group VII thermoplastic pipes are approved per specifications listed in Strike-off Letter 483-17-3 (available in the ECMS References section). The Group VII 100-Year Design Life specifications are also available in Standard Special Provision a00040 (Changes to Specifications: Sections 212, 601, 604, and 616) and will be included in Pub 408, 2016 - Change No. 4 (effective April 1, 2018).

For projects let on or before October 19, 2017, Group VII thermoplastic pipes are approved per Standard Special Provision c06012 used in accordance with Strike-Off Letters 431-10-04 and 431-11-01.

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>Plant</td>
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<tr>
<td></td>
<td></td>
<td></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>
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<td></td>
<td></td>
<td>HD100</td>
<td>Type S</td>
<td>42&quot;</td>
</tr>
</tbody>
</table>
Section 601: Pipe Culverts

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

For projects let after October 19, 2017, Group VII thermoplastic pipes are approved per specifications listed in Strike-off Letter 483-17-3 (available in the ECMS References section). The Group VII 100-Year Design Life specifications are also available in Standard Special Provision a00040 (Changes to Specifications: Sections 212, 601, 604, and 616) and will be included in Pub 408, 2016 - Change No. 4 (effective April 1, 2018).

For projects let on or before October 19, 2017, Group VII thermoplastic pipes are approved per Standard Special Provision c06012 used in accordance with Strike-Off Letters 431-10-04 and 431-11-01.

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><strong>LANE6 15</strong> Lane Enterprises, Inc., 34 Strohm Road, Shippensburg, PA 17257 <a href="http://www.lane-enterprises.com/">http://www.lane-enterprises.com/</a></td>
<td><strong>Shippensburg, PA</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>24&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>18&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100Gold</td>
<td>Type S</td>
<td>60&quot;</td>
<td></td>
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<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>18&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Density Polyethylene (HDPE) Pipe</td>
<td>HD100</td>
<td>Type S</td>
<td>24&quot;</td>
<td></td>
</tr>
</tbody>
</table>
# BULLETIN 15 (Publication 35)
Qualified Products List for Construction

**Section 603: Metal Plate Culverts**

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
<th>Letter Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON06 15</td>
<td>Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328</td>
<td><a href="http://www.conteches.com/">CON06 15</a></td>
<td>Winchester, KY</td>
</tr>
<tr>
<td>Metal Plate Culvert (Fabricator)</td>
<td>Aluminum Plate Box Culvert</td>
<td>1994-245</td>
<td>This material has been downgraded to provisional approval status until the manufacturer provides fill height tables to Bridge Design &amp; Technology Division. Provisionally Approved</td>
</tr>
<tr>
<td>Metal Plate Culvert (Fabricator)</td>
<td>Aluminum Plate Pipe</td>
<td>1994-246</td>
<td>This material has been downgraded to provisional approval status until the manufacturer provides fill height tables to Bridge Design &amp; Technology Division. Provisionally Approved</td>
</tr>
<tr>
<td>Metal Plate Culvert (Fabricator)</td>
<td>Steel Structural Plate for Culverts</td>
<td>10/26/2007</td>
<td></td>
</tr>
</tbody>
</table>

| CON14 15 | Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 | [CON14 15](http://www.conteches.com/) | Anderson, SC |
| Formerly Continental Bridge (CONBR) | Metal Plate Culvert (Fabricator) | Aluminum Plate Box Culvert | 1994-245 | This material has been downgraded to provisional approval status until the manufacturer provides fill height tables to Bridge Design & Technology Division. Provisionally Approved |
| Metal Plate Culvert (Fabricator) | Aluminum Plate Pipe | 1994-246 | This material has been downgraded to provisional approval status until the manufacturer provides fill height tables to Bridge Design & Technology Division. Provisionally Approved |
| Metal Plate Culvert (Fabricator) | Steel Structural Plate for Culverts | 10/26/2007 | |

| LANE3 15 | Lane Enterprises, Inc., 8271 Mercer St., P.O. Box 345, Pulaski, PA 16143 | [LANE3 15](http://www.lane-enterprises.com/) | |
| Metal Plate Culvert (Fabricator) | Aluminum Structural Plate Box Culverts | 2012-110 | |
| Metal Plate Culvert (Fabricator) | Aluminum Structural Plate for Culverts | 2006-041Q | This material has provisional approval status until the manufacturer provides fill height tables to Bridge Design & Technology Division. Provisionally Approved |
| 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>
</tr>
</thead>
<tbody>
<tr>
<td></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>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>18&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;, 60&quot;</td>
<td>432-04-01</td>
<td></td>
</tr>
<tr>
<td></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>
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<tr>
<td></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>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>18&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;, 60&quot;</td>
<td>432-04-01</td>
<td></td>
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<tr>
<td>Revised Profile</td>
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<tr>
<td></td>
<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>N-12 Model Number 24850020IB</td>
<td>Type SP</td>
<td>24&quot;</td>
<td>2013-064MB</td>
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</tr>
<tr>
<td></td>
<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Type CP</td>
<td>12&quot; to 24&quot;</td>
<td>1995-322</td>
<td></td>
</tr>
</tbody>
</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></td>
<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>18&quot;, 24&quot;, 30&quot;, 432-04-01</td>
<td></td>
</tr>
<tr>
<td></td>
<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>
</tr>
<tr>
<td></td>
<td></td>
<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>36&quot;, 42&quot;</td>
<td>1995-322</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>Type S</td>
<td>42&quot;, 48&quot;, 72&quot;</td>
<td>2000-002Q</td>
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<tr>
<td></td>
<td></td>
<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>18&quot;, 24&quot;, 30&quot;, 432-04-01</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Type CP</td>
<td>12&quot;, 15&quot;, 18&quot;, 24&quot;</td>
<td>1995-322</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;, 432-04-01</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Type CP</td>
<td>12&quot;, 15&quot;, 18&quot;, 24&quot;</td>
<td>1995-322</td>
</tr>
</tbody>
</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>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Findlay South Plant #37  12370 County Road 172  Findlay, OH 45840</td>
<td>Formerly Hancor, Inc. (HANC0 15)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>Type SP</td>
<td>12&quot;, 15&quot;, 18&quot;, 24&quot;, 30&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<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>
<td></td>
</tr>
<tr>
<td>Group VP Perforated Pipe (Polyethylene)</td>
<td>Type CP</td>
<td>12&quot;, 15&quot;, 18&quot;, 24&quot;</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

| Plant | 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" | | | |

| BAUGH 15 | Baughman Tile Company, 8516 Township Rd. #137, Paulding, OH 45879 | http://www.baughmantile.com/ | | | |
| 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 | Contech Engineered Solutions, a QUIKRETE Company, 5 Concourse Parkway, Suite 1900, Atlanta, GA 30328 | http://www.conteches.com/ | | | |
| Plant | 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

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>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DRAPR 15</strong></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>Type SP</td>
<td>12&quot;, 15&quot;, 18&quot;, 24&quot;, 30&quot;</td>
<td>2000-125Q</td>
<td></td>
</tr>
<tr>
<td>Group IIIP Perforated Pipe (Polyethylene)</td>
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<td></td>
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</tr>
<tr>
<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HYDR2 15</strong></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>Type SP</td>
<td>18&quot;, 24&quot;, 30&quot;, 36&quot;, 42&quot;, 48&quot;</td>
<td>432-04-01</td>
<td></td>
</tr>
<tr>
<td>Reinforced Concrete (RC) Pipe</td>
<td>Elliptical</td>
<td></td>
<td>14&quot;x23&quot; to 58&quot;x91&quot;</td>
<td>2013-104Q</td>
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<tr>
<td>Reinforced Concrete (RC) Pipe</td>
<td>Round</td>
<td></td>
<td>12&quot; to 84&quot;</td>
<td>2013-104Q</td>
<td></td>
</tr>
<tr>
<td><strong>LANE6 15</strong></td>
<td>Lane Enterprises, Inc., 34 Strohm Road, Shippensburg, PA 17257 <a href="http://www.lane-enterprises.com">http://www.lane-enterprises.com</a></td>
<td>Type SP</td>
<td>12&quot;, 15&quot;, 30&quot;</td>
<td>1997-182</td>
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<tr>
<td>Plant</td>
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<td></td>
</tr>
<tr>
<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td></td>
<td>Type SP</td>
<td>18&quot;</td>
<td>2016-194Q</td>
<td></td>
</tr>
<tr>
<td>Group IIIP Perforated Pipe (Polyethylene)</td>
<td>HD100</td>
<td>Type SP</td>
<td>24&quot;</td>
<td>2016-306Q</td>
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<tr>
<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td></td>
<td>Type SP</td>
<td>36&quot;</td>
<td>1997-182</td>
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</tr>
<tr>
<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td>HD100</td>
<td>Type SP</td>
<td>42&quot;, 48&quot;</td>
<td>2004-048</td>
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<tr>
<td>Group IVP Perforated Pipe (Polyethylene)</td>
<td></td>
<td>Type SP</td>
<td>60&quot;</td>
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<tr>
<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td></td>
<td>Type SP</td>
<td>30&quot;, 36&quot;, 42&quot;, 48&quot;</td>
<td>432-04-01</td>
<td></td>
</tr>
<tr>
<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>HD100</td>
<td>Type SP</td>
<td>18&quot;</td>
<td>2016-196Q</td>
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<tr>
<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>HD100</td>
<td>Type SP</td>
<td>24&quot;</td>
<td>2016-306</td>
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</tr>
<tr>
<td>Group VIP Perforated Pipe (Polyethylene)</td>
<td>HD100</td>
<td>Type SP</td>
<td>60&quot;</td>
<td>2016-308</td>
<td></td>
</tr>
</tbody>
</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>
</tr>
</thead>
</table>
Group IIIP Perforated Pipe (Polyethylene) | HD100 Pipe, Type SP, 15" | Type SP | 15" | 2014-254Q |
| Group IIIP Perforated Pipe (Polyethylene) | HD100 Pipe, Type SP, 18" | Type SP | 18" | 2014-255Q |
| Group IIIP Perforated Pipe (Polyethylene) | HD100 Pipe, Type SP, 24" | Type SP | 24" | 2014-256Q |
| Group VIP Perforated Pipe (Polyethylene) | HD100 Pipe, Type SP, 18" | Type SP | 18" | 2014-259Q |
| Group VIP Perforated Pipe (Polyethylene) | HD100 Pipe, Type SP, 24" | Type SP | 24" | 2014-260Q |

<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>
</table>
| **OLDP1 15** Oldcastle Infrastructure, Inc., a CRH Company, 1900 Pennsylvania Ave., Croydon, PA 19021 [http://www.oldcastleprecast.com/Pages/default.aspx](http://www.oldcastleprecast.com/Pages/default.aspx)  
Formerly Oldcastle Precast | Reinforced Concrete (RC) Pipe |  |  |  | 2013-086Q |

<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>
</table>
Formerly PW Eagle | Group IP Perforated Pipe (Polyethylene) | Type SP | 15", 18", 24", 30", 36" | 2000-194Q |
Section 605: Endwalls, Inlets, Utility Holes, 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></td>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Type 1 or 2: RC45M</td>
<td>2014-222Q</td>
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<tr>
<td></td>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Type 1 or 2: RC45M</td>
<td>2002-113Q</td>
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<td>Grate - Welded Steel</td>
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<td>2002-113Q</td>
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<td></td>
<td>Grate - Welded Steel Bicycle Safe</td>
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<td>2002-113Q</td>
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<td></td>
<td>2’x4’ Type S Top</td>
<td></td>
<td>2013-119QI</td>
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<tr>
<td></td>
<td>Frame - Welded Steel Inlet</td>
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<td>2013-119QF</td>
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<td></td>
<td>Frame - Welded Steel Inlet Angle</td>
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<td>2013-119QH</td>
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<tr>
<td></td>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Type 1 or 2: RC45M</td>
<td>2013-119QG</td>
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<td></td>
<td>Grate - Type D-H Steel</td>
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<td>2013-119QB</td>
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<td></td>
<td>Vane Grate - Welded Steel</td>
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<td>2013-119QE</td>
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</tbody>
</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.

CONCR 15 | Concrete Concepts, Inc., 1095 Thompson Avenue, P.O. Box 272, McKees Rocks, PA 15136 [https://bryanmaterialsgroup.com/](https://bryanmaterialsgroup.com/) | | |
| | Anti-Vortex Device | | 2019-082Q |
| | Trash Rack | | 2019-082Q |
Section 605: Endwalls, Inlets, Utility Holes, 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>EJI-0 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></td>
<td></td>
<td></td>
</tr>
<tr>
<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>
<td></td>
</tr>
<tr>
<td>* Approved MM-USA marking as Identifiable Steel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<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>
<td></td>
</tr>
<tr>
<td>* Approved MM-USA marking as Identifiable Steel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<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>
<td></td>
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<tr>
<td>* Approved MM-USA marking as Identifiable Steel</td>
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<tr>
<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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<tr>
<td>* Approved MM-USA marking as Identifiable Steel</td>
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<tr>
<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>
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<tr>
<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>Grate - Cast Iron, HS25 Loading</td>
<td>5355M6 ADA Style Two Piece Grate (535548, 535549)</td>
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<tr>
<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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<td>Grate - Cast Iron, HS25 Loading</td>
<td>5535M1 Diagonal One Piece Grate (535531)</td>
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**Section 605: Endwalls, Inlets, Utility Holes, and Spring Boxes**

### 605.2(a) Inlet Grates and Frames

Last Revised: 7/2/2019

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 Description</th>
<th>Approved MM-USA marking as Identifiable Steel</th>
<th>Letter Date</th>
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<tr>
<td>Frame - Welded Steel Inlet</td>
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<tr>
<td>Grade Adjustment Riser - Structural Steel Type 1 or 2: RC45M</td>
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<tr>
<td>Grate - Type D-H Steel</td>
<td>*</td>
<td></td>
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</tr>
<tr>
<td>Grate - Welded Steel</td>
<td>*</td>
<td></td>
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</tr>
<tr>
<td>Grate - Welded Steel Bicycle Safe</td>
<td>*</td>
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<tr>
<td>Welded Rebar Cage (Type S Inlet Top)</td>
<td>*</td>
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<tr>
<td>Welded Rebar Cage (Type C Inlet Top)</td>
<td>*</td>
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</tr>
<tr>
<td>Welded Rebar Cage (Type C-Alt Inlet Top)</td>
<td>*</td>
<td></td>
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</tr>
<tr>
<td>Welded Rebar Cage (Type DH Inlet Top)</td>
<td>*</td>
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<tr>
<td>Welded Rebar Cage (Type M Inlet Top)</td>
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- MM-USA marking as Identifiable Steel

EJ, 301 Spring Street, P.O. Box 439, East Jordan, MI 49727-0439 [http://ejco.com/](http://ejco.com/)
Section 605: Endwalls, Inlets, Utility Holes, 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)

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<td>EJI-4 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></td>
<td>2013-177AC</td>
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<td>Facility</td>
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<td>Formerly QUIRN</td>
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<td>Frame - Welded Steel Inlet</td>
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</tr>
<tr>
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<td>Frame - Welded Steel Inlet Angle</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grate - Type D-H Steel</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Grate - Welded Steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grate - Welded Steel Bicycle Safe</td>
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<td></td>
<td>Welded Rebar Cage (Type S Inlet Top)</td>
<td>2013-176QC</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 M Inlet Top)</td>
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<tr>
<td>JERDW 15</td>
<td>Jerdon Welding, 409 Wiconisco Street, P.O. Box 322, Wiconisco, PA 17097</td>
<td>2001-041Q</td>
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<td>Facility</td>
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<td>Frame - Welded Steel Inlet</td>
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<td></td>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Types 1 or 2: RC45M</td>
<td>2001-041Q</td>
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<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>2002-050Q</td>
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<tr>
<td>Facility</td>
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<td>Anti-Vortex Device</td>
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<td></td>
<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>
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<td>Facility</td>
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<td>Anti-Vortex Device</td>
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<td>Trash Rack</td>
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<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>Facility</td>
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<tr>
<td></td>
<td>Trash Rack</td>
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Section 605: Endwalls, Inlets, Utility Holes, 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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<tbody>
<tr>
<td>Plant</td>
<td>800 Brown Street Everson, PA 15631</td>
<td>F O R M E R L Y  l i s t e d  a s  M L P  S t e e l, LLC (MLP-1 15)</td>
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<tr>
<td>Frame - Welded Steel Inlet</td>
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<td>1987-416</td>
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<td>Frame - Welded Steel Inlet Angle</td>
<td></td>
<td>1987-416</td>
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<tr>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Types 1 or 2: RC-45M</td>
<td>1987-416</td>
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<tr>
<td>Grate - Type D-H Steel</td>
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<td>1987-416</td>
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<tr>
<td>Grate - Welded Steel</td>
<td></td>
<td>1987-416</td>
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<tr>
<td>Grate - Welded Steel Bicycle Safe</td>
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<td>1987-416</td>
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<tr>
<td>Vane Grate - Welded Steel</td>
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<td>1987-416</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.

MANWF_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>Ref. No.</th>
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<tbody>
<tr>
<td>Anti-Vortex Device</td>
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<td>Trash Rack</td>
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<td>2014-061Q</td>
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MCCAR 15 McC Carroll Precast, Inc., 1129 Old 115, Dallas, PA 18612

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tr>
<td>Frame - Welded Steel Inlet</td>
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<td>10/15/1996</td>
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<tr>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Types 1 or 2: RC45M</td>
<td>10/15/1996</td>
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<tr>
<td>Welded Rebar Cage (Type S Inlet Top)</td>
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<td>10/15/1996</td>
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<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>
<td></td>
<td>10/15/1996</td>
<td>-----</td>
</tr>
<tr>
<td>Welded Rebar Cage (Type DH Inlet Top)</td>
<td></td>
<td>10/15/1996</td>
<td>-----</td>
</tr>
<tr>
<td>Welded Rebar Cage (Type M Inlet Top)</td>
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<td>10/15/1996</td>
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Section 605: Endwalls, Inlets, Utility Holes, 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</td>
<td>Miles Foundry, 301 Bedford Street, Clarks Summit, PA 18411</td>
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<tr>
<td>Frame - Welded Steel Inlet</td>
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<tr>
<td>Grade Adjustment Riser - Structural Steel Types 1 or 2: RC45M</td>
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<tr>
<td>Grate - Type D-H Steel</td>
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</tr>
<tr>
<td>Grate - Welded Steel</td>
<td></td>
<td></td>
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<tr>
<td>Grate - Welded Steel Bicycle Safe</td>
<td></td>
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</tr>
<tr>
<td>Grate and Frame - Cast Iron, HS20 Loading</td>
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<tr>
<td>Use outside of travel lanes only.</td>
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| MLP-1 15 | MLP Steel, LLC, 18 Mount Pleasant Road, Scottdale, PA 15683 http://www.mlpsteel.com/ | | |
| Plant | Everson, PA | | |
| Name change to Laurel Custom Grating, LLC (LCG-1 15) | | | |
| Frame - Welded Steel Inlet | | 1987-416 | |
| Frame - Welded Steel Inlet Angle | | 1987-416 | |
| Grade Adjustment Riser - Structural Steel Types 1 or 2: RC45M | | 1987-416 | |
| Grate - Type D-H Steel | | 1987-416 | |
| Grade - Welded Steel | | 1987-416 | |
| Grade - Welded Steel Bicycle Safe | | 1987-416 | |
| Vane Grate - Welded Steel | | 1987-416 | |
| 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, Utility Holes, 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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<tr>
<td>Grade Adjustment Riser - Structural Steel Types 1 or 2: RC45M</td>
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<td>7/11/1983</td>
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<tr>
<td>Grate - Type D-H Steel</td>
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<td></td>
</tr>
<tr>
<td>Grate - Welded Steel</td>
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<td>7/11/1983</td>
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</tr>
<tr>
<td>Grate - Welded Steel Bicycle Safe</td>
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<td>7/11/1983</td>
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<tr>
<td>Trash Rack</td>
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<td>7/11/1983</td>
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<tr>
<td>Vane Grate - Welded Steel</td>
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<td>7/11/1983</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. Morgan’s Welding Structural Steel Vane Grate PennDOT Approved Drawing

| Welded Rebar Cage (Type S Inlet Top) |                                           | 7/11/1983   |          |
| Welded Rebar Cage (Type C Inlet Top) |                                           | 7/11/1983   |          |
| Welded Rebar Cage (Type C-Alt Inlet Top) |                                         | 7/11/1983   |          |
| Welded Rebar Cage (Type DH Inlet Top) |                                           | 7/11/1983   |          |
| Welded Rebar Cage (Type M Inlet Top)  |                                           | 7/11/1983   |          |
### Section 605: Endwalls, Inlets, Utility Holes, 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>
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<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
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<tr>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Grate #3573-0007, Type Q, Type 1 or 2: RC45M</td>
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<td>Grade Adjustment Riser - Structural Steel</td>
<td>Grate #3573-3000, Type L, Type 1 or 2: RC45M</td>
<td>1998-010</td>
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<tr>
<td>Grade - Welded Steel Bicycle Safe</td>
<td>Grate #3573-0007, Type Q</td>
<td>1996-273</td>
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<tr>
<td>Grade - Welded Steel Bicycle Safe</td>
<td>Grate #3573-3000, Type L</td>
<td>1998-010</td>
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<tr>
<td>Grade and Frame - ADA Acceptable</td>
<td>Grate #3573-0007, Type Q</td>
<td>1996-273</td>
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<td>Grade and Frame - Cast Iron, HS20 Loading</td>
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<td>Use outside of travel lanes only. Provides HS25 Grate</td>
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<tr>
<td>Grade and Frame - Cast Iron, HS25 Loading</td>
<td>Frame #3573-2000, Type C</td>
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<tr>
<td>Grade and Frame - Cast Iron, HS25 Loading</td>
<td>Frame #3574-2000, Type M</td>
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<td>Grate #3573-0002</td>
<td>1996-187</td>
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<td>1996-273</td>
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<td>Frame - Type M, Welded Structural Steel</td>
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Section 605: Endwalls, Inlets, Utility Holes, 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>
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<td>TDFS 15</td>
<td>TDF Services, Inc., P.O. Box 111, Oakmont, PA 15139</td>
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<td>Frame - Welded Steel Inlet</td>
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<td>2000-005Q</td>
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<td>Grade Adjustment Riser - Structural Steel</td>
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<td>Types 1 or 2: RC45M</td>
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<td>Grate - Welded Steel</td>
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<tr>
<td>Grate - Welded Steel Bicycle Safe</td>
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<td>2000-005Q</td>
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<tr>
<td>WINEC 15</td>
<td>Wine Concrete Products, Inc., 1000 Big Sewickley Creek Road, Sewickley, PA 15143</td>
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<td>Frame - Welded Steel Inlet</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<tr>
<td>Frame - Welded Steel Inlet</td>
<td>Type M: RC-45M</td>
<td>2018-259Q</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>Frame - Welded Steel Inlet Angle</td>
<td>Type C Light Angle: RC-45M</td>
<td>2018-250Q</td>
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<td>Frame - Welded Steel Inlet Angle</td>
<td>Type DH Level: RC-45M</td>
<td>2018-251Q</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>Frame - Welded Steel Inlet Angle</td>
<td>Type DH Sloped: RC-45</td>
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<td>Frame - Welded Steel Inlet Angle</td>
<td>Type M Light Angle: RC-45M</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>Frame - Welded Steel Inlet Angle</td>
<td>Type S Light Angle: RC-45M</td>
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<tr>
<td>Grade Adjustment Riser - Structural Steel</td>
<td>Type 1: RC-45M</td>
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<td>Grade Adjustment Riser - Structural Steel</td>
<td>Type 2: RC-45M</td>
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Section 605: Endwalls, Inlets, Utility Holes, 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)**

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<tr>
<th>Product</th>
<th>Name</th>
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<tr>
<td>Facility</td>
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<td>JB-1 Frame</td>
<td>2015-196Q</td>
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<td>JB-11 Frame</td>
<td>2015-197Q</td>
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<td>JB-12 Frame</td>
<td>2015-195Q</td>
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<tr>
<td></td>
<td>JB-2 Frame</td>
<td>2015-195Q</td>
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<tr>
<td></td>
<td>JB-1 Frame</td>
<td>1993-213</td>
</tr>
<tr>
<td></td>
<td>JB-11 Frame</td>
<td>1993-213</td>
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<tr>
<td></td>
<td>JB-12 Frame</td>
<td>1993-213</td>
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<tr>
<td></td>
<td>JB-2 Frame</td>
<td>1993-213</td>
</tr>
<tr>
<td></td>
<td>JB-1 Frame</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>JB-11 Frame</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>JB-12 Frame</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>JB-2 Frame</td>
<td>----</td>
</tr>
<tr>
<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>
<td>2001-190Q</td>
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<td>JB-1 Frame</td>
<td>2001-190Q</td>
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<td>JB-11 Frame</td>
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<td></td>
<td>JB-2 Frame</td>
<td>2001-190Q</td>
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</table>
Section 605: Endwalls, Inlets, Utility Holes, and Spring Boxes

605.2(a) Junction Box Frames
Steel Products Procurement Act Applies. Last Revised: 2/26/2019

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)

Product | Name | Ref. No.
--- | --- | ---
WINEC 15 | Wine Concrete Products, Inc., 1000 Big Sewickley Creek Road, Sewickley, PA 15143 | 2018-254Q
| JB-1 Frame | | 2018-256Q
| * Approved MM-USA marking as Identifiable Steel | | 2018-257Q
| JB-2 Frame | | 2018-255Q
| * Approved MM-USA marking as Identifiable Steel |

605.2(a) Junction Boxes, Steel or Cast Iron


Product | Name | Ref. No.
--- | --- | ---
FISHW 15 | Fisher Welding & Fabrication, 923 Deturksville Road, P.O. Box 28, Pine Grove, PA 17963 http://www.rfisherwelding.com/ | 1993-213
| JB-25, Welded Steel Plate Junction Box | | 1993-213
| JB-26, Steel Junction Box | | 1993-213
| JB-27, Steel Junction Box | | 1993-213
Section 605: Endwalls, Inlets, Utility Holes, 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>HOPE15</td>
<td>Hope Electrical Products Co., Inc, 3 Fairfield Crescent, West Caldwell, NJ 07006</td>
<td>H62-180808SC, Type H6200 - Internal Recessed Flanged Box</td>
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<tr>
<td></td>
<td>JB-25, Cast Iron Junction Box</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JB-26, Cast Iron Junction Box</td>
<td>H70-121212SC, Type H7000 - Flanged Recessed Cover Box</td>
</tr>
<tr>
<td></td>
<td>JB-27, Cast Iron Junction Box</td>
<td>H70-181224SC, Type H7000 - Flanged Recessed Cover Box</td>
</tr>
<tr>
<td>MORG15</td>
<td>Morgan’s Welding Inc. (Neenah Enterprises, Inc.), 1941 Camp Swatara Road, Myerstown, PA 17067 <a href="http://www.nfco.com/">http://www.nfco.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>JB-25, Welded Steel Plate Junction Box</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JB-26, Steel Junction Box</td>
<td></td>
</tr>
<tr>
<td></td>
<td>JB-27, Steel Junction Box</td>
<td></td>
</tr>
<tr>
<td>PEIW15</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></td>
</tr>
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<td></td>
<td>JB-25, Welded Steel Plate Junction Box</td>
<td>2001-191Q</td>
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<tr>
<td></td>
<td>JB-26, Steel Junction Box</td>
<td>2001-191Q</td>
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<tr>
<td></td>
<td>JB-27, Steel Junction Box</td>
<td>2001-191Q</td>
</tr>
<tr>
<td>QUAB15</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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<td></td>
<td>JB-25, Welded Steel Plate Junction Box</td>
<td>2013-013QA</td>
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<td>JB-26, Steel Junction Box</td>
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<td>JB-27, Steel Junction Box</td>
<td>2013-013QB</td>
</tr>
<tr>
<td>UTIL15</td>
<td>Utility Metals, P.O. Box 9054, Louisville, KY 40209-0054 <a href="http://utilitymetals.com/">http://utilitymetals.com/</a></td>
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<td></td>
<td>JB-25, Welded Steel Plate Junction Box</td>
<td>2001-179Q</td>
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<td></td>
<td>JB-26, Steel Junction Box</td>
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<td>JB-27, Steel Junction Box</td>
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</table>
Section 605: Endwalls, Inlets, Utility Holes, and Spring Boxes

605.2(b) Utility Hole Frames and Covers

<table>
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<tr>
<th>Product</th>
<th>Name</th>
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<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>
</tr>
<tr>
<td>Cast Iron Hood</td>
<td>5357T1 Non-mountable, Non-Adjustable Curb Inlet Hood (535750)</td>
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<tr>
<td>Cast Iron Utility Hole Cover</td>
<td>1892A Solid Cover PennDOT RC-39 Standard (189221)</td>
</tr>
<tr>
<td>Cast Iron Utility Hole Cover</td>
<td>1892A Solid Cover Storm, PennDOT RC-39 Standard (189224)</td>
</tr>
<tr>
<td>Cast Iron Utility Hole Cover</td>
<td>1892AGS Solid Cover with Gasket (189223)</td>
</tr>
<tr>
<td>Cast Iron Utility Hole Frame</td>
<td>1892Z 4” Tall Frame with 4 Base Flange Holes (189211)</td>
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605.2(c) Utility Hole Steps

<table>
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<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>American Step Company, Inc., 830 East Broadway, P. O. Box 137, Griffin, GA 30224-0137</td>
<td><a href="http://www.americanstep.com/">http://www.americanstep.com/</a></td>
</tr>
<tr>
<td>Utility Hole Step</td>
<td>Model I-11</td>
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<tr>
<td>Utility Hole Step</td>
<td>Model I-11 NCR</td>
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# Section 605: Endwalls, Inlets, Utility Holes, and Spring Boxes

## 605.2(c) Utility Hole Steps

<table>
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<th>Product</th>
<th>Name</th>
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<td>ASTEP 15</td>
<td>American Step Company, Inc., 830 East Broadway, P. O. Box 137, Griffin, GA 30224-0137</td>
<td>1996-095</td>
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<td>Utility Hole Step</td>
<td>Model I-13</td>
<td>1996-095</td>
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<td>Utility Hole Step</td>
<td>Model LML-11</td>
<td>1996-095</td>
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<tr>
<td>Utility Hole Step</td>
<td>Model LML-11 NCR</td>
<td>1998-093A</td>
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<tr>
<td>Utility Hole Step</td>
<td>Model LML-13 NCR</td>
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<td>Model ML-10</td>
<td>1996-095</td>
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<tr>
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<td>Model ML-10 NCR</td>
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<td>Model SML-13 NCR</td>
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<td>Utility Hole Step</td>
<td>Bowco Model 93810 (PP coated, orange)</td>
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<td>Utility Hole Step</td>
<td>Bowco Model 93813</td>
<td>1993-059</td>
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<td>Utility Hole Step</td>
<td>Bowco Model 93813-TL</td>
<td>1993-059</td>
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<td>LANEC 15</td>
<td>Lane International Corporation, 10758 S.W. Manhasset Drive, P. O. Box 925, Tualatin, OR 97062</td>
<td>1992-026</td>
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<td>Utility Hole Step</td>
<td>10&quot; Model P-10938</td>
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<td>14&quot; Model P-14850</td>
<td>1992-026</td>
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<td>MAIND 15</td>
<td>M A Industries, Inc., Kelley &amp; Dividend Drive, P. O. Box 2322, Peachtree City, GA 30269</td>
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<td>Utility Hole Step</td>
<td>Plastic Coated Manhole Step</td>
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Section 605: Endwalls, Inlets, Utility Holes, and Spring Boxes

605.2(c) Utility Hole Steps

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<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>PAINS 15</td>
<td>Pennsylvania Insert Corporation, P. O. Box 199, Bridge Street, Spring City, PA 19475 <a href="http://www.pennsylvaniainsert.com/">http://www.pennsylvaniainsert.com/</a></td>
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<td>Utility Hole Step Model 10-R</td>
<td>1993-246</td>
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Section 606: Grade Adjustment of Existing Misc. Structures

606.2 Utility Hole 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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<tbody>
<tr>
<td>AMEHP</td>
<td>American Highway Products, Ltd., 11723 Strasburg Bolivar Road NW, Bolivar, OH 44612</td>
<td>1979-010</td>
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<td>Utility Hole Adjustable Extension Ring</td>
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<tr>
<td>EJI-1</td>
<td>EJ, 301 Spring Street, P.O. Box 439, East Jordan, MI 49727-0439</td>
<td>7/3/1995</td>
<td>1986-341</td>
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<td>Plant</td>
<td>Formerly E. A. Quirn (QUIRN)</td>
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<td>Inlet Extension</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>Utility Hole Adjustable Extension Ring</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>EJI-2</td>
<td>EJ, 301 Spring Street, P.O. Box 439, East Jordan, MI 49727-0439</td>
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<td>Plant</td>
<td>Millersburg, OH 44654</td>
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<td>Approved Product Alternatives</td>
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<td>Recycled Rubber Grade Adjustment Ring</td>
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<td>Alternate Manhole 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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<tr>
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<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>JERDW</td>
<td>Jerdon Welding, 409 Wiconisco Street, P.O. Box 322, Wiconisco, PA 17097</td>
<td>2001-041Q</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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* Approved MM-USA marking as Identifiable Steel
Section 606: Grade Adjustment of Existing Misc. Structures

606.2 Utility Hole 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>Facility</td>
<td>1285 Drummers Lane, Suite 301 Wayne, PA 19087</td>
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<tr>
<td>Approved Product Alternatives</td>
<td>Pro-Ring 36 Series Manhole Ring</td>
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<tr>
<td>Cross-Linked Expanded Polyethylene</td>
<td>Conditional Approval</td>
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<tr>
<td>Approved Product Alternatives</td>
<td>Pro-Ring 40 Series Manhole Ring</td>
<td>2014-031</td>
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<tr>
<td>Cross-Linked Expanded Polyethylene</td>
<td>Conditional Approval</td>
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| Approved Product Alternatives | HDPE Grade Adjustment Ring | | |
| Alternate Utility Hole 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. | | | |

LCG-1 15 | Laurel Custom Grating, LLC - An MLP Company, 18 Mount Pleasant Road, Scottdale, PA 15683 [https://laurelcustomgrating.com/](https://laurelcustomgrating.com/) | 1987-146 | LCG-1 15 |
| Plant | 800 Brown Street Everson, PA 15631 | | |
| Formerly listed as MLP Steel, LLC (MLP-1 15) | | | |
| Inlet Extension | | | |

| Plant | Everson, PA | | |
| Formerly known as MLP Steel (LCG-1 15) | | | |
| Inlet Extension | | | |
Section 606: Grade Adjustment of Existing Misc. Structures

606.2 Utility Hole 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>MORG 15</td>
<td>Morgan’s Welding Inc. (Neenah Enterprises, Inc.), 1941 Camp Swatara Road, Myerstown, PA 17067 <a href="http://www.nfco.com/">http://www.nfco.com/</a></td>
<td></td>
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<tr>
<td></td>
<td>Inlet Extension</td>
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</tr>
<tr>
<td></td>
<td>Utility Hole Adjustable Extension Ring</td>
<td></td>
<td></td>
</tr>
<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>
<td>1982-083</td>
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<td>Inlet Extension</td>
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<td>Utility Hole Adjustable Extension Ring</td>
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</tr>
<tr>
<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>
<td></td>
</tr>
<tr>
<td></td>
<td>Catch Basin</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Utility Hole Adjustable Extension Ring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNDTE 15</td>
<td>Underground Technologies, LLC, 2546 Elliot Drive, Troy, MI 48083</td>
<td>2011-094</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Product Alternatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditional Approval</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Conditional Approval
### 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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>8&quot;, 10&quot;, 12&quot;, 15&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>ADS N-12</td>
<td>12&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>8&quot;, 10&quot;, 12&quot;, 15&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type SP</td>
<td>4&quot;, 6&quot;, 8&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>ADS N-12</td>
<td>12&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>8&quot;, 10&quot;, 12&quot;, 15&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>N-12</td>
<td>12&quot;</td>
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<tr>
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<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>8&quot;, 10&quot;, 12&quot;, 15&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>ADS N-12</td>
<td>12&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>8&quot;, 10&quot;, 12&quot;, 15&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>ADS N-12</td>
<td>12&quot;</td>
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</table>
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>
</tr>
</thead>
<tbody>
<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>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td></td>
<td>4”</td>
<td>1987-015</td>
</tr>
<tr>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>10”, 12”, 15”</td>
<td>1995-284</td>
</tr>
<tr>
<td>Plant</td>
<td>1 William Donnelly Parkway Waverly, NY 14892</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Hancor, Inc. (HANC1 15)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td></td>
<td>4”</td>
<td>1987-015</td>
</tr>
<tr>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>10”, 12”, 15”</td>
<td>1995-284</td>
</tr>
<tr>
<td>BAUGH</td>
<td>Baughman Tile Company, 8516 Township Rd. #137, Paulding, OH 45879</td>
<td><a href="http://www.baughmantile.com/">http://www.baughmantile.com/</a></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type SP</td>
<td>4”, 6”, 8”, 10”, 12”, 15”</td>
<td>2000-042Q</td>
</tr>
<tr>
<td>BLUDI</td>
<td>Blue Diamond Industries, LLC, 3399 Tates Creek Road, Suite 110, Lexington, KY 40502</td>
<td><a href="http://www.bdiky.com">http://www.bdiky.com</a></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type SP</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DRAPR</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>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type SP</td>
<td>8”, 10”, 12”, 15”</td>
<td>2000-125Q</td>
</tr>
<tr>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>6”</td>
<td>2001-167Q</td>
</tr>
</tbody>
</table>
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>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Shippensburg, PA</td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>4&quot;, 6&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrugated PE Pipe, Perforated</td>
<td>Type CP</td>
<td>8&quot;</td>
</tr>
</tbody>
</table>

104x399

Corrugated PE Pipe, Perforated 2009-118QAB4", 6"Type CP

Corrugated PE Pipe, Perforated 2010-031Q8"Type CP

**610.2(a)4 Polyvinyl Chloride (PVC) Pipe (Sizes 4” to 15”)**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Pipe Size</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Montgomery, AL</td>
<td>PVC Pipe, Perforated Circular Perforated</td>
<td>6&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PVC Pipe, Perforated Perforated</td>
<td>4&quot;</td>
</tr>
</tbody>
</table>

NP&P0 15


**610.2(a)5 Acrylonitrile-Butadiene Styrene (ABS) Pipe**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Pipe Size</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Montgomery, AL</td>
<td>ABS Pipe, Perforated</td>
<td>6&quot;</td>
</tr>
</tbody>
</table>
Section 610: Pipe Underdrain and Pavement Base Drain

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

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Pipe Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Palmer, MA</td>
<td></td>
</tr>
<tr>
<td>CULVE 15 Plant</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>6&quot;, 8&quot;, 10&quot;</td>
</tr>
<tr>
<td></td>
<td>Greencastle, PA</td>
<td></td>
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</tbody>
</table>

### 610.2(a)8 Corrugated Aluminum Alloy Pipe

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Pipe Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Palmer, MA</td>
<td></td>
</tr>
<tr>
<td>CULVE 15 Plant</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>6&quot;, 8&quot;, 10&quot;</td>
</tr>
<tr>
<td></td>
<td>Greencastle, PA</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Pipe Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CULVE 15 Plant</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>Perforated</td>
</tr>
<tr>
<td></td>
<td>Greencastle, PA</td>
<td></td>
</tr>
<tr>
<td>LANE2 15 Plant</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>Perforated</td>
</tr>
</tbody>
</table>

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## Section 610: Pipe Underdrain and Pavement Base Drain

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Pipe Size</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADS-0 15</td>
<td>Advanced Drainage Systems Inc., 4640 Trueman Blvd., Hilliard, OH 43026</td>
<td>18&quot; only</td>
<td>1991-267B</td>
</tr>
<tr>
<td></td>
<td>ADS-0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pavement Base Drain</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AdvanEDGE Highway Edge Drain</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pipe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AMEWD 15</td>
<td>American Wick Drain Corporation, 1209 Airport Road, Monroe, NC 28110</td>
<td>12&quot;, 18&quot;</td>
<td>2001-117Q</td>
</tr>
<tr>
<td></td>
<td>Pavement Base Drain</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sitedrain 6600</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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>
<th>Pipe Size</th>
<th>Ref. No.</th>
</tr>
</thead>
</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
Approved steel pipe manufacturers in Section 601.2(a)4b may also provide steel end sections and slope pipe fittings.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name Pipe Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>JENBS 15</td>
<td>Jensen Bridge &amp; Supply Company, 400 Stoney Creek Drive, Sandusky, MI 48471 <a href="http://jensenbridge.com/">http://jensenbridge.com/</a> Steel End Section 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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name Pipe Size</th>
</tr>
</thead>
</table>

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 End 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>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Slotted Drain</td>
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</tr>
<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>
</tr>
<tr>
<td></td>
<td>Slotted Drain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>K100S Trenchdrain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S100K Powerdrain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S300K Powerdrain</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Slotted Drain</td>
<td>1999-193Q</td>
</tr>
<tr>
<td>HUBI- 15</td>
<td>Hubbell Lenoir City, Inc., 3621 Industrial Park Drive, Lenoir City, TN 37771</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slotted Drain</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>
</tr>
<tr>
<td></td>
<td>Slotted Drain</td>
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</tr>
</tbody>
</table>
Section 619: Permanent Impact Attenuating Devices (DM-2, Chapter 12)

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

619.2 Permanent 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; 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>BARRS 15 Lindsay Transportation Solutions (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>
<td>B-87</td>
<td>SGM23</td>
<td>2004-092Q</td>
</tr>
<tr>
<td></td>
<td>Type II, Energy Absorbing Flared Terminal</td>
<td>X-Tension</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-102A</td>
<td>SEW20b</td>
<td>2009-128Q</td>
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<tr>
<td></td>
<td>Type II, Energy Absorbing Tangent Terminal</td>
<td>X-Tension</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-102A</td>
<td>SEW19b</td>
<td>2009-128Q</td>
</tr>
<tr>
<td></td>
<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>
<td>CC-75</td>
<td>SCT01a</td>
<td>2004-083Q</td>
</tr>
<tr>
<td></td>
<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>
<td>CC-102</td>
<td>2009-128Q</td>
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<tr>
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<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance)</td>
<td>X-TENuator</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-109</td>
<td>SCI23</td>
<td>2011-069QA</td>
</tr>
<tr>
<td></td>
<td>Type VI, Gating Non-Redirective Crash Cushion System</td>
<td>ABSORB 350</td>
<td>NCHRP 350</td>
<td>TL-2, TL-3</td>
<td>CC-86</td>
<td>SCI11b</td>
<td>2001-066</td>
</tr>
</tbody>
</table>

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 (DM-2, Chapter 12)

**619.2 Permanent 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; 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>Gate Barrier System</td>
<td>BarrierGate</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>B-25</td>
<td>SGM20</td>
<td>1993-222</td>
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<tr>
<td>Gate Barrier System</td>
<td>Vulcan Gate</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>B-134C</td>
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<tr>
<td>Type IV, Gating Two-Way Traffic System</td>
<td>Brakemaster 350</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-41</td>
<td>SEW06</td>
<td>1997-168</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>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. <a href="#">Discontinuation Notice of Energy Absorption/Trinity Products</a></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>QuadGuard Elite</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-57</td>
<td>-----</td>
<td>1999-086</td>
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<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>QuadGuard LMC</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-43</td>
<td>SCT02f</td>
<td>1998-060</td>
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<tr>
<td>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. <a href="#">Discontinuation Notice of Energy Absorption/Trinity Products</a></td>
<td></td>
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<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>REACT 350 (60 inch)</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-73</td>
<td>SCI16b</td>
<td>2001-169Q</td>
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<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>REACT 350 (standard)</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-26B</td>
<td>SCI16a</td>
<td>1995-158</td>
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<tr>
<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance)</td>
<td>QuadGuard</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-35</td>
<td>SCT02a</td>
<td>1996-167</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance)</td>
<td>QuadGuard (wide)</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-42</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance)</td>
<td>QuadGuard Highspeed (HS)</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-36E</td>
<td>SCT02d</td>
<td>2001-223Q</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance)</td>
<td>QuadGuard If (modified)</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-35l</td>
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<td>2009-159QA</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance)</td>
<td>QUEST</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-87</td>
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<td>2005-052Q</td>
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Section 619: Permanent Impact Attenuating Devices (DM-2, Chapter 12)

619.2 Permanent 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; 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>Plant</td>
<td>Pell City, AL</td>
<td>Type VI, Gating Non-Redirective Crash Cushion System</td>
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<tr>
<td></td>
<td>Type VI, Gating Non-Redirective Crash Cushion System</td>
<td>Fitch Universal</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-28</td>
<td>SCI06b</td>
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Effective November, 2016, the Fitch Universal system and replacement parts will no longer be manufactured. Existing inventory of Fitch Universal systems/parts may still be used on projects. [Discontinuation Notice of Energy Absorption/Trinity Products](#)


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](#)
## Section 619: Permanent Impact Attenuating Devices (DM-2, Chapter 12)

### 619.2 Permanent Impact Attenuating Devices

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

Last Revised: 10/7/2019

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](#)

|------------------|------|-----------------|--------------------|--------------|------------------|------------|----------|
(Non-Gating, Low-Maintenance, Self-Restoring)  
*Previously approved per NCHRP 350 under approval CC-85 with no changes to system.* | SCI 100 GM (30 inch) | MASH 2016 | TL-3 | CC-128 | 2014-029QC |
|                  |      | Type V, Non-Gating Two-Way Traffic System  
(Non-Gating, Low-Maintenance, Self-Restoring)  
*Previously approved per NCHRP 350 under approval CC-85 with no changes to system.* | SCI 100 GM (36 inch) | MASH 2016 | TL-3 | CC-128 | 2014-029QC |
|                  |      | Type V, Non-Gating Two-Way Traffic System  
(Non-Gating, Low-Maintenance, Self-Restoring)  
*Previously approved per NCHRP 350 under approval CC-85 with no changes to system.* | SCI 100 GM (41-1/4 to 60 inch maximum) | MASH 2016 | TL-3 | CC-128 | 2014-029QC |

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**Manual w/ Parts List, FHWA Eligibility Letter, PE Stamped Drawings for SCI 100 GM Smart Cushion**

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[120x530] BULLETIN 15 (Publication 35)   
Qualified Products List for Construction

[120x549] Posted: 10/21/2019 3:02:16PM

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[120x530] Qualified Products List for Construction

[120x549] Posted: 10/21/2019 3:02:16PM
### Section 619: Permanent Impact Attenuating Devices (DM-2, Chapter 12)

**619.2 Permanent Impact Attenuating Devices**

FHWA Acceptance Letters: Terminal/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>
<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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<tr>
<td>LINSY 15 Plant</td>
<td>Lindsay Transportation Solutions, Barrier Systems, 180 River Road, Rio Vista, CA 94571</td>
<td><a href="http://www.lindsay.com/transportation-solutions">http://www.lindsay.com/transportation-solutions</a></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>Effective February 9, 2018, the installation of new and repair of existing X-LITE flared end terminals has been suspended.</td>
<td><a href="#">Lindsay Transportation Solutions - Installation Guide</a></td>
<td></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>
<td>2018-023Q</td>
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<tr>
<td>* Manual w/ Parts List, PE Stamped Drawings, and FHWA Eligibility Letter for MAX-Tension TL-2 &amp; TL-3</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>
<td>2017-234Q</td>
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<tr>
<td>* Manual w/ Parts List, PE Stamped Drawings, and FHWA Eligibility Letter for MAX-Tension TL-2 &amp; TL-3</td>
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<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>
<td>2018-022Q</td>
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<td>Installation Instructions with parts identification, inspector checklist, maintenance inspection outline, and drawings:</td>
<td><a href="#">MAX-Tension Median Installation Instructions</a></td>
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<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>
<td>2018-278Q</td>
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<tr>
<td>Approved for use on both concrete and asphalt pavements.</td>
<td><a href="#">Manual w/ Parts List, FHWA Eligibility Letters, Concrete &amp; Asphalt Foundation Drawings for TAU-M</a></td>
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</table>
## Section 619: Permanent Impact Attenuating Devices (DM-2, Chapter 12)

### 619.2 Permanent Impact Attenuating Devices

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

Last Revised: 10/7/2019

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>
<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><strong>MORVA 15</strong></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)</td>
<td>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>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>2011-208QB</td>
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<td>Previously approved per NCHRP 350 under approval CC-85 with no changes to system.</td>
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<tr>
<td></td>
<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>2011-208QC</td>
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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 (Standard)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2004-015</td>
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<td>Previously approved per NCHRP 350 under approval CC-85 with no changes to system.</td>
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<tr>
<td><strong>GM Smart Cushion</strong></td>
<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>2011-208QA</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring)</td>
<td>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)</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>2011-208QC</td>
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<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>SCI17b</td>
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**Manual w/ Parts List, FHWA Eligibility Letter, PE Stamped Drawings for SCI 100 GM Smart Cushion**
### Section 619: Permanent Impact Attenuating Devices (DM-2, Chapter 12)

619.2 Permanent 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; 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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<tbody>
<tr>
<td>RDSYS 15</td>
<td>Road Systems, Inc., 3616 Old Howard County Airport Road, Big Spring, TX 79720</td>
<td><a href="http://roadsystems.com/">http://roadsystems.com/</a></td>
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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>Identifiable Steel &amp; Parts Supplied by Road Systems, Inc.</td>
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<td>Type II, Energy Absorbing Flared Terminal</td>
<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>RSI Authorized Distributors: Gregory Industries (Canton, OH) and R.G. Steel Corp (Pulaski, PA)</td>
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<td>Identifiable Steel &amp; Parts Supplied by Road Systems, Inc.</td>
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<td>Type II, Energy Absorbing Flared Terminal</td>
<td>MFLEAT</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-143A, CC-144B</td>
<td>SEW14c</td>
</tr>
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<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>
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<td>SCI13a,b</td>
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<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>
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<td>Identifiable Steel &amp; Parts Supplied by Road Systems, Inc.</td>
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<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-126G (3-37b)</td>
<td>2017-294Q</td>
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<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>
<td>SKT-350</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<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 MASH SKT 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 guidereal terminal to a MASH MSKT guidereal terminal. For details and images, view the notification letter below: NCHRP-350 SKT Impact Head Notification Letter (Nov. 15, 2017)</td>
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<tr>
<td>Type II, Energy Absorbing Tangent Terminal</td>
<td>SKT-SP</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-61A</td>
<td>2009-038Q</td>
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### Section 619: Permanent Impact Attenuating Devices (DM-2, Chapter 12)

619.2 Permanent Impact Attenuating Devices

**FHWA Acceptance Letters:** [Terminals/Crash Cushions Letters](#)  
**Last Revised:** 10/7/2019

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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<tbody>
<tr>
<td>RDSYS 15</td>
<td><strong>Road Systems, Inc., 3616 Old Howard County Airport Road, Big Spring, TX 79720</strong> <a href="http://roadsystems.com/">http://roadsystems.com/</a>&lt;br&gt;Note: The SKT-SP system is NOT approved for contracts let after June 30, 2018. RSI Authorized Distributors: Gregory Industries (Canton, OH) and R.G. Steel Corp (Pulaski, PA) <a href="#">Identifiable Steel &amp; Parts Supplied by Road Systems, Inc.</a></td>
<td>Type IV, Gating Two-Way Traffic System&lt;br&gt;FLEAT-MT</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-46D</td>
<td>SEW16b</td>
<td>2003-119</td>
</tr>
<tr>
<td>TRFXD 15</td>
<td><strong>TrafFix Devices, Inc., 160 Avenida La Pata, San Clemente, CA 92673</strong> <a href="http://www.traffixdevices.com/">http://www.traffixdevices.com/</a>&lt;br&gt;Note: Big Sandy MASH system tested to MASH 2016 criteria per FHWA Eligibility Letter CC-139 as same system tested to NCHRP 350 criteria. <a href="#">Installation Instructions and FHWA Eligibility Letter for Big Sandy</a></td>
<td>Type VI, Gating Non-Redirective Crash System&lt;br&gt;Big Sandy (Sand Barrel System)</td>
<td>MASH</td>
<td>TL-3</td>
<td>CC-139</td>
<td>1998-143</td>
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<td>Type III, Non-Energy Absorbing Terminal&lt;br&gt;SRT-350</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-51</td>
<td>2010-191A</td>
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<td>Type IV, Gating Two-Way Traffic System&lt;br&gt;CAT-350</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-33</td>
<td>SEW08</td>
<td>1989-060</td>
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## Section 619: Permanent Impact Attenuating Devices (DM-2, Chapter 12)

### 619.2 Permanent Impact Attenuating Devices

FHWA Acceptance Letters: [Terminals/ Crash Cushions Letters]

Last Revised: 10/7/2019

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>TRIN3 15</td>
<td>Trinity Highway Products, LLC, 2548 NE 28th Street, Ft. Worth, TX 76111</td>
<td>Type II, Energy Absorbing Tangent Terminal SoftStop</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-115</td>
<td>2017-306Q</td>
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<td>* Manual w/ Parts List, PE Stamped Drawings, and FHWA Eligibility Letter for Softstop</td>
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<td>Type IV, Gating Two-Way Traffic System</td>
<td>ADIEM</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-38</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance)</td>
<td>FASTRACC</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-54H</td>
<td>2010-251QB</td>
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<td></td>
<td>* Approved MM-USA marking as Identifiable Steel</td>
<td></td>
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<td>SHORTRACC</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-54A</td>
<td>2010-251QD</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>Type V, Non-Gating Two-Way Traffic System (Standard Maintenance)</td>
<td>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>* Approved MM-USA marking as Identifiable Steel</td>
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<td>WIDETRACC</td>
<td>NCHRP 350</td>
<td>TL-3</td>
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<td>2010-251QC</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
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<td>TRIN7 15</td>
<td>Trinity Highway Products, LLC, 2525 Stemmons Freeway, Dallas, TX 75207</td>
<td>Type V, Non-Gating Two-Way Traffic System (Low-Maintenance, Self-Restoring) QuadGuard M10 (24&quot; Wide)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-112, CC-112c</td>
<td>2018-219Q</td>
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</table>
## Section 619: Permanent Impact Attenuating Devices (DM-2, Chapter 12)

**619.2 Permanent Impact Attenuating Devices**

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

Last Revised: 10/7/2019

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>
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<tbody>
<tr>
<td></td>
<td></td>
<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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<td></td>
<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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<td>SCI 100 GM (Standard)</td>
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<td>TL-3</td>
<td>CC-128</td>
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<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>
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<td>SCI 70 GM (36 inch)</td>
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<td>TL-2</td>
<td>CC-85A</td>
<td>2014-017QA</td>
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<td></td>
<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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<td></td>
<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>
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Section 621: Metal Median Barrier

621.2(a) Metal Median Barrier

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<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>
</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>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
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<td>Packaged Dry Concrete</td>
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</tr>
<tr>
<td></td>
<td>Rapid Set Concrete Mix</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Baltimore, MD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Packaged Dry Concrete</td>
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</tr>
<tr>
<td></td>
<td>HP Concrete (41423)</td>
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</table>
# Section 626: Gabions

**626.2(c) Gabion Basket**

Steel Products Procurement Act applies.

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<th>Product Name</th>
<th>Ref. No.</th>
</tr>
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<tr>
<td>CESHC 15</td>
<td>C. E. Shepherd 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>2000-273Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride Coated Gabion</td>
<td>2000-273Q</td>
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<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 Ft. Smith, AR</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>
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<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.

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)

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<tr>
<td>FIBAD 15</td>
<td>Fiber-Ad Corporation, 2619 West Blvd., Charlotte, NC 28224</td>
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<tr>
<td></td>
<td>Asphalt Stockpile Patching Material</td>
<td>A-1 Polyester</td>
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<tr>
<td></td>
<td>Standard Special Provision c04861 Item 9486-001.</td>
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<td>Standard Special Provision S-b04231 Section 423- Bituminous Wearing Course FJ-4 (SU). (0.125% by weight mix, 0.2% additional AC.)</td>
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<td></td>
<td>Filler for Asphalt Concrete Curb Mixes</td>
<td>A-1 Polyester</td>
</tr>
<tr>
<td>GFC-M 15</td>
<td>GFC Materials Company, 2183 Pennsylvania Ave., Apalachin, NY 13732</td>
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<td></td>
<td>Asphalt Stockpile Patching Material</td>
<td>Type 402 Polyester</td>
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<td>Standard Special Provision c04861 Item 9486-001.</td>
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<td>Asphalt Wearing Course FJ-4 (SU)</td>
<td>Type 402 Polyester</td>
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<td>Filler for Asphalt Concrete Curb Mixes</td>
<td>Type 402 Polyester</td>
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<td>KAPEJ 15</td>
<td>Kapejo, Inc., P. O. Box 649, New Castle, DE 19720-0649</td>
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<td>Asphalt Stockpile Patching Material</td>
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<td>Asphalt Wearing Course FJ-4 (SU)</td>
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<td>Standard Special Provision S-b04231 Section 423- Bituminous Wearing Course FJ-4 (SU). (0.125% by weight mix, 0.2% additional AC.)</td>
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<td>Filler for Asphalt Concrete Curb Mixes</td>
<td>Bonifiber B</td>
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</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)

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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<th>Product</th>
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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>
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<tr>
<th>Product</th>
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Section 659: High Friction Surface Treatment (HFST)

659.2(a) Binder Resin System

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</td>
<td>Cornerstone Construction Material, LLC, 1618 East Elm Street, Harrisonville, MO 64701 <a href="http://ccmaterial.com">http://ccmaterial.com</a></td>
<td>2014-086B</td>
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<tr>
<td>Facility</td>
<td>101 East Walnut Street Archie, MO 64725</td>
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<td>Binder Resin System</td>
<td>CE330 Epoxy Binder</td>
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<tr>
<td>Kwik1 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>2013-197A</td>
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<td>Binder Resin System</td>
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<td>Binder Resin System</td>
<td>PRO-POXY Type III DOT</td>
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659.2(b) Aggregate Surface Topping for HFST

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 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, 1994-268;
- Anchor Wall Systems, 1995-265;
- Risi Stone Systems, 1995-144, 1999-190Q;
- Versa-Lok Company, 2002-116

<table>
<thead>
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<td>DOREN 15</td>
<td>Doren, Inc., R.D. #2, Route 18, P.O. Box 55, Wampum, PA 16157</td>
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<td>2002-116Q</td>
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<td>Modular Architectural Block</td>
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<tr>
<td></td>
<td>Dura Hold II</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>1999-190Q</td>
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<tr>
<td>FIZZ2 15</td>
<td>Fizzano Brothers Concrete Products, Inc., 201 South Phoenixville Pike, Malvern, PA 19355 <a href="http://fizzano.com/">http://fizzano.com/</a></td>
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<td>Plant</td>
<td>201 S. Phoenixville Pike Malvern, PA 19355</td>
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<td>Modular Architectural Block</td>
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<td>Allan Block</td>
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<td>LANDS 15</td>
<td>Landis Block &amp; Concrete Inc., 711 N. County Line Road, Souderton, PA 18964 <a href="http://www.landisbc.com/">http://www.landisbc.com/</a></td>
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<td>Anchor Diamond</td>
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<td>MIDAP 15</td>
<td>Mid Atlantic Precast Inc., 401 Railroad Street, Monongahela, PA 15063</td>
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Section 678: Permanent Barricades

678.2(a)1 Wood Posts (Pressure Treated) Last Revised: 7/7/2015

<table>
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<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<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> Wood Post (Pressure Treated)</td>
<td>1995-271</td>
</tr>
<tr>
<td>GRE-1 15 Plant</td>
<td>Great Southern Wood Preserving, P. O. Box 610, Abberville, AL 36310 <a href="http://greatsouthernwood.com/">http://greatsouthernwood.com/</a> Hagerstown, MD</td>
<td>2011-149Q</td>
</tr>
<tr>
<td>STEJ1 15</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)</td>
<td>1997-067</td>
</tr>
<tr>
<td>TAYLR 15</td>
<td>Taylor-Ramsey Corporation, P. O. Box 11888, Lynchburg, VA 24506 Wood Post (Pressure Treated)</td>
<td>1985-090</td>
</tr>
</tbody>
</table>
Section 679: Slab Stabilization

679.2 Slab Stabilization, Alternate to (a), (b), (c), (d)

Concrete Mix Design (void filler beneath slab)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASF</td>
<td>FE 663.01 Rigid Pour Foam</td>
<td>2008-167Q</td>
<td></td>
</tr>
<tr>
<td>Covestro</td>
<td>486 Star</td>
<td>2007-023</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Star Products</td>
<td>5 Star Highway Patch</td>
<td>1979-039</td>
<td></td>
</tr>
<tr>
<td>Five Star Products</td>
<td>5 Star Structural Concrete</td>
<td>1987-002</td>
<td></td>
</tr>
<tr>
<td>Five Star Products</td>
<td>5 Star Structural Concrete V/O</td>
<td>1990-214</td>
<td></td>
</tr>
<tr>
<td>Aquafin</td>
<td>Pavemend SL</td>
<td>2010-276</td>
<td></td>
</tr>
<tr>
<td>Aquafin</td>
<td>Pavemend SLQ</td>
<td>2010-277</td>
<td></td>
</tr>
</tbody>
</table>
## Section 679: Slab Stabilization

### 679.2 (e) Part A Rapid Set Concrete Patching Materials

Part 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>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Previous Name: Emaco GP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MasterEmaco T 1060</td>
<td>1986-028</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Previous Name: 10-60 Rapid Mortar</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MasterEmaco T 415</td>
<td>1993-148</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Previous Name: Emaco T415 Repair Mortar</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pave Patch 3000</td>
<td>RSCP-2017-01-007</td>
<td>2004-067Q</td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>RSCP-2017-01-014</td>
<td>2019-036Q</td>
</tr>
<tr>
<td></td>
<td>Euco-Speed</td>
<td></td>
<td>1995-148</td>
</tr>
<tr>
<td></td>
<td>Express Repair</td>
<td></td>
<td>2003-132Q</td>
</tr>
<tr>
<td></td>
<td>Speed Crete 2028</td>
<td></td>
<td>1996-223</td>
</tr>
<tr>
<td></td>
<td>Speed Crete Green Line</td>
<td></td>
<td>1991-010</td>
</tr>
<tr>
<td></td>
<td>VersaSpeed</td>
<td></td>
<td>2006-010Q</td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td>1972-050</td>
</tr>
<tr>
<td></td>
<td>P Superbond</td>
<td></td>
<td></td>
</tr>
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</table>
### Section 679: Slab Stabilization

#### 679.2 (e) Part A Rapid Set Concrete Patching Materials

Part 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>Plant 59 Brunswick Avenue Edison, NJ 08817</td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>(formerly ProSpec F-77)</td>
<td></td>
</tr>
</tbody>
</table>
### Section 679: Slab Stabilization

#### 679.2 (e) Part A Rapid Set Concrete Patching Materials

**Part 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>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>QUIKRETE FastSet™ Concrete Mix</td>
<td>RSCP-2017-01-008</td>
<td>2003-004Q</td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>QUIKRETE FastSet™ DOT Mix</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>QUIKRETE FastSet™ Non-Shrink Grout (Product No. 1585-09)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>QUIKRETE Rapid Road Repair</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1682 Marion Williamsport Road E Marion, OH 43302</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SikaSet Road Patch</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sikatop III</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lyndhurst, NJ</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SikaQuick 1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cementitious, Non-Metallic, Non-Staining Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SikaQuick 2500</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Repcon 928</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 679: Slab Stabilization

679.2 (e) Part A Rapid Set Concrete Patching Materials
Part A: Cementitious, Non-Metallic, Non-Staining (ASTM C-928)

<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>Cementitious, Non-Metallic, Non-Staining Material</td>
<td>Duracal-S</td>
<td></td>
</tr>
<tr>
<td>WMD1 15</td>
<td>Western Material and Design, LLC, P.O. Box 268, Lee's Summit, MO 64063</td>
<td>FasTrac 246 Concrete</td>
<td>RSCP-2017-01-004</td>
</tr>
<tr>
<td>Plant 15</td>
<td>101 East Walnut Street Archie, MO 64725</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

679.2 (e) Part B Rapid Set Concrete Patching Materials
Part B: Magnesium Phosphate Cement Based Materials (ASTM C-928)

<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>BASBS 15</td>
<td>BASF Corporation Building Systems, 889 Valley Park Drive, Shakopee, MN 55379</td>
<td>MasterEmaco T 545 (previous Set 45 Regular)</td>
<td>1974-016</td>
</tr>
<tr>
<td></td>
<td>Magnesium, Phosphate Cement-Based Material</td>
<td>MasterEmaco T 545 HT (previous Set 45 Hot Weather)</td>
<td></td>
</tr>
<tr>
<td>EUCLD 15</td>
<td>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799</td>
<td>Euco-Speed M.P.</td>
<td>1988-354</td>
</tr>
<tr>
<td>PHOS1 15</td>
<td>Phoscrete Corporation, 265 S Federal Hwy, Ste 320, Deerfield Beach, FL 33441-4161</td>
<td>Phoscrete HC</td>
<td>RSCP-2015-01-002</td>
</tr>
<tr>
<td>Plant 15</td>
<td>Whitmore Lake, MI</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

679.2 (e) Part C Rapid Set Concrete Patching Materials
Part C: Polymer Mortar and Concrete (ASTM C-928)
Section 679: Slab Stabilization

679.2 (e) Part C Rapid Set Concrete Patching Materials

Part 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 <a href="https://www.hilti.com/">https://www.hilti.com/</a></td>
<td>RM 698 Epoxy Patch</td>
<td>1988-017</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>Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bridge Deck, Rubberized Asphalt</td>
<td>GeoTac</td>
</tr>
<tr>
<td></td>
<td>Non-Bridge Deck, Rubberized Asphalt</td>
<td>GeoTac</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>Bridge Deck, Rubberized Asphalt</td>
<td>SealTight MEL-DEK</td>
</tr>
<tr>
<td></td>
<td>Non-Bridge Deck, Rubberized Asphalt</td>
<td>SealTight MEL-ROL</td>
</tr>
<tr>
<td></td>
<td><em>MEL-PRIME is a surface preparation adhesive as part of the MEL-DEK membrane system.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>MEL-PRIME is a surface preparation adhesive as part of the MEL-ROL membrane system.</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bridge Deck, Rubberized Asphalt</td>
<td>Polyguard NW-75</td>
</tr>
<tr>
<td></td>
<td>Non-Bridge Deck, Rubberized Asphalt</td>
<td>Polyguard NW-75</td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bridge Deck, Rubberized Asphalt</td>
<td>Petrotac 4591</td>
</tr>
<tr>
<td></td>
<td>Non-Bridge Deck, Rubberized Asphalt</td>
<td>Petrotac 4591</td>
</tr>
<tr>
<td>Facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bridge Deck, Modified Bitumen</td>
<td>Royston Bridge Membrane 10A-65</td>
</tr>
<tr>
<td></td>
<td><em>Certification Reduction Level 3 per Publication 408 Section 106.03(b)3 as of 11/27/2012</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bridge Deck, Modified Bitumen</td>
<td>Royston Bridge Membrane 10A-65 Easy Pave</td>
</tr>
<tr>
<td></td>
<td><em>Certification Reduction Level 3 per Publication 408 Section 106.03(b)3 as of 11/27/2012</em></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bridge Deck, Rubberized Asphalt</td>
<td>Right Deck</td>
</tr>
<tr>
<td></td>
<td>Non-Bridge Deck, Rubberized Asphalt</td>
<td>Right Roll</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></td>
<td>Bridge Deck, Modified Bitumen</td>
<td></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>Plant</td>
<td>Ennis, TX</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non-Bridge Deck, Modified Bitumen</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mirafi MTK</td>
<td></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></td>
<td>DWS, Cast Iron</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Iron Dome</td>
<td>2018-017Q</td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Replaceable Wet Set Composite</td>
<td>2008-019Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tactile Systems Composite Paver (Cast in Place)</td>
<td>2007-049Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Concrete</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Detectable Warning Wet Set Replaceable (with steel angles)</td>
<td>2007-116Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td>DETTI 15</td>
<td>Detectile, Inc., 603 Mallard Lane, Oak Brook, IL 60523 <a href="http://www.detectile.com/">http://www.detectile.com/</a></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PFC Composite Replaceable Panel</td>
<td>2009-057Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td>EJI-0 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></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Cast Iron</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DURALAST 7005 Detectable Warning Plate</td>
<td>2007-020Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Access Tile Replaceable Cast in Place ACC-R</td>
<td>2010-036QB</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Armor-Tile</td>
<td>2007-052Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</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>Plant, Address</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EZSTI 15</td>
<td>EZ Set Tile, Inc., 4495 Gunpowder Circle, Hastings, NE 68901 <a href="HTTP://WWW.EZSETTILE.COM/">HTTP://WWW.EZSETTILE.COM/</a></td>
<td>Aurora, NE</td>
<td>2007-019Q</td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CZT Set Tile (Cast in Place)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>alertcast Detectable Warning System</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Composite</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>alertcast Detectable Warning System</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Cast Iron</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24&quot; x 24&quot; Detectable Warning Plate (4984)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>STECC 15</td>
<td>Steel Craft Corporation, 105 Steel Craft Road, Hartford, WI 53027 <a href="HTTP://WWW.STEELCRAFTWI.COM/">HTTP://WWW.STEELCRAFTWI.COM/</a></td>
<td>Hartford, WI</td>
<td>2011-191Q</td>
</tr>
<tr>
<td></td>
<td>DWS, Stainless Steel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MD Metapanel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DWS, Polymer Concrete</td>
<td></td>
<td></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](#)

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](#)

<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><strong>Lindsay Transportation Solutions (Barrier Systems by Lindsay), 180 River Road, Rio Vista, CA 94571</strong> <a href="http://www.barriersystemsinc.com/">http://www.barriersystemsinc.com/</a></td>
<td><strong>Type V, Non-Gating Two-Way Traffic System</strong> Universal TAU-II</td>
<td>NCHRP 350</td>
<td>TL-2, TL-3</td>
<td>CC-75</td>
<td>SCT01a</td>
<td>2004-083Q</td>
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<tr>
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<td><strong>Type V, Non-Gating Two-Way Traffic System</strong> X-TENuator</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-109</td>
<td>SCI23</td>
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<td><strong>Type VI, Gating Non-Redirective Crash Cushion System</strong> ABSORB 350</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-86</td>
<td>SCI11b</td>
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<td><strong>Type V, Non-Gating Two-Way Traffic System</strong> QuadGuard High Speed (HS)</td>
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<td>SCI16a</td>
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<td><strong>Type V, Non-Gating Two-Way Traffic System</strong> QuadGuard II (Modified QuadGuard)</td>
<td>NCHRP 350</td>
<td>TL-2, TL-3</td>
<td>CC-35I</td>
<td>SCI06c</td>
<td>2009-159QB</td>
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<td><strong>Spincast Plastics, South Bend, IN</strong></td>
<td><strong>Type V, Non-Gating Two-Way Traffic System</strong> QUEST</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-87</td>
<td>SCI20</td>
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<td><strong>Type V, Non-Gating Two-Way Traffic System</strong> REACT 350</td>
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<td>CC-26B</td>
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<td><strong>Type VI, Gating Non-Redirective Crash Cushion System</strong> Energite III Module</td>
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<td><strong>Type VI, Gating Non-Redirective Crash Cushion System</strong> Fitch Inertial</td>
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<td>CC-28</td>
<td>SCI16a</td>
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<td><a href="#">Manual w/ Parts List, FHWA Eligibility Letter, PE Stamped Drawings for SCI 100 GM Smart Cushion</a></td>
<td><strong>Type V, Non-Gating Two-Way Traffic System</strong> SCI 70 GM</td>
<td>NCHRP 350</td>
<td>TL-2</td>
<td>CC-85A</td>
<td>SCI17b</td>
<td>2014-029QB</td>
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### 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](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>FHWA Acc. Letter</th>
<th>Designator</th>
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<tr>
<td>LINSY 15</td>
<td>Lindsay Transportation Solutions, Barrier Systems, 180 River Road, Rio Vista, CA 94571</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><strong>Manual w/ Parts List, FHWA Eligibility Letters, Concrete &amp; Asphalt Foundation Drawings for TAU-M</strong></td>
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<td>MORVA 15</td>
<td>Morgan Valley Manufacturing, 340 North Industrial Road, P. O. Box 746, Morgan, UT 84050</td>
<td>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><strong>Manual w/ Parts List, FHWA Eligibility Letter, PE Stamped Drawings for SCI 100 GM Smart Cushion</strong></td>
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<td>PPLAS 15</td>
<td>Plastic Safety Systems, Inc., 2444 Baldwin Road, P.O. Box 20140, Cleveland, OH 44104</td>
<td>Plastic Safety Systems</td>
<td>NCHRP 350</td>
<td>2010-306Q</td>
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<td>TRFXD 15</td>
<td>TrafFix Devices, Inc., 160 Avenida La Pata, San Clemente, CA 92673</td>
<td>Big Sandy (Sand Barrel System)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-139</td>
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<td><strong>Installation Instructions and FHWA Eligibility Letter for Big Sandy</strong></td>
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<tr>
<td>TRIN3 15</td>
<td>Trinity Highway Products, LLC, 2548 NE 28th Street, Ft. Worth, TX 76111</td>
<td>TRACC</td>
<td>NCHRP 350</td>
<td>TL-3</td>
<td>CC-54</td>
<td>SCI18a,b 2010-251QA</td>
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<td><strong>Approved MM-USA marking as Identifiable Steel</strong></td>
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### Section 696: Temporary Impact Attenuating Devices (DM-2, Chapter 12)

#### 696.2 Temporary Impact Attenuating Devices

Last Revised: 9/18/2019

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](#)

<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>TRIN7 15 Plant</td>
<td>Trinity Highway Products, LLC, 2525 Stemmons Freeway, Dallas, TX 75207 <a href="https://trinityhighway.com/">https://trinityhighway.com/</a></td>
<td>QuadGuard M10 (24&quot; Wide)</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-112, CC112c</td>
<td>2018-219Q</td>
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<tr>
<td>WHIP1 5 Plant</td>
<td>Whip Industries, 3010 South Main Street, Fort Worth, TX 76110 <a href="http://www.whipindustries.com/">http://www.whipindustries.com/</a></td>
<td>SCI 100 GM</td>
<td>MASH 2016</td>
<td>TL-3</td>
<td>CC-128</td>
<td>2014-017QB</td>
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</tbody>
</table>

* Manual, Product Information, FHWA Eligibility Letters, and PE Stamped Drawings for QuadGuard M10

* Manual w/ Parts List, FHWA Eligibility Letter, PE Stamped Drawings for SCI 100 GM Smart Cushion

* Manual w/ Parts List, FHWA Eligibility Letter, PE Stamped Drawings for SCI 70 GM Smart Cushion
## 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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<tbody>
<tr>
<td>AALPO 15</td>
<td>Aalborg Portland A/S, Roerdalsvej 44, Aalborg 9100</td>
<td>Roerdalsvej 44, Aalborg 9100</td>
<td>2010-084Q</td>
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<tr>
<td>ARG01 15</td>
<td>Argos USA, 3015 Windward Plaza, Windward Fairways II, Suite 300, Alpharetta, GA 30005</td>
<td>Formerly Essroc Materials, Inc. (ESS-3 15)</td>
<td>2019-072</td>
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<td>ARG02 15</td>
<td>Argos USA, 3015 Windward Plaza, Winward Fairways II, Suite 300, Alpharetta, GA 30005</td>
<td>Formerly Essroc Materials, Inc. (ESS-5 15)</td>
<td>2010-133QB</td>
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<td>ARG03 15</td>
<td>Argos USA, 3015 Windward Plaza, Windward Fairways II, Suite 300, Alpharetta, GA 30005</td>
<td>Formerly Essroc Materials, Inc. (ESS-6 15)</td>
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**Type I**
- Portland Cement Type I
- Per AASHTO M85, Portland cement with up to 5% limestone addition.

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

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

**Type IL**
- Argos Type IL Cement
- Per AASHTO M240, Portland cement with more than 5% but less than or equal to 15% limestone addition.
## Section 701: Cement

### 701 Cement Plants & Terminals

<table>
<thead>
<tr>
<th>Product</th>
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<th>Ref. No.</th>
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<td><strong>ARGO4 15</strong></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>2010-235QA</td>
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<td><strong>Terminal</strong></td>
<td>Formerly Essroc Materials, Inc. (ESS10 15)</td>
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<td>Type I/II, Terminal for Martinsburg Plant (ARGO1 15), Ref. No. 1995-072</td>
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<td>Type II</td>
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<td>2010-235QB</td>
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<tr>
<td><strong>ARGO6 15</strong></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>2017-230Q</td>
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<td><strong>Plant</strong></td>
<td>Roberta Plant 8039 Highway 25 Calera, AL 35040</td>
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<td>Per AASHTO M85, Portland cement with up to 5% limestone addition and up to 5% inorganic processing addition (bag house dust).</td>
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<td>Per AASHTO M85, Portland cement with up to 5% limestone addition and up to 5% inorganic processing addition (bag house dust).</td>
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<td><strong>ARGO7 15</strong></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>2019-105Q</td>
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<td><strong>Terminal</strong></td>
<td>411 Oberlin Avenue SW Massillon, OH 44647</td>
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# Section 701: Cement

## 701 Cement Plants & Terminals

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<td>ARMST 15</td>
<td>Armstrong Cement and Supply, 100 Clearfield Road, Cabot, PA 16023-9521</td>
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<td>Cabot, PA</td>
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<td>Type II MH</td>
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<td>Type V</td>
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| BUZZ1 15 | Buzzi Unicem USA Stockertown, 501 Hercules Drive, P. O. Box 69, Stockertown, PA 18083 | 5/4/2009 | 2012-023QA |
| Plant | | | 2012-023QB |
| Stockertown, PA | | | |
| Type I | | | |
| Type I | 5/4/2009 | |
| Type I Terminal for BUZZ2 15, Ref. No. 2011-222QA | | 2012-023QA |
| Type II | | |
| Type II MH | | |
| Type II MH | 5/4/2009 | |
| Type III | | |
| Type III | 5/4/2009 | |

*Per AASHTO M 85, Portland cement with up to 5% limestone addition.*
### Section 701: Cement

#### 701 Cement Plants & Terminals

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<td>BUZZ2 15 Plant</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>
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Per AASHTO M 85, Portland cement with up to 5% limestone addition.

Per AASHTO M 85, Portland cement with up to 5% limestone addition and up to 5% inorganic processing addition (bag house dust).
**Section 701: Cement**

### 701 Cement Plants & Terminals

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<th>Product</th>
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<tr>
<td><strong>CEMX4 15 Plant</strong></td>
<td><strong>CEMEX, Inc., 10100 Katy Freeway, Suite 300, Houston, TX 77043 <a href="http://www.cemexusa.com">http://www.cemexusa.com</a></strong></td>
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<td><strong>CEMX6 15 Plant</strong></td>
<td><strong>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></strong></td>
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<tr>
<td><strong>CEMX7 15 Terminal</strong></td>
<td><strong>CEMEX, Inc., 10100 Katy Freeway, Suite 300, Houston, TX 77043 <a href="http://www.cemexusa.com">http://www.cemexusa.com</a></strong></td>
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<td>Terminal for CEMX4 15, Ref. No. 2001-056</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>
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<tbody>
<tr>
<td>Plant</td>
<td>6212 Cement Plant Road  Knoxville, TN 37924</td>
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<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>2018-231Q</td>
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<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>Plant</td>
<td>CRH Joliette Cement Plant  966 chemin des Prairies Joliette, Quebec J6E 0L4</td>
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<td>Federal White Cement, Inc., P.O. Box 1609, Woodstock, Ontario N4S 0A8 <a href="http://www.federalwhitecement.com/">http://www.federalwhitecement.com/</a></td>
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<td>CRH Canada Group Inc., 2300 Steeles Ave West, Concord, Ontario L4K 5X6 <a href="http://www.crhcanada.com">http://www.crhcanada.com</a></td>
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<td>Plant</td>
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## Section 701: Cement

### 701 Cement Plants & Terminals

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<td>HOLI1 15 Terminal</td>
<td>Holcim (US) Inc., North East Sales Group, 4303 Rt 9, Hudson, NY 12534 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
<td>Terminal</td>
<td>Tarentum Terminal 445 Grantham Street Tarentum, PA 15084</td>
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<td>Hagerstown Plant 1260 Security Road Hagerstown, MD 21742</td>
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## Section 701: Cement

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<td>Plant</td>
<td>Holly Hill Plant  200 Safety Street/Highway 453  Holly Hill, SC 29059</td>
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<td>Plant Holly Hill Plant  200 Safety Street/Highway 453  Holly Hill, SC 29059</td>
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<td>Holcim U.S. Inc., Bloomsdale, MO 63627 <a href="https://www.lafargeholcim.us/">https://www.lafargeholcim.us/</a></td>
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## Section 701: Cement

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<td>Buffalo Cement Terminal 575 Ohio Street Buffalo, NY 14203</td>
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## Section 701: Cement

### 701 Cement Plants & Terminals

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<td>Pittsburg Terminal</td>
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<td>Cleveland Cement Terminal/Slag</td>
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## Section 701: Cement

### 701 Cement Plants & Terminals

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## Section 701: Cement

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

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<td>Terminal for LEH11 15, Ref. No. 2005-087Q</td>
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<td>Plant 1 - Limestone Source: Pennsy Supply</td>
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<td>Plant 1 - Saylor's Portland Cement - Limestone Source: Medford Fines (Martin Marietta Materials)</td>
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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.*

*Per AASHTO M240, Portland cement with more than 5% but less than or equal to 15% limestone addition.*
# Section 701: Cement

## 701 Cement Plants & Terminals

<table>
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<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
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(Formerly Essroc ESS11 15) | 6/9/2011 | - |
| Type I  |  |  | - |
| Type I  | Per AASHTO M85, Portland cement with up to 5% limestone addition. |  |  |
| Type II |  |  |  |
| Type II | Per AASHTO M85, Portland cement with up to 5% limestone addition. |  |  |
| Type IL | Type IL |  |  |
| Type IL | Per AASHTO M240, Portland cement with more than 5% but less than or equal to 15% limestone addition. |  |  |
(Formerly Essroc ESS12 15) |  |  |
| Type II |  |  |  |
| Type II | Per AASHTO M85, Portland cement with up to 5% limestone addition. |  |  |
| Type III |  |  |  |
| Type III | Per AASHTO M85, Portland cement with up to 5% limestone addition. |  |  |
(Formerly Essroc ESS13 15) |  |  |
| Type I  |  |  | 2009-024QA |
| Type I  | Per AASHTO M85, Portland cement with up to 5% limestone addition. |  |  |
| Type II |  |  | 2009-024QB |
| Type II | Per AASHTO M85, Portland cement with up to 5% limestone addition. |  |  |
| Type III |  |  | 2009-162Q |
| Type III | Per AASHTO M85, Portland cement with up to 5% limestone addition. |  |  |
## Section 701: Cement

### 701 Cement Plants & Terminals

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<td><strong>LEH14 15 Terminal</strong></td>
<td>Lehigh Cement Company, LLC, 1101 Erieside Extended, Cleveland, OH 44114</td>
<td>Terminal for LEH11 15, Ref. No. 2005087Q</td>
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<td><strong>LEH16 15 Terminal</strong></td>
<td>Lehigh Cement Company, LLC, 8282 Middlebranch Road, Middlebranch, OH 44652</td>
<td>Terminal for LEH13 15, Ref No. 2017-354Q</td>
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<td><strong>LEHN0 15 Plant</strong></td>
<td>Lehigh Northeast Cement Company, 313 Warren Street, Glen Falls, NY 12801</td>
<td>Terminal for LEH13 15, Ref. No. 2009-162Q</td>
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### Type II
- Per AASHTO M85, Portland cement with up to 5% limestone addition.

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

### 701 Cement Plants & Terminals

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<th>Ref. No.</th>
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<tr>
<td>MEDC1 15</td>
<td>Medcem Madencilik, Atasehir Bulvari, Metropol Istanbul, C-2 Blok, 34758, Istanbul, Türkiye</td>
<td>2019-121Q</td>
<td>MEDC1 15</td>
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<td>Akdere Koyu Bagalani Mevkii Silifke/MERSIN</td>
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<td>Siam Cement Company Thailand</td>
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<td>Manufactured by the Siam Cement Company.</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>7900 N. Radcliffe Street Bristol, PA 19007</td>
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<td>Per AASHTO M85, Portland cement with up to 5% limestone addition. NOTE: Cement is shipped from the Kamari Plant in Elefina, Greece (TITAN 15). Plant Verification (PV) samples are submitted by the Riverside Construction Materials terminal in Bristol, PA (RIVERT15).</td>
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<td>STMC1 15</td>
<td>St. Marys Cement, Votorantim Cimentos, 9333 Dearborn Street, Detroit, MI 48209</td>
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<td>STMC1 15</td>
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<td></td>
<td>585 Water Street P.O. Box 1000 St. Marys, Ontario N4X 1B6</td>
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**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).
### Section 701: Cement

#### 701 Cement Plants & Terminals

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<td>Terminal for STMC1 15, Ref. No. 1988-318</td>
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<td>Terminal for STMC2 15, Ref. No. 1997-097</td>
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<td>Terminal for STMC2 15, Ref. No. 1997-097</td>
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<td>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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| ATLMC 15 | Atlas Minerals and Chemicals, Inc., 1227 Valley Road, P.O. Box 38, Mertztown, PA 19539-0038 [http://www.atlasmin.com/](http://www.atlasmin.com/)
  | ASTM D 3141
  | WA-1
  | WM-1 | |
  | ASTM D 3141 | |
| SOLAR 15 | Solar Compounds, 1201 West Blancke Street, Linden, NJ 07036 [http://www.solarcompounds.com/](http://www.solarcompounds.com/)
  | J-1 | |
| TRUM1 15 Refinery | Trumbull Asphalt, Division of Owens Corning, 7800 West 59th Street, Summit, IL 60501 [http://www.owenscorning.com/trumbull/](http://www.owenscorning.com/trumbull/)
  | ASTM D 3141 | 2005-001Q |
| TRUM2 15 Refinery | Trumbull Asphalt, Division of Owens Corning, 7800 West 59th Street, Summit, IL 60501 [http://www.owenscorning.com/trumbull/](http://www.owenscorning.com/trumbull/)
  | ASTM D 3141 | |
| TRUM3 15 Refinery | Trumbull Asphalt, Division of Owens Corning, 7800 West 59th Street, Summit, IL 60501 [http://www.owenscorning.com/trumbull/](http://www.owenscorning.com/trumbull/)
  | ASTM D 3141 | |
| ZECH0 15 | Zeigler Chemical Corporation, 600 Prospect Avenue, Piscataway, NJ 08854 [http://zieglerchemical.com/](http://zieglerchemical.com/)
  | WA-1
  | WM-1 | |

702b Cutback Asphalt

Section 702: Asphalt Material

702b Cutback Asphalt


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<th>Product</th>
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<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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Section 702: Asphalt Material

702b Cutback Asphalt


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# Section 702: Asphalt Material

## 702b Cutback Asphalt


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<td>MARFR 15</td>
<td>Frank Martuccio Asphalt and Paving, Inc., 1059 Mercer Avenue, Hermitage, PA 16148</td>
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# Section 702: Asphalt Material

## 702b Cutback Asphalt


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<td>NEVLC 15</td>
<td>Neville Chemical Company, 2800 Neville Road, Neville Island, PA 15225 <a href="http://www.nevchem.com/">http://www.nevchem.com/</a></td>
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### Section 702: Asphalt Material

#### 702b Cutback Asphalt


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<td><strong>RUSS0 15</strong> 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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<td>MC-800</td>
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<th>Product</th>
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<tr>
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<td>MC-400</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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<tbody>
<tr>
<td>Facility</td>
<td>3450 Asiatic Avenue Baltimore, MD 21226</td>
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<tr>
<td></td>
<td>MC-30</td>
<td>2018-213Q</td>
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<td>MC-400</td>
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| SEABD 15 | Seaboard Asphalt Products Company, 3601 Fairfield Road, Baltimore, MD 21226 [http://seaboardasphalt.com/](http://seaboardasphalt.com/) |       |
| Facility |                                       |       |
|          | MC-30                             |       |
|          | MC-400                            |       |
|          | MC-70                             |       |
|          | MC-800                            |       |
|          | RC-250                            |       |
|          | RC-70                             |       |
|          | RC-800                            |       |
|          | WP-1                              |       |

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

702b Cutback Asphalt


<table>
<thead>
<tr>
<th>Product</th>
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<tr>
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<td>MC-400</td>
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<td>MC-70</td>
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<td>MC-800</td>
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<tr>
<td>RC-250</td>
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<tr>
<td>RC-70</td>
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<tr>
<td>RC-800</td>
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</tr>
<tr>
<td>WP-1</td>
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</table>

SUIT1 15 Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 [http://www.suit-kote.com/]
Facility 505 Como Park Blvd. Buffalo, NY

SUIT3 15 Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160 [http://www.suit-kote.com/]
Facility Cortland, NY
Section 702: Asphalt Material

702b Cutback Asphalt

Cutback Asphalt includes: MC-30, MC-70, MC-400, MC-800, RC-70, RC-250, RC-800 and WP-1  

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
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<tr>
<td>MC-70</td>
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<td></td>
</tr>
<tr>
<td>MC-800</td>
<td></td>
<td></td>
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<tr>
<td>RC-250</td>
<td></td>
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</tr>
<tr>
<td>RC-70</td>
<td></td>
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<td>RC-800</td>
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</tr>
<tr>
<td>WP-1</td>
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</tbody>
</table>

SUIT4 15  
Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160  
http://www.suit-kote.com/  
20 Fairground Lane Watkins Glen, NY

SUIT5 15  
Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160  
http://www.suit-kote.com/  
Jamestown, NY
## Section 702: Asphalt Material

### 702b Cutback Asphalt


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<thead>
<tr>
<th>Product Code</th>
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<th>Facility Name and Address</th>
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<tr>
<td>SUIT6 15</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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<td>MC-30</td>
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<tr>
<td></td>
<td>MC-800</td>
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<td></td>
<td>RC-250</td>
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<td>RC-70</td>
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<td>RC-800</td>
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<table>
<thead>
<tr>
<th>Facility</th>
<th>New York State Route 19 Belmont, NY</th>
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<tr>
<td>SUIT8 15</td>
<td>Suit-Kote Corporation, 1911 Lorings Crossing Road, Cortland, NY 13045-5160</td>
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<td>MC-30</td>
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<table>
<thead>
<tr>
<th>Facility</th>
<th>10965 McHenry Street Meadville, PA</th>
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<tr>
<td>UAC-1 15</td>
<td>United Asphalt Company, P.O. Box 291, Cedar Brook, NJ 08018</td>
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<tr>
<td>RC-250</td>
<td>Del-Val RC-250 2019-024Q</td>
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<td>RC-70</td>
<td>Del-Val RC-70 2019-023Q</td>
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<td>RC-800</td>
<td>Del-Val RC-800 2019-025Q</td>
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## Section 702: Asphalt Material

### 702b Cutback Asphalt


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<thead>
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<tbody>
<tr>
<td>MC-30</td>
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<td>RC-800</td>
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<td>WP-1</td>
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<td>MC-70</td>
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<td>RC-250</td>
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Section 702: Asphalt Material

702b Cutback Asphalt


<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>ZECH0 15</td>
<td>Zeigler Chemical Corporation, 600 Prospect Avenue, Piscataway, NJ 08854 [<a href="http://zieglerchemical.com/">http://zieglerchemical.com/</a>]</td>
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<tr>
<td>MC-30</td>
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<tr>
<td>MC-400</td>
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<td>RC-800</td>
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<tr>
<td>WP-1</td>
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</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-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>
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<tbody>
<tr>
<td>ASP-1 15</td>
<td>Asphalt Paving Systems, 8th St. &amp; Reading Ave., P.O. Box 530, Hammonton, NJ 08037 [<a href="http://www.asphaltpavingsystems.com/">http://www.asphaltpavingsystems.com/</a>]</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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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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</thead>
<tbody>
<tr>
<td>ASP-1 15</td>
<td>Asphalt Paving Systems, 8th St. &amp; Reading Ave., P.O. Box 530, Hammonton, NJ 08037 <a href="http://www.asphaltpavingsystems.com/">http://www.asphaltpavingsystems.com/</a></td>
<td>Formerly ASPPS 15</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 7: UTFCEM</td>
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<tr>
<td>DOSK0 15</td>
<td>Dosch-King Emulsions, Inc., 16 Troy Hills Road, Whippany, NJ 07981 <a href="http://doschking.net/index.html">http://doschking.net/index.html</a></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>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td>EM Type 7: UTFCEM</td>
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<td>EM Type 4: AEP</td>
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### Section 702: Asphalt Material

#### 702c Emulsified Asphalt

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<tr>
<th>EM Type 1</th>
<th>EM Type 2</th>
<th>EM Type 3</th>
<th>EM Type 4</th>
<th>EM Type 5</th>
<th>EM Type 6</th>
<th>EM Type 7</th>
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<tbody>
<tr>
<td>TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, SS-1, SS-1h, CSS-1, CSS-1h, HFMS-2, HFMS-2s, E-10, AE-T</td>
<td>RS-2P, CRS-2P, HFRS-2P</td>
<td>SS-1hP, CSS-1hP, CQS-1hP</td>
<td>AEP</td>
<td>E-1 Prime</td>
<td>EDP</td>
<td>UTFCEM</td>
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Last Revised: 10/9/2019

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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</thead>
<tbody>
<tr>
<td>KAP-1 15 Terminal</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>
</tr>
<tr>
<td></td>
<td>EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, SS-1, CSS-1, CSS-1h, HFMS-2, HFMS-2s, E-10, AE-T</td>
<td></td>
</tr>
<tr>
<td>LINP0 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, SS-1, CSS-1, CSS-1h, HFMS-2, HFMS-2s, E-10, AE-T</td>
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<td>Provisionally Approved</td>
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<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>
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<td>Floreffe PA Asphalt Terminal 1100 Glasshouse Road Jefferson Hills, PA 15025</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, SS-1, CSS-1, CSS-1h, HFMS-2, HFMS-2s, E-10, AE-T</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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>MARFR 15</td>
<td>Frank Martuccio Asphalt and Paving, Inc., 1059 Mercer Avenue, Hermitage, PA 16148</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-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td>Formerly MDLAC 15</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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<tr>
<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.

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Name</th>
<th>Ref. No.</th>
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</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>
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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>
<tr>
<td>EM Type 5: E-1 Prime</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>EM Type 6: EDP</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>EM Type 7: UTFCEM</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>
Section 702: Asphalt Material

702c Emulsified Asphalt

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal</td>
<td>Clearfield, PA</td>
<td>Formerly Whitaker Road (WHITR 15)</td>
</tr>
</tbody>
</table>

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

**Product Name Ref. No.**

- MDL-3 15 Terminal


  - Formerly Whitaker Road (WHITR 15)

  - EM Non-Standard
    - Conditionally approved per manufacturer's specifications. FastTack system includes an adhesion agent (MC), an emulsified asphalt and a breaking agent (Rupteur XC).

  - EM Type 1: TACK, NTT, CNTT, RS-1, CRS-1, RS-2, CRS-2, MS-2, CMS-2, CMS-2s, SS-1, SS-1h, SS-1h/SS-1h, HFMS-2h, HFMS-2s, HFMS-2, 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 4: AEP

  - EM Type 5: E-1 Prime

  - EM Type 6: EDP

  - EM Type 7: UTFCEM
## 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>MDL-4 15</td>
<td>Midland Asphalt Materials, Inc, 640 Young Street, Tonawanda, NY 14151-0388 <a href="http://www.midlandasphalt.com/">http://www.midlandasphalt.com</a></td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>Bloomsburg, PA</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, SS-1h, CSS-1, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 4: AEP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 5: E-1 Prime</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 6: EDP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 7: UTFCEM</td>
<td></td>
</tr>
<tr>
<td>MOHWK 15</td>
<td>Mohawk Asphalt Emulsions, 6 Freemans Bridge Road, Scotia, NY 12302</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, SS-1h, CSS-1, CSS-1h, HFMS-2h, HFMS-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EM Type 7: UTFCEM</td>
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</tr>
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</table>
Section 702: Asphalt Material

702c Emulsified Asphalt

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEAS1 15</td>
<td>New England Asphalt Services, dba Empire Emulsions, 508 Forest Road, Northford, CT 06742</td>
</tr>
<tr>
<td>Terminal</td>
<td>Empire Emulsions 1297 Craigville Road Chester, NY 10918</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>
</tr>
<tr>
<td></td>
<td>2019-047Q</td>
</tr>
<tr>
<td>NEWYO 15</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>
</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>
</tr>
<tr>
<td></td>
<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
</tr>
<tr>
<td></td>
<td>-----</td>
</tr>
<tr>
<td>PECKH 15</td>
<td>Peckham Materials Corporation, 2 Union Street Extension, Athens, NY 12015</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>
</tr>
<tr>
<td></td>
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</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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</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, 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>Ref. No.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUSS3 15</td>
<td>Russell Standard Corporation, Hammaker East, LTD, 118 Siloam Road, Chambersburg, PA 17201</td>
<td>RUSS3 15</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-2, E-10, AE-T</td>
<td>2008-172Q</td>
<td></td>
</tr>
<tr>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td></td>
</tr>
<tr>
<td>EM Type 4: AEP</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>EM Type 5: E-1 Prime</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>EM Type 7: UTFCEM</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>

| RUSS4 15 | Russell Standard Corporation, 3580 Wheelertown Road, Waterford, PA 16441 | RUSS4 15 |
| Terminal | Wheelertown Terminal Waterford, PA | |
| 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, AE-T | ----- |
Section 702: Asphalt Material

702c Emulsified Asphalt

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<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>-----</td>
</tr>
<tr>
<td>Terminal Mars, PA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM Type 1</td>
<td>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>EM Type 2</td>
<td>RS-2P, CRS-2P, HFRS-2P</td>
<td>-----</td>
</tr>
<tr>
<td>EM Type 5</td>
<td>E-1 Prime</td>
<td>-----</td>
</tr>
<tr>
<td>Facility 3450 Asiatic Avenue Baltimore, MD 21226</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM Type 1</td>
<td>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>EM Type 2</td>
<td>RS-2P, CRS-2P, HFRS-2P</td>
<td>-----</td>
</tr>
<tr>
<td>EM Type 3</td>
<td>SS-1hP, CSS-1hP, CQS-1hP</td>
<td>-----</td>
</tr>
<tr>
<td>EM Type 4</td>
<td>AEP</td>
<td>-----</td>
</tr>
<tr>
<td>EM Type 5</td>
<td>E-1 Prime</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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>EM Type 1</strong>: 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>
<td></td>
<td><strong>(Also evaluated per PEQ 2018-114Q)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>EM Type 2</strong>: RS-2P, CRS-2P, HFRS-2P</td>
</tr>
<tr>
<td></td>
<td><strong>EM Type 3</strong>: SS-1hP, CSS-1hP, CQS-1hP</td>
</tr>
<tr>
<td></td>
<td><strong>EM Type 4</strong>: AEP</td>
</tr>
<tr>
<td></td>
<td><strong>EM Type 7</strong>: UTFCEM</td>
</tr>
<tr>
<td>2018-113Q</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>
</tr>
<tr>
<td></td>
<td><strong>EM Type 1</strong>: 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>
<td></td>
<td><strong>EM Type 2</strong>: RS-2P, CRS-2P, HFRS-2P</td>
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<td><strong>EM Type 7</strong>: UTFCEM</td>
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<tr>
<td>2018-205Q</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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S &amp; S Emulsions</td>
<td>1731 Old SR #7 Rayland, OH 43943</td>
<td></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-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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</tr>
<tr>
<td>SPEEM 15 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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</tr>
<tr>
<td></td>
<td>Product name for NTT: EM-50-TT</td>
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</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-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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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>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>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>505 Como Park Blvd. Buffalo, NY</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>15</td>
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<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 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td></td>
<td>EM Type 4: AEP</td>
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</tr>
<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>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>797 Carlton Drive Bentleyville, PA</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>2018-163Q</td>
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<tr>
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<td>(Also evaluated per PEQ 2018-158Q &amp; PEQ 2018-159Q)</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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cortland, NY</td>
<td></td>
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</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-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
<td></td>
<td>2017-231Q</td>
</tr>
<tr>
<td>Effective 10/09/19, the Cortland, NY facility (SUIT3 15) is not approved to supply EM Type 2 emulsions (RS-2P, CRS-2P, and HFRS-2P) until further notice to PennDOT projects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td></td>
</tr>
<tr>
<td>EM Type 4: AEP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM Type 5: E-1 Prime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EM Type 6: EDP</td>
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</tr>
</tbody>
</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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<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>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>20 Fairground Lane Watkins Glen, NY</td>
<td></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-2, HFMS-2s, HFRS-2, E-10, AE-T</td>
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<td></td>
</tr>
<tr>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<td></td>
</tr>
<tr>
<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td></td>
</tr>
<tr>
<td>EM Type 4: AEP</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>EM Type 5: E-1 Prime</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>EM Type 6: EDP</td>
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</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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUIT5 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></td>
</tr>
<tr>
<td>Facility</td>
<td>Jamestown, NY</td>
<td></td>
</tr>
<tr>
<td>EM Type 1:</td>
<td>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>EM Type 2:</td>
<td>RS-2P, CRS-2P, HFRS-2P</td>
<td>-----</td>
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<tr>
<td>EM Type 3:</td>
<td>SS-1hP, CSS-1hP, CQS-1hP</td>
<td>2018-161Q</td>
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<tr>
<td>EM Type 4:</td>
<td>AEP</td>
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<tr>
<td>EM Type 5:</td>
<td>E-1 Prime</td>
<td>-----</td>
</tr>
<tr>
<td>EM Type 6:</td>
<td>EDP</td>
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</table>
Section 702: Asphalt Material

**702c Emulsified Asphalt**

Last Revised: 10/9/2019

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.

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<tr>
<th>Product</th>
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<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>
<tr>
<td>Facility</td>
<td>New York State Route 19 Belmont, NY</td>
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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>
<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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<td>EM Type 5: E-1 Prime</td>
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<td>EM Type 6: EDP</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.

<table>
<thead>
<tr>
<th>Product</th>
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<tr>
<td>SUIT8 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>
</tr>
<tr>
<td>Facility</td>
<td>Facility 10965 McHenry Street Meadville, PA</td>
</tr>
<tr>
<td>Product</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>
<td>Product</td>
<td>EM Type 2: RS-2P, CRS-2P, HFRS-2P</td>
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<tr>
<td>Product</td>
<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td>2017-232Q</td>
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<tr>
<td>Product</td>
<td>EM Type 4: AEP</td>
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<td></td>
<td>2018-241Q</td>
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<tr>
<td>Product</td>
<td>EM Type 5: E-1 Prime</td>
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<tr>
<td></td>
<td>2018-242Q</td>
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<tr>
<td>Product</td>
<td>EM Type 6: EDP</td>
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<tr>
<td></td>
<td>2018-242Q</td>
</tr>
<tr>
<td>Product</td>
<td>EM Type 7: UTFCEM</td>
</tr>
<tr>
<td></td>
<td>2018-242Q</td>
</tr>
<tr>
<td>Facility</td>
<td>Facility 10965 McHenry Street Meadville, PA</td>
</tr>
<tr>
<td>Product</td>
<td>EM Type 3: SS-1hP, CSS-1hP, CQS-1hP</td>
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<td>2018-241Q</td>
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<tr>
<td>Product</td>
<td>EM Type 4: AEP</td>
</tr>
<tr>
<td></td>
<td>2018-242Q</td>
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<tr>
<td>Product</td>
<td>EM Type 5: E-1 Prime</td>
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<tr>
<td></td>
<td>2018-242Q</td>
</tr>
<tr>
<td>Product</td>
<td>EM Type 6: EDP</td>
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<tr>
<td></td>
<td>2018-242Q</td>
</tr>
<tr>
<td>Product</td>
<td>EM Type 7: UTFCEM</td>
</tr>
<tr>
<td></td>
<td>2018-242Q</td>
</tr>
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</table>

TSA-1 15 | Tri-State Asphalt, LLC, PO Box 470, 1362 Bungalow Road, Morris, IL 60450 [https://www.tsasphalt.com/](https://www.tsasphalt.com/) |
| Facility | Facility 10965 McHenry Street Meadville, PA |
| Product | 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 |
| Product | EM Type 3: SS-1hP, CSS-1hP, CQS-1hP |
| | 2018-241Q |
| Product | EM Type 4: AEP |
| | 2018-242Q |
| Product | EM Type 5: E-1 Prime |
| | 2018-242Q |
| Product | EM Type 6: EDP |
| | 2018-242Q |
| Product | EM Type 7: UTFCEM |
| | 2018-242Q |
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.
Vestal Asphalt, Inc., 209 Stage Road, Vestal, NY 13850 http://vestalasphalt.com/ VESTA 15 2019-075Q
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, E-10, AE-T
(Also evaluated per PEQ 2018-232Q)
EM Type 2: RS-2P, CRS-2P, HFRS-2P
EM Type 3: SS-1hP, CSS-1hP, CQS-1hP
EM Type 4: AEP
EM Type 5: E-1 Prime
EM Type 6: EDP
EM Type 7: UTFCEM

702d PG Asphalt Cement

PG-Binder 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.

Section 702: Asphalt Material

702d PG Asphalt Cement

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<table>
<thead>
<tr>
<th>Product Name</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>Apex Oil Company, Inc., 8235 Forsyth Boulevard, Suite 400, St. Louis, MO 63105</td>
<td><a href="http://www.apexoil.com/">http://www.apexoil.com/</a></td>
<td>APEX1 15</td>
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<tr>
<td>Terminal 1622 South Clinton Street Baltimore, MD 21224</td>
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<tr>
<td>PG 58-28 (PG 58S-28)</td>
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</tr>
<tr>
<td>PG 64-22 (PG 64S-22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PG 64-22 (PG 64S-22) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td></td>
<td>2014-219Q</td>
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<tr>
<td>PG 76-22 (PG 64E-22)</td>
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<tr>
<td>PG 76-22 (PG 64E-22) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
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<td>2017-203Q</td>
</tr>
<tr>
<td>Associated Asphalt, 5201 Causeway Blvd., Tampa, FL 33675</td>
<td><a href="http://associatedasphalt.com/">http://associatedasphalt.com/</a></td>
<td>ASSA1 15</td>
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<tr>
<td>Refinery Associated Asphalt Paulsboro 4 Paradise Road Paulsboro, NJ 08066-1740</td>
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<td></td>
</tr>
<tr>
<td>(Formerly AXON1 15)</td>
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<tr>
<td>PG 58-28 (PG 58S-28)</td>
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</tr>
<tr>
<td>PG 58-28 (PG 58S-28) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
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<td>2009-093Q</td>
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<tr>
<td>PG 64-22 (PG 64S-22)</td>
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</tr>
<tr>
<td>PG 64-22 (PG 64S-22) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
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<td>2009-046Q</td>
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<tr>
<td>PG 76-22 (PG 64E-22)</td>
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<td></td>
</tr>
<tr>
<td>PG 76-22 (PG 64E-22) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td></td>
<td>2009-040Q</td>
</tr>
</tbody>
</table>
Section 702: Asphalt Material

702d PG Asphalt Cement

PG-Binder 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>
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</thead>
<tbody>
<tr>
<td>Terminal</td>
<td>Associated Asphalt Baltimore  1800 Frankfurst Avenue  Baltimore, MD 21226</td>
<td>Terminal ASSA1 15, Ref. No. 2009-093Q</td>
</tr>
<tr>
<td>PG 58-28 (PG 58S-28)</td>
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<td>2012-042Q</td>
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<tr>
<td>PG 64-22 (PG 64S-22)</td>
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<td>2012-045Q</td>
</tr>
<tr>
<td>PG 64-22 (PG 64S-22) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>Terminal for ASSA1 15, Ref. No. 2009-046Q</td>
<td>2012-046Q</td>
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<tr>
<td>PG 64-22 (PG 64E-22)</td>
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<td>2012-046Q</td>
</tr>
<tr>
<td>PG 64-22 (PG 64E-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) |
| PG 64-22 (PG 64S-22) | ----- |
Section 702: Asphalt Material

702d PG Asphalt Cement

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal</td>
<td>Associated Asphalt Gloucester [BKEP Materials, LLC] 201 Water Street [King Street &amp; Jersey Avenue] Gloucester City, NJ 08030 (Formerly AXON7 15)</td>
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<td><strong>PG 58-28 (PG 58S-28)</strong></td>
<td>2016-284Q</td>
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<td><strong>PG 64-22 (PG 64S-22)</strong></td>
<td>2009-096Q</td>
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<tr>
<td></td>
<td><strong>PG 76-22 (PG 64E-22)</strong></td>
<td>2009-097Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>Associated Asphalt Martinsburg, LLC 855 Corning Way Martinsburg, WV 25405</td>
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<td><strong>PG 64-22 (PG 64S-22)</strong></td>
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<td></td>
<td><strong>PG 76-22 (PG 64E-22)</strong></td>
<td>2008-075Q</td>
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<tr>
<td>Refinery</td>
<td>4 Paradise Road Paulsboro, NJ 08066-1740</td>
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<tr>
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<td><strong>Formerly: Axeon Specialty Products, LLC</strong></td>
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<td>Use ASSA1 15 for supplier code</td>
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<tr>
<td>Terminal</td>
<td>Nustar Energy LP Terminal Baltimore, MD</td>
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<td><strong>Formerly: Axeon Specialty Products, LLC</strong></td>
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<td>Use ASSA3 15 for supplier code</td>
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<td>Terminal</td>
<td>Kinder Morgan Terminal Perth Amboy, NJ</td>
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<td><strong>Formerly: Axeon Specialty Products, LLC</strong></td>
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<td>Use ASSA4 15 for supplier code</td>
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Section 702: Asphalt Material

702d PG Asphalt Cement

PG-Binder 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>
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</thead>
<tbody>
<tr>
<td>AXON7 15</td>
<td>Associated Asphalt Company, 5201 Causeway Blvd., Tampa, FL 33675 <a href="http://associatedasphalt.com/">http://associatedasphalt.com/</a></td>
<td>-</td>
</tr>
<tr>
<td>Terminal</td>
<td>Gloucester City Terminal  Gloucester City, NJ</td>
<td></td>
</tr>
<tr>
<td>Formerly: Axeon Specialty Products, LLC</td>
<td>Use ASSA7 15 for supplier code</td>
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</tr>
<tr>
<td>BIT-0 15</td>
<td>Bitumar USA, Inc., 6000 Pennington Avenue, Baltimore, MD 21226 <a href="http://www.bitumar.com/home.html">http://www.bitumar.com/home.html</a></td>
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- PG 58-28 (PG 58S-28) 2008-085Q
- PG 58-28 (PG 58S-28) Modified with Evotherm® J1 Warm Mix Technology with Anti-Strip Additives 2019-038Q
- PG 58-28 (PG 58S-28) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives 2018-281Q
- PG 64-22 (PG 64S-22) 2008-084Q
- PG 64-22 (PG 64S-22) Modified with Evotherm® J1 Warm Mix Technology with Anti-Strip Additives 2019-039Q
- PG 64-22 (PG 64S-22) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives 2012-181QA
- PG 64-22 (PG 64S-22) Modified with Sasobit Warm Mix Technology 2011-118Q
- PG 64-22 (PG 64S-22) Modified with SonneWarmix Warm Mix Technology 2013-067Q
- PG 76-22 (PG 64E-22) 2008-048Q
- PG 76-22 (PG 64E-22) Modified with Evotherm® J1 Warm Mix Technology with Anti-Strip Additives 2019-040Q
- PG 76-22 (PG 64E-22) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives 2013-066Q
Section 702: Asphalt Material

702d PG Asphalt Cement

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>BIT-3 15 Terminal</td>
<td>Bitumar USA, Inc., 6000 Pennington Avenue, Baltimore, MD 21226 <a href="http://www.bitumar.com/en">http://www.bitumar.com/en</a></td>
<td>2017-330Q</td>
</tr>
<tr>
<td>ERIEM 15 Terminal</td>
<td>Erie Materials, Inc., 4507 Tiffin Ave, P.O. Box 2308, Sandusky, OH 44870</td>
<td>2016-134Q</td>
</tr>
<tr>
<td>GARD3 15 Terminal</td>
<td>Gardner Asphalt Supply, LLC, 4161 E 7th Ave, Tampa, FL 33605</td>
<td>2016-135Q</td>
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</table>
Section 702: Asphalt Material

**702d PG Asphalt Cement**

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<thead>
<tr>
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<th>Name</th>
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<tr>
<td>MARA1 15 Refinery</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174 <a href="http://www.marathonpetroleum.com/">http://www.marathonpetroleum.com/</a></td>
<td>MARA1 15</td>
</tr>
<tr>
<td></td>
<td>11631 US Route 23 Catlettsburg, KY</td>
<td></td>
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<td>PG 52-28</td>
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<td>PG 58-28 (PG 58S-28)</td>
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<tr>
<td></td>
<td>PG 64-22 (PG 64S-22)</td>
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</tr>
<tr>
<td>MARA1015 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>MARA1015</td>
</tr>
<tr>
<td></td>
<td>21st Street at Nevada St Wellsville, OH 43968</td>
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<tr>
<td></td>
<td>PG 58-28 (PG 58S-28)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 64-22 (PG 64S-22)</td>
<td></td>
</tr>
<tr>
<td>MARA2 15 Refinery</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174 <a href="http://www.marathonpetroleum.com/">http://www.marathonpetroleum.com/</a></td>
<td>MARA2 15</td>
</tr>
<tr>
<td></td>
<td>301 S. Fort St Detroit, MI 48217</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 52-28</td>
<td></td>
</tr>
<tr>
<td>MARA3 15 Refinery</td>
<td>Marathon Petroleum LLC, 28001 Citrin Drive, Romulus, MI 48174 <a href="http://www.marathonpetroleum.com/">http://www.marathonpetroleum.com/</a></td>
<td>MARA3 15</td>
</tr>
<tr>
<td></td>
<td>2408 Gambrinus Avenue, SW Canton, OH 44706</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 52-28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 58-28 (PG 58S-28)</td>
<td></td>
</tr>
<tr>
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<td>PG 64-22 (PG 64S-22)</td>
<td></td>
</tr>
<tr>
<td>MARA6 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>MARA6 15</td>
</tr>
<tr>
<td></td>
<td>11001 Brower Road North Bend, OH 45052</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 76-22 (PG 64E-22)</td>
<td></td>
</tr>
</tbody>
</table>
Section 702: Asphalt Material

702d PG Asphalt Cement

PG-Binder 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>
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<tbody>
<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>
<td>MARA7 15</td>
</tr>
<tr>
<td>Terminal</td>
<td>2000 Central Furnace Court Cleveland, OH 44115</td>
<td></td>
</tr>
<tr>
<td>PG 52-28</td>
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<td>PG 58-28 (PG 58S-28)</td>
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<td>PG 64-22 (PG 64S-22)</td>
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<tr>
<td>PG 76-22 (PG 64E-22)</td>
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</tr>
<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>
<td>MARA8 15</td>
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<tr>
<td>Terminal</td>
<td>Floreffe PA Asphalt Terminal 1100 Glasshouse Road Jefferson Hills, PA 15025</td>
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<td>PG 52-28</td>
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<td>PG 58-28 (PG 58S-28)</td>
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<td>PG 64-22 (PG 64S-22)</td>
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<tr>
<td>PG 76-22 (PG 64E-22)</td>
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<tr>
<td>Terminal</td>
<td>Lyons, NY</td>
<td></td>
</tr>
<tr>
<td>PG 58-28 (PG 58S-28)</td>
<td></td>
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<tr>
<td>Provisionally Approved</td>
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<td>---</td>
</tr>
<tr>
<td>PG 64-22 (PG 64S-22)</td>
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<tr>
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<td>---</td>
</tr>
<tr>
<td>PG 76-22 (PG 64E-22)</td>
<td></td>
<td>---</td>
</tr>
<tr>
<td>NJAT1 15</td>
<td>CL Consulting and Management Corp, 625 Mt. Hope Road, Wharton, NJ 07885</td>
<td>NJAT1 15</td>
</tr>
<tr>
<td>Terminal</td>
<td>New Jersey Asphalt Terminals 534 South Front Street Elizabeth, NJ 07202</td>
<td></td>
</tr>
<tr>
<td>PG 64-22 (PG 64S-22)</td>
<td></td>
<td>2015-156Q</td>
</tr>
<tr>
<td>PG 76-22 (PG 64E-22)</td>
<td></td>
<td>2015-157Q</td>
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</tbody>
</table>
## Section 702: Asphalt Material

### 702d PG Asphalt Cement

PG-Binder 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>PARCO 15</td>
<td>Parco Athens, 2 Union Street, Athens, NY 12015</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 64-22 (PG 64S-22)</td>
<td></td>
</tr>
<tr>
<td>PARCOA15</td>
<td>Parco Athens, 2 Union Street, Athens, NY 12015</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>PARCO - Athens Terminal 2 Union Street Extension Athens, NY 12015</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PG 64-22 (PG 64S-22)</td>
<td>2017-051Q</td>
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<tr>
<td>PARCOB15</td>
<td>Peckham Industries, Inc., 20 Haarlem Ave, White Plains, NY 10603</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>PARCO - Bronx 939 East 138th Street Bronx, NY 10454</td>
<td></td>
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<tr>
<td></td>
<td>PG 64-22 (PG 64S-22)</td>
<td>2016-240Q</td>
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<tr>
<td>PARCOC15</td>
<td>Peckham Industries, Inc., 20 Haarlem Ave, White Plains, NY 10603</td>
<td></td>
</tr>
<tr>
<td>Terminal</td>
<td>PARCO - West Athens Terminal 763 Schoharie Turnpike Athens, NY 12015</td>
<td></td>
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<td>PG 64-22 (PG 64S-22)</td>
<td>2017-052Q</td>
</tr>
<tr>
<td>PARCOD15</td>
<td>Peckham Industries, Inc., 20 Haarlem Ave, White Plains, NY 10603</td>
<td></td>
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<tr>
<td>Terminal</td>
<td>PARCO - Bridgeport Terminal 1 Seaview Avenue Bridgeport, CT 06607</td>
<td></td>
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<td>PG 64-22 (PG 64S-22)</td>
<td>2017-050Q</td>
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<tr>
<td>PAUR-15</td>
<td>PBF Holding, LLC, 1 Sylvan Way, Second Floor, Parsippany, NJ 07054</td>
<td></td>
</tr>
<tr>
<td>Refinery</td>
<td>Paulsboro Refining Company, LLC 800 Billingsport Road Paulsboro, NJ 08066</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Note: Please use PBFH2 15 as the supplier code</strong></td>
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<tr>
<td></td>
<td>PG 58-28 (PG 58S-28)</td>
<td>2015-135Q</td>
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<tr>
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<td>PG 64-22 (PG 64S-22)</td>
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</tr>
</tbody>
</table>
## Section 702: Asphalt Material

### 702d PG Asphalt Cement

PG-Binder 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>Terminal</th>
<th>Name</th>
<th>Refer. No.</th>
</tr>
</thead>
</table>
| PBFH0 15 | PBF Holding, LLC, 1 Sylvan Way, Second Floor, Parsippany, NJ 07054  
Terminal PBF Logistics Terminal, LLC  3400 S. 67th Street  Philadelphia, PA 19153 |  
PG 58-28 (PG 58S-28)  
PG 58-28 (PG 58S-28) Modified with Evotherm® M1 Warm Mix  
Technology with Anti-Strip Additives  
PG 64-22 (PG 64S-22)  
PG 64-22 (PG 64S-22) Modified with Evotherm® M1 Warm Mix  
Technology with Anti-Strip Additives | 2014-159Q  
2016-008Q  
---  
2016-007Q |
Owens Corning Roofing and Asphalt, LLC  1249 Newark Turnpike  Kearny, NJ 07032 |  
PG 64-22 (PG 64S-22)  
PG 76-22 (PG 64E-22) | 2017-116Q  
2017-080Q |
Paulsboro Refining Company, LLC  800 Billingsport Road  Paulsboro, NJ 08066  
**Note: Formerly PAUR- 15** |  
PG 58-28 (PG 58S-28)  
PG 64-22 (PG 64S-22) | 2015-135Q  
--- |
| RUSS0 15 | Russell Standard Corporation, 1210 Perry Highway, P.O. Box 509, Mercer, PA 16137 [http://www.russellstandard.com/](http://www.russellstandard.com/) |  
PG 64-22 (PG 64S-22) | ----- |
| SHSA1 15 | Shelly & Sands Inc., 3570 South River Road, P. O. Box 1585, Zanesville, OH 43702 [http://shellyandsands.com/](http://shellyandsands.com/)  
S&S Terminal  1731 Old State Route 7  Rayland, OH |  
PG 64-22 (PG 64S-22)  
PG 76-22 (PG 64E-22) | 2019-124Q |
Section 702: Asphalt Material

702d PG Asphalt Cement

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<td>PG 52-28</td>
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<td>PG 58-28 (PG 58S-28)</td>
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<td>PG 64-22 (PG 64S-22)</td>
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<td>PG 76-22 (PG 64E-22)</td>
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<td>PG 58-28 (PG 58S-28)</td>
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<td>PG 64-22 (PG 64S-22)</td>
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<tr>
<td></td>
<td>PG 76-22 (PG 64E-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>
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<tr>
<td></td>
<td>PG 58-28 (PG 58S-28)</td>
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<tr>
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<td>PG 58-28 (PG 58S-28) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>2013-202Q</td>
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<td>PG 64-22 (PG 64S-22)</td>
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<td>PG 64-22 (PG 64S-22) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>2011-071QB</td>
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<td>PG 76-22 (PG 64E-22)</td>
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<td>PG 76-22 (PG 64E-22) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>2013-201Q</td>
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</table>
## Section 702: Asphalt Material

### 702d PG Asphalt Cement

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<table>
<thead>
<tr>
<th>Product</th>
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<tr>
<td></td>
<td>10965 McHenry Street Meadville, PA</td>
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<td>PG 58-28 (PG 58S-28)</td>
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<td>PG 64-22 (PG 64S-22)</td>
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<tr>
<td></td>
<td>PG 76-22 (PG 64E-22)</td>
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<tr>
<td></td>
<td>3900 River Road Tonawanda, NY 14150</td>
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<td>PG 58-28 (PG 58S-28)</td>
<td>2016-124Q</td>
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<td>PG 64-22 (PG 64S-22)</td>
<td>2016-122Q</td>
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<td>PG 76-22 (PG 64E-22)</td>
<td>2016-123Q</td>
</tr>
<tr>
<td>TRI-1 15 Terminal</td>
<td>Tri State Materials / All States Materials Group, 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>
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<tr>
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<td>PG 64-22 (PG 64S-22)</td>
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<td>Provisionally Approved</td>
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<tr>
<td>TRI-2 15 Terminal</td>
<td>Tri State Materials / All States Materials Group, 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>
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<td>PG 58-28 (PG 58S-28)</td>
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<tr>
<td></td>
<td>PG 64-22 (PG 64S-22)</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>
<td></td>
</tr>
<tr>
<td></td>
<td>Kearny, NJ</td>
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<td>PG 64-22 (PG 64S-22)</td>
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</table>
Section 702: Asphalt Material

**702d PG Asphalt Cement**

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td><strong>UNRC0 15</strong></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>
<td>PG 52-28</td>
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<tr>
<td>PG 58-28 (PG 58S-28)</td>
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</tr>
<tr>
<td>PG 58-28 (PG 58S-28) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
<td>2012-021QA</td>
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</tr>
<tr>
<td>PG 58-28 (PG 58S-28) Modified with SonneWarmix RT Warm Mix Technology</td>
<td>2017-229Q</td>
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<td>PG 64-22 (PG 64S-22)</td>
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<td>PG 64-22 (PG 64S-22) Modified with Evotherm® M1 Warm Mix Technology with Anti-Strip Additives</td>
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<tr>
<td>PG 64-22 (PG 64S-22) Modified with SonneWarmix RT Warm Mix Technology</td>
<td>2017-228Q</td>
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| PG 64-22 (PG 64S-22) | | --- |

| PG 58-28 (PG 58S-28) | | --- |
| PG 64-22 (PG 64S-22) | | --- |

| **WARMA 15** | Warden Modified Asphalt L.P., 1210 Perry Highway, P.O. Box 509, Mercer, PA 16137 [http://wardenasphalt.com/](http://wardenasphalt.com/) | |
| PG 64-22 (PG 64S-22) | | --- |
| PG 76-22 (PG 64E-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</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>DODGE 15</td>
<td>Dodge-Regupol, Inc., 715 Fountain Ave., Lancaster, PA 17601</td>
<td>CEJ 6510</td>
</tr>
<tr>
<td>HUNTN 15</td>
<td>Hunton Fiber, P.O. Box 578, Grasonville, MD 21638</td>
<td>Nor-Board</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>Reflex</td>
</tr>
<tr>
<td>KNICE 15</td>
<td>Knight - Celotex, One Northfield Plaza, Suite 400, Northfield, AZ 60093</td>
<td>Conflex Bituminous</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>Sealtight Cork</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>Sealight Fibre</td>
</tr>
<tr>
<td>MONAR 15</td>
<td>Monarch Rubber Company, 3500 Pulaski Highway, Baltimore, MD 21224</td>
<td>Sealight Sponge</td>
</tr>
<tr>
<td>RTPTC 15</td>
<td>Right Pointe Company, 234 Harvestore Drive, Dekalb, IL 60115</td>
<td>Sealight Cork</td>
</tr>
<tr>
<td>STEIC 15</td>
<td>Steico SE, Otto-Lilienthal-Ring 30, Feldkirchen, Germany</td>
<td>Sealight Fibre</td>
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Last Revised: 7/20/2017
## Section 705: Joint Material

### 705.1 Premolded Expansion Joint Filler

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

### 705.2(b) Longitudinal Joint Material

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
| SIMP 15  | Simplex Construction Supplies, Inc., 2150B South Route 45-52, Kankakee, IL 60901 [https://www.simplex-usa.com/](https://www.simplex-usa.com/)  
| WADY 15  | Wady Industries, Inc., 510 E. Grove St., Maquoketa, IA 52060 | Tie Bolt Wiggle Bolt (Slip Form) 1990-333B |

### 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 Name Ref. No.</th>
<th>Product Name</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>Dowel Bars, Fabricator</td>
<td>2017-316Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Load Transfer Assembly</td>
<td>2017-316Q</td>
</tr>
<tr>
<td>CONTM 15</td>
<td>Contractors Materials Company, 10320 South Medallion Drive, Cincinnati, OH 45241 <a href="http://cmcmmi.com/">http://cmcmmi.com</a></td>
<td>Dowel Bars, Fabricator</td>
<td>2015-178Q</td>
</tr>
<tr>
<td>DAYT4 15</td>
<td>Dayton Superior Corporation, 4201 Montdale Drive, Valparaiso, IN 46383 <a href="http://www.daytonsuperior.com/">http://www.daytonsuperior.com</a></td>
<td>Dowel Bars, Fabricator</td>
<td>2000-344Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Load Transfer Assembly</td>
<td>2000-344Q</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>Dowel Bars, Fabricator</td>
<td>1996-160</td>
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<tr>
<td></td>
<td></td>
<td>Load Transfer Assembly</td>
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</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>Dowel Bars, Fabricator</td>
<td>------</td>
</tr>
<tr>
<td></td>
<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>SIMP15</td>
<td>Simplex Construction Supplies, Inc., 2150B South Route 45-52, Kankakee, IL 60901</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Dayton Superior Corporation (DAYT5 15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Epoxy Coater</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>TYEBR15</td>
<td>TyE Bar, LLC, 1050 Ohio Avenue, Glassport, PA 15045</td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>1050 Ohio Avenue Glassport, PA 15045</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Fabricator</td>
<td>2015-084Q</td>
</tr>
<tr>
<td></td>
<td>Load Transfer Assembly</td>
<td>2016-141Q</td>
</tr>
<tr>
<td>VIMC-15</td>
<td>Vimco, Inc., 300 Hansen Access Road, King of Prussia, PA 19406</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://vimcoinc.com/">http://vimcoinc.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Fabricator</td>
<td>2012-242Q</td>
</tr>
<tr>
<td></td>
<td>Load Transfer Assembly</td>
<td>2012-242Q</td>
</tr>
<tr>
<td>WADY-15</td>
<td>Wady Industries, Inc., 510 E. Grove St., Maquoketa, IA 52060</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Epoxy Coater</td>
<td>1996-110</td>
</tr>
<tr>
<td></td>
<td>Dowel Bars, Fabricator</td>
<td>1982-059</td>
</tr>
<tr>
<td></td>
<td>Load Transfer Assembly</td>
<td>1982-059</td>
</tr>
</tbody>
</table>

705.4(a) Joint Sealing Material (Silicone)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRAFO15</td>
<td>Crafo, Inc., 6165 W. Detroit Street, Chandler, AZ 85226</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>121 Industrial Park Road Halls, TN 38040</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Silicone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Roadsaver Non-Sag Silicone (34902)</td>
<td>2000-110Q</td>
</tr>
</tbody>
</table>
Section 705: Joint Material

705.4(a) Joint Sealing Material (Silicone)  

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
| DOW-4 15 | The Dow Chemical Company, 2200 W. Salzburg Road, P. O. Box 994, Midland, MI 48686 [http://www.dow.com/](http://www.dow.com/)  
Formerly Dow Corning Corporation | Silicone  
DOWSIL 888 Silicone Joint Sealant | 1996-002 |
| SIKA4 15 | Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 [http://usa.sika.com/](http://usa.sika.com/)  
Lakewood, NJ | Silicone  
Sikasil 728 NS | 2012-210Q |
Spectrem 800 Low Modulus Silicone | 2001-123Q |

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

In accordance with Standard Special Provision C-a00057-A, which is effective for projects let after 10/19/2018, 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>
</table>
121 Industrial Park Road  
Halls, TN 38040 | Type IV, ASTM D6690  
RoadSaver 231 | 1999-047Q |
Flex-A-Fill 9005  
Roadsaver 221  
RoadSaver 231 | 2016-256Q  
2008-128QB  
1999-047Q |
| CRAF4 15 | Crafco, Inc. (Deery Brand), 912 Salt Springs Road, Youngstown, OH 44509 [http://www.deeryamerican.com/](http://www.deeryamerican.com/)  
Formerly Deery American Corporation (DEERY 15) | Type II, ASTM D6690  
Type IV, ASTM D6690  
Deery 102  
Deery 101 | 2008-129A  
1999-113 |
# Section 705: Joint Material

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

In accordance with Standard Special Provision C-a00057-A, which is effective for projects let after 10/19/2018, 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, 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>Type II, ASTM D6690</td>
<td>Elastoflex 61</td>
<td></td>
</tr>
<tr>
<td>Type IV, ASTM D6690</td>
<td>Beram 195</td>
<td></td>
</tr>
<tr>
<td>Type IV, ASTM D6690</td>
<td>Beram 195 LM</td>
<td></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>Type II, ASTM D6690</td>
<td>Beram 195</td>
<td></td>
</tr>
<tr>
<td>Type IV, ASTM D6690</td>
<td>Beram 195 LM</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 <a href="http://www.wrmeadows.com">http://www.wrmeadows.com</a></td>
<td>2008-131Q</td>
</tr>
<tr>
<td>Type II, ASTM D6690</td>
<td>3405 (Sealtight)</td>
<td></td>
</tr>
<tr>
<td>Type IV, ASTM D6690</td>
<td>3405-M</td>
<td></td>
</tr>
<tr>
<td>Type II, ASTM D6690</td>
<td>Dura-Fill 3405</td>
<td></td>
</tr>
<tr>
<td>Type IV, ASTM D6690</td>
<td>Dura-Fill 3405 LM (K)</td>
<td></td>
</tr>
<tr>
<td>RTPT2 15</td>
<td>Right Pointe Company, 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 Sharpsville, PA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type II, ASTM D6690</td>
<td>RP 3405</td>
<td></td>
</tr>
<tr>
<td>Formerly #3405 Regular</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type IV, ASTM D6690</td>
<td>RP Type 4 ELT</td>
<td></td>
</tr>
<tr>
<td>Formerly #3405 Modified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RTPTC 15</td>
<td>Right Pointe Company, 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>Type II, ASTM D6690</td>
<td>RP 3405</td>
<td></td>
</tr>
<tr>
<td>Formerly #3405 Regular</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type IV, ASTM D6690</td>
<td>RP Type 4 ELT</td>
<td></td>
</tr>
<tr>
<td>Formerly #3405 Modified</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## 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>
</tr>
</thead>
<tbody>
<tr>
<td>CRAF2 15</td>
<td>Crafo, Inc., 1680 East Race Street, Allentown, PA 18103 <a href="http://www.crafco.com/">http://www.crafco.com</a></td>
<td>Type I, ASTM D 6690</td>
</tr>
<tr>
<td>CRAF4 15</td>
<td>Crafo, Inc. (Deery Brand), 912 Salt Springs Road, Youngstown, OH 44509 <a href="http://www.deeryamerican.com/">http://www.deeryamerican.com</a> <strong>Formerly Deery American Corporation (DEERY 15)</strong></td>
<td>Type I, ASTM D 6690</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Type I, ASTM D 6690</td>
</tr>
</tbody>
</table>

Conditionally approved for use according to the manufacturer's specifications and usage guidelines.

| MAXPR 15 | Maxwell Products, 650 South DeLong Street, Salt Lake City, UT 84104 [http://maxwellproducts.com](http://maxwellproducts.com) | Type I, ASTM D 6690 | Elastoflex 410 | 2016-185Q |
| MCASP 15 | McAsphalt Industries Limited, 8800 Sheppard Avenue, East, Scarborough, Ontario Canada [http://www.mcasphalt.com](http://www.mcasphalt.com/) | Type I, ASTM D 6690 | Beram 190 | 2008-130QB |
| RTPT2 15 | Right Pointe Company, 234 Harvestore Drive, Dekalb, IL 60115 [http://www.rightpointe.com](http://www.rightpointe.com/) **Facility Sharpsville, PA** | Type I, ASTM D 6690 | RP 1190 | 2016-301Q |
|         |       | Formerly #1190 |  |  |
|         |       | Type I, ASTM D 6690 | RP Gray Sealant | 2017-195Q |
|         |       | Formerly #1190 | 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. |  |
| RTPTC 15 | Right Pointe Company, 234 Harvestore Drive, Dekalb, IL 60115 [http://www.rightpointe.com](http://www.rightpointe.com/) | Type I, ASTM D 6690 | RP 1190 | 2010-209Q |
|         |       | Formerly #1190 |  |  |
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>
<tbody>
<tr>
<td>Bridge Seal CA-6000 (6&quot;)</td>
<td>3.0 in.</td>
<td>1994-300</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-1625</td>
<td>0.5 in.</td>
<td>1989-233</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-1752</td>
<td>0.5 in.</td>
<td>2013-107Q</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-2000</td>
<td>0.5 in.</td>
<td>1989-161</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-2250</td>
<td>0.5 in.</td>
<td>2013-108Q</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-2502</td>
<td>1.0 in.</td>
<td>1989-071</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-3000</td>
<td>1.0 in.</td>
<td>1989-162</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-3500</td>
<td>1.5 in.</td>
<td>1989-054</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-4000</td>
<td>1.5 in.</td>
<td>1989-168</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-5000</td>
<td>2.0 in.</td>
<td>1991-130</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-6000</td>
<td>2.5 in.</td>
<td>1989-035</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal CV-6000-A</td>
<td>2.5 in.</td>
<td>1992-002</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal K-4000</td>
<td>2.0 in.</td>
<td>1993-273</td>
<td></td>
</tr>
<tr>
<td>Bridge Seal V-1625</td>
<td>0.5 in.</td>
<td>1993-030</td>
<td></td>
</tr>
<tr>
<td>Strip Seal Gland A2R-400</td>
<td>4.0 in.</td>
<td>2004-162Q</td>
<td></td>
</tr>
<tr>
<td>Strip Seal Gland A2R-EXTRA</td>
<td>7.0 in.</td>
<td>2004-166Q</td>
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</tr>
<tr>
<td>Strip Seal Gland E2M, WB-400</td>
<td>4.0 in.</td>
<td>2004-163Q</td>
<td></td>
</tr>
<tr>
<td>Strip Seal Gland L2-400</td>
<td>4.0 in.</td>
<td>2004-168Q</td>
<td></td>
</tr>
<tr>
<td>Strip Seal Gland L2-500</td>
<td>5.0 in.</td>
<td>2004-164Q</td>
<td></td>
</tr>
<tr>
<td>Strip Seal Gland SE-300</td>
<td>3.0 in.</td>
<td>2009-195Q</td>
<td></td>
</tr>
<tr>
<td>Strip Seal Gland SE-400</td>
<td>4.0 in.</td>
<td>2009-196Q</td>
<td></td>
</tr>
</tbody>
</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></td>
<td>Plant Streetsboro, OH Licensing Company: Watson Bowman Acme (BASF)</td>
<td>Bridge Seal WA-200 1.0 in.</td>
<td>2010-222QB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bridge Seal WA-250 1.0 in.</td>
<td>2010-222QC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bridge Seal WA-300 1.5 in.</td>
<td>2010-222QD</td>
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<tr>
<td></td>
<td></td>
<td>Bridge Seal WA-350 1.5 in.</td>
<td>2010-222QE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bridge Seal WA-400 2.0 in.</td>
<td>2010-222QF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strip Seal Gland SE-300 3.0 in.</td>
<td>2009-087Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strip Seal Gland SE-400 4.0 in.</td>
<td>2009-152Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strip Seal Gland SE-500 5.0 in.</td>
<td>2009-153Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Strip Seal Gland SE-800 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></td>
<td>Lubricant Adhesive 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>RASCP 15 Plant</td>
<td>Royal Adhesives and Sealants, 2001 W Washington Street, South Bend, IN</td>
<td><a href="http://www.royaladhesives.com/">http://www.royaladhesives.com/</a></td>
</tr>
<tr>
<td></td>
<td>266 Humberline Drive Toronto, Ontario, Canada M9W 5X1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lubricant Adhesive</td>
<td>D.S. Brown DSB 1520</td>
</tr>
</tbody>
</table>

*Manufactured for D.S. Brown by Royal Adhesives & Sealants.*

### 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>MEDWO 15 Plant</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>
</tr>
<tr>
<td></td>
<td>Preformed Closed Cell Polyethylene Joint Filler</td>
<td>Ceramar 1&quot;</td>
</tr>
<tr>
<td></td>
<td>Preformed Closed Cell Polyethylene Joint Filler</td>
<td>Ceramar 1/2&quot;</td>
</tr>
<tr>
<td></td>
<td>Preformed Closed Cell Polyethylene Joint Filler</td>
<td>Ceramar 2&quot;</td>
</tr>
<tr>
<td></td>
<td>Preformed Closed Cell Polyethylene Joint Filler</td>
<td>Ceramar 3/4&quot;</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>CRAF2 15 Plant</td>
<td>Crafco, Inc., 1680 East Race Street, Allentown, PA 18103</td>
<td><a href="http://www.crafco.com/">http://www.crafco.com/</a></td>
</tr>
<tr>
<td></td>
<td>Asphalt Rubber Sealing Compound</td>
<td>Asphalt Rubber Type 2, Part No. 34232</td>
</tr>
<tr>
<td></td>
<td>Asphalt Rubber Sealing Compound</td>
<td>PolyFlex 601</td>
</tr>
</tbody>
</table>

| CRAF4 15 Plant   | Crafco, Inc. (Deery Brand), 912 Salt Springs Road, Youngstown, OH 44509 | http://www.deeryamerican.com/ |
|                  | Formerly Deery American Corporation (DEERY 15) |                  |
|                  | Asphalt Rubber Sealing Compound | Deery 5078 | 1999-060Q |
|                  | Asphalt Rubber Sealing Compound | PolyFlex 601 | 2019-021Q |

| MAXPR 15 Plant   | Maxwell Products, 650 South Delong Street, Salt Lake City, UT 84104 | http://maxwellproducts.com |
|                  | Asphalt Rubber Sealing Compound | Elastoflex 650 | 2016-186Q |
## 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>RTPTC 15</td>
<td>Right Pointe Company, 234 Harvestore Drive, Dekalb, IL 60115</td>
<td>2010-112Q</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>
</table>

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</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><strong>CONSE 15</strong></td>
<td>Concrete Sealants, Inc., 9325 State Route 201, Tipp City, OH 45371 <a href="http://www.conseal.com/">http://www.conseal.com/</a></td>
<td></td>
</tr>
<tr>
<td>Flexible Plastic Gasket (Hydrocarbon Blend)</td>
<td>ConSeal CS-102</td>
<td>1984-140</td>
</tr>
<tr>
<td>Flexible Plastic Gasket (Hydrocarbon Blend)</td>
<td>ConSeal CS-202</td>
<td>1984-140A</td>
</tr>
<tr>
<td><strong>CUSTM 15</strong></td>
<td>Custom Rubber Extrusions, 100 Romito Street, P.O. Box 1079, Ravenna, OH 44266</td>
<td></td>
</tr>
<tr>
<td>Elastomeric Gasket</td>
<td>Neoprene and Isoprene Gaskets</td>
<td>1996-019</td>
</tr>
<tr>
<td><strong>FORSH 15</strong></td>
<td>Forsheda Pipe Seal Corporation, 2200 South McDuffie St., Anderson, SC 29624</td>
<td></td>
</tr>
<tr>
<td>Elastomeric Gasket</td>
<td>Forsheda F-114</td>
<td>1990-238A</td>
</tr>
<tr>
<td>Prelubricated Utility Hole Joint Seal</td>
<td>Forsheda F-138</td>
<td>1990-237</td>
</tr>
<tr>
<td><strong>HAMLT 15</strong></td>
<td>Hamilton Kent, 77 Carlingview Drive, Etobicoke, Ontario M9W 5E6 Canada</td>
<td></td>
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<tr>
<td>Elastomeric Gasket</td>
<td>Tylox (O-Rings)</td>
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</tr>
<tr>
<td>Elastomeric Gasket</td>
<td>Tylox Superseal Gasket</td>
<td>1997-192</td>
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<tr>
<td>Elastomeric Gasket</td>
<td>O-Ring Concrete Pipe Gasket</td>
<td>2014-234Q</td>
</tr>
<tr>
<td>Elastomeric Gasket</td>
<td>RFS Prelubricated Concrete Pipe Gasket</td>
<td>2014-233Q</td>
</tr>
<tr>
<td>Elastomeric Gasket</td>
<td>Delta Seal Rubber Profile Gasket</td>
<td>2009-100QA</td>
</tr>
<tr>
<td><strong>RU-VA 15</strong></td>
<td>Ru Van, Inc., 1175 Diamond Ave., Evansville, IN 47711</td>
<td></td>
</tr>
<tr>
<td>Flexible Plastic Gasket (Hydrocarbon Blend)</td>
<td>RU-30 Butyl Sealant</td>
<td>1990-042</td>
</tr>
<tr>
<td><strong>TRE-2 15 Plant</strong></td>
<td>Trelleborg Pipe Seals, 250 Elm St., Milford, NH 03055 <a href="http://www.trelleborg.com/pipe-seals">http://www.trelleborg.com/pipe-seals</a></td>
<td></td>
</tr>
<tr>
<td>Formerly Bidco Sealants (BIDC-15)</td>
<td>Bidco C-56 Preformed Joint Sealant</td>
<td>1990-206</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>
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<td>Elastomeric Gasket Star Seal</td>
<td>1997-056</td>
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**705.5(c)2 Waterstops (Polyvinyl Chloride)**

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

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

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<th>Product</th>
<th>Name</th>
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<tr>
<td>WATER 15</td>
<td>Waterstop &amp; Accessories, 3400 Tree Court Indus. Blvd., St. Louis, MO 63122</td>
<td>2000-009Q</td>
</tr>
<tr>
<td>Polyvinyl Chloride Waterstop</td>
<td>RB6-316 (type C1)</td>
<td>2000-009Q</td>
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<tr>
<td>Polyvinyl Chloride Waterstop</td>
<td>RSB6-316 (type C2)</td>
<td>2000-009Q</td>
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<tr>
<td>Polyvinyl Chloride Waterstop</td>
<td>TBW6-18 (type E2)</td>
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#### 705.6 Graphite Lubricant

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<tr>
<th>Product</th>
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<tbody>
<tr>
<td>Graphite Lubricant</td>
<td>Sure-Slip Graphite Paste</td>
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<tr>
<td>Graphite Lubricant</td>
<td>Certi-Vex Sure Slide</td>
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</table>

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

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

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CEMX6 15</strong></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>2010-233QC</td>
</tr>
<tr>
<td>Plant</td>
<td>3250 Linebaugh Road, Xenia, OH 45385 (Formerly CEMEX, Inc.)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mortar (Masonry Joints and Horizontal Joints Between Utility Holes/Inlet Components)</td>
<td>Type N</td>
</tr>
<tr>
<td>Plant</td>
<td>3938 Easton Nazareth Highway, Nazareth, PA 18064 (Formerly Essroc ESS-7 15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mortar (Masonry Joints and Horizontal Joints Between Utility Holes/Inlet Components)</td>
<td>Type N</td>
</tr>
</tbody>
</table>

705.8(a) Caulking Compound (Pipe and Horizontal Joints Between Precast Components in Utility Holes and Inlets)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MCCAS 15</strong></td>
<td>McCann Shields Paint Company, 27 Alexander Street, Pittsburgh, PA 15220</td>
<td>1987-277</td>
</tr>
<tr>
<td></td>
<td>Caulking (Pipe Joints and Horizontal Joints Between Utility Holes/Inlet Components)</td>
<td>Sealing Mastic (Asbestos Free)</td>
</tr>
<tr>
<td><strong>SEABD 15</strong></td>
<td>Seaboard Asphalt Products Company, 3601 Fairfield Road, Baltimore, MD 21226 <a href="http://seaboardasphalt.com/">http://seaboardasphalt.com/</a></td>
<td>1994-206</td>
</tr>
<tr>
<td></td>
<td>Caulking (Pipe Joints and Horizontal Joints Between Utility Holes/Inlet Components)</td>
<td>MP-52</td>
</tr>
</tbody>
</table>

705.8(b) Caulking Compound (Other)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Caulking (Other)</td>
<td></td>
</tr>
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<td></td>
<td>Previous Name: Sonolastic NP 1</td>
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Section 705: Joint Material

705.8(b) Caulking Compound (Other)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>DOW-15</td>
<td>The Dow Chemical Company, 2200 W. Salzburg Road, P. O. Box 994, Midland, MI 48686</td>
<td>DOWSIL 790 Silicone Sealant</td>
</tr>
<tr>
<td></td>
<td>Formerly Dow Corning Corporation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Caulking (Other)</td>
<td></td>
</tr>
<tr>
<td>PECCR-15</td>
<td>Pecora Corporation, 165 Wambold Road, Harleysville, PA 19438</td>
<td>DYNATROL I-XL Polyurethane</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NR-300 urexpan Polyurethane</td>
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<tr>
<td></td>
<td></td>
<td>Pecora 864 Silicone</td>
</tr>
<tr>
<td>SCHMH-15</td>
<td>Schnee-Morehead, Inc., 111 North Nursery Road, P.O. Box 171305, Irving, TX 75017-1305</td>
<td>SM7108 Permathane</td>
</tr>
<tr>
<td>SIKA0-15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikaflex 15LM Polyurethane</td>
</tr>
<tr>
<td>Facility</td>
<td>201 Polito Avenue Lyndhurst, NJ 07071</td>
<td>Sikaflex 1a</td>
</tr>
<tr>
<td>SIKA1-15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikaflex 1a</td>
</tr>
<tr>
<td>Plant</td>
<td>1682 Marion Williamsport Road E Marion, OH 43302</td>
<td></td>
</tr>
<tr>
<td>SIKA2-15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikaflex 15LM Polyurethane</td>
</tr>
<tr>
<td>Plant</td>
<td>Lyndhurst, NJ</td>
<td>Sikaflex 1a</td>
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Section 705: Joint Material

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIK4 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></td>
<td>Caulking (Other)</td>
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<tr>
<td></td>
<td>Sikaflex 1a</td>
<td>1982-035</td>
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<td>Caulking (Other)</td>
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<td>Sikasil WS-290 (Type S Grade NS CL 100/50)</td>
<td>2013-032Q</td>
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<td>Caulking (Other)</td>
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<td></td>
<td>Sikasil WS-295 (Type S Grade NS CL 50)</td>
<td>2013-031Q</td>
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<td>Caulking (Other)</td>
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<td>Tremco Dymonic FC</td>
<td>2007-033Q</td>
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### 705.9 Joint Backing Material

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>INDUS 15</td>
<td>Industrial Thermo Polymers Limited, 153 Van Kirk Drive, Brampton, Ontario, Canada</td>
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<tr>
<td></td>
<td>Joint Backing Material</td>
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<tr>
<td></td>
<td>Blue-Grey, Closed Cell PE Foam</td>
<td>1991-172</td>
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<td></td>
<td>Joint Backing Material</td>
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<tr>
<td></td>
<td>Hot Rod XL (Black Cross Linked)</td>
<td>1991-173</td>
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<td></td>
<td>Joint Backing Material</td>
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<td></td>
<td>Cera-Rod (Heat Resistant)</td>
<td>1986-026</td>
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<td>Joint Backing Material</td>
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<td></td>
<td>Deck-O-Foam (Cold Application Only)</td>
<td>1998-050</td>
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<td>Joint Backing Material</td>
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<td></td>
<td>HBR Backer Rod (Cold Application Only)</td>
<td>2001-177Q</td>
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<td>Joint Backing Material</td>
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<tr>
<td></td>
<td>HBR XL Backer Rod (Cold or Hot Applied)</td>
<td>2001-178Q</td>
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<td>Joint Backing Material</td>
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<tr>
<td></td>
<td>Sof Rod (Cold Application Only)</td>
<td>1995-182</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)

<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>MasterInject 1500</td>
<td>1994-163</td>
</tr>
<tr>
<td></td>
<td>Previous Name: Concresive 1380</td>
<td></td>
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<tr>
<td></td>
<td>Type I, Grade 3</td>
<td>MasterEmaco ADH 327</td>
<td>1992-146</td>
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<tr>
<td></td>
<td>Previous Name: Concresive Paste LPL</td>
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<tr>
<td></td>
<td>Type I, Grade 3</td>
<td>MasterEmaco ADH 327 RS</td>
<td>1992-147</td>
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<tr>
<td></td>
<td>Previous Name: Concresive Paste SPL</td>
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<td></td>
<td>Type II, Grade 2</td>
<td>MasterEmaco ADH 326</td>
<td>1992-148</td>
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<td>Previous Name: Concresive Liquid LPL</td>
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</table>
## Section 706: Concrete Bonding Compound

### 706.1 Epoxy Bonding Compound (ASTM C881)

<table>
<thead>
<tr>
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<th>Name</th>
<th>Epoxy Class</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>Type I &amp; II, Grade 2</td>
<td>Dural 452 MV</td>
</tr>
<tr>
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<td>Type I &amp; II, Grade 3</td>
<td>Dural 452 MV</td>
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<tr>
<td></td>
<td></td>
<td>Type I, Grade 1</td>
<td>Duraflex Gel (formerly Flexocrete)</td>
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<td></td>
<td>Type I, Grade 1</td>
<td>Euco 452 LV</td>
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<td>Type I, Grade 2</td>
<td>Euco 452 MV</td>
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<td></td>
<td>Type III, Grade 2</td>
<td>Dural 340 NS</td>
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<td>Type III, Grade 1</td>
<td>Dural 340 SL</td>
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<tr>
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<td></td>
<td>Type III, Grade 1</td>
<td>Dural 340 NS</td>
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<td></td>
<td></td>
<td>Type III, Grade 1</td>
<td>Dural 452 Gel (formerly Flexocrete Gel)</td>
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<td></td>
<td>Type III, Grade 1</td>
<td>Flexolith</td>
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<td>Type III, Grade 3</td>
<td>Dural 452 Gel</td>
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<td></td>
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<td>Type III, Grade 3</td>
<td>Flexocrete</td>
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<tr>
<td>HLMTE 15</td>
<td>Hallemite, 80 Cypress Street, P. O. Box 840, Warwick, RI 02888</td>
<td>Type I, Grade 1</td>
<td>Hallemite 182LV (injection)</td>
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<td>Type I, Grade 2</td>
<td>Hallemite 140</td>
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<td>Type I, Grade 1</td>
<td>Sure-Poxy HMLV 112</td>
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<td>Type I, Grade 3</td>
<td>Sure-Poxy 116</td>
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<td>Type I, Grade 3</td>
<td>Sure-Poxy HM Gel</td>
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<td>Sure-Poxy HM</td>
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<td>Type III, Grade 1</td>
<td>Sure-Poxy LM-LV</td>
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Section 706: Concrete Bonding Compound

706.1 Epoxy Bonding Compound (ASTM C881)

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Epoxy Class</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>SIKA 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td>Type I, Grade 1 Sikadur 35 Hi Mod LV</td>
<td>-----</td>
</tr>
<tr>
<td>SIKA 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td>Type I, Grade 1 Sikadur 35 Hi Mod LV</td>
<td>-----</td>
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## Section 706: Concrete Bonding Compound

### 706.1 Epoxy Bonding Compound (ASTM C881)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Epoxy Class</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>UNITX 15</td>
<td>Dayton Superior Corporation - UNITEX, 3101 Gardner Ave., Kansas City, MO 64120</td>
<td>Pro-Poxy 100</td>
<td>1991-290A</td>
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<tr>
<td></td>
<td>Type I, Grade 1</td>
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</tr>
<tr>
<td></td>
<td>Type I, Grade 3</td>
<td>Pro-Poxy 300</td>
<td>1991-290C</td>
</tr>
<tr>
<td></td>
<td>Type II, Grade 1</td>
<td>Pro-Poxy 50</td>
<td>2018-012Q</td>
</tr>
<tr>
<td></td>
<td>Type II, Grade 2</td>
<td>Pro-Poxy 200</td>
<td>1991-290B</td>
</tr>
</tbody>
</table>

### 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>ADHTC 15</td>
<td>Adhesives Technology Corporation, 450 East Copans, Pompano Beach, FL 33064</td>
<td>ASF-1000</td>
</tr>
<tr>
<td></td>
<td>Type II, Grade 3, Class A &amp; B</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Bonding Compound</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>
</tr>
<tr>
<td></td>
<td>Other Bonding Compound</td>
<td></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></td>
<td>Other Bonding Compound</td>
<td></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>
</tr>
</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></td>
<td>Other Bonding Compound</td>
<td>Armatec 110</td>
</tr>
<tr>
<td>SIKAI 15 Plant</td>
<td>Sika Corporation, 1682 Marion Williamsport Road E, Marion, OH 43302 <a href="http://usa.sika.com/">http://usa.sika.com/</a></td>
<td>1990-223</td>
</tr>
<tr>
<td></td>
<td>Other Bonding Compound</td>
<td>Armatec 110</td>
</tr>
</tbody>
</table>
## 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></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>ARMAG 15</td>
<td>Armagost Steel Corporation, 1249 South Main Street, Dubois, PA 15801</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Previous Supplier Codes: SRST0 15 &amp; ADVPS 15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></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</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(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>
<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>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> CMC Rebar Knoxville 1919 Tennessee Avenue Knoxville, TN 37921 Fabricator, Black Bar and Epoxy Coated Bar (Formerly Gerdau Ameristeel - GERD3 15)</td>
<td>2010-190Q</td>
</tr>
<tr>
<td>CMCRM 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> CMC Rebar Muncie 1610 South Macedonia Avenue Muncie, IN 47302 Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>2009-073Q</td>
</tr>
<tr>
<td>CMCRY 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> CMC Rebar York 1700 7th Avenue York, PA 17403 Fabricator, Black Bar and Epoxy Coated Bar (Formerly Gerdau Ameristeel - GERD6 15)</td>
<td>-----</td>
</tr>
<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> CMC Steel Tennessee 1919 Tennessee Avenue Knoxville, TN 37921 Fabricator, Black Bar and Epoxy Coated Bar (Formerly Gerdau Ameristeel - GERD3 15)</td>
<td>2010-190Q</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>
</tr>
</thead>
<tbody>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<td>Fabricator, Stainless Steel Bar</td>
<td></td>
</tr>
<tr>
<td>Threading of Reinforcement Bar</td>
<td></td>
</tr>
<tr>
<td>Threading of Reinforcement Bar</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>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></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>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<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>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<td>HARMA 15</td>
<td>HarMac, A Division of A.H. Harris Sayreville, 301 Hartle Street, Sayreville, NJ 08872 <a href="https://kaharris.com/">https://kaharris.com/</a></td>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<td>KENC 15</td>
<td>Kenclo Construction Supply Company, P. O. Box 54, Route 403 South, Strongstown, PA 15957</td>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td></td>
</tr>
<tr>
<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>
</tr>
</thead>
<tbody>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>1989-247</td>
</tr>
<tr>
<td>MPI-1 15</td>
<td>Metal Partners International, 47 E. Chicago Avenue, Suite 314, Naperville, IL 60540</td>
</tr>
<tr>
<td>Facility</td>
<td>20 Davidson Lane New Castle, DE 19720-2214</td>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>2017-190Q</td>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>-----</td>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>2007-009Q</td>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>2007-148Q</td>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>2009-067Q</td>
</tr>
<tr>
<td>Facility</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>
</tr>
<tr>
<td>SAL SR 15</td>
<td>Salit Specialty Rebar, 3235 Lockport Road, Niagara Falls, NY 14305 <a href="http://stainlessrebar.com/">http://stainlessrebar.com/</a></td>
</tr>
<tr>
<td>Fabricator, Stainless Steel Bar</td>
<td>2008-178Q</td>
</tr>
<tr>
<td>SIM CT 15</td>
<td>Simcote, Inc., Ohio Division, 250 North Greenwood, Marion, OH 43302 <a href="http://simcote.com/">http://simcote.com/</a></td>
</tr>
<tr>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
<td>2010-210Q</td>
</tr>
<tr>
<td>SIM P 1 15</td>
<td>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></td>
</tr>
<tr>
<td>Formerly Dayton Superior Corporation (DAYT 15)</td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</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>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>2010-120Q</td>
</tr>
<tr>
<td>TITUS 15</td>
<td>Titusville Fabricating, 191 Howard St., Franklin, PA 16323</td>
<td>1996-073</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://tristaterebar.com/contacts.html">http://tristaterebar.com/contacts.html</a></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>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>
</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>
</tr>
<tr>
<td></td>
<td>Fabricator, Black Bar and Epoxy Coated Bar</td>
</tr>
<tr>
<td></td>
<td>Ref. No. 2007-043Q</td>
</tr>
</tbody>
</table>

**709.1(a) Billet Steel Bars**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</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>
</tr>
<tr>
<td></td>
<td>Formerly A. B. Steel Mills, Inc.</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
</tr>
<tr>
<td></td>
<td>Ref. No. 2001-162</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>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
</tr>
<tr>
<td></td>
<td>Ref. No. 1999-226Q</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>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
</tr>
<tr>
<td></td>
<td>Ref. No. 2001-213Q</td>
</tr>
<tr>
<td>CMCFL 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>
</tr>
<tr>
<td>Facility</td>
<td>CMC Steel Florida 16770 Rebar Road Jacksonville, FL 32234</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
</tr>
<tr>
<td></td>
<td>(Formerly Gerdau Ameristeel - GERD4 15)</td>
</tr>
<tr>
<td></td>
<td>Ref. No. 1986-166</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
</tr>
<tr>
<td></td>
<td>(Formerly Gerdau Ameristeel - GERD4 15)</td>
</tr>
<tr>
<td></td>
<td>Ref. No. 1986-166</td>
</tr>
<tr>
<td>CMCNJ 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>
</tr>
<tr>
<td>Facility</td>
<td>CMC Steel New Jersey 1 North Crossman Road Sayreville, NJ 08872</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Deformed</td>
</tr>
<tr>
<td></td>
<td>(Formerly Gerdau Ameristeel - GERD1115)</td>
</tr>
<tr>
<td></td>
<td>Ref. No. 1988-098</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
</tr>
<tr>
<td></td>
<td>(Formerly Gerdau Ameristeel - GERD1115)</td>
</tr>
<tr>
<td></td>
<td>Ref. No. 1988-098</td>
</tr>
</tbody>
</table>
## Section 709: Reinforcement Steel

### 709.1(a) Billet Steel Bars

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<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Metals Company (CMC), 310 New State Road Cayce, SC 29033</td>
<td>CMC Steel South Carolina</td>
<td>CMCTN 15</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial Metals Company (CMC), 1919 Tennessee Avenue Knoxville, TN 37921</td>
<td>CMC Steel Tennessee</td>
<td>EVRAZ 15</td>
<td></td>
</tr>
<tr>
<td>Billet Steel, Deformed</td>
<td>1987-204</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Billet Steel, Plain</td>
<td>1987-204</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Evraz, Inc. NA/Rocky Mountain Steel, 2100 S. Freeway, Pueblo, CO 81004</td>
<td>Coiled Only</td>
<td>2013-130Q</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gerdau Ameristeel, Charlotte Steel Mill Div., P.o. Box 481980, Charlotte, NC 28269</td>
<td>Billet Steel, Deformed</td>
<td>1986-167</td>
<td></td>
</tr>
<tr>
<td>Gerdau Ameristeel, Charlotte Steel Mill Div., P.o. Box 481980, Charlotte, NC 28269</td>
<td>Billet Steel, Plain</td>
<td>1986-167</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gerdau Ameristeel, Perth Amboy Steel Division, 333 Riverview Drive, Perth Amboy, NJ 08861</td>
<td>Billet Steel, Plain (Prior Ref No. 1986-354)</td>
<td>1989-198</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gerdau Ameristeel, St. Paul Mill, 1678 Red Rock Road, St. Paul, MN 55119</td>
<td>Billet Steel, Deformed</td>
<td>1986-354</td>
<td></td>
</tr>
<tr>
<td>Gerdau Ameristeel, St. Paul Mill, 1678 Red Rock Road, St. Paul, MN 55119</td>
<td>Billet Steel, Plain</td>
<td>1989-198</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Gerdau Ameristeel Sand Springs, Quality Assurance Department, 2300 South Highway 97, Sand Springs, OK 74063</td>
<td>Billet Steel, Deformed</td>
<td>2003-107Q</td>
<td></td>
</tr>
<tr>
<td>Gerdau Ameristeel Sand Springs, Quality Assurance Department, 2300 South Highway 97, Sand Springs, OK 74063</td>
<td>Billet Steel, Plain</td>
<td>2003-107Q</td>
<td></td>
</tr>
</tbody>
</table>
### Section 709: Reinforcement Steel

#### 709.1(a) Billet Steel Bars

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Product Name</th>
<th>Company Name</th>
<th>Address</th>
<th>Website</th>
<th>Last Revised</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1986-120</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1986-160</td>
</tr>
<tr>
<td>KEYSW 15</td>
<td>Billet Steel, Coiled Only</td>
<td>Keystone Steel &amp; Wire Company</td>
<td>7000 S. W. Adams Street, Peoria, IL 61641</td>
<td><a href="http://keystonesteel.com/">http://keystonesteel.com/</a></td>
<td>5/13/2019</td>
<td>2013-061Q</td>
</tr>
<tr>
<td></td>
<td>Bar Sizes 3-5 Only</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUCR1 15</td>
<td>Billet Steel, Deformed</td>
<td>Nucor Steel, Darlington Division</td>
<td>300 Steel Mill Road, Darlington, SC 29540</td>
<td><a href="http://www.nucor.com/">http://www.nucor.com/</a></td>
<td>5/13/2019</td>
<td>1991-180</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1991-180</td>
</tr>
<tr>
<td>NUCR2 15</td>
<td>Billet Steel, Deformed</td>
<td>Nucor Steel, Auburn Division</td>
<td>P.O. Box 2008, 25 Quarry Road, Auburn, NY 13021</td>
<td><a href="http://www.nucor.com/">http://www.nucor.com/</a></td>
<td>5/13/2019</td>
<td>1998-165</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1998-165</td>
</tr>
<tr>
<td></td>
<td>Billet Steel, Plain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1991-367</td>
</tr>
<tr>
<td>NUCR4 15</td>
<td>Billet Steel, Deformed</td>
<td>Nucor Steel Jackson, Inc.</td>
<td>3630 Fourth Street, Jackson, MS 39232</td>
<td><a href="http://www.nucor.com/">http://www.nucor.com/</a></td>
<td>5/13/2019</td>
<td>1991-315</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>Product Description</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Billet Steel, Plain</td>
<td>1991-020</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>Billet Steel, Coiled Only</td>
<td>2014-238QA</td>
</tr>
<tr>
<td></td>
<td>100 Old Highway 90 West, Vidor, TX 77662 (Formerly Gerdau Ameristeel - GERD1715)</td>
<td>Bar sizes 3 to 5 only</td>
<td></td>
</tr>
<tr>
<td>STEDP 15 Plant</td>
<td>Steel Dynamics, Inc., 102 Westside Boulevard NW, Roanoke, VA 24017 <a href="http://www.sdi-pit.com/barproducts/default.jsp">http://www.sdi-pit.com/barproducts/default.jsp</a></td>
<td>Billet Steel, Deformed</td>
<td>2016-152</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>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABC MC 15</td>
<td>ABC Coating Company of Michigan, 1503 Burlingame S.W., Wyoming, MI 49509</td>
<td>Approved Epoxy Coater</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>CMCIL 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> CMC Rebar Illinois 780 Eastgate Industrial Parkway  Kankakee, IL 60901 Approved Epoxy Coater (Formerly listed under the TOLTC 15 supplier code)</td>
<td>2001-229Q</td>
</tr>
<tr>
<td>CMCNJ 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> CMC Steel New Jersey 1 North Crossman Road  Sayreville, NJ 08872 Approved Epoxy Coater (Formerly Gerdau Ameristeel - GERD1115)</td>
<td>1990-381</td>
</tr>
<tr>
<td>CMCRM 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> CMC Rebar Muncie 1610 South Macedonia Avenue  Muncie, IN 47302 Approved Epoxy Coater (Formerly Gerdau Ameristeel - GERD1415)</td>
<td>2005-133Q</td>
</tr>
<tr>
<td>CMCRS 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> CMC Rebar Sayreville 1 Crossman Road North  Sayreville, NJ 08872 Approved Epoxy Coater (Formerly Gerdau Ameristeel - GERD1115)</td>
<td>1990-381</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>CMCTN 15</td>
<td>Commercial Metals Company (CMC), 6565 North MacArthur Blvd., Suite 800, Irving, TX 75039</td>
<td><a href="https://www.cmc.com/">https://www.cmc.com/</a></td>
</tr>
<tr>
<td>Facility</td>
<td>CMC Steel Tennessee 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></td>
<td>1988-337</td>
</tr>
<tr>
<td>CORCI 15</td>
<td>Corrosion Control, Inc., 10 Quarry Road, Auburn, NY 13021</td>
<td><a href="http://www.corrosioncontrolinc.com/">http://www.corrosioncontrolinc.com/</a></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2004-085Q</td>
</tr>
<tr>
<td>DAYT5 15</td>
<td>Simplex Construction Supplies, Inc. (formerly Dayton Superior Corporation), 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></td>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1996-160</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>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1989-223</td>
</tr>
<tr>
<td>MCOAT 15</td>
<td>Miamisburg Coating, 925 N. Main St., Miamisburg, OH 45342</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater of Mechanical Splice Couplers Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2013-242Q</td>
</tr>
<tr>
<td>MIDWP 15</td>
<td>Midwest Pipe Coating, 925 Kennedy Ave., Schererville, IN 46375</td>
<td><a href="http://midwestpiperebar.com/">http://midwestpiperebar.com/</a></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1984-128</td>
</tr>
<tr>
<td>SIMCT 15</td>
<td>Simcote, Inc., Ohio Division, 250 North Greenwood, Marion, OH 43302</td>
<td><a href="http://simcote.com/">http://simcote.com/</a></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1985-022</td>
</tr>
<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></td>
<td>Formerly Dayton Superior Corporation (DAYT5 15)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td></td>
<td></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</th>
<th>Name</th>
<th>Compatible Repair Coating</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIMRE 15</td>
<td>Simpson Reinforcing, Inc, 2001 Dr. Thomas Boulevard, Arnold, PA 15068</td>
<td><a href="http://www.simpsonrebar.com/">http://www.simpsonrebar.com/</a></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater</td>
<td>Capability to coat up to and including #11 reinforcement bar.</td>
</tr>
<tr>
<td>TITUS 15</td>
<td>Titusville Fabricating, 191 Howard St., Franklin, PA 16323</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>CMC Rebar Illinois 780 Eastgate Industrial Parkway Kankakee, IL 60901</td>
<td>(formerly: Toltec Steel Services, Inc.)</td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater</td>
<td></td>
</tr>
<tr>
<td>UCOAT 15</td>
<td>Universal Coatings, 8511 Tower Drive, Twinsburg, OH 44087</td>
<td><a href="http://universal-coatings.net/">http://universal-coatings.net/</a></td>
</tr>
<tr>
<td></td>
<td>Approved Epoxy Coater of Mechanical Splice Couplers Only</td>
<td>Electrostatic and Fluid Dip</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</th>
<th>Name</th>
<th>Compatible Repair Coating</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M-07 15</td>
<td>3M Company, 3M Center, Building 0223-02-E-25, St. Paul, MN 55144</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>1508 East Cedar Street Angleton, TX 77515</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Epoxy Powder Material (Manufacturer) Scotchkote 413</td>
<td>ScotchKote 323 R [SIECO]</td>
</tr>
<tr>
<td></td>
<td>Epoxy Powder Material (Manufacturer) Scotchkote 413</td>
<td>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 Ref. No.</th>
<th>Name</th>
<th>Compatible Repair Coating</th>
</tr>
</thead>
<tbody>
<tr>
<td>3MC-1 15</td>
<td>3M Company, 1840 Oxford Street East, London, Ontario Canada N5v 3r Morden, Manitoba ROG 1JO</td>
<td>ScotchKote 413 ScotchKote 323 R [SIECO]</td>
</tr>
</tbody>
</table>

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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Application Technical Info: Approval for un-thinned material only; Substrate temp.: 40-80 deg. F; Mix no less than 3 minutes (longer mix time required for lower temperature); VOC = 0.008 lbs/gal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approval for un-thinned material only. Application Technical Info: Substrate Temp.: 41-200 deg. F @ 5 deg. F above Dew Point Temp. Mixing accomplished by mixing tip dispenser. VOC = 0.280 lbs/gal. Storage Condition Temperature: 40-100 deg. F</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approval for un-thinned material only Application Technical Info - Substrate Temp.: 50-212 degF or a min. of 5.4 deg. F above Dew Point Temp.; VOC = 0.05 lbs/gal.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>123 W. 23rd Avenue North Kansas City, MO 64116</td>
<td>Approval for un-thinned material only. Application Technical Info: Substrate Temp.: 50-135 deg. F @ 5 deg. F above dew point; VOC = 1.44 lbs/gal.</td>
<td></td>
</tr>
</tbody>
</table>
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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Valspar Greenbar Touch Up Coating Kit</td>
<td>Greenbar 720A009 [VALSP1, 2, 4]</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Approval for un-thinned material only. Application Technical Info: Substrate Temp.: 50-100 deg. F; VOC = 2.27 lbs/gal.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Valspar Greenbar Touch Up Coating Kit</td>
<td>Nap-Gard 7-2750, 7-2750FC, 7-2750SG</td>
<td>2016-184Q</td>
</tr>
<tr>
<td></td>
<td><strong>Approval for un-thinned material only. Application Technical Info: Substrate Temp.: 50-100 deg. F; VOC = 2.27 lbs/gal.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Valspar Greenbar Touch Up Coating Kit</td>
<td>ScotchKote 413 [3M-07]</td>
<td>2017-201Q</td>
</tr>
<tr>
<td></td>
<td><strong>Approval for un-thinned material only. Application Technical Info: Substrate Temp.: 50-100 deg. F; VOC = 2.27 lbs/gal.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Valspar Greenbar Touch Up Coating Kit</td>
<td>Resicoat RB-600 HKF30R, HKF30R-F, HKF30R-LG</td>
<td>2019-187Q</td>
</tr>
<tr>
<td></td>
<td><strong>Approval for un-thinned material only. Application Technical Info: Substrate Temp.: 50-100 deg. F; VOC = 2.27 lbs/gal.</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 709.1(d) Low-Alloy Steel Bars

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>CMC Steel South Carolina 310 New State Road Cayce, SC 29033</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-Alloy Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-Alloy Steel, Coiled Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Bar Sizes 3-5 Only</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-Alloy Steel, Deformed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-Alloy Steel, Deformed</td>
<td></td>
</tr>
</tbody>
</table>
## Section 709: Reinforcement Steel

### 709.1(d) Low-Alloy Steel Bars

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUCR3 15</td>
<td>Nucor Steel Kankakee, Inc., 972 East 4500 North Road, Bourbonnais, IL 60914-4127</td>
<td><a href="http://www.nucor.com/">http://www.nucor.com/</a></td>
</tr>
<tr>
<td>OPTS1 15</td>
<td>Optimus Steel, P.O. Box 3869, Beaumont, TX 77704</td>
<td><a href="https://optimus-steelusa.com/">https://optimus-steelusa.com/</a></td>
</tr>
<tr>
<td>Plant</td>
<td>100 Old Highway 90 West, Vidor, TX 77662</td>
<td></td>
</tr>
<tr>
<td>(Formerly Gerdau Ameristeel - GERD1715)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low-Alloy Steel, Deformed</td>
<td>1991-367</td>
</tr>
<tr>
<td></td>
<td>Low-Alloy Steel, Coiled Only</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bar sizes 3 to 5 only</td>
<td></td>
</tr>
</tbody>
</table>

### 709.1(e) Galvanized Bars

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONGV 15</td>
<td>Connecticut Galvanizing, 239 Commerce Street, Glastonbury, CT 06033-0358</td>
<td><a href="http://ctgalv.com/">http://ctgalv.com/</a></td>
</tr>
<tr>
<td></td>
<td>Galvanized Bar</td>
<td>2006-116Q</td>
</tr>
<tr>
<td>HUBBL 15</td>
<td>O. W. Hubbell and Sons, P.O. Box 37, New York Mills, NY 13417</td>
<td><a href="http://www.whyrust.com">http://www.whyrust.com</a></td>
</tr>
<tr>
<td></td>
<td>Galvanized Bar</td>
<td>2015-005Q</td>
</tr>
<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</td>
<td>Statesville, NC</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Galvanized Bar</td>
<td>2009-084</td>
</tr>
<tr>
<td></td>
<td>American Steel Tubing: bonding zinc to bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Southeast Tubular Products: bonding zinc to bar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally approved as an alternate per manufacturer's specifications.</td>
<td></td>
</tr>
<tr>
<td>NJG&amp;T 15</td>
<td>New Jersey Galvanizing and Tinning Works, 139 Hayes Avenue, Newark, NJ 07114</td>
<td><a href="http://www.newjerseygalvanizing.com/#">http://www.newjerseygalvanizing.com/#</a>!</td>
</tr>
<tr>
<td></td>
<td>Galvanized Bar</td>
<td>2006-216Q</td>
</tr>
<tr>
<td>SAGV1 15</td>
<td>South Atlantic Galvanizing, 3025 Steel Way Drive, P.O. Box 1380, Graham, NC 27253</td>
<td><a href="http://www.southatlanticlec.com/">http://www.southatlanticlec.com/</a></td>
</tr>
<tr>
<td></td>
<td>Galvanized Bar</td>
<td>2014-016Q</td>
</tr>
</tbody>
</table>
Section 709: Reinforcement Steel

709.1(e) Galvanized Bars

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<tr>
<td></td>
<td>Galvanized Bar</td>
</tr>
<tr>
<td></td>
<td>TENNG 15</td>
</tr>
<tr>
<td></td>
<td>2016-227Q</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Name</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td></td>
<td>Galvanized Bar</td>
</tr>
<tr>
<td></td>
<td>YOUNG 15</td>
</tr>
<tr>
<td></td>
<td>2006-178Q</td>
</tr>
</tbody>
</table>

709.1(f) Stainless Steel Bars

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Terminal Talley Metals Hartsville, SC</td>
</tr>
<tr>
<td></td>
<td>Stainless Steel Bar</td>
</tr>
<tr>
<td></td>
<td>Enduramet 32 (UNS 24100)</td>
</tr>
<tr>
<td></td>
<td>CARTC 15</td>
</tr>
<tr>
<td></td>
<td>2008-177Q</td>
</tr>
</tbody>
</table>

709.1(g) Uncoated Corrosion-Resistant Bars

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Uncoated Corrosion-Resistant Bar</td>
</tr>
<tr>
<td></td>
<td>ChromX 9100 (ASTM A1035, CS, Grade 100)</td>
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<td>CASST 15</td>
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</table>

Cascade Steel is a licensed partner of MMFX Technologies, a Commercial Metals Company. Product formerly known as MMFX2 Microcomposite 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 Name Ref. No.</th>
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<td></td>
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</tbody>
</table>
Section 709: Reinforcement Steel

709.3 Steel Welded Wire Fabric

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Mill / Non-Mill</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARSW 15</td>
<td>Cargill Steel &amp; Wire, 1915 John Connally Drive, Carrollton, TX 75006</td>
<td>Cold Drawn Wire Fabricator</td>
<td>Wire-Mill</td>
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<tr>
<td>CONCT 15</td>
<td>Concrete Pipe Products Corporation, Ten Thomas St., Chenango Bridge, NY 13901</td>
<td>Cold Drawn Wire Fabricator</td>
<td>Bright Basic Wire</td>
</tr>
<tr>
<td>CONGV 15</td>
<td>Connecticut Galvanizing, 239 Commerce Street, Glastonbury, CT 06033-0358</td>
<td>Cold Drawn Wire Fabricator</td>
<td>Wire-Mill</td>
</tr>
<tr>
<td>DOWNY 15</td>
<td>Downey, B. L., Company, Inc., 2125 Gardner Road, Broadview, IL 60153</td>
<td>Cold Drawn Wire Fabricator</td>
<td>Wire-Mill</td>
</tr>
<tr>
<td>ENGWP 15</td>
<td>Engineered Wire Products, Inc., 1200 N. Warpole Street, P. O. Box 313, Upper Sandusky, OH 43351 (Liberty Steel USA)</td>
<td>Cold Drawn Wire Fabricator</td>
<td>Wire-Mill</td>
</tr>
<tr>
<td>FOXS 15</td>
<td>Fox Valley Steel &amp; Wire Company, 111 North Douglas Street, Hortonville, WI 54944</td>
<td>Cold Drawn Wire Fabricator</td>
<td>Wire-Mill</td>
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<tr>
<td>INST2 15</td>
<td>Insteel Wire Products, 638 Rappahannock Wire Road, Gallatin, TN 37066</td>
<td>Cold Drawn Wire Fabricator</td>
<td>Wire-Mill</td>
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<tr>
<td>INST4 15</td>
<td>Insteel Wire Products, 1373 Boggs Drive, Mount Airy, NC 27030</td>
<td>Cold Drawn Wire Fabricator</td>
<td>Wire-Mill</td>
</tr>
<tr>
<td>Plant</td>
<td>129 Carter Street Mount Airy, NC 27030</td>
<td>Cold Drawn Wire Fabricator</td>
<td>Wire-Mill</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Welded Wire Fabric Manufacturer</td>
<td></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></td>
<td>Formerly Ivy Steel and Wire (IS&amp;W6)</td>
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<td>Jacksonville, FL</td>
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<td></td>
<td>Formerly Ivy Steel and Wire (IS&amp;W5)</td>
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<td>1996-191</td>
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<td></td>
<td>MO</td>
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<td></td>
<td>Cold Drawn Wire Fabricator</td>
<td>Wire-Mill</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bright Basic Wire</td>
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<td></td>
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<tr>
<td></td>
<td>Welded Wire Fabric Manufacturer</td>
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<tr>
<td></td>
<td>501 Forrest Rd Humboldt Industrial Park Hazle Township, PA 18202</td>
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<td></td>
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<tr>
<td></td>
<td>Formerly Ivy Steel and Wire (IS&amp;W4)</td>
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<td>Hazle Township, PA 18202</td>
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<td>Welded Wire Fabric Manufacturer</td>
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<tr>
<td></td>
<td>3325 Route 1099 Hickman, KY</td>
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<td>2013-144Q</td>
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<tr>
<td></td>
<td>Galvanizer</td>
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<td>Welded Wire Fabric Manufacturer</td>
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<tr>
<td>IOWSW 15</td>
<td>Iowa Steel &amp; Wire, 1500 West Van Buren, Centerville, IA 52544</td>
<td></td>
<td>2000-230Q</td>
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<tr>
<td></td>
<td>Welded Wire Fabric Manufacturer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cold Drawn Wire Fabricator</td>
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<td></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>
</tr>
</thead>
<tbody>
<tr>
<td>NELWS 15</td>
<td>Nelson Wire and Steel, 1015 New Salem Road, New Salem, PA 15468 Formerly Nucor Wire Products (NUCW-)</td>
<td>Welded Wire Fabric Manufacturer</td>
<td>2011-151QAB</td>
</tr>
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<td></td>
<td></td>
<td>Welded Wire Fabric Manufacturer</td>
<td>1992-258B</td>
</tr>
<tr>
<td>TATAN 15 Plant</td>
<td>Tatano Wire &amp; Steel, 224 Jackson Street, Box 247, Houston, PA 15342 Canonsburg, PA</td>
<td>Welded Wire Fabric Manufacturer</td>
<td>1995-017</td>
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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)

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<tr>
<th>Product</th>
<th>Name</th>
<th>Mill / Non-Mill</th>
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</tr>
</thead>
</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)

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOWNY15</td>
<td>Downey, B. L., Company, Inc., 2125 Gardner Road, Broadview, IL 60153</td>
<td>Epoxy Coater 1996-248</td>
</tr>
</tbody>
</table>
Section 709: Reinforcement Steel

709.4 Deformed Welded Wire Fabric

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGWP 15</td>
<td>Engineered Wire Products, Inc., 1200 N. Warpole Street, P. O. Box 313, Upper Sandusky, OH 43351 <a href="http://ewp1.com/">http://ewp1.com</a> (Liberty Steel USA)</td>
<td>1991-136</td>
</tr>
<tr>
<td>INST4 15</td>
<td>Insteel Wire Products, 1373 Boggs Drive, Mount Airy, NC 27030 <a href="http://www.insteel.com/">http://www.insteel.com</a> 129 Carter Street Mount Airy, NC 27030</td>
<td>-----</td>
</tr>
<tr>
<td>INST5 15</td>
<td>Insteel Wire Products, 3050 Melson Ave., Jacksonville, FL 32254 <a href="http://www.insteel.com/">http://www.insteel.com</a> Jacksonville, FL  Formerly Ivy Steel and Wire (IS&amp;W6)</td>
<td>2006-043Q</td>
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<tr>
<td>INST6 15</td>
<td>Insteel Wire Products, 810 Atchison Street, St. Joseph, MO 64503 <a href="http://www.insteel.com/">http://www.insteel.com</a>  Formerly Ivy Steel and Wire (IS&amp;W5)</td>
<td>1996-191</td>
</tr>
<tr>
<td>INST7 15</td>
<td>Insteel Wire Products, 501 Forrest Road, Hazle Township, PA 18202 <a href="http://www.insteel.com/">http://www.insteel.com</a> 501 Forrest Rd Humbolt Industrial Park Hazle Township, PA 18202  Formerly Ivy Steel and Wire (IS&amp;W4)</td>
<td>1992-071</td>
</tr>
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</table>
Section 709: Reinforcement Steel

709.4 Deformed Welded Wire Fabric

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<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>2013-144Q</td>
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<tr>
<td>Plant</td>
<td>3325 Route 1099 Hickman, KY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Galvanizer</td>
<td>2013-144Q</td>
</tr>
<tr>
<td></td>
<td>Welded Wire Fabric Manufacturer</td>
<td></td>
</tr>
<tr>
<td>IOWSW 15</td>
<td>Iowa Steel &amp; Wire, 1500 West Van Buren, Centerville, IA 52544</td>
<td>2000-230Q</td>
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<td></td>
<td>Welded Wire Fabric Manufacturer</td>
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<td>LANE5 15</td>
<td>Lane Enterprises, Inc., 1244 Claremont Road, Carlisle, PA 17013</td>
<td>1989-223</td>
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<tr>
<td></td>
<td>Epoxy Coater</td>
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<tr>
<td>NELWS 15</td>
<td>Nelson Wire and Steel, 1015 New Salem Road, New Salem, PA 15468</td>
<td>2011-151QAB</td>
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<td>Formerly Nucor Wire Products (NUCW-), Welded Wire Fabric Manufacturer</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>2006-216Q</td>
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<td>NUCR7 15</td>
<td>Nucor Steel Connecticut, Inc., 35 Toelles Rd., P. O. Box 928, Wallingford, CT 06492</td>
<td>2011-124Q</td>
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<td>Welded Wire Fabric Manufacturer</td>
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<td>NUMES 15</td>
<td>Numesh USA, LLC, 211 Warren Street, Glens Falls, NY 12801</td>
<td>2010-066Q</td>
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<td>Welded Wire Fabric Manufacturer</td>
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</table>
Section 709: Reinforcement Steel

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<tr>
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<td>Welded Wire Fabric Manufacturer</td>
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<td>Epoxy Coater</td>
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<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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<td>Galvanizer</td>
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### Section 711: Concrete Curing Material and Admixtures

#### 711.1(a) Curing and Protecting Covers: White Polyethylene Sheeting
Last Revised: 3/9/2015

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<th>Product</th>
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#### 711.1(b) Curing and Protecting Covers: White Polyethylene Sheeting-Burlap Backed
Last Revised: 7/6/2017

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<th>Product</th>
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#### 711.1(c) Curing and Protecting Covers: White Polypropylene Sheeting-Polypropylene Fiber Backed
Last Revised: 3/9/2015

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<th>Product</th>
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#### 711.1(d) Curing and Protecting Covers: Burlap
Last Revised: 7/8/2015

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<th>Product</th>
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## Section 711: Concrete Curing Material and Admixtures

### 711.1(d) Curing and Protecting Covers: Burlap

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<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>ABITC 15</td>
<td>Abitec, Inc., 105 Grove Circle, Chalfont, PA 18914</td>
<td>Burlap</td>
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<tr>
<td>AMEES 15</td>
<td>Amee Sales, Inc., 55 West 39th Street, New York, NY 10018</td>
<td>Burlap</td>
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### 711.1(e) Curing and Protecting Covers: Insulating Mats

<table>
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</thead>
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<tr>
<td>MIDWC 15</td>
<td>Midwest Canvas Corporation, 4635 West Lake St., Chicago, IL 60644 <a href="http://www.midwestcanvas.com/">http://www.midwestcanvas.com/</a></td>
<td>Insulating Mat</td>
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### 711.1(f) Curing and Protecting Covers: Foam Insulation

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<th>Product</th>
<th>Name</th>
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Section 711: Concrete Curing Material and Admixtures

711.1(f) Curing and Protecting Covers: Foam Insulation

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<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>Foam Insulation</td>
<td>Foamular 1000</td>
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<td>2002-005Q</td>
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<td>Foam Insulation</td>
<td>Foamular 150</td>
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<td>2002-005Q</td>
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<tr>
<td>Foam Insulation</td>
<td>Foamular 250</td>
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<td>2002-005Q</td>
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<tr>
<td>Foam Insulation</td>
<td>Foamular 400</td>
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<td>2002-005Q</td>
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<tr>
<td>Foam Insulation</td>
<td>Foamular 600</td>
<td></td>
<td>2002-005Q</td>
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<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>
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<tr>
<td>Foam Insulation</td>
<td>GreenGuard XPS CM (0.5&quot; thick)</td>
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<td>1990-359A</td>
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<tr>
<td>Foam Insulation</td>
<td>GreenGuard XPS CM (1&quot; thick)</td>
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<td>1990-359B</td>
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<tr>
<td>Foam Insulation</td>
<td>GreenGuard XPS CM (1.5&quot; thick)</td>
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<td>1990-359C</td>
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<tr>
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<td>GreenGuard XPS CM (2&quot; thick)</td>
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<td>1990-359D</td>
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<td>GreenGuard XPS CM (2.5&quot; thick)</td>
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<td>1990-359E</td>
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<tr>
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<td>GreenGuard XPS CM (3&quot; thick)</td>
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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>
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<tbody>
<tr>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Safe-Cure and Seal EPX</td>
<td>1999-217Q</td>
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</tr>
<tr>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Safe-Cure Clear DR</td>
<td>1989-076</td>
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<tr>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Safe-Cure 2000</td>
<td>1989-044</td>
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<tr>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Safe-Cure 800</td>
<td>1989-043</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</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
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<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>Clear Type 1-D</td>
<td>Liquid Membrane-Forming Curing Compound, Clear Resin Cure J11W</td>
<td>1994-070</td>
<td></td>
</tr>
<tr>
<td>Clear Type 1-D</td>
<td>Liquid Membrane-Forming Curing Compound, DSSCC Clear Wax Cure</td>
<td>2000-102Q</td>
<td></td>
</tr>
<tr>
<td>Clear Type 1-D</td>
<td>Liquid Membrane-Forming Curing Compound, Resin Cure with Dye J11W</td>
<td>1985-200</td>
<td></td>
</tr>
<tr>
<td>Clear Type 1-D, Translucent/Red Fugitive Dye</td>
<td>Liquid Membrane-Forming Curing Compound, White Resin Cure J10W</td>
<td>----</td>
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</tr>
<tr>
<td>White Pigmented, Type 2</td>
<td>Liquid Membrane-Forming Curing Compound, White Wax Cure J9A</td>
<td>2000-101Q</td>
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</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>Clear Type 1-D, Translucent/Red Fugitive Dye</td>
<td>Liquid Membrane-Forming Curing Compound, Tammsores WB 30D</td>
<td>2001-140Q</td>
<td></td>
</tr>
<tr>
<td>Clear Type 1-D</td>
<td>Liquid Membrane-Forming Curing Compound, Thinfilm-420</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>Clear Type 1-D</td>
<td>Liquid Membrane-Forming Curing Compound, Thinfilm-445 (Wax Based)</td>
<td>1989-147</td>
<td></td>
</tr>
<tr>
<td>White Pigmented, Type 2</td>
<td>Liquid Membrane-Forming Curing Compound, Thinfilm-450</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>White Pigmented, Type 2</td>
<td>Liquid Membrane-Forming Curing Compound, Cure W-2 (Wax Based)</td>
<td>1994-162</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></td>
<td></td>
</tr>
<tr>
<td>Clear Type 1-D</td>
<td>Liquid Membrane-Forming Curing Compound, Cure R</td>
<td>1994-187</td>
<td></td>
</tr>
<tr>
<td>White Pigmented, Type 2</td>
<td>Liquid Membrane-Forming Curing Compound, Cure R-2</td>
<td>1994-188</td>
<td></td>
</tr>
<tr>
<td>White Pigmented, Type 2</td>
<td>Liquid Membrane-Forming Curing Compound, Cure W-2 (Wax Based)</td>
<td>1994-162</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>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338</td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Sealtight 1200</td>
<td>1988-251</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Sealtight 1250</td>
<td>1992-076</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Sealtight 1600</td>
<td>1988-252</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Pure Water, Type 1-D</td>
<td>Sealtight 2255 White</td>
<td>2013-115Q</td>
</tr>
<tr>
<td>W. R. Meadows, Inc., 300 Industrial Drive, P.O. Box 338, Hampshire, IL 60140-0338</td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Sealtight 1100</td>
<td>2013-128Q</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D, Translucent/Red Fugitive Dye</td>
<td>Sealtight 1200</td>
<td>1988-251</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>Sealtight 1600</td>
<td>1988-252</td>
</tr>
<tr>
<td>Right Pointe Company, 234 Harvestore Drive, Dekalb, IL 60115</td>
<td>Liquid Membrane-Forming Curing Compound, Acrylic Concrete Cure and Seal 350</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</td>
<td>2004-052Q</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, Clear Type 1-D</td>
<td>Right Sheen 30 350</td>
<td>2017-206Q</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>White Water Resin</td>
<td>2004-051Q</td>
</tr>
<tr>
<td></td>
<td>Liquid Membrane-Forming Curing Compound, White Pigmented, Type 2</td>
<td>White Water Wax WP</td>
<td>2003-033Q</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>VEXCN 15</td>
<td></td>
<td>Certi-Vex AC 1315</td>
<td>2002-126Q</td>
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<tr>
<td>VEXCN 15</td>
<td></td>
<td>Certi-Vex Envio RC 1000</td>
<td>2000-067Q</td>
</tr>
<tr>
<td>VEXCN 15</td>
<td></td>
<td>Envio Cure Clear 500</td>
<td>2000-068Q</td>
</tr>
<tr>
<td>VEXCN 15</td>
<td></td>
<td>Envio Cure White 500</td>
<td>2000-068Q</td>
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</table>

### 711.2(b) Concrete Curing Compound: White, Poly-alpha-methylstyrene (PAMS)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
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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>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
<th>Last Revised: 3/5/2019</th>
</tr>
</thead>
</table>

#### 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>
<th>Last Revised: 7/8/2015</th>
</tr>
</thead>
</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>
<th>Last Revised: 8/10/2017</th>
</tr>
</thead>
</table>
Section 711: Concrete Curing Material and Admixtures

### 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>
</table>

### 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.
## 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>Facility</td>
<td>23700 Chagrin Blvd. Cleveland, OH 44122</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Note:</td>
<td>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>
</tr>
<tr>
<td>Provisionally Approved</td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterCast 730S (Rheomix 730)</td>
<td>2.0 to 15 oz/cwt</td>
<td>2000-320Q</td>
</tr>
<tr>
<td>Plasticizing Admixture for Precast Only - Provisionally Approved</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Provisionally Approved
### 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><strong>BAS-15</strong></td>
<td><strong>Plant</strong></td>
<td>Allentown, PA</td>
<td></td>
<td></td>
</tr>
<tr>
<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>
<td>1978-030</td>
</tr>
<tr>
<td>For use in non-reinforced concrete only.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<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>
<td>1997-153</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-2106-01-032</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]</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>Provisionally Approved</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<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>
<td>2007-118Q</td>
</tr>
<tr>
<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>
<td>2009-083Q</td>
</tr>
<tr>
<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>
<td>2003-142Q</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 Entainment 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>High Range Water Reducing (Type F) Admixture [HRWR]</strong></td>
<td>MasterRheobuild 1000 (Rheobuild 1000)</td>
<td>1.0 to 25 oz/cwt</td>
<td>CADD-2105-01-070</td>
<td>1986-373</td>
</tr>
<tr>
<td><strong>Retarding (Type B) Admixture [RE]</strong></td>
<td>MasterPozzolith 200 (Pozzolith 200-N)</td>
<td>3.0 to 6.0 oz/cwt</td>
<td>CADD-2014-01-019</td>
<td>2000-142Q</td>
</tr>
<tr>
<td><strong>Retarding (Type B) Admixture [RE]</strong></td>
<td>MasterSet R 100 (Pozzolith 100-XR)</td>
<td>2.0 to 4.0 oz/cwt</td>
<td>CADD-2016-01-098</td>
<td>1969-013</td>
</tr>
<tr>
<td><strong>Water Reducing (Type A) Admixture [WR]</strong></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>
<tr>
<td><strong>Water Reducing (Type A) Admixture [WR]</strong></td>
<td>MasterGlenium 7500 (Glenium 7500)</td>
<td>2.0 to 15 oz/cwt</td>
<td>CADD-2014-01-085</td>
<td>2007-118Q</td>
</tr>
<tr>
<td><strong>Water Reducing (Type A) Admixture [WR]</strong></td>
<td>MasterGlenium 7620</td>
<td>2.0 to 3.6 oz/cwt</td>
<td>CADD-2014-01-052</td>
<td>2015-091QA</td>
</tr>
<tr>
<td><strong>Water Reducing (Type A) Admixture [WR]</strong></td>
<td>MasterPolyheed 1025 (PolyHeed 1025)</td>
<td>3.0 to 12 oz/cwt</td>
<td>CADD-2016-01-140</td>
<td>2003-142Q</td>
</tr>
<tr>
<td><strong>Provisionally Approved</strong></td>
<td>MasterPolyheed 900 (Polyheed 900)</td>
<td>3.0 to 15 oz/cwt</td>
<td>CADD-2014-01-084</td>
<td>2003-187Q</td>
</tr>
<tr>
<td><strong>Provisionally Approved</strong></td>
<td>MasterPolyheed 997 (Polyheed 997)</td>
<td>3.0 to 15 oz/cwt</td>
<td>CADD-2015-01-071</td>
<td>1990-336</td>
</tr>
<tr>
<td><strong>Provisionally Approved</strong></td>
<td>MasterPozzolith 200 (Pozzolith 200-N)</td>
<td>3.0 to 6.0 oz/cwt</td>
<td>CADD-2014-01-019</td>
<td>1975-066</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 Allentown, PA</td>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterPozzolith 700</td>
<td>3.0 to 5.0 oz/cwt</td>
</tr>
<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 (Type A) Admixture [WR]</td>
<td>MasterSet FP 20 (Pozzutec 20+)</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 10 oz/cwt</td>
</tr>
<tr>
<td></td>
<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>
</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>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<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>
</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>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-2010-02-015</td>
<td>1975-014</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 1466 (PS 1466)</td>
<td>2.0 to 10 oz/cwt</td>
<td>CADD-2016-01-142</td>
<td>2005-098Q</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>
</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>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>Provisionally Approved</td>
<td>MasterGlenium 7511 (PS 1583)</td>
<td>3.0 to 15 oz/cwt</td>
<td>CADD-2014-01-030</td>
<td>2011-253QB</td>
</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>2008-100Q</td>
</tr>
<tr>
<td>Provisionally 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>

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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>
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<tbody>
<tr>
<td>Plant</td>
<td>Gurnee, IL</td>
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</tr>
<tr>
<td>Provisionally Approved</td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterPolyheed 1020 (Polyheed 1020)</td>
<td></td>
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</tr>
<tr>
<td>Provisionally Approved</td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterSet FP 20 (Pozzutec 20+)</td>
<td>CADD-2016-01-096</td>
<td>2002-018Q</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><strong>Plant</strong></td>
<td><strong>Tipp City, OH</strong></td>
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<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>
</tr>
<tr>
<td><strong>Accelerating (Type C) Admixture [ACCL]</strong></td>
<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><strong>Accelerating (Type C) Admixture [ACCL]</strong></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><strong>Air Entraining Admixture [AEA]</strong></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>Provisionally Approved</strong></td>
<td>MasterAir AE 90 (MB AE 90)</td>
<td>As required</td>
<td>CADD-2016-01-029</td>
<td>1994-011</td>
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<tr>
<td><strong>Provisionally Approved</strong></td>
<td>MasterAir VR 10 (MB-VR Standard) (Pave-Air)</td>
<td>As required</td>
<td>CADD-2016-01-032</td>
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</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>
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<tr>
<td><strong>High Range Water Reducing (Type F) Admixture [HRWR]</strong></td>
<td>MasterGlenium 3400 (Glenium 3400 NV)</td>
<td>2.0 to 12 oz/cwt</td>
<td>CADD-2016-01-099</td>
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<tr>
<td><strong>Provisionally Approved</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><strong>High Range Water Reducing (Type F) Admixture [HRWR]</strong></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>

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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

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>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
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<tbody>
<tr>
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<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>MasterRheobuild 1000 (Rheobuild 1000)</td>
<td>1.0 to 25 oz/cwt</td>
<td>CADD-2015-01-070</td>
<td>1986-373</td>
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<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>MasterPozzolith 200 (Pozzolith 200-N)</td>
<td>3.0 to 6.0 oz/cwt</td>
<td>CADD-2018-01-028</td>
<td>2000-142Q</td>
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<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>MasterSet R 100 (Pozzolith 100-XR)</td>
<td>2.0 to 4.0 oz/cwt</td>
<td>CADD-2016-01-098</td>
<td>1969-013</td>
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<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>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterGlenium 7500 (Glenium 7500)</td>
<td>2 to 15 oz/cwt</td>
<td>CADD-2014-01-085</td>
<td>2007-118Q</td>
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<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterPolyheed 100 (Polyheed FC 100)</td>
<td>8 to 30 oz/cwt</td>
<td>CADD-2018-01-035</td>
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<td>Water Reducing (Type A) Admixture [WR]</td>
<td>MasterPolyheed 1725 (Polyheed 1725)</td>
<td>3.0 to 12 oz/cwt</td>
<td>CADD-2015-01-064</td>
<td>2010-212QA</td>
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</table>

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### 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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<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>
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<tr>
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<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>
</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>
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<th>Ref. No.</th>
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<tbody>
<tr>
<td></td>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Chryso TurboCast NCT</td>
<td>CADD-2016-01-024</td>
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<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>
<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>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Plant 227 Pearl Street</td>
<td>Auburndale, FL 33823</td>
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<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

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<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
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<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>
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</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>Accelguard 80</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>
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<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>
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<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>
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<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>
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<td>2012-204Q</td>
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<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Eucon Air MAC6</td>
<td>0.1 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>
<td>1975-080</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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<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Plastol 6400</td>
<td>7.0 to 12 oz/cwt</td>
<td>CADD-2016-01-002</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>
</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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<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><strong>Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799</strong> <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
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</tr>
<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>
</tr>
<tr>
<td><strong>NOTE:</strong> 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).</td>
<td></td>
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</tr>
<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><strong>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).</strong></td>
<td></td>
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</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>
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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>
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<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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<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>
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<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>2015-1220QB</td>
</tr>
<tr>
<td><strong>NOTE:</strong> 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).</td>
<td></td>
<td></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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**EUCLD 15**
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>
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<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>
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<tr>
<td></td>
<td>Water Reducing/Retarding (Type D) Admixture [RR] Eucon WR-91</td>
<td>6.0 to 10 oz/cwt</td>
<td>CADD-2017-01-084</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture BASF Master Fiber MAC Matrix</td>
<td>3.0 lbs/cy</td>
<td></td>
<td>2016-174Q</td>
</tr>
<tr>
<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>
<td>2013-045Q</td>
</tr>
<tr>
<td></td>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture BASF MasterFiber F 70</td>
<td>1.5 lbs/cy</td>
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<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>
<td></td>
<td></td>
<td>2013-047Q</td>
</tr>
<tr>
<td></td>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture BASF MasterFiber M 100</td>
<td>0.5 lbs/cy</td>
<td></td>
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<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>
<td></td>
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<td>2013-046Q</td>
</tr>
<tr>
<td></td>
<td>Monofilament or Collated Fibrillated Synthetic Fiber Admixture BASF MasterFiber MAC 100</td>
<td>3.0 lbs/cy</td>
<td></td>
<td>2013-048Q</td>
</tr>
<tr>
<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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</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>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>2016-156Q</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-2016-01-080</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-2016-01-080</td>
<td>2016-205Q</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Polychem 3000</td>
<td>6.0 to 20 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>Polychem SPC</td>
<td>5.0 to 12 oz/cwt</td>
<td>CADD-2017-01-075</td>
<td>2017-119Q</td>
</tr>
<tr>
<td>Retarding (Type B) Admixture [RE]</td>
<td>Polychem 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>Polychem 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>Polychem 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>Polychem Super Set</td>
<td>8.0 to 32 oz/cwt</td>
<td></td>
<td>1995-218</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>2016-206Q</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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<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>GCP Applied Technologies Inc., 62 Whittemore Ave., Cambridge, MA 02140-1692</td>
<td><strong>GRAC0 15</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62 Whittemore Ave. Cambridge, MA 02140-1692</td>
<td>Formerly: W. R. Grace and Company</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Accelerating (Type C) Admixture [ACCL]**
  - Daraccel
  - 6.0 to 40 oz/cwt
  - CADD-2017-01-054
  - 1983-257

- **Accelerating (Type C) Admixture [ACCL]**
  - DCI
  - 8.0 to 100 oz/cwt
  - CADD-2014-01-050
  - 1998-147Q

- **Accelerating (Type C) Admixture [ACCL]**
  - Polarset
  - 8.0 to 100 oz/cwt
  - CADD-2017-01-051

- **Air Entraining Admixture [AEA]**
  - Daravair 1000
  - 0.25 to 10 oz/cwt
  - CADD-2018-01-063
  - 1995-041

- **Air Entraining Admixture [AEA]**
  - Daravair 1400
  - 0.25 to 10 oz/cwt
  - CADD-2018-01-066
  - 1995-220

- **Air Entraining Admixture [AEA]**
  - Daravair AT60
  - 0.25 to 10 oz/cwt
  - CADD-2018-01-062
  - 1997-048

- **Air Entraining Admixture [AEA]**
  - Daravair M
  - 0.25 to 10 oz/cwt
  - CADD-2018-01-067
  - 1981-040

- **Air Entraining Admixture [AEA]**
  - Darex AEA
  - 0.25 to 10 oz/cwt
  - CADD-2018-01-065
  - 1980-049

- **Air Entraining Admixture [AEA]**
  - Daréx EEA AEA
  - 0.25 to 10 oz/cwt
  - CADD-2018-01-068
  - 2003-184Q

- **Air Entraining Admixture [AEA]**
  - Darex II AEA
  - 0.25 to 10 oz/cwt
  - CADD-2017-01-040
  - 1993-207

- **High Range Water Reducing (Type F) Admixture [HRWR]**
  - ADVA 140
  - 5.0 to 20 oz/cwt
  - CADD-2002-119Q
  - 2002-119Q

- **High Range Water Reducing (Type F) Admixture [HRWR]**
  - ADVA Cast 530
  - 3.0 to 10.0 oz/cwt
  - CADD-2019-01-037
  - 2002-045Q

- **High Range Water Reducing (Type F) Admixture [HRWR]**
  - Daracem 19
  - 5.0 to 20.0 oz/cwt
  - CADD-2019-01-034
  - 1979-028

- **Retarding (Type B) Admixture [RE]**
  - Daratard HC
  - 2.0 to 6.0 oz/cwt
  - CADD-2015-01-110

- **Water Reducing (Type A) Admixture [WR]**
  - Daraccel
  - 8.0 to 80 oz/cwt
  - CADD-2017-01-054
  - 1983-257

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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>

For non-reinforced concrete only.

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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

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<th>NTPEP Test Number</th>
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<tbody>
<tr>
<td>Formerly: W. R. Grace and Company</td>
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<td></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>
</tr>
<tr>
<td>For non-reinforced concrete only.</td>
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</tr>
<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>
</tr>
<tr>
<td>Provisionally Approved</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</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 1000</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-063</td>
<td>1995-041</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>
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<tr>
<td>Provisionally Approved</td>
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</tr>
<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>
</tr>
<tr>
<td>Air Entraining Admixture [ACA]</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ADVA 140</td>
<td>5.0 to 20 oz/cwt</td>
<td>CADD-2017-01-040</td>
<td>2002-119Q</td>
</tr>
<tr>
<td>Provisionally Approved</td>
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<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ADVA Flex</td>
<td>4.0 to 14 oz/cwt</td>
<td>CADD-2019-01-035</td>
<td>2015-070Q</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>
<td>-----</td>
</tr>
<tr>
<td>Provisionally Approved</td>
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</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>2012-101Q</td>
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<td>Provisionally Approved</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(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.

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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>
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<tbody>
<tr>
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<td><strong>Daracem 55</strong></td>
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<td></td>
<td><strong>Water Reducing (Type A) Admixture [WR]</strong></td>
<td>2.5 oz/cwt</td>
<td>CADD-2017-01-049</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>WRDA 20</strong></td>
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<tr>
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<td></td>
<td><strong>Water Reducing (Type A) Admixture [WR]</strong></td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2014-01-048</td>
</tr>
<tr>
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<td><strong>WRDA 35</strong></td>
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<td></td>
<td><strong>Water Reducing (Type A) Admixture [WR]</strong></td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2017-01-050</td>
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<td><strong>WRDA 82</strong></td>
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<td><strong>Water Reducing (Type A) Admixture [WR]</strong></td>
<td>2.0 to 6.0 oz/cwt</td>
<td>CADD-2019-01-031</td>
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<td><strong>WRDA/Hycol</strong></td>
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<td></td>
<td><strong>Water Reducing/Retarding (Type D) Admixture [RR]</strong></td>
<td>2.0 to 8.0 oz/cwt</td>
<td>CADD-2014-01-045</td>
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<tr>
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<td><strong>Recover</strong></td>
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<td><strong>Water Reducing/Retarding (Type D) Admixture [RR]</strong></td>
<td>3 to 5 oz/cwt</td>
<td>CADD-2017-01-049</td>
</tr>
<tr>
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<td><strong>WRDA 20</strong></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Water Reducing/Retarding (Type D) Admixture [RR]</strong></td>
<td>2.0 to 12 oz/cwt</td>
<td>CADD-2017-01-031</td>
</tr>
<tr>
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<td></td>
<td><strong>Zyla R</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Formerly: W. R. Grace and Company</strong></td>
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<tr>
<td><strong>For non-reinforced concrete only.</strong></td>
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<tr>
<td><strong>Dosages outside the &quot;recommended dosage&quot; may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</strong></td>
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</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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</thead>
<tbody>
<tr>
<td>Plant 6050 West 51st Street Chicago, IL 60638</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>Daraccel</td>
<td>6.0 to 40 oz/cwt</td>
<td>CADD-2017-01-054</td>
</tr>
<tr>
<td></td>
<td>For non-reinforced concrete only.</td>
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</tr>
<tr>
<td></td>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>DCI</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2014-01-050</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture [AEA]</td>
<td>Daravair 1400</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-066</td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture [AEA]</td>
<td>Daravair M</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-067</td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture [AEA]</td>
<td>Darex AEA</td>
<td>0.25 to 10 oz/cwt</td>
<td>CADD-2018-01-065</td>
</tr>
<tr>
<td></td>
<td>Air Entraining Admixture [AEA]</td>
<td>Terapave AEA</td>
<td>0.25 to 1 oz/cwt</td>
<td>CADD-2015-01-104</td>
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<tr>
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<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>
</tr>
<tr>
<td></td>
<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>
</tr>
<tr>
<td></td>
<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>
</tr>
<tr>
<td></td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>WRDA 20</td>
<td>2.5 oz/cwt</td>
<td>CADD-2017-01-049</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-2018-01-029 | 1974-037Q |
| Water Reducing/Retarding (Type D) Admixture [RR] | Recover | 2.0 to 8.0 oz/cwt | CADD-2014-01-045 | 2013-093Q |

Provisionally Approved
### Section 711: Concrete Curing Material and Admixtures

#### 711.3 Concrete Admixtures

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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>
<tbody>
<tr>
<td>Plant</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>
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</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>DCI</td>
<td>8.0 to 100 oz/cwt</td>
<td>CADD-2017-01-051</td>
<td>2010-102QA</td>
</tr>
<tr>
<td><strong>Accelerating (Type C) Admixture [ACCL]</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportionally Approved</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polarset</td>
<td></td>
<td>8.0 to 100 oz/cwt</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Plant | | | | |
| **Formerly: W. R. Grace and Company** | | | | |
| Air Entraining Admixture [AEA] | Darex AEA | 0.25 to 10 oz/cwt | CADD-2017-01-040 | 2010-103QA |
| **Air Entraining Admixture [AEA]** | | | | |
| Proportionally Approved | | | | |
| Darex II AEA | | 0.25 to 10 oz/cwt | | |
| **High Range Water Reducing (Type F) Admixture [HRWR]** | | 2.0 to 15 oz/cwt | CADD-2018-01-017 | 2016-297Q |
| ADVA 198 | | | | |
| **High Range Water Reducing (Type F) Admixture [HRWR]** | | 2.0 to 12 oz/cwt | CADD-2018-01-019 | 2016-173Q |
| ADVA Cast 585 | | | | |
| **High Range Water Reducing (Type F) Admixture [HRWR]** | | 2 to 15 oz/cwt | CADD-2018-01-016 | 2016-172Q |
| MIRA 95 | | | | |
| **Water Reducing (Type A) Admixture [WR]** | | 8.0 to 100 oz/cwt | CADD-2017-01-054 | 2010-103QA |
| Daraccel | | | | |
| **Water Reducing (Type A) Admixture [WR]** | | 2.0 to 6.0 oz/cwt | CADD-2017-01-023 | 2012-174Q |
| Zyla 640 | | | | |
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><strong>GREET 15</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Great Eastern Technologies, LLC, 4407 Broad Street, Yardville, NJ 08620</td>
<td>[AEA] Setcon 6A</td>
<td>0.25 to 4 oz/cwt</td>
<td>CADD-2015-01-054</td>
<td>2012-091Q</td>
</tr>
<tr>
<td></td>
<td>[HRWR] PolyStrong</td>
<td>up to 18 oz/cwt</td>
<td>CADD-2011-02-010</td>
<td>2012-070QC</td>
</tr>
<tr>
<td></td>
<td>[HRWR] PolyStrong HP</td>
<td>up to 18 oz/cwt</td>
<td>CADD-2015-01-053</td>
<td>2012-070QD</td>
</tr>
<tr>
<td></td>
<td>[RR] 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><strong>GRTLT 15</strong></td>
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<td></td>
</tr>
<tr>
<td>General Resource Technology, Inc. (Mapei GRT), 2978 Center Court, Eagan, MN 55121-1257</td>
<td>[ACCL] 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>Plant: Logan Township, NJ</td>
<td>[AEA] 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></td>
<td>[HRWR] Dynamon SX</td>
<td>3.0 to 15 oz/cwt</td>
<td>CADD-2016-01-080</td>
<td>2018-169Q</td>
</tr>
<tr>
<td></td>
<td>[WR] 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></td>
<td>[RR] Polychem R</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2016-01-093</td>
<td>2018-171Q</td>
</tr>
<tr>
<td><strong>MINRD 15</strong></td>
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</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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<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>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-2016-01-119</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-2016-01-119</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>2011-174QB</td>
<td></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-2016-01-127</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>2010-174Q</td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>EcoFlo Green</td>
<td>1.5 to 10 oz/cwt</td>
<td>2011-174QA</td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>OptiFlo 50</td>
<td>1.5 to 10 oz/cwt</td>
<td>2011-169Q</td>
<td></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-2016-01-120</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>2011-165Q</td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>UltraFlo 2000</td>
<td>up to 3.0 oz/cwt</td>
<td>2010-167QB</td>
<td></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>2011-177Q</td>
<td></td>
</tr>
<tr>
<td>Water Reducing/Retarding (Type D) Admixture [RR]</td>
<td>OptiFlo Renu</td>
<td></td>
<td>2011-176Q</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>RTECH 15 Rtech, Inc., 11208 Decimal Drive, Louisville, KY 40299</td>
<td></td>
<td></td>
<td></td>
<td></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>2016-268Q</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>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>

<table>
<thead>
<tr>
<th>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</th>
<th><a href="http://usa.sika.com/">http://usa.sika.com/</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sika Corpoation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Facility</td>
</tr>
<tr>
<td>201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td></td>
</tr>
<tr>
<td>Accelerating (Type C) Admixture [ACCL]</td>
<td>SikaSet NC</td>
</tr>
<tr>
<td>Air Entraining Admixture [AEA]</td>
<td>Sika Air</td>
</tr>
<tr>
<td>Early Strength Accelerator Admixture</td>
<td>Sika Rapid 1</td>
</tr>
<tr>
<td>Grout Fluidifier Admixture</td>
<td>Intraplást-N</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>Sikament 686</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ViscoCrete 2100</td>
</tr>
<tr>
<td>High Range Water Reducing (Type F) Admixture [HRWR]</td>
<td>ViscoCrete 6100</td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sikament 686</td>
</tr>
</tbody>
</table>

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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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<tr>
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<th>Recommended Dosage</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>-</td>
<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>
</tr>
<tr>
<td>-</td>
<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>
</tr>
<tr>
<td>-</td>
<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>
</tr>
<tr>
<td>-</td>
<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>
</tr>
<tr>
<td>-</td>
<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>
</tr>
<tr>
<td>-</td>
<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>
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<tr>
<td>-</td>
<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>
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<tr>
<td>-</td>
<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>
</tr>
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<td>-</td>
<td>Provisionally Approved</td>
<td></td>
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</tr>
<tr>
<td>-</td>
<td>Water Reducing (Type A) Admixture [WR]</td>
<td>Sikament 886</td>
<td>3.0 to 6.0 oz/cwt</td>
<td>CADD-2016-01-110</td>
</tr>
<tr>
<td>-</td>
<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>
</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.**
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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<tr>
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<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>SikaSet NC</td>
<td>8.0 to 64.0 oz/cwt</td>
<td>CADD-2014-01-033</td>
<td>2003-164Q</td>
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<tr>
<td></td>
<td>Sika AEA-14</td>
<td>Up to 3.0 oz/cwt</td>
<td>CADD-2016-01-001</td>
<td>2004-141Q</td>
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<tr>
<td></td>
<td>Sika AER-C</td>
<td>Up to 1.5 oz/cwt</td>
<td>CADD-2016-01-095</td>
<td>2012-138Q</td>
</tr>
<tr>
<td></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></td>
<td>Sika Air 260</td>
<td>Up to 6.0 oz/cwt</td>
<td>CADD-2016-01-106</td>
<td>2012-139Q</td>
</tr>
<tr>
<td></td>
<td>Sika Air 360</td>
<td>Up to 6.0 oz/cwt</td>
<td>CADD-2016-01-107</td>
<td>2012-140Q</td>
</tr>
<tr>
<td></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></td>
<td>IntraPlast-N</td>
<td>1% by weight of cementitious</td>
<td></td>
<td>1974-028</td>
</tr>
<tr>
<td></td>
<td>Sikament 610</td>
<td>5.0 to 18.0 oz/cwt</td>
<td>CADD-2014-01-034</td>
<td>2010-274QA</td>
</tr>
<tr>
<td></td>
<td>Sikament 886</td>
<td>6.0 to 18.0 oz/cwt</td>
<td>CADD-2016-01-114</td>
<td>2005-031Q</td>
</tr>
<tr>
<td></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></td>
<td>Sikament SPMN</td>
<td>Up to 40.0 oz/cwt</td>
<td>CADD-2017-01-014</td>
<td>2012-136QB</td>
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<tr>
<td></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></td>
<td>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></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></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></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>
</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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<tr>
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<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></td>
<td></td>
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</tr>
<tr>
<td><strong>Plant</strong></td>
<td><strong>Fairless Hills, PA</strong></td>
<td></td>
<td></td>
<td></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>
</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>Plastocrete-250</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2016-01-075</td>
<td>2018-2020Q</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 6.0 oz/cwt</td>
<td>CADD-2016-01-007</td>
<td>2008-031Q</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-2014-01-066</td>
<td>2008-032Q</td>
</tr>
<tr>
<td>Water Reducing and Accelerator (Type E) Admixture</td>
<td>SikaSet NC</td>
<td></td>
<td>CADD-2014-01-032</td>
<td>2009-032Q</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-2017-01-032</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>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Plastocrete 161</td>
<td>5.0 to 10.0 oz/cwt</td>
<td>CADD-2015-01-084</td>
<td>2016-183Q</td>
</tr>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Plastocrete-250</td>
<td>5 to 9 oz/cwt</td>
<td>CADD-2017-01-002</td>
<td>2018-203Q</td>
</tr>
<tr>
<td>Specrete-IP, Inc., 10703 Quebec Ave., Cleveland, OH 44106</td>
<td>Intrusion-Aid C</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
<tr>
<td>Specrete-IP, Inc., 10703 Quebec Ave., Cleveland, OH 44106</td>
<td>Intrusion-Aid DSC</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
<tr>
<td>Specrete-IP, Inc., 10703 Quebec Ave., Cleveland, OH 44106</td>
<td>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>Specrete-IP, Inc., 10703 Quebec Ave., Cleveland, OH 44106</td>
<td>Intrusion-Aid R</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
</tbody>
</table>

711.3(e) Latex Emulsion Admixture

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</td>
<td>Plastiment XR</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Plastiment XR</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Plastiment XR</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Plastiment XR</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
<tr>
<td>Specrete-IP, Inc., 10703 Quebec Ave., Cleveland, OH 44106</td>
<td>Intrusion-Aid C</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
<tr>
<td>Specrete-IP, Inc., 10703 Quebec Ave., Cleveland, OH 44106</td>
<td>Intrusion-Aid DSC</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
<tr>
<td>Specrete-IP, Inc., 10703 Quebec Ave., Cleveland, OH 44106</td>
<td>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>Specrete-IP, Inc., 10703 Quebec Ave., Cleveland, OH 44106</td>
<td>Intrusion-Aid R</td>
<td>2.0 to 5.0 oz/cwt</td>
<td>CADD-2014-01-095</td>
<td>2016-093Q</td>
</tr>
</tbody>
</table>
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>
</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>
<tbody>
<tr>
<td></td>
<td></td>
<td>Manufactured by Aqualon Company for BASF.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Viscosity Modifying Admixture [S-VM]</td>
<td>MasterMatrix VMA 450 (Rheomac VMA 450)</td>
<td>2011-251</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manufactured by Aqualon Company for BASF.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Last Revised: 5/1/2017

Last Revised: 8/12/2019

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**Notes:**

- The above information is from the Qualified Products List for Construction, Section 711: Concrete Curing Material and Admixtures. The list was last revised on 5/1/2017 for 711.3(e) Latex Emulsion Admixture, and 8/12/2019 for 711.3(f) Other Admixtures.

- Latex Emulsion Admixture details:
  - BASFC 15: BASF Corporation, 370 Frankfort Road, Monaca, PA 15061
    - Product: Latex Emulsion Admixture [LATEX]
    - Ref. No.: 2009-129Q
  - DOWRE 15: Dow Reichhold Specialty Latex, P. O. Box 13906, Research Triangle Park, NC 27709
    - Product: Latex Emulsion Admixture [LATEX]
    - Ref. No.: 1990-287
  - TRINO 15: Trinseo, LLC, 1000 Chesterbrook Blvd, Suite 300, Berwyn, PA 19312
    - Product: Latex Emulsion Admixture [LATEX]
    - Ref. No.: 2013-022Q

- Other Admixtures details:
  - ASH-0 15: Ashland Aqualon Functional Ingredients, 1313 North Market Street, Wilmington, DE 19801
    - Product: Anti-Washout Admixture - Army Corps Std. CRD-C 661-06
      - Manufactured by Aqualon Company for BASF.
      - Tested using MasterMatrix UW 450 (Rheomac UW 450).
    - Ref. No.: 2011-196
  - BAS-0 15: BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122
    - Product: Waterproofing Admixture [S-WP]
      - Tested using MasterPel 240 (Rheomix Rheopel).
      - Tested using CADD-2016-01-101.
    - Ref. No.: 1999-050Q
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>BAS-1 15</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</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>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
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<td></td>
</tr>
<tr>
<td>BAS-1115</td>
<td>BASF Construction Chemicals, LLC, Admixtures Div., 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td>Waterproofing Admixture [S-WP]</td>
<td>MasterLife 300D (Rheomac 300D)</td>
<td>2% of cement weight</td>
</tr>
<tr>
<td>Plant</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAS-2 15</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</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>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>BAS-3 15</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</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>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
<td></td>
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</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>
</table>
## Section 711: Concrete Curing Material and Admixtures

### 711.3(f) Other Admixtures: Specific Performance [Type S - AASHTO M 194/ASTM C 494]  
**Last Revised: 8/12/2019**

<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>
| **Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071**  
**1682 Marion Williamsport Road E Marion, OH 43302** | Specific Performance Workability Retention Admixture [S-WKR] | Sika ViscoFlow-2020 | 2.0 to 8.0 oz/cwt | 2016-092Q |
| Viscosity Modifying Admixture [S-VM] | Sika Stabilizer 300 SCC | 0.3 to 4.0 oz/cwt | CADD-2013-01-035 | 2016-254Q |

| **Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071**  
**Plant Fairless Hills, PA** | Anti-Washout Admixture - Army Corps Std. CRD-C 661-06 | Sikament 100SC | Provisionally Approved | 2010-274QB |
| Specific Performance Workability Retention Admixture [S-WKR] | Sika ViscoFlow-2020 | 2.0 to 8.0 oz/cwt | CADD-2016-01-117 | 2016-095Q |
| Viscosity Modifying Admixture [S-VM] | Sika Stabilizer 4R | 0.3 to 4.0 oz/cwt | CADD-2019-01-025 | 2010-278Q |

| **Troy Chemical Industries, Inc., 17040 Rapids Road, P. O. Box 430, Burton, OH 44021**  
| **For use in precast concrete only. Manufactured by Troy Chemical Industries, Inc. for BASF.** | Viscosity Modifying Admixture [S-VM] | BASF MasterMatrix VMA 358 (Rheomac VMA 358) | 2.0 to 10 oz/cwt | CADD-2015-01-090 | 2004-087Q |
| **Manufactured by Troy Chemical Industries, Inc. for BASF.** | Viscosity Modifying Admixture [S-VM] | BASF MasterMatrix VMA 362 (Rheomac VMA 362) | 2.0 to 10 oz/cwt | CADD-2015-01-091 | 2004-088Q |

| **Xypex Chemical Corporation, 13731 Mayfield Place, Richmond, British Columbia, Canada V6V 2G9**  

### 711.3(g) Fibers for Plastic Shrinkage Cracking

**Last Revised: 5/2/2017**
## 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>FABRO 15</td>
<td>Fabpro Polymers, 100 Fabpro Way, Kingman, KS 67068 <a href="http://www.fabpropolymers.com/">http://www.fabpropolymers.com/</a>&lt;br&gt;Monofilament or Collated Fibrillated Synthetic Fiber Admixture</td>
<td>BASF MasterFiber F 70</td>
<td>1.5 lbs/cy</td>
<td>2013-045Q &lt;br&gt;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>
</tr>
<tr>
<td></td>
<td></td>
<td>BASF MasterFiber M 100</td>
<td>0.5 lbs/cy</td>
<td>2013-047Q &lt;br&gt;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>
</tr>
<tr>
<td></td>
<td></td>
<td>BASF MasterFiber M 70</td>
<td>1.0 lbs/cy</td>
<td>2013-046Q &lt;br&gt;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>
</tr>
<tr>
<td></td>
<td></td>
<td>BASF MasterFiber MAC 100</td>
<td>3.0 lbs/cy</td>
<td>2013-048Q &lt;br&gt;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>
</tr>
<tr>
<td></td>
<td></td>
<td>BASF MasterFiber MAC Matrix</td>
<td>3.0 lbs/cy</td>
<td>2016-174Q &lt;br&gt;Dosages outside the “recommended dosage” may be necessary to meet specific mix design requirements. The manufacturer should be contacted in these situations.</td>
</tr>
</tbody>
</table>
## 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 Plant</td>
<td>Glen-Gery Corporation, State Route 970, Bigler, PA 16825</td>
<td>2010-159QA</td>
</tr>
<tr>
<td>GLNG2 15 Plant</td>
<td>Glen-Gery Corporation, 1090 East Boundary Avenue, York, PA 17403</td>
<td>2010-159QB</td>
</tr>
<tr>
<td>GLNG3 15 Plant</td>
<td>Glen-Gery Corporation, Route 28, Summerville, PA 15864</td>
<td>2010-159QC</td>
</tr>
<tr>
<td>GLNG4 15 Plant</td>
<td>Glen-Gery Corporation, 423 South Pottsville Pike, Shoemakersville, PA 19555</td>
<td>2010-159QD</td>
</tr>
<tr>
<td>WATBC 15</td>
<td>Watsontown Brick Company, Route 404, P.O. Box 68, Watsontown, PA 17777</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>----</td>
</tr>
<tr>
<td>CASTL 15</td>
<td>Castle Builders Supply Company, 1409 Moravia Street, New Castle, PA 16101</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>DIMLC 15</td>
<td>Dimedio Lime Company, 1801 Federal Street, Camden, NJ 08105</td>
<td>Precast Concrete Block</td>
</tr>
<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>Precast Concrete Block</td>
</tr>
<tr>
<td>FIZZ1 15</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>Precast Concrete Block</td>
</tr>
<tr>
<td>FIZZ2 15</td>
<td>Fizzano Brothers Concrete Products, Inc., 201 South Phoenixville Pike, Malvern, PA 19355 <a href="http://fizzano.com/">http://fizzano.com/</a></td>
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<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>
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<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>
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Section 714: Precast Concrete Products

### 714.2 Endwalls

See Standard Drawing RC-31M (Publication 72M)

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<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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### Section 714: Precast Concrete Products

#### 714.2 Endwalls

See Standard Drawing RC-31M (Publication 72M)

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<td>Continental Concrete Products, Inc., 1 South Grosstown Road, Pottstown, PA 19464 <a href="http://www.continentalconcrete.com/">http://www.continentalconcrete.com/</a></td>
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<td>CPPLL 15</td>
<td>Concrete Pipe and Precast, LLC, 401 South Carlisle Street, Greencastle, PA 17225 <a href="http://www.concretepandp.com/">http://www.concretepandp.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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### Section 714: Precast Concrete Products

#### 714.2 Endwalls

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>McCarroll Precast, Inc., 1129 Old 115, Dallas, PA 18612</td>
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<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>
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### Section 714: Precast Concrete Products

#### 714.2 Endwalls

See [Standard Drawing RC-31M (Publication 72M)](http://www.oldcastleprecast.com/Pages/default.aspx)

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<td>SCR CR 15</td>
<td>Scranton Craftsmen, Inc., 330 Dunmore Street, Troop, PA 18512</td>
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Section 714: Precast Concrete Products

714.2 Endwalls

See Standard Drawing RC-31M (Publication 72M)

Last Revised: 6/12/2018

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<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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<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>
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<td>WINEC 15</td>
<td>Wine Concrete Products, Inc., 1000 Big Sewickley Creek Road, Sewickley, PA 15143</td>
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714.2 Glare Screen

See Standard Drawing RC-59M (Publication 72M)

Last Revised: 5/19/2015

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<td>52”/50” 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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<td>EAGLE 15</td>
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<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>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</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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<td>Inlet, Type '10</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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<th>Product</th>
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<td>Inlet, Type 4</td>
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|          | Inlet, Type 4 | ----- |
|          | Inlet, Type 5 | ----- |
|          | Inlet, Type 6 | ----- |
|          | Inlet, Type 7 | ----- |
|          | Inlet, Type 8 | ----- |
|          | Inlet, Type 9 | ----- |
## Section 714: Precast Concrete Products

### 714.2 Inlet Assemblies

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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

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>CONTN 15</td>
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| 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, Standard    | 2012-069QA |
|                    | Inlet, Type 10     | 2012-069QH |
|                    | Inlet, Type 4      | 2012-069QB |
|                    | Inlet, Type 5      | 2012-069QC |
|                    | Inlet, Type 6      | 2012-069QD |
|                    | Inlet, Type 7      | 2012-069QE |
|                    | Inlet, Type 8      | 2012-069QF |
|                    | Inlet, Type 9      | 2012-069QG |
### Section 714: Precast Concrete Products

#### 714.2 Inlet Assemblies

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<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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**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>MILL1 15</td>
<td>A. C. Miller Concrete Products, Inc., 31 E. Bridge Street, Spring City, PA 19475 <a href="http://www.acmiller.com/">http://www.acmiller.com/</a></td>
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Section 714: Precast Concrete Products

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# Section 714: Precast Concrete Products

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| OLP-2 15 | Oldcastle Infrastructure, Inc., a CRH Company, 3900 Glover Road, Easton, PA 18040 [http://www.oldcastleprecast.com/Pages/default.aspx](http://www.oldcastleprecast.com/Pages/default.aspx) Formerly Oldcastle Precast |  |
| Inlet, Standard | |  |
| Inlet, Type 10 | |  |
| Inlet, Type 4 | |  |
| Inlet, Type 5 | |  |
| Inlet, Type 6 | |  |
| Inlet, Type 7 | |  |
| Inlet, Type 8 | |  |
| Inlet, Type 9 | |  |
| Inlet, Type D-H | |  |
## Section 714: Precast Concrete Products

### 714.2 Inlet Assemblies

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<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>
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<td>Waterford Precast and Sales, Inc., 511 Bagdad Road, Waterford, PA 16441</td>
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<td>WINEC 15</td>
<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>Altomare Precast, Inc., 4300 Wissahickon Avenue, Philadelphia, PA 19129</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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<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>Inlet Top, Type C</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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<tr>
<th>Product</th>
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<td>Dixon Precast and Supply, 740 Laurel Run Road, West Decatur, PA 16878</td>
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<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
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<tr>
<td>FIHFC 15</td>
<td>Fi-Hoff Concrete Products, Inc., 240 Bentwood Avenue, Johnstown, PA 15904</td>
<td><a href="http://fi-hoff.com/">http://fi-hoff.com/</a></td>
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<td>Fi-Hoff Concrete Products, Inc., 240 Bentwood Avenue, Johnstown, PA 15904</td>
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<tr>
<td>Fi-Hoff Concrete Products, Inc., 240 Bentwood Avenue, Johnstown, PA 15904</td>
<td>Inlet Top, Type M</td>
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<td>Fi-Hoff Concrete Products, Inc., 240 Bentwood Avenue, Johnstown, PA 15904</td>
<td>Inlet Top, Type S</td>
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<tr>
<td>MACK0 15</td>
<td>Mack Industries of PA, Inc., 2207 Sodom-Hutchings Road, Vienna, OH 44473</td>
<td><a href="http://www.mackconcrete.com/">http://www.mackconcrete.com/</a></td>
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<td>Mack Industries of PA, Inc., 2207 Sodom-Hutchings Road, Vienna, OH 44473</td>
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<td>Mack Industries of PA, Inc., 2207 Sodom-Hutchings Road, Vienna, OH 44473</td>
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### Section 714: Precast Concrete Products

#### 714.2 Inlet Tops

See [Standard Drawing RC-45M (Publication 72M)](https://www.example.com)

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<tr>
<th>Product</th>
<th>Name</th>
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<tr>
<td>MCCAR 15</td>
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<td>Inlet Top, Type C</td>
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<td>Inlet Top, Type D-H Level</td>
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<td>Inlet Top, Type M</td>
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<td>Inlet Top, Type S</td>
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<td>Inlet Top, Type C</td>
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<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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<td>Inlet Top, Type C</td>
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<td>Inlet Top, Type D-H</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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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</table>
| OLP-2 15 | Oldcastle Infrastructure, Inc., a CRH Company, 3900 Glover Road, Easton, PA 18040 [http://www.oldcastleprecast.com/Pages/default.aspx](http://www.oldcastleprecast.com/Pages/default.aspx)  
Formerly Oldcastle Precast | Inlet Top, Type C | 2006-182Q |
|         |                                           | Inlet Top, Type D-H | ---- |
|         |                                           | Inlet Top, Type D-H Level | ---- |
|         |                                           | Inlet Top, Type M | 2006-183Q |
|         |                                           | Inlet Top, Type S | 2006-187Q |
| POLCP 15 | Poland Concrete Products, Inc., 210 Overlook Avenue, Hillsville, PA 16132 | Inlet Top, Type C | 2010-327QD |
|         |                                           | Inlet Top, Type M | 2010-327QE |
|         |                                           | Inlet Top, Type M | 2013-050QE |
| RAHN- 15 | Rahns Construction Materials Company, 430 Bridge Road, Rahns, PA 19426 | Inlet Top, Type C | ---- |
|         |                                           | Inlet Top, Type M | ---- |
|         |                                           | Inlet Top, Type M | 2015-036QA |
## Section 714: Precast Concrete Products

### 714.2 Inlet Tops

Last Revised: 5/16/2018

See Standard Drawing RC-45M (Publication 72M)

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<th>Product Name Ref. No.</th>
<th>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></th>
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<tr>
<td>TERH0 15</td>
<td>Plant PLANT #2: P.O. Box 10 Terre Hill, PA 17581</td>
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- Inlet Top, Type C
- Inlet Top, Type D-H
- Inlet Top, Type D-H Level
- Inlet Top, Type M
- Inlet Top, Type S

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<th>Product Name Ref. No.</th>
<th>Terre Hill Concrete Products, PLANT #4; 42 South Butler Road, Lebanon, PA 17042 <a href="http://www.terrehill.com/">http://www.terrehill.com/</a></th>
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<td>TERH1 15</td>
<td>Plant PLANT #4: 42 South Butler Road Lebanon, PA 17042</td>
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- Inlet Top, Type D-H
- Inlet Top, Type D-H Level

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<tr>
<th>Product Name Ref. No.</th>
<th>Waterford Precast and Sales, Inc., 511 Bagdad Road, Waterford, PA 16441</th>
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<td>WATRF 15</td>
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- Inlet Top, Type C
- Inlet Top, Type M
- Inlet Top, Type S

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<th>Product Name Ref. No.</th>
<th>Wine Concrete Products, Inc., 1000 Big Sewickley Creek Road, Sewickley, PA 15143</th>
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- Inlet Top, Type C
- Inlet Top, Type C Alternate
- Inlet Top, Type D-H
- Inlet Top, Type D-H Level
- Inlet Top, Type M
- Inlet Top, Type S

### 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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<tr>
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<th>Product</th>
<th>Name</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 <strong><a href="https://bryanmaterialsgroup.com/">https://bryanmaterialsgroup.com/</a></strong></td>
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<td>CONSS 15</td>
<td>Concrete Safety Systems, LLC, 9190 Old Route 22, Bethel, PA 19507 <strong><a href="http://concretesafety.com/">http://concretesafety.com/</a></strong></td>
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<td>DIXPS 15</td>
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<td>EAGLE 15</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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<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>JB-2</td>
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<td>WINEC 15</td>
<td>Wine Concrete Products, Inc., 1000 Big Sewickley Creek Road, Sewickley, PA 15143</td>
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### 714.2 Utility Hole Sections (Reinforced Concrete)

Last Revised: 5/16/2018
Section 714: Precast Concrete Products

### 714.2 Utility Hole Sections (Reinforced Concrete)

For Sanitary Sewer Utility Holes, see Standard Drawing RC-38M (Publication 72M)

For Storm Water Utility Holes, see Standard Drawing RC-39M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>ALTFJ 15</td>
<td>Altomare Precast, Inc., 4300 Wissahickon Avenue, Philadelphia, PA 19129</td>
<td><a href="http://www.altomareprecast.com/">http://www.altomareprecast.com/</a></td>
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<tr>
<td>ATLCP 15</td>
<td>Atlantic Concrete Products, Inc., 8900 Old Route 13, Tullytown, PA 19007-1375</td>
<td><a href="http://www.atlanticconcrete.com/">http://www.atlanticconcrete.com/</a></td>
</tr>
<tr>
<td>BINGH 15</td>
<td>Binghamton Precast and Supply, 18 Phelps Street, Binghamton, NY 13901</td>
<td><a href="http://www.binghamtonprecast.com/">http://www.binghamtonprecast.com/</a></td>
</tr>
<tr>
<td>CONCR 15</td>
<td>Concrete Concepts, Inc., 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>CONTN 15</td>
<td>Continental Concrete Products, Inc., 1 South Grosstown Road, Pottstown, PA 19464</td>
<td><a href="http://www.continentalconcrete.com/">http://www.continentalconcrete.com/</a></td>
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<tr>
<td>CPPLL 15</td>
<td>Concrete Pipe and Precast, LLC, 401 South Carlisle Street, Greencastle, PA 17225</td>
<td><a href="http://www.concretepandp.com/">http://www.concretepandp.com/</a></td>
</tr>
<tr>
<td>EAGLE 15</td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
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</tr>
<tr>
<td>FIHFC 15</td>
<td>Fi-Hoff Concrete Products, Inc., 240 Bentwood Avenue, Johnstown, PA 15904</td>
<td><a href="http://fi-hoff.com/">http://fi-hoff.com/</a></td>
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<tr>
<td>MACK0 15</td>
<td>Mack Industries of PA, Inc., 2207 Sodom-Hutchings Road, Vienna, OH 44473</td>
<td><a href="http://www.mackconcrete.com/">http://www.mackconcrete.com/</a></td>
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## Section 714: Precast Concrete Products

### 714.2 Utility Hole Sections (Reinforced Concrete)

For Sanitary Sewer Utility Holes, see [Standard Drawing RC-38M (Publication 72M)](#).

For Storm Water Utility Holes, see [Standard Drawing RC-39M (Publication 72M)](#).

<table>
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<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
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<td>McCarroll Precast, Inc., 1129 Old 115, Dallas, PA 18612</td>
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<td></td>
<td>Utility Hole Section (RC)</td>
</tr>
<tr>
<td>OLP-215</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>
</tr>
<tr>
<td></td>
<td>Formerly Oldcastle Precast</td>
</tr>
<tr>
<td></td>
<td>Utility Hole Section (RC)</td>
</tr>
<tr>
<td>POLCP15</td>
<td>Poland Concrete Products, Inc., 210 Overlook Avenue, Hillsville, PA 16132</td>
</tr>
<tr>
<td></td>
<td>Utility Hole Section (RC)</td>
</tr>
<tr>
<td></td>
<td>Utility Hole Section (RC)</td>
</tr>
<tr>
<td>RAHN15</td>
<td>Rahns Construction Materials Company, 430 Bridge Road, Rahns, PA 19426</td>
</tr>
<tr>
<td></td>
<td>Utility Hole Section (RC)</td>
</tr>
<tr>
<td></td>
<td>Utility Hole Section (RC)</td>
</tr>
<tr>
<td></td>
<td>Utility Hole Section (RC)</td>
</tr>
</tbody>
</table>
Section 714: Precast Concrete Products

714.2 Utility Hole Sections (Reinforced Concrete)

For Sanitary Sewer Utility Holes, see Standard Drawing RC-38M (Publication 72M)

For Storm Water Utility Holes, see Standard Drawing RC-39M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<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>
</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>
</tr>
<tr>
<td>WINEC 15</td>
<td>Wine Concrete Products, Inc., 1000 Big Sewickley Creek Road, Sewickley, PA 15143</td>
</tr>
</tbody>
</table>

714.2 Median Barrier (Temporary and Permanent)

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</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> Previous Supplier Codes: SRST0 15 &amp; ADVPS 15</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>
</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)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</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></td>
</tr>
<tr>
<td></td>
<td>32&quot; Double Face with JJ Hook</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>34”/32&quot; Double Face (RC 57M)</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>41” Single Face (RC 58M)</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>
<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” Double Face with JJ Hook</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>32” Double Face with JJ Hook (MASH)</td>
<td>2013-194QB</td>
</tr>
<tr>
<td></td>
<td>32” Double Face-I Beam (NJ/NY) non-structure mounted</td>
<td>2017-028</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></td>
<td>34”/32” Double Face (RC 57M)</td>
<td>2010-069Q</td>
</tr>
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### 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)]

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTSS 15</strong> Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
<td>32&quot; Double Face-I Beam (NJ/NY) non-structure mounted 20' NYS I-Beam, NJ Shape Only</td>
<td>2014-266QB</td>
</tr>
<tr>
<td></td>
<td>34&quot;/32&quot; Double Face (RC 57M)</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>41&quot; Single Face (RC 58M)</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>41&quot; Single Face (RC 58M)</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>41&quot; Single Face (RC 58M)</td>
<td>2013-083Q</td>
</tr>
<tr>
<td><strong>NITT1 15</strong> Nitterhouse Concrete Products Inc., P. O. Box N, Chambersburg, PA 17201 <a href="http://nitterhouseconcrete.com/">http://nitterhouseconcrete.com/</a></td>
<td>34&quot;/32&quot; Double Face (RC 57M)</td>
<td>----</td>
</tr>
<tr>
<td><strong>NORPR 15</strong> Northeast Precast, 92 Reese Road, Millville, NJ 08332 <a href="http://www.northeastprecast.com/">http://www.northeastprecast.com/</a></td>
<td>32&quot; Double Face-I Beam (NJ/NY) non-structure mounted 20' NYS I-Beam, NJ Shape Only</td>
<td>2012-118A</td>
</tr>
<tr>
<td><strong>OLP-1 15</strong> 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>
<td>34&quot;/32&quot; Double Face (RC 57M)</td>
<td>----</td>
</tr>
<tr>
<td><strong>WHICO 15</strong> 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>32&quot; Double Face with JJ Hook</td>
<td>2011-187Q</td>
</tr>
</tbody>
</table>
### Section 714: Precast Concrete Products

#### 714.2 Sound Barrier

<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>
<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>2009-133Q</td>
</tr>
</tbody>
</table>
## Section 714: Precast Concrete Products

### 714.2 Sound Barrier

<table>
<thead>
<tr>
<th>Product</th>
<th>Last Revised: 12/27/2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FADD2 15</strong></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>
</tr>
<tr>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
<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>
</tr>
<tr>
<td>Sound Barrier Panel</td>
<td>2010-105Q</td>
</tr>
<tr>
<td>Sound Barrier Post (Precast)</td>
<td>2010-105Q</td>
</tr>
<tr>
<td><strong>INTSS 15</strong></td>
<td>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
</tr>
<tr>
<td>Sound Barrier Panel</td>
<td>2012-178Q</td>
</tr>
<tr>
<td>Note: Previously assigned J&amp;RS2 15 for same facility</td>
<td></td>
</tr>
<tr>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
<tr>
<td>Sound Barrier Panel</td>
<td>2008-180Q</td>
</tr>
<tr>
<td>Sound Barrier Post (Precast)</td>
<td>2008-180Q</td>
</tr>
<tr>
<td><strong>MILL0 15</strong></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>
</tr>
<tr>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
<tr>
<td><strong>NITT1 15</strong></td>
<td>Nitterhouse Concrete Products Inc., P. O. Box N, Chambersburg, PA 17201 <a href="http://nitterhouseconcrete.com/">http://nitterhouseconcrete.com/</a></td>
</tr>
<tr>
<td>Sound Barrier Panel</td>
<td></td>
</tr>
<tr>
<td>Sound Barrier Post (Precast)</td>
<td></td>
</tr>
</tbody>
</table>
## Section 714: Precast Concrete Products

### 714.2 Sound Barrier

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NORPP 15</td>
<td>Northeast Prestressed Products LLC, 121 River Street, Cressona, PA 17929-1133</td>
<td>NORPP 15</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>WILLA 15</td>
<td>K. J. Williams Concrete Company, Inc., P.O. Box 5137, Cresaptown, MD 21505-5137</td>
<td>WILLA 15</td>
</tr>
<tr>
<td>Plant 15213 McMullen Highway S.W. Cumberland, MD 21502</td>
<td></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

<table>
<thead>
<tr>
<th>Product Name Ref. No.</th>
<th>Product 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</td>
<td>CONSS 15</td>
</tr>
<tr>
<td></td>
<td>32” Double Face</td>
<td></td>
</tr>
<tr>
<td></td>
<td>42” 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>EAGLE 15</td>
</tr>
<tr>
<td></td>
<td>32” Double Face</td>
<td></td>
</tr>
<tr>
<td></td>
<td>42” Single Face</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50” Double Face</td>
<td></td>
</tr>
<tr>
<td>FADD2 15</td>
<td>Faddis Concrete Products, 205 West Washington Street, New Castle, PA 16101</td>
<td>FADD2 15</td>
</tr>
<tr>
<td></td>
<td>32” Double Face</td>
<td></td>
</tr>
<tr>
<td></td>
<td>42” Single Face</td>
<td></td>
</tr>
<tr>
<td></td>
<td>50” Double Face</td>
<td></td>
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</table>
Section 714: Precast Concrete Products

714.2 Temporary Concrete Barrier, Structure Mounted (BC 719)

Note: Approved Bridge and Structure Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FADD 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></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)](http://www.mackconcrete.com/)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>THOM 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 Plant</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% ---- CaCl Type S, Grade 1, Class A or B LIQUIDOW 30-42% 1992-345</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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</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>2000-109Q</td>
</tr>
<tr>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Hampton Corners, NY</td>
<td></td>
</tr>
<tr>
<td>Salt Mines: Avery Island, LA; Cleveland, OH; Lansing, NY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Avery Island, LA</td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Cleveland, OH</td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride, Type 1, Grade 1</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>2009-157Q</td>
</tr>
<tr>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Salar Grande, Iquique, Chile</td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Detroit, MI</td>
<td></td>
</tr>
<tr>
<td>Kinder Morgan Bulk Terminal 1000 South Port Road Fairless Hills, PA 19030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Siwa and Quattara, Egypt</td>
<td></td>
</tr>
<tr>
<td>HAVN1 15</td>
<td>Haven Salt Company LLC, 409 North State Street, Clarks Summit, PA 18411</td>
<td>2017-189Q</td>
</tr>
<tr>
<td>Kinder Morgan Bulk Terminals 1 Sinter Road Fairless Hills, PA 19030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Rio de Janeiro, Brazil</td>
<td></td>
</tr>
<tr>
<td>HOOPS 15</td>
<td>Hoopes Fertilizer Works, Inc., 9866 Freshley Ave., NE, Alliance, OH 44601</td>
<td>2008-190</td>
</tr>
<tr>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>Ice Bite 55</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></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>Ref. No.</th>
</tr>
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<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
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</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
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</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>Formerly North American Salt Company</td>
<td>----</td>
</tr>
<tr>
<td></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>1995-122A</td>
</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2013-116Q</td>
</tr>
<tr>
<td>RIVERT15 Terminal</td>
<td>Riverside Construction Materials, 355 Newbold Road, Fairless Hills, PA 19030</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>7900 N. Radcliffe Street Bristol, PA 19007</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2018-089Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally approved.</td>
<td>----</td>
</tr>
<tr>
<td>SOCPD 15</td>
<td>K+S Chile S. A., Av. Tajamar 183, Piso 6, Las Condes, Santiago, Chile [Formerly Sociedad Punta de Lobos S.A. (SOCPD 15)]</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>Sodium Chloride, Type 1, Grade 1</td>
<td>2005-060Q</td>
</tr>
<tr>
<td></td>
<td>Las Condes, Santiago, Chile</td>
<td>----</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</td>
<td>Annville, PA 17003</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)

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></td>
<td>Belews Creek Power Station</td>
<td>Belews Creek</td>
<td>NC</td>
<td>2014-187Q</td>
</tr>
<tr>
<td></td>
<td>Fly Ash, Class F</td>
<td>ProAsh, Belews Creek Power Station</td>
<td>Belews Creek</td>
<td>NC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1514 Dunnaway Road</td>
<td>Semora</td>
<td>NC</td>
<td>2016-026Q</td>
</tr>
<tr>
<td></td>
<td>Fly Ash, Class F</td>
<td>ProAsh, Roxboro Plant</td>
<td>Semora</td>
<td>NC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Creek Road</td>
<td>McIntyre</td>
<td>GA</td>
<td>2014-218M</td>
</tr>
<tr>
<td></td>
<td>Fly Ash, Class N</td>
<td>MetaMax</td>
<td>McIntyre</td>
<td>GA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>200-B Neville Island</td>
<td>Labadie</td>
<td>MO</td>
<td>2014-261Q</td>
</tr>
<tr>
<td></td>
<td>Pittsburgh, PA 15225</td>
<td>Fly Ash, Class C</td>
<td>Labadie</td>
<td>MO</td>
</tr>
<tr>
<td></td>
<td>200-B Neville Island</td>
<td>Festus</td>
<td>MO</td>
<td>2011-098Q</td>
</tr>
<tr>
<td></td>
<td>Pittsburgh, PA 15225</td>
<td>Fly Ash, Class C</td>
<td>Festus</td>
<td>MO</td>
</tr>
<tr>
<td></td>
<td>200-B Neville Island</td>
<td>Petersburg</td>
<td>IN</td>
<td>2005-050Q</td>
</tr>
<tr>
<td></td>
<td>Pittsburgh, PA 15225</td>
<td>Fly Ash, Class F</td>
<td>Petersburg</td>
<td>IN</td>
</tr>
</tbody>
</table>
# Bulletin 15 (Publication 35)

**Qualified Products List for Construction**

*Posted: 10/21/2019 3:02:16PM*

## 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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<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 <a href="http://charah.com">http://charah.com</a></td>
<td>North Bend</td>
<td>OH</td>
<td>2002-175Q</td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>Miami Fort Station (Dynegy, Inc.)</td>
<td>North Bend</td>
<td>OH</td>
<td>2002-175Q</td>
</tr>
<tr>
<td></td>
<td>Acceptable for use in concrete mixes to reduce alkali 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 Ciner 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 <a href="http://charah.com">http://charah.com</a></td>
<td>Moscow</td>
<td>OH</td>
<td>2003-052Q</td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>Zimmer Power Station (Dynegy, Inc.)</td>
<td>Moscow</td>
<td>OH</td>
<td>2003-052Q</td>
</tr>
<tr>
<td></td>
<td>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>ENELP 15 Plant</td>
<td>Enel Produzione SpA, Viale Regina Margherita, 125, Roma 00198</td>
<td>Via Aurelia Nord 32 Civitavecchia</td>
<td>Civitavecchia, Italy</td>
<td>2016-108Q</td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td></td>
<td>Civitavecchia</td>
<td>Italy</td>
<td>2016-108Q</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></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>Fly Ash, Class F</td>
<td>John E. Amos Plant (Operated by Appalachian Power, subsidiary of American Electric Power)</td>
<td>Winfield</td>
<td>WV</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>
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<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEADWA15 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>Quinton, AL</td>
<td>AL</td>
<td>2008-143Q</td>
</tr>
<tr>
<td>Fly Ash, Class C</td>
<td>Miller Power Station (Alabama Power)</td>
<td>Quinton</td>
<td>AL</td>
<td></td>
</tr>
<tr>
<td>HEADWB15 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>Baldwin, IL</td>
<td>IL</td>
<td>2005-072Q</td>
</tr>
<tr>
<td>Fly Ash, Class C</td>
<td>Dynegy-Baldwin Power Station</td>
<td>Baldwin</td>
<td>IL</td>
<td></td>
</tr>
<tr>
<td>HEADWC15 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>Havana, IL</td>
<td>IL</td>
<td>2006-002Q</td>
</tr>
<tr>
<td>Fly Ash, Class C</td>
<td>Dynegy-Havana Power Station</td>
<td>Havana</td>
<td>IL</td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>Fort Martin Power Station</td>
<td>Maidasville</td>
<td>WV</td>
<td></td>
</tr>
<tr>
<td>HEADWH15 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>Stratton, OH</td>
<td>OH</td>
<td>1997-146Q</td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>W. H. Sammis Power Plant</td>
<td>Stratton</td>
<td>OH</td>
<td></td>
</tr>
<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>Washingtonville, PA</td>
<td>PA</td>
<td>2018-165Q</td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>Washingtonville, PA (Harvested Fly Ash)</td>
<td>Washingtonville</td>
<td>PA</td>
<td></td>
</tr>
</tbody>
</table>

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.
## 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 Ref. No.</th>
<th>Name</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEADWL15</td>
<td>Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095</td>
<td>Labadie</td>
<td>MO</td>
<td>2005-083Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Fly Ash, Class C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Labadie Power Plant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEADWM15</td>
<td>Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095</td>
<td>Festus</td>
<td>MO</td>
<td>2001-138Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Fly Ash, Class C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rush Island Power Plant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEADWN15</td>
<td>Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095</td>
<td>Conesville</td>
<td>MO</td>
<td>2017-254Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Fly Ash, Class C</td>
<td></td>
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<tr>
<td></td>
<td>Conesville Power Plant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEADWP15</td>
<td>Boral Resources (formerly Headwaters Resources, Inc.), 10701 S. River Front Parkway, Suite 300, South Jordan, UT 84095</td>
<td>Moundsville</td>
<td>WV</td>
<td>2019-058Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Fly Ash, Class F</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AEP Mitchell Power Plant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moundsville Power Plant</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.

### HOLI 15

<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>HOLI1115</td>
<td>Holcim (US) Inc., North East Sales Group, 4303 Rt 9, Hudson, NY 12534</td>
<td>Detroit Edison Belle River</td>
<td>MI</td>
<td>2014-046Q</td>
</tr>
<tr>
<td>Terminal</td>
<td>Fly Ash, Class C</td>
<td></td>
<td>Available Alkalies = 5.00%</td>
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</tr>
<tr>
<td></td>
<td>Detroit Edison Belle River Power Plant</td>
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<td></td>
</tr>
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</table>

### LAFRA 15

<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>LAFRA15</td>
<td>Lafarge North America, 20408 West Renwick Road, Lockport, IL 60441-0089</td>
<td>American Electric Power</td>
<td>IN</td>
<td>1992-052</td>
</tr>
<tr>
<td>Plant</td>
<td>Fly Ash, Class C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rockport, IN</td>
<td></td>
<td></td>
<td></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](http://www.lafarge-na.com/).

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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>Fly Ash, Class C</td>
<td>Federal White's Skyline, Lafarge Terminal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class C</td>
<td>Pennsy Supply, Paxton Street Lafarge Terminal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RIVERT15 Terminal</td>
<td>Riverside Construction Materials, 355 Newbold Road, Fairless Hills, PA 19030</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>Enel Produzione SpA</td>
<td>Civitavecchia, Italy</td>
<td>2016-087Q</td>
<td></td>
</tr>
<tr>
<td>Terminal for ENELP 2016-108Q. 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>SEFA1 15</td>
<td>The Sefa Group, 217 Cedar Road, Lexington, SC 29073 <a href="http://sefagroup.com/">http://sefagroup.com/</a></td>
<td>Shelocta, PA</td>
<td>2016-028Q</td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>Keystone Generating Station</td>
<td></td>
<td></td>
<td></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>SEFA2 15</td>
<td>The Sefa Group, 217 Cedar Road, Lexington, SC 29073 <a href="http://sefagroup.com/">http://sefagroup.com/</a></td>
<td>Newburg, MD</td>
<td>2011-268Q</td>
<td></td>
</tr>
<tr>
<td>Fly Ash, Class F</td>
<td>Star GenOn Morgantown Generating Station</td>
<td></td>
<td></td>
<td></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>Fly Ash, Class F</td>
<td>Brunner Island Steam Electric Station (PP&amp;L)</td>
<td></td>
<td></td>
<td></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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<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</td>
<td>ProAsh (Brandon Shores Wagner Station)</td>
<td>Baltimore</td>
<td>MD</td>
</tr>
<tr>
<td>STECHC15</td>
<td>Separation Technologies, LLC, 188 Summerfield Court, Suite 101, Roanoke, VA 24019</td>
<td>ProAsh (Longview Power Plant)</td>
<td>Maidville</td>
<td>WV</td>
</tr>
<tr>
<td>STECHD15</td>
<td>Separation Technologies, LLC, 188 Summerfield Court, Suite 101, Roanoke, VA 24019</td>
<td>ProAsh (PP&amp;L Generation, Brunner Island Station)</td>
<td>York Haven</td>
<td>PA</td>
</tr>
<tr>
<td>STECHT15</td>
<td>Separation Technologies, LLC, 188 Summerfield Court, Suite 101, Roanoke, VA 24019</td>
<td>ProAsh (Longview Power Plant)</td>
<td>Maidville</td>
<td>WV</td>
</tr>
</tbody>
</table>

### 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](#).

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<tr>
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<tbody>
<tr>
<td>STECHB15</td>
<td>Separation Technologies, LLC, 188 Summerfield Court, Suite 101, Roanoke, VA 24019</td>
<td>ProAsh (Brandon Shores Wagner Station)</td>
<td>Baltimore</td>
<td>MD</td>
</tr>
<tr>
<td>STECHC15</td>
<td>Separation Technologies, LLC, 188 Summerfield Court, Suite 101, Roanoke, VA 24019</td>
<td>ProAsh (Longview Power Plant)</td>
<td>Maidville</td>
<td>WV</td>
</tr>
<tr>
<td>STECHD15</td>
<td>Separation Technologies, LLC, 188 Summerfield Court, Suite 101, Roanoke, VA 24019</td>
<td>ProAsh (PP&amp;L Generation, Brunner Island Station)</td>
<td>York Haven</td>
<td>PA</td>
</tr>
<tr>
<td>STECHT15</td>
<td>Separation Technologies, LLC, 188 Summerfield Court, Suite 101, Roanoke, VA 24019</td>
<td>ProAsh (Longview Power Plant)</td>
<td>Maidville</td>
<td>WV</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

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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><strong>Formerly Essroc Materials, Inc. (ESS-6 15)</strong></td>
<td>Blast Furnace Slag, Grade 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARGO4 15</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><strong>Formerly Essroc Materials, Inc. (ESS10 15)</strong></td>
<td>Blast Furnace Slag, Grade 100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Formerly Essroc Materials, Inc. (ESS16 15)</strong></td>
<td>Blast Furnace Slag, Grade 100</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Former product names: i.tech Slag & Essroc Slag. 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.
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</th>
<th>Plant City</th>
<th>Plant State</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>(Formerly Holcim (Canada) Inc.)</td>
<td>Blast Furnace Slag, Grade 100</td>
<td>GranCem Cement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<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>Terminal</td>
<td>Blast Furnace Slag, Grade 100</td>
<td>GranCem Cement (Plant Ref. No. 2000-087)</td>
<td>Mississauga</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<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></td>
<td>Blast Furnace Slag, Grade 100</td>
<td>Skyway Cement (Plant Ref. No. 2009-094)</td>
<td>Chicago</td>
<td>IL</td>
<td>2009-194Q</td>
</tr>
<tr>
<td></td>
<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></td>
<td></td>
<td>Purchased by Skyway Cement Company with effective date of July 11th, 2015 and supplier code of SKYC1 15.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Blast Furnace Slag, Grade 100</td>
<td>NewCem 100</td>
<td>Baltimore</td>
<td>MD</td>
<td></td>
</tr>
<tr>
<td></td>
<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></td>
<td>Blast Furnace Slag, Grade 120</td>
<td>NewCem 120</td>
<td>Baltimore</td>
<td>MD</td>
<td>1993-230</td>
</tr>
<tr>
<td></td>
<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>Plant</td>
<td>Blast Furnace Slag, Grade 120</td>
<td>NewCem 120</td>
<td>Chicago</td>
<td>IL</td>
<td></td>
</tr>
<tr>
<td></td>
<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>LAFR1715 Terminal</td>
<td>Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052</td>
<td>1529 Chartiers Avenue Pittsburgh, PA 15204</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blast Furnace Slag, Grade 120</td>
<td>NewCem 120, (Plant Ref. No. 1993-230)</td>
<td>Baltimore (Sparrows Point)</td>
<td>MD</td>
<td>1993-230</td>
</tr>
</tbody>
</table>

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.

| LAFR1815 Plant | Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 | Woodstock, Ontario |  |  |
| Blast Furnace Slag, Grade 100 | NewCem 100 | Woodstock | Ontario | 2018-100Q |

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.

| LAFR2 15 Terminal | Lafarge North America, Northeast Region, 5160 Main Street, Whitehall, PA 18052 | Cleveland Cement Terminal/Slag 2500 Elm Street Cleveland, OH 44113 |  |  |
| Blast Furnace Slag, Grade 120 | NewCem 120 | Chicago | IL | 2006-234Q |

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.

| LEH-3 15 Plant | Lehigh Cement Company, LLC, 537 Evansville Road, Fleetwood, PA 19522 | Evansville Plant, Fleetwood, PA |  |  |
| Blast Furnace Slag, Grade 120 | Lehigh Slag Cement GGBFS (ALLCEM) | Evansville | PA | 2001-058Q |

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.

| LEH-4 15 Terminal | Lehigh Cement Company, LLC, 100 Woodlawn Road, Aliquippa, PA 15001-5404 |  |  |  |
| Blast Furnace Slag, Grade 120 | Lehigh Slag Cement, GGBFS (ALLCEM) | Evansville | PA | 2011-035Q |

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>LEH15 15 Plant</td>
<td>Lehigh Cement Company, LLC, 595 Morgan Blvd, Camden, NJ 08104</td>
<td>Lehigh Slag Cement, GGBFS (ALLCEM)</td>
<td>Camden</td>
<td>NJ</td>
</tr>
<tr>
<td></td>
<td>595 Morgan Blvd Camden, NJ 08104</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Formerly Essroc ESS15 15)</td>
<td>Blast Furnace Slag, Grade 120</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<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>
</tr>
<tr>
<td>LEH16 15 Terminal</td>
<td>Lehigh Cement Company, LLC, 8282 Middlebranch Road, Middlebranch, OH 44652</td>
<td>Lehigh Slag Cement GGBFS (ALLCEM)</td>
<td>Middlebranch</td>
<td>OH</td>
</tr>
<tr>
<td></td>
<td>[Slag Plant, Cement Terminal] Middlebranch, OH 44652</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Formerly Essroc ESS-4 15)</td>
<td>Blast Furnace Slag, Grade 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<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>
</tr>
<tr>
<td>SKYC1 15 Plant</td>
<td>Skyway Cement Company, 1717 North Naper Blvd., Suite 111, Naperville, IL 60563</td>
<td>Skyway Cement</td>
<td>Chicago</td>
<td>IL</td>
</tr>
<tr>
<td></td>
<td>3020 East 103rd Street Chicago, IL 60617</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Formerly Holcim (HOLI0 15, HOLI1 15, and HOLI9 15)</td>
<td>Blast Furnace Slag, Grade 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SKYC2 15 Terminal</td>
<td>Skyway Cement Company LLC, 1717 North Naper Blvd., Suite 111, Naperville, IL 60563</td>
<td>Skyway Cement</td>
<td>Chicago</td>
<td>IL</td>
</tr>
<tr>
<td></td>
<td>445 Grantham Street Tarentum, PA 15084</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Leased cement terminal from Holcim (HOLI1 15)</td>
<td>Blast Furnace Slag, Grade 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate.</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](mailto: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>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>SKYC4 15</td>
<td>Skyway Slag Cement (Plant Ref. No. 2009-094)</td>
<td>Chicago</td>
<td>IL</td>
<td>2017-227Q</td>
</tr>
<tr>
<td>STMC4 15</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>
<td>Skyway Slag Cement (Plant Ref. No. 2009-094)</td>
<td>Chicago</td>
<td>IL</td>
<td>2018-145Q</td>
</tr>
</tbody>
</table>

Acceptable for use in concrete mixes to reduce alkali silica reactivity of aggregate. Material is stored in a leased silo from LafargeHolcim (LAFR1715). Note: Skyway Cement Company’s Bill of Ladings for SKYC3 15 are signed by LafargeHolcim terminal employees.
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>BAS-0 15</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td>MasterLife SF 100 (densified) (formerly Rheomac SF 100)</td>
<td>Alloy</td>
<td>WV</td>
</tr>
<tr>
<td>Facility</td>
<td>23700 Chagrin Blvd.  Cleveland, OH 44122</td>
<td>23700 Chagrin Blvd.  Cleveland, OH 44122</td>
<td></td>
<td></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>80 County Road 210  Burnsville, MS 38833</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>Burnsville</td>
<td>WV</td>
</tr>
<tr>
<td>REDMS 15</td>
<td>RED Industrial Products &amp; Mississippi Silicon Partnership, 4 Village Park Drive, #110, Grove City, PA 16127</td>
<td>MasterLife SF 100 (densified)</td>
<td>Burnsville</td>
<td>MS</td>
</tr>
<tr>
<td>Plant</td>
<td>80 County Road 210  Burnsville, MS 38833</td>
<td>80 County Road 210  Burnsville, MS 38833</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIKA1 15</td>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>SikaCrete 950 DP (densified)</td>
<td>Burnsville</td>
<td>MS</td>
</tr>
<tr>
<td>Plant</td>
<td>1682 Marion Williamsport Road E Marion, OH 43302</td>
<td>1682 Marion Williamsport Road E Marion, OH 43302</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Producer of Silica Fume: Norchem
Section 724: Pozzolans - Supplementary Cementitious Materials

724.4 Silica Fume (AASHTO M307)  
Last Revised: 9/4/2019

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](mailto: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>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>SikaCrete 950DP (densified)</td>
<td>Alloy</td>
<td>WV</td>
<td>1990-216</td>
</tr>
</tbody>
</table>

Producer of Silica Fume: Norchem
## 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>Plant</td>
<td>Route 422 &amp; Clear Springs Road Annville, PA 17003</td>
<td></td>
</tr>
<tr>
<td>Lime Pozzolan</td>
<td>Envirolime</td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>Pleasant Gap, PA</td>
<td></td>
</tr>
<tr>
<td>Lime Pozzolan</td>
<td>Calciment</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>
</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>
<tbody>
<tr>
<td>LANDM 15</td>
<td>L &amp; M Supply Company, 1800 Springhead Church Road, P.O. Box 640, Willacoochee, GA 31650-0640 <a href="https://www.landmsupplyco.com/">https://www.landmsupplyco.com/</a></td>
<td>GTX-2015-01-206</td>
<td>2016-036Q</td>
</tr>
</tbody>
</table>
## Section 735: Geotextiles

### 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>
<tbody>
<tr>
<td>PROP3 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>Class 3, Type A Geotextile (Woven Slit Film) GEOTEX 200ST GTX-2016-01-244</td>
<td>2017-055Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Class 3, Type B Geotextile (Woven Slit Film) GEOTEX 2130 GTX-2015-01-071</td>
<td>2017-056Q</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>Class 3, Type A Geotextile (Woven Slit Film) SW 200 GTX-2016-01-266</td>
<td>2006-194Q</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>Facility Gujarat, India Class 3, Type B Geotextile (Woven Slit Film) W100 GTX-2016-01-264</td>
<td>2017-043Q</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>Facility Ahmedabad, India Class 3, Type A Geotextile (Woven Slit Film) Mirafi 500X GTX-2016-01-175</td>
<td>2017-077Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Class 3, Type B Geotextile (Woven Slit Film) GTF-200 GTX-2014-01-103</td>
<td>2017-149Q</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>Class 3, Type A Geotextile (Woven Slit Film) WINFAB 200W GTX-2014-01-038</td>
<td>2011-102QA,B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Class 3, Type B Geotextile (Woven Slit Film) WINFAB 105SF GTX-2016-01-031</td>
<td>2016-188Q</td>
</tr>
</tbody>
</table>

### 735.1(b) Class 4, Type A Geotextile - Separation & Erosion Control

Last Revised: 5/23/2019

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# 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>
<tbody>
<tr>
<td></td>
<td>Class 4, Type A Geotextile (Non-woven Needle Punched)</td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td>LANDM 15</td>
<td>L &amp; M Supply Company, 1800 Springhead Church Road, P.O. Box 640, Willacoochee, GA 31650-0640 <a href="https://www.landmsupplyco.com/">https://www.landmsupplyco.com/</a></td>
<td>LM 1200E NT</td>
<td>2017-283PL6</td>
</tr>
<tr>
<td></td>
<td>Class 4, Type A Geotextile (Non-woven Needle Punched)</td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4019 Industry Drive, Chattanooga, TN 37416</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 4, Type A Geotextile (Non-woven Needle Punched)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>428 Rollins Industrial Blvd. Ringgold, GA 30736</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 4, Type A Geotextile (Non-woven Needle Punched)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class 4, Type A Geotextile (Non-woven Needle Punched)</td>
<td>Provisionally Approved</td>
<td></td>
</tr>
</tbody>
</table>
### 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>
<tbody>
<tr>
<td>Pendergrass, GA &amp; Cornelia, GA</td>
<td>Mirafi E1200</td>
<td>GTX-2016-01-271</td>
<td>2017-047Q</td>
</tr>
<tr>
<td></td>
<td>Formerly known as Mirafi S1200.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mirafi S1200</td>
<td>GTX-2016-01-271</td>
<td>2017-047Q</td>
</tr>
<tr>
<td></td>
<td>Effective in 2019, the product name has changed from Mirafi S1200 to Mirafi E1200. To allow distributors to ship the remaining inventories of Mirafi S1200, both product names are approved and acceptable for PennDOT projects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Texel Technical Materials, Inc., 485 des Erables, Saint-Elzear (Quebec), G0S 2J0 Canada</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1300, 2e Rue, Parc Industriel Sainte-Marie (Quebec), G6E 1G8 Canada</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mirafi E1200</td>
<td>GTX-2016-01-271</td>
<td>2017-073Q</td>
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<td>Mirafi S1200</td>
<td>GTX-2016-01-271</td>
<td>2017-047Q</td>
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<td></td>
<td>Effective in 2019, the product name has changed from Mirafi S1200 to Mirafi E1200. To allow distributors to ship the remaining inventories of Mirafi S1200, both product names are approved and acceptable for PennDOT projects.</td>
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<tr>
<td>Plant</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Thrace-LINQ, Inc., 2550 West 5th North Street, Summerville, SC 29483-9699</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>1200EX</td>
<td>GTX-2016-01-164</td>
<td>2016-200Q</td>
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<td></td>
<td>Provisionally Approved</td>
<td></td>
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</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>
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<tr>
<td>Plant</td>
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<tr>
<td></td>
<td>Willacoochee Ind. Fabrics, Inc, 769 West Main Street, P.O. Box 599, Willacoochee, GA 31650</td>
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<td></td>
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<tr>
<td></td>
<td>WINFAB 1200NE</td>
<td>GTX-2016-01-164</td>
<td>2016-226Q</td>
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<td></td>
<td>Provisionally Approved</td>
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</tbody>
</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](#).
## 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>
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<tbody>
<tr>
<td>LANDM 15</td>
<td>L &amp; M Supply Company, 1800 Springhead Church Road, P.O. Box 640, Willacoochee, GA 31650-0640 <a href="https://www.landmsupplyco.com/">https://www.landmsupplyco.com/</a></td>
<td>GTX-2015-01-197</td>
<td>2016-046Q</td>
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<td></td>
<td>Class 4, Type C Geotextile (Woven Polypropylene)</td>
<td>GTX-2014-01-022</td>
<td>2016-096Q</td>
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<td></td>
<td>WINFAB 4x4</td>
<td>GTX-2014-01-022</td>
<td>2016-096Q</td>
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<td></td>
<td>WINFAB 570HP</td>
<td>GTX-2014-01-022</td>
<td>2016-096Q</td>
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</table>
### Section 736: Geomembrane

**736 Geomembrane, High Density Polyethylene (HDPE)**

<table>
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<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td></td>
<td>Geomembrane (HDPE)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AA Microspike</td>
<td>1999-196</td>
</tr>
<tr>
<td></td>
<td>Geomembrane (HDPE)</td>
<td></td>
</tr>
<tr>
<td></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></td>
<td>Geomembrane (HDPE)</td>
<td></td>
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<tr>
<td></td>
<td>GSE HD Smooth</td>
<td>1999-189</td>
</tr>
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<td>Geomembrane (HDPE)</td>
<td></td>
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<tr>
<td></td>
<td>GSE HD Textured</td>
<td>1999-189</td>
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<td></td>
<td>Geomembrane (HDPE)</td>
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<td></td>
<td>Rufco 3300B</td>
<td>2001-125Q</td>
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<td></td>
<td>Geomembrane (HDPE)</td>
<td>2000-148</td>
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<td></td>
<td>400 Series</td>
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</table>
# Section 737: Geocell

## 737 Geocell

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>GeoCell, Perforated or Non-Perforated</td>
<td>2001-122Q</td>
</tr>
<tr>
<td></td>
<td>(EnviroGrid EGA20)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GeoCell, Perforated or Non-Perforated</td>
<td>2001-122Q</td>
</tr>
<tr>
<td></td>
<td>(EnviroGrid EGA30)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GeoCell, Perforated or Non-Perforated</td>
<td>2001-122Q</td>
</tr>
<tr>
<td></td>
<td>(EnviroGrid EGA40)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TerraCell 140 (Type A - 4&quot;, 6&quot;, or 8&quot; cell depth)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TerraCell 175 (Type B - 4&quot;, 6&quot;, or 8&quot; cell depth)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TerraCell 280 (Type C - 4&quot;, 6&quot;, or 8&quot; cell depth)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Geocell, Perforated</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GeoWeb GW20V (Type A - 4&quot;, 6&quot;, or 8&quot; cell depth)</td>
<td></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><a href="http://www.geoace.com/">http://www.geoace.com/</a></td>
<td>2012-027ME</td>
</tr>
<tr>
<td>TCGEO 15</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>
<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>Plant</td>
<td>Wood Fiber Excel Wood Fiber Mulch II</td>
<td>1992-313</td>
</tr>
<tr>
<td>ENCAP15</td>
<td>Encap, LLC, 3921 Algoma Road, Green Bay, WI 54311-9707 <a href="http://encap.net/">http://encap.net/</a></td>
<td>2007-128</td>
</tr>
<tr>
<td>Wood Fiber Pam-12 Recycled Paper Mulch</td>
<td>2007-128</td>
<td></td>
</tr>
<tr>
<td>HSTRAW15</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>2012-153</td>
</tr>
<tr>
<td>Straw</td>
<td>HydroStraw® Original</td>
<td>2012-153</td>
</tr>
<tr>
<td>MATTT15</td>
<td>Mat, Inc., 12402 Highway 2, Floodwood, MN 55736 <a href="https://www.matinc.biz/">https://www.matinc.biz/</a></td>
<td>2011-074QA</td>
</tr>
<tr>
<td>Wood Fiber Bindex Wood WT</td>
<td>2011-074QA</td>
<td></td>
</tr>
<tr>
<td>Wood Fiber Mat Fiber Plus</td>
<td>1992-150D</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Wood Fiber Conwed Fibers 2000</td>
<td>1990-279</td>
</tr>
<tr>
<td>219 Simpson Street SW Conover, NC 28613</td>
<td>Wood Fiber Conwed Fibers Hydro Mulch 1000</td>
<td>2014-162MB</td>
</tr>
<tr>
<td>Wood Fiber EcoSolutions EcoFibre™</td>
<td>2016-113</td>
<td></td>
</tr>
<tr>
<td>Wood Fiber Lesco HydroCover Wood</td>
<td>2016-113</td>
<td></td>
</tr>
<tr>
<td>Wood Fiber SoilCover Wood</td>
<td>2016-113</td>
<td></td>
</tr>
<tr>
<td>Wood Fiber Terra-Mulch Terra-Wood™</td>
<td>2016-113</td>
<td></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>Wood Fiber</td>
<td>GeoSkin Hydraulic (Wood Fiber Alternate)</td>
<td>2010-125</td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved as an alternate.</td>
<td></td>
</tr>
<tr>
<td>Wood Fiber</td>
<td>GeoSkin XT Hydraulic (Wood Fiber Alternate)</td>
<td>2010-135</td>
</tr>
<tr>
<td></td>
<td>Conditionally Approved as an alternate.</td>
<td></td>
</tr>
</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>Plant</td>
<td>Mulch and Grow BFM</td>
<td>2014-008Q</td>
</tr>
<tr>
<td>CENTF 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> 1525 Waynesburg Drive SE Canton, OH 44707 (Formerly Central Fiber LLC)</td>
<td></td>
</tr>
<tr>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>EnviroMatt</td>
<td>2013-156Q</td>
</tr>
<tr>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>SprayMatt</td>
<td>2013-157Q</td>
</tr>
<tr>
<td>EMSAL 15</td>
<td>E M Sales, LLC, 212 East High Street, Suite 102, Pottstown, PA 19464 <a href="http://emsalesllc.com/">http://emsalesllc.com/</a></td>
<td></td>
</tr>
<tr>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>Fibre Mat</td>
<td>1997-133</td>
</tr>
<tr>
<td>HSTRAW15</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></td>
</tr>
<tr>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>HydroStraw® Bonded Fiber Matrix (BFM)</td>
<td>2012-155</td>
</tr>
<tr>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>HydroStraw® Guar Plus</td>
<td>2012-154</td>
</tr>
</tbody>
</table>
# Section 805: Mulching

**805.2(a)1.e Mulches: Seeded Areas, Bonded Fiber Matrix**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Facility/Plant</th>
<th>Manufacturer/Name</th>
<th>Address</th>
<th>Website</th>
<th>Description</th>
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<tbody>
<tr>
<td>MATNU 15</td>
<td>Mat, Inc., 12402 Highway 2, Floodwood, MN 55736</td>
<td>Mat-NuWood, LLC</td>
<td>811 Price Place, Lenoir, NC 28645</td>
<td><a href="https://www.matinc.biz/">https://www.matinc.biz/</a></td>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>Spray Guard</td>
</tr>
<tr>
<td>MATT 15</td>
<td>Mat, Inc., 12402 Highway 2, Floodwood, MN 55736</td>
<td>Mat-NuWood, LLC</td>
<td>811 Price Place, Lenoir, NC 28645</td>
<td><a href="https://www.matinc.biz/">https://www.matinc.biz/</a></td>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>Bindex BFM</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Provisionally Approved</td>
<td>Flex Guard</td>
</tr>
<tr>
<td>PROFP 15</td>
<td>Profile Products, LLC, 750 W. Lake Cook Road, Suite 440, Buffalo Grove, IL 60089</td>
<td>Profile Products, LLC</td>
<td>219 Simpson Street SW, Conover, NC 28613</td>
<td><a href="http://www.profileproducts.com/">http://www.profileproducts.com/</a></td>
<td>Polymer or Hydrocolloid Binder Matrix</td>
<td>EcoSolutions EcoAegis® BFM</td>
</tr>
<tr>
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<td>Provisionally Approved</td>
<td>EcoSolutions EcoFlex™ HP-FGM™</td>
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<td>EcoSolutions EcoMatrix™ (EFM)</td>
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<td>Flexible HP-FGM</td>
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<td>Hydro-Blanket</td>
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<td>Conditionally Approved as an alternate.</td>
<td>Hydro CM Hydraulically-Applied Mulch</td>
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</table>

*Conditionally approved as an alternate.*
Section 805: Mulching

805.2(a)1.e Mulches: Seeded Areas, Bonded Fiber Matrix

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td></td>
<td>(Formerly Terra Novo, Inc.)</td>
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<tr>
<td></td>
<td>Polymer or Hydrocolloid Binder Matrix</td>
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<td>EarthGuard Fiber Matrix</td>
<td>2013-053Q</td>
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<tr>
<td>USGY1 15</td>
<td>U. S. Gypsum Company, Industrial Products, 125 South Franklin Street, Chicago, IL 60606-4678</td>
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<tr>
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<td>Gypsum Binder Matrix</td>
<td>1994-114</td>
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<td>Airtrol</td>
<td>2006-189Q</td>
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<td>Enviro-Shield</td>
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805.2(a)2 Mulches: Planting and Other Areas

<table>
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<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td></td>
<td>Shredded Bark</td>
<td>1991-029</td>
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<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></td>
</tr>
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<td></td>
<td>Spent Mushroom Compost</td>
<td>2003-013Q</td>
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<td></td>
<td>LVS Horticultural Compost</td>
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<tr>
<td></td>
<td>Spent Mushroom Compost</td>
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<tr>
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<td>LVS Premium Compost</td>
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805.2(b) Mulch Binders

Wood Fiber [See 805.2(a)1.c]

<table>
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<tr>
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<td>Nonasphaltic Emulsion</td>
<td>1990-278</td>
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<tr>
<td></td>
<td>Recycled Cellulose Fiber</td>
<td>2010-007Q</td>
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<tr>
<td></td>
<td>Mulch and Grow Hybrid 70/30 Blend</td>
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</tr>
<tr>
<td></td>
<td>Recycled Cellulose Fiber</td>
<td>2010-006Q</td>
</tr>
<tr>
<td></td>
<td>Mulch and Grow Premium Cellulose</td>
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</tr>
<tr>
<td></td>
<td>Recycled Cellulose Fiber/Wood Fiber Mixture</td>
<td>2004-077Q</td>
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</tbody>
</table>
Section 805: Mulching

805.2(b) Mulch Binders

Wood Fiber [See 805.2(a.1.c)]

<table>
<thead>
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<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CENTF 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></td>
</tr>
<tr>
<td>Plant</td>
<td>1525 Waynesburg Drive SE, Canton, OH 44707</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Formerly Central Fiber LLC)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recycled Cellulose Fiber</td>
<td></td>
</tr>
<tr>
<td>EMSAL 15</td>
<td>E M Sales, LLC, 212 East High Street, Suite 102, Pottstown, PA 19464 <a href="http://emsalesllc.com/">http://emsalesllc.com/</a></td>
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<td>Nonasphaltic Emulsion</td>
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<td></td>
<td>Mulchmate Hydro Tac</td>
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<tr>
<td></td>
<td>Recycled Cellulose Fiber</td>
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<tr>
<td></td>
<td>Quickseed</td>
<td>1987-187</td>
</tr>
<tr>
<td>MATTT 15</td>
<td>Mat, Inc., 12402 Highway 2, Floodwood, MN 55736 <a href="https://www.matinc.biz/">https://www.matinc.biz/</a></td>
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<tr>
<td></td>
<td>Recycled Cellulose Fiber</td>
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<td>Mat Blend</td>
<td>1992-150A</td>
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<td>Recycled Cellulose Fiber plus</td>
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<td>Mat Blend Plus</td>
<td>1992-150B</td>
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<td></td>
<td>Recycled Cellulose Fiber/wood Fiber mixture</td>
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<td>Bindex Blend WT</td>
<td>2011-074QC</td>
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<td>Recycled Cellulose Fiber</td>
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<td>Evergreen Fiber Mulch</td>
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<tr>
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<td>TAC-L</td>
<td>2001-082Q</td>
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<tr>
<td>PROFT 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>
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<tr>
<td>Plant</td>
<td>219 Simpson Street SW, Conover, NC 28613</td>
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<td>Nonasphaltic Emulsion</td>
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<td></td>
<td>Contack</td>
<td>1990-280</td>
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<tr>
<td>PROFT 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>
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<tr>
<td>Plant</td>
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<td>Recycled Cellulose Fiber</td>
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<td>SoilCover Cellulose</td>
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<td>Recycled Cellulose Fiber plus</td>
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<td></td>
<td>Terra-Mulch Cellulose</td>
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<td>Recycled Cellulose Fiber plus</td>
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<td></td>
<td>Tornado Tack ST-1000</td>
<td>2015-032Q</td>
</tr>
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## Section 805: Mulching

### 805.2(b) Mulch Binders

Wood Fiber [See 805.2(a.1.c)]  
Last Revised: 6/3/2016

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>RANTC 15</td>
<td>Rantec Corporation, 17 Kukuchka Lane, P.O. Box 729, Ranchester, WY 82839 <a href="http://www.ranteccorp.com/">http://www.ranteccorp.com/</a></td>
<td>Nonasphaltic Emulsion HF5000 Tack 2012-211</td>
</tr>
<tr>
<td>TURGD 15</td>
<td>Turf Guard Manufacturing, Inc., 489 Sweet Valley Road, Hunlock Creek, PA 18621 <a href="http://www.beltonindustries.com/">http://www.beltonindustries.com/</a></td>
<td>Nonasphaltic Emulsion Earth Bond 2002-017Q</td>
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</tbody>
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### 805.2(c) Mulch Control Netting

Last Revised: 5/27/2015

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BELTN 15</td>
<td>Belton Industries, P.O. Box 127, Belton, SC 29627 <a href="http://www.beltonindustries.com/">http://www.beltonindustries.com/</a></td>
<td>Coconut Coir Netting Dekowe Geonet -----</td>
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</tbody>
</table>

### 805.2(d) Weed Barrier and Weed Control Mats

Last Revised: 5/27/2015

<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 <a href="http://hanesgeo.com/">http://hanesgeo.com/</a></td>
<td>Weed Barrier Mat Terra Tex NO3 1996-125, Weed Barrier Mat Terra Tex NO4 1986-295, Weed Barrier Mat Terra Top WC -----</td>
</tr>
</tbody>
</table>
## Section 805: Mulching

### 805.2(d) Weed Barrier and Weed Control Mats

Last Revised: 5/27/2015

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tr>
<td>Weed Barrier Mat</td>
<td>125EX</td>
<td>1999-120Q</td>
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<td>Weed Barrier Mat</td>
<td>GTF 200 WBM</td>
<td>1991-329</td>
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<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.

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<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>ABITC 15 Abitec, Inc., 105 Grove Circle, Chalfont, PA 18914</td>
<td>EC Mat</td>
<td>Jute Mat</td>
<td>1999-192Q</td>
</tr>
<tr>
<td>AMEE0 15 American Excelsior Company, 850 Avenue H East, Arlington, TX 76011</td>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>Curltex I Excel Blanket</td>
<td>1982-029</td>
</tr>
<tr>
<td></td>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>Curltex Quickgrass</td>
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<td></td>
<td>High Velocity EC Mulch Blanket</td>
<td>Curltex II Excel Blanket</td>
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<td></td>
<td>High Velocity EC Mulch Blanket</td>
<td>Curltex III (HV)</td>
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</tr>
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</table>
Section 806: Rolled Erosion Control Products (RECPs)

806.2(a) Erosion Control (EC) Mats and EC Mulch Blankets

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Excelsior Company, 850 Avenue H East, P.O. Box 5067, Arlington, TX 76011</td>
<td>AMEE1 15</td>
<td><a href="http://americanexcelsior.com/">http://americanexcelsior.com/</a></td>
</tr>
<tr>
<td>Plant</td>
<td>831 Pioneer Avenue Rice Lake, WI</td>
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<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>AEC Premier Straw Fibrenet Single Net</td>
<td>2013-219M</td>
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<td>Conditionally Approved</td>
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<td></td>
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<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>AEC Premier Straw Single Net</td>
<td>2008-064Q</td>
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<tr>
<td>Conditionally Approved</td>
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<td></td>
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<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>Curlex I Fibrenet Single Net</td>
<td>2013-221M</td>
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<td>Conditionally Approved</td>
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<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>AEC Premier Straw Double Net</td>
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<td>AEC Premier Straw Fibrenet Double Net</td>
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<td>AEC Premier Straw/Coconut</td>
<td>2006-091Q</td>
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<td>AEC Premier Straw/Coconut Fibrenet Dual</td>
<td>2013-218M</td>
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<td>High Velocity EC Mulch Blanket</td>
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<td>2006-089Q</td>
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<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>Curlex III Fibrenet</td>
<td>2013-207</td>
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</table>

American Earth Solutions, LLC, 5830 Highway 161, Springfield, TN 37172
Formerly Robex LLC (ROBEX)

| AMEEA 15 | | |
| EC Mulch Blanket (Organic Mulch) | RobexShield RS-1 | 2001-069Q |
| High Velocity EC Mulch Blanket | RobexShield RS-2 | 2001-070Q |
Section 806: Rolled Erosion Control Products (RECPs)

806.2(a) Erosion Control (EC) Mats and EC Mulch Blankets

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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>BELTN 15</td>
<td>Belton Industries, P.O. Box 127, Belton, SC 29627 <a href="http://www.beltonindustries.com/">http://www.beltonindustries.com/</a></td>
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<td>EC Mat</td>
<td>Antiwash</td>
<td>1987-373</td>
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<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>
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<tr>
<td>EC Mat</td>
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<td>EC Mulch Blanket (Organic Mulch)</td>
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<td>2003-027Q</td>
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<td>ECS-1B Single Net Straw</td>
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<td>EC Mulch Blanket (Organic Mulch)</td>
<td>ECX-1 Curled Wood</td>
<td>2004-182Q</td>
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<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>
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<td>ECX-2</td>
<td>2004-183Q</td>
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Section 806: Rolled Erosion Control Products (RECPs)

806.2(a) Erosion Control (EC) Mats and EC Mulch Blankets

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
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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>
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<td>High Velocity EC Mulch Blanket Everhold XL1</td>
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<td>High Velocity EC Mulch Blanket Everhold XL2</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 SC3000</td>
<td>2010-313QC</td>
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<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>
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<td>EC Mulch Blanket (Organic Mulch) S31 UVD</td>
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<td>High Velocity EC Mulch Blanket S32</td>
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<td>High Velocity EC Mulch Blanket S32 UVD</td>
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</table>
Section 806: Rolled Erosion Control Products (RECPs)

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<th>Name</th>
<th>Ref. No.</th>
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<td>High Velocity EC Mulch Blanket C125 ECB 1990-124</td>
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<td>High Velocity EC Mulch Blanket S150 ECB 1990-120</td>
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<td>High Velocity EC Mulch Blanket Landlok S2 1991-213</td>
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<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>
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<tr>
<td>EC Mulch Blanket (Organic Mulch)</td>
<td>EXCEL R-1 ECB</td>
<td>1985-201</td>
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<td>EC Mulch Blanket (Organic Mulch)</td>
<td>EXCEL S-2</td>
<td>2001-061Q</td>
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<td>EC Mulch Blanket (Organic Mulch)</td>
<td>EXCEL SR-1</td>
<td>2001-004Q</td>
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<td>EC Mulch Blanket (Organic Mulch)</td>
<td>EXCEL SR-1 Rapid Go</td>
<td>2001-005Q</td>
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<td>EXCEL SS-2 Rapid Go</td>
<td>2001-007Q</td>
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<td>EXCEL CC-4</td>
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<td>EXCEL CS-3</td>
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<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>EXCEL S-2</td>
<td>1996-154A</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>EXCEL SD-3</td>
<td>1996-154B</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>EXCEL SS-2</td>
<td>2001-006Q</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>Permamat 100</td>
<td>1996-154D</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>Permamat 150F ECB</td>
<td>1996-154E</td>
</tr>
<tr>
<td>High Velocity EC Mulch Blanket</td>
<td>Permamat 200F</td>
<td>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.

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>
</tr>
</thead>
<tbody>
<tr>
<td>Turf Reinforcement Mat (TRM)</td>
<td>Recyclex TRM</td>
<td>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.

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>
</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> 831 Pioneer Avenue Rice Lake, WI</td>
<td>AMEE15 15 Recyclex-TRM-V 2010-283Q</td>
</tr>
<tr>
<td>EROCB15</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>EROCB15 15 P42 2007-029QA</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 Name Ref. No.</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>EXCEL PP5-10</td>
</tr>
</tbody>
</table>

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 Name Ref. No.</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEE1 15 Plant</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>2012-096Q</td>
</tr>
<tr>
<td>ECR Mat, Type A</td>
<td>Curlex Enforcer</td>
<td></td>
</tr>
<tr>
<td>ECR Mat, Type A</td>
<td>Recylex TRM</td>
<td></td>
</tr>
<tr>
<td>ECR Mat, Type A</td>
<td>Recylex TRM-V</td>
<td></td>
</tr>
<tr>
<td>ECR Mat, Type A</td>
<td>ECC-3</td>
<td></td>
</tr>
<tr>
<td>ECR Mat, Type A</td>
<td>ECP-2</td>
<td></td>
</tr>
<tr>
<td>ECR Mat, Type A</td>
<td>ECP-2 10 oz.</td>
<td></td>
</tr>
<tr>
<td>ECR Mat, Type A</td>
<td>ECP-3</td>
<td></td>
</tr>
<tr>
<td>ECR Mat, Type A</td>
<td>ECSC-3</td>
<td></td>
</tr>
</tbody>
</table>

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### 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.

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>
</tr>
</thead>
<tbody>
<tr>
<td>EROCB 15</td>
<td>Erosion Control Blanket, Highway 8 &amp; Virdir Line Road, Riverton R0C 2R0</td>
<td>P42</td>
</tr>
<tr>
<td>GREET 15</td>
<td>Sika Greenstreak, 3400 Tree Court, Industrial Boulevard, Box 7139, St. Louis, MO 63177</td>
<td>Pec-Mat (ECRM)</td>
</tr>
<tr>
<td>NOAMG 15</td>
<td>North American Green, 5401 St. Wendel-Cynthiana Road, Poseyville, IN 47633</td>
<td>Eronet P300 LW</td>
</tr>
<tr>
<td>PROP2 15</td>
<td>Propex Operating Company, LLC, 4019 Industry Drive, Chattanooga, TN 37416</td>
<td>Landlok Geomat 1060</td>
</tr>
<tr>
<td>TENXO 15</td>
<td>Tenax Corporation, 4800 East Monument Street, Baltimore, MD 21205</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</td>
<td>EXCEL PP5-10</td>
</tr>
</tbody>
</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></td>
</tr>
<tr>
<td></td>
<td>Horta-Sorb SM</td>
<td></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></td>
</tr>
<tr>
<td></td>
<td>The Unique Feeder, 16-8-16 Packet 4 oz.</td>
<td></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></td>
</tr>
<tr>
<td></td>
<td>Water Absorbent Polymer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diehard Transplant</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Horta-Sorb LG</td>
<td></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></td>
</tr>
<tr>
<td></td>
<td>LVS Horticultural Compost</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spent Mushroom Soil Compost</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LVS Premium Compost</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mycorrhizal Inoculation (Bare Root Seedlings and Transplants)</td>
<td>1998-167</td>
</tr>
<tr>
<td></td>
<td>Mycor Tree Root Dip</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mycorrhizal Inoculation (Trees)</td>
<td>1998-166</td>
</tr>
<tr>
<td></td>
<td>Mycor Tree Saver</td>
<td></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></td>
</tr>
<tr>
<td></td>
<td>ProGanics™ Biotic Soil Media™ (BSM™)</td>
<td></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>UAJA-15</td>
<td>University Area Joint Authority, 1576 Spring Valley Road, State College, PA 16801 <a href="http://uaja.com/">http://uaja.com/</a></td>
<td>1993-141</td>
</tr>
<tr>
<td></td>
<td>Sewage Sludge Compost</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UAJA Compost</td>
<td></td>
</tr>
</tbody>
</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></td>
</tr>
<tr>
<td></td>
<td>CambGuards</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collar Strap Attachment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ArborTie</td>
<td></td>
</tr>
</tbody>
</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></td>
</tr>
</tbody>
</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>
</tr>
</thead>
<tbody>
<tr>
<td>WINFB 15</td>
<td>Willacochee Ind. Fabrics, Inc, 769 West Main Street, P.O. Box 599, Willacochee, GA 31650 <a href="http://winfabusa.com/">http://winfabusa.com/</a></td>
<td>2016-187Q</td>
</tr>
</tbody>
</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>
</tr>
</thead>
<tbody>
<tr>
<td>BETPR 15</td>
<td>Bethlehem Precast, Inc., 835 East North Street, Bethlehem, PA 18017</td>
<td>1999-142Q</td>
</tr>
<tr>
<td>Precaster, Concrete Block Revetment System</td>
<td>Cable Concrete</td>
<td>1999-142Q</td>
</tr>
<tr>
<td>Licensor: International Erosion Control Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YORKB 15</td>
<td>York Building Products, Inc., 1020 North Hartley Street, York, PA 17404</td>
<td>2000-190Q</td>
</tr>
<tr>
<td>Precaster, Concrete Block Revetment System</td>
<td>A-Jacks</td>
<td>2000-190Q</td>
</tr>
<tr>
<td>Licensor: ARMORTEC Erosion Control Solutions (Contech Engineered Solutions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precaster, Concrete Block Revetment System</td>
<td>ArmorFlex</td>
<td>2000-188Q</td>
</tr>
<tr>
<td>Licensor: ARMORTEC Erosion Control Solutions (Contech Engineered Solutions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Precaster, Concrete Block Revetment System</td>
<td>ArmorLoc</td>
<td>2000-189Q</td>
</tr>
<tr>
<td>Licensor: ARMORTEC Erosion Control Solutions (Contech Engineered Solutions)</td>
<td></td>
<td></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

<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 <a href="https://www.mkbcompany.com/">https://www.mkbcompany.com/</a></td>
<td></td>
</tr>
<tr>
<td>Frame &amp; Filter Assembly</td>
<td>Black Hawk Inlet Filter Mat 2X4' Type-C</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. <a href="https://www.mkbcompany.com/">Blackhawk Inlet Filter Mat Product Specifications and Installation/Maintenance Procedure</a></td>
<td></td>
</tr>
</tbody>
</table>

<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 <a href="https://www.mkbcompany.com/">https://www.mkbcompany.com/</a></td>
<td></td>
</tr>
<tr>
<td>Frame &amp; Filter Assembly</td>
<td>Black Hawk Inlet Filter Mat 2X4' Type-M</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. <a href="https://www.mkbcompany.com/">Blackhawk Inlet Filter Mat Product Specifications and Installation/Maintenance Procedure</a></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>SILT-SAVER, INC, 1094 CULPEPPER DRIVE, CONYERS, GA 30094-0000</td>
<td>SILT-SAVER, INC, 1094 CULPEPPER DRIVE, CONYERS, GA 30094-0000</td>
<td>2013-057</td>
</tr>
</tbody>
</table>

- **Frame & Filter Assembly R-100A-DOT (Round):**
  - 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.*

- **Frame & Filter Assembly S-200A-DOT (Square):**
  - 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.*
# Bulletin 15 (Publication 35)
## Qualified Products List for Construction

**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&quot; Height</td>
<td>PD3B18052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 30&quot; Height</td>
<td>PD3A30100</td>
<td>Class 3, Type A</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 30&quot; Height With Approved Mesh</td>
<td>PD3B30052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
<tr>
<td>AMEE0 15</td>
<td>American Excelsior Company, 850 Avenue H East, Arlington, TX 76011</td>
<td>PD3B30052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
<tr>
<td>HANG0 15</td>
<td>Hanes Geo Components, 815 Buxton Street, Winston-Salem, NC 27101</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>PD3B30052</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
</tbody>
</table>

Last Revised: 4/7/2016

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## 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>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>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 18&quot; Height</td>
<td>JMD 3B</td>
<td>Class 3, Type B</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 18&quot; Height</td>
<td>JMD 3B</td>
<td>Class 3, Type B</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 30&quot; Height</td>
<td>JMD 3A</td>
<td>Class 3, Type A</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>With Approved Mesh</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Silt Barrier Fence, 30&quot; Height</td>
<td>JMD 3B</td>
<td>Class 3, Type B</td>
<td>4</td>
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<td>MUTUAL INDUSTRIES, 707 West Grange Street, Philadelphia, PA 19120 <a href="http://www.mutualindustries.com/">http://www.mutualindustries.com/</a></td>
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<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>Silt Barrier Fence, 18&quot; Height</td>
<td>FR 110-278M</td>
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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

See Standard Drawing RC-71M (Publication 72M)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<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>
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<td>Trash Rack and Anti-Vortex Device</td>
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<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>
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<td>Trash Rack and Anti-Vortex Device</td>
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<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>
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<td>2002-068Q</td>
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<td>MANWF_15</td>
<td>Mann Welding &amp; Fabrication LLC, 2755 Schukraft Road, Quakertown, PA 18951</td>
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<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>
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<td>Trash Rack and Anti-Vortex Device</td>
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### Section 875: Concrete Outlet Structure

#### 875.2(c) Trash Rack

Last Revised: 9/20/2017

See [Standard Drawing RC-71M (Publication 72M)](http://www.lane-enterprises.com/)

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### Section 901: Maintenance and Protection of Traffic During Construction

**901.2 Arrow Panel**

<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>AMIDA 15</td>
<td>Amida Industries, Inc., P. O. Box 3147, Rock Hill, SC 29731</td>
<td>DL25-FACH-DLO/4</td>
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<td>DLSB-15-ÓDLX4650</td>
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<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>Arrow Panel 2200/SE</td>
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## Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Arrow Panel

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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Arrow Panel Mount</th>
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<td>Hi-Vu, Inc., 1000 E. 9th Street, Indianapolis, IN 46202</td>
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<td>Arrow Panel KKAB5025</td>
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### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Arrow Panel

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<th>Product</th>
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# Section 901: Maintenance and Protection of Traffic During Construction

## 901.2 Arrow Panel

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<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>
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<td>Trailer</td>
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<td>1984-166</td>
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</table>

Includes a 66"x112" message sign on the back of the arrow panel. Approved as a combination portable changeable message sign and 48"x96" arrow panel.
Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Arrow Panel

<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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<tr>
<td>SUPSG 15</td>
<td>Superior Signals Inc., 16355 South Lone Elm Road, Olathe, KS 66062 <a href="http://www.superiorsignals.com/">http://www.superiorsignals.com/</a></td>
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<td>Vehicle</td>
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<td>SY382 (15 or 25 lamps only)</td>
<td>AB-29</td>
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<td>Vehicle (12V)</td>
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<td>Vehicle</td>
<td>Vehicle (12V)</td>
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<td>Arrow Panel</td>
<td>SY3900 (15 or 25 lamps only)</td>
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### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Arrow Panel

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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Arrow Panel Mount</th>
<th>Allow Panel Power</th>
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<td>Battery</td>
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## Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Arrow Panel

<table>
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<tr>
<th>Product</th>
<th>Name</th>
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<th>Arrow Panel Mount</th>
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<td>TRLCM 15</td>
<td>Trailer Component Manufacturing, Inc., 7795 Division Drive, Mentor, OH 44060</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>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 | Signalisation VER-MAC, Inc., 1781 Bresse Street, Quebec, Canada G3N 1X3 | | | | |
| 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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<th>Arrow Panel Mount</th>
<th>Allow Panel Power</th>
<th>Size (in)</th>
<th>Ref. No.</th>
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<td>1989-093H</td>
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<td>WRB6-SA</td>
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<td>Arrow Panel</td>
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<td>1989-093L</td>
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<td>WTDB8-SA</td>
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<td>WTSVL-LSA (W</td>
<td>ECO 15 Light Display Panel, Vertical Mast)</td>
<td>Trailer</td>
<td>Solar Battery</td>
<td>48x96</td>
<td>2018-268Q</td>
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| **WORKA 15**     | Work Area Protection Corporation, 2500 Production Drive, PO Box 4087, St. Charles, IL 60174 [http://workareaprotection.com/](http://workareaprotection.com/) |             |                   |                   |           |          |
| Arrow Panel      | VMAW 2415                  | Vehicle      | Vehicle           | Vehicle (12V)     | 24x48     | 1992-022 |
| Arrow Panel      | VMAW-30-15LV               | Vehicle      | Vehicle           | Vehicle (12V)     | 30x60     | 1992-350 |
| Arrow Panel      | WAAP-100-15D               | Vehicle      | Diesel            |                   | 48x96     | 1991-283 |
| Arrow Panel      | WAP-WAAW-15SB              | Trailer      | Solar Battery     |                   | 48x96     | 1990-165 |

*May be used only on stationary operations.*

*Must be aimed every time it is set up or moved.*
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Automated Flagger Assistance Device

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Flagger Mount</th>
<th>Flagger Power</th>
<th>Ref. No.</th>
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<td>INTES 15</td>
<td>IntelliStrobe Safety Systems, LLC, 4136 S. McCann Cl., Springfield, MO 65804</td>
<td>W1-AG</td>
<td>AFAD-3</td>
<td>Stand Alone</td>
<td>Battery</td>
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<td>Automated Flagger Assistance Device</td>
<td>W1-AG/TM</td>
<td>AFAD-3</td>
<td>Trailer</td>
<td>Solar Battery</td>
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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 <a href="https://northamericatraffic.com/">https://northamericatraffic.com/</a></td>
<td>RCF 2.4</td>
<td>AFAD-1</td>
<td>Trailer</td>
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<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>
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<tr>
<td>SITE2 15</td>
<td>Site 2020, 1505 Barrington Street, Suite 711, Halifax, Canada B2T 1A4 <a href="https://site2020.com/">https://site2020.com/</a></td>
<td>Guardian SmartFlagger</td>
<td>Stand Alone</td>
<td>Battery</td>
<td>2018-133Q</td>
</tr>
</tbody>
</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)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<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></td>
</tr>
<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td>HTLD with Low Density 25lb/40lb Rubber Base</td>
<td></td>
</tr>
</tbody>
</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>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAKSD 15</td>
<td>Lakeside Plastics, Inc., 450 West 33rd Avenue, P.O. Box 2384, Oshkosh, WI 54903 <a href="http://www.lakesideplastics.net/index.html">http://www.lakesideplastics.net/index.html</a></td>
<td>Drums, Nonmetallic</td>
<td>Provisionally Approved</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
<td>Drums, Nonmetallic</td>
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</tr>
<tr>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Drums, Nonmetallic</td>
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</tr>
<tr>
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<td>Drums, Nonmetallic</td>
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</tr>
<tr>
<td></td>
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<td>Drums, Nonmetallic</td>
<td></td>
</tr>
</tbody>
</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>
<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>
<td></td>
</tr>
<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
<td>1500 HD Channelizer Standard with Rubber Base and Light</td>
</tr>
<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
<td>1500 LD Channelizer Standard with Rubber Base and Light</td>
</tr>
<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
<td>Bouncer PB-90</td>
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<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
<td>PB-85 Commander, 2-piece, O</td>
</tr>
<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
<td>Model 18000HDPE LW Standard with Sand Base and Light</td>
</tr>
<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
<td>Model 18000HDPE Standard with Sand Base and Light</td>
</tr>
<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
<td>Model 18000HDPE with Rubber Ring Ballast and Light</td>
</tr>
<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
<td>Model 18000LDPE Standard with Sand Base and Light</td>
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<tr>
<td></td>
<td>Drums, Nonmetallic</td>
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<td>Model 18000LDPE with Rubber Ring Ballast and Light</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 [<a href="http://workareaprotection.com/">http://workareaprotection.com/</a>]</td>
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<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
<td>B-500LC with Rubber Tire Base, Plastic Base w/wo Light</td>
</tr>
<tr>
<td></td>
<td>Drums, Nonmetallic</td>
<td></td>
<td>B-200HDPE with Sand Base</td>
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<tr>
<td></td>
<td>Drums, Nonmetallic</td>
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<td>B-300HDPE with Rubber Tire Base</td>
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<td>Drums, Nonmetallic</td>
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<td>B-400HDPE with Rubber Base and Light</td>
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<td>B-400HDPE with Sand Base and Light</td>
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## Section 901: Maintenance and Protection of Traffic During Construction

### 901.2 Intrusion Alarm

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intrusion Alarm</td>
<td>Model HWZIA-300</td>
<td>PCIA-2</td>
<td>1997-015A</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
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<tr>
<td>Intrusion Alarm</td>
<td>Model HWZIA-500</td>
<td>PCIA-2</td>
<td>1997-015B</td>
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<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAFLS 15</td>
<td>Safe-Lite Systems, 1050 Eagle Road, Newton, PA 18940</td>
<td></td>
<td>1997-032</td>
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<tr>
<td>Intrusion Alarm</td>
<td>Model 10A-M</td>
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<tr>
<td></td>
<td>Must use 70 durometer pneumatic tube.</td>
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### 901.2 Lane Separator Curb

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane Separator Curb</td>
<td>IRS Tuff Curb XLP</td>
<td>LSC-02</td>
<td>2011-112Q</td>
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<tr>
<td>Lane Separator Curb</td>
<td>Tuff Curb</td>
<td></td>
<td></td>
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<tr>
<td>Lane Separator Curb</td>
<td>FG 300 Curb</td>
<td></td>
<td>2007-078Q</td>
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<tr>
<td>Lane Separator Curb</td>
<td>Qwick Kurb</td>
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<td>2002-117Q</td>
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### 901.2 Longitudinal Channelizing Devices

<table>
<thead>
<tr>
<th>Product</th>
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<th>COA</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>Plant</td>
<td>208 Chestnut Street Reading, PA 16902</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Longitudinal Channelizing Device, Plastic Barrier</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Longitudinal Channelizing Devices

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>COA</th>
<th>Last Revised: 1/25/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMCON15</td>
<td>REMCON Plastics Inc., 208 Chestnut Street, Reading, PA 16902</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>208 Chestnut Street Reading, PA 16902</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>~ Guardsafe 36 Technical Drawing</td>
<td></td>
<td></td>
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<tr>
<td>TRFXD 15</td>
<td>Trafix Devices, Inc., 160 Avenida La Pata, San Clemente, CA 92673</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Longitudinal Channelizing Device, Plastic Barrier</td>
<td>Sentry (Water Filled Temporary)</td>
<td>2010-039Q</td>
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<tr>
<td>TRISD 15</td>
<td>Trident Security Devices, Inc., 1017 Prospect Avenue, Elkins, PA 19027</td>
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<tr>
<td></td>
<td>Longitudinal Channelizing Device, Plastic Barrier</td>
<td>Roadguard 2</td>
<td>2011-067Q</td>
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<tr>
<td>YODOK 15</td>
<td>Yodock Wall Company, Inc., 900 Patterson Drive, Bloomsburg, PA 17815</td>
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<td></td>
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<tr>
<td></td>
<td>Longitudinal Channelizing Device, Plastic Barrier</td>
<td>Model 2001</td>
<td>LCD-02</td>
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<td></td>
<td>Longitudinal Channelizing Device, Plastic Barrier</td>
<td>Model 2001M</td>
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</table>

901.2 Portable Changeable Message Signs

<table>
<thead>
<tr>
<th>Product Ref. No.</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>Last Revised: 9/10/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDC 15</td>
<td>ADDCO Manufacturing, 240 Arlington Ave. E., St. Paul, MN 55117</td>
<td></td>
<td>Flip Disk</td>
<td>Diesel</td>
<td>91x115</td>
<td>Trailer</td>
<td>3-Line</td>
<td>1986-152</td>
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<tr>
<td></td>
<td>Portable Changeable Message Sign</td>
<td>9050100</td>
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<tr>
<td></td>
<td>Portable Changeable Message Sign</td>
<td>9060100-7</td>
<td>Flip Disk</td>
<td>Diesel</td>
<td>91x102</td>
<td>Trailer</td>
<td>3-Line</td>
<td>1986-152</td>
</tr>
<tr>
<td></td>
<td>Portable Changeable Message Sign</td>
<td>BRICK</td>
<td>LED</td>
<td>Solar Battery</td>
<td>69x145</td>
<td>Trailer</td>
<td>Full Matrix</td>
<td>1999-024</td>
</tr>
<tr>
<td></td>
<td>Portable Changeable Message Sign</td>
<td>BRICK</td>
<td>LED</td>
<td>Battery/Vehicle/Generator</td>
<td>42x84</td>
<td>Vehicle</td>
<td>Full Matrix</td>
<td>1999-024</td>
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<td>Portable Changeable Message Sign</td>
<td>DE3000</td>
<td>LED</td>
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<td>50x90</td>
<td>Skid</td>
<td>2-Line</td>
<td>1990-080</td>
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<td>Portable Changeable Message Sign</td>
<td>DH1000</td>
<td>Flip Disk</td>
<td>Diesel</td>
<td>76x113</td>
<td>Trailer</td>
<td>3-Line</td>
<td>1990-067</td>
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<tr>
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<td>Portable Changeable Message Sign</td>
<td>DH1000 ALS</td>
<td>LED</td>
<td>Solar Battery</td>
<td>76x134</td>
<td>Trailer</td>
<td>3-Line</td>
<td>1995-135</td>
</tr>
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<td>Portable Changeable Message Sign</td>
<td>DH1000 SLD</td>
<td>LED</td>
<td>Solar Battery</td>
<td>76x113</td>
<td>Trailer</td>
<td>3-Line</td>
<td>1993-195</td>
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<td>Portable Changeable Message Sign</td>
<td>DM2000</td>
<td>Flip Disk</td>
<td>Diesel</td>
<td>50x90</td>
<td>Trailer</td>
<td>2-Line</td>
<td>1990-079</td>
</tr>
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</table>
### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Portable Changeable Message Signs

<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>
</tr>
</thead>
<tbody>
<tr>
<td>ADVSP 15</td>
<td>Advanced Safety Products, P.O. Box 2663, Fallbrook, CA 92088</td>
<td>Portable Changeable Message Sign</td>
<td>VMS Message Master</td>
<td>S-12</td>
<td>LED</td>
<td>Battery</td>
<td>35x71</td>
<td>Trailer/Vehicle</td>
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<tr>
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<td>Portable Changeable Message Sign</td>
<td>CMS-GP-432T</td>
<td>CMS-T300</td>
<td>LED</td>
<td>Solar Battery</td>
<td>48x96</td>
<td>Trailer</td>
</tr>
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<td></td>
<td></td>
<td>Portable Changeable Message Sign</td>
<td>CMS-T320</td>
<td>CMS-T331</td>
<td>LED</td>
<td>Solar Battery</td>
<td>76x126</td>
<td>Trailer</td>
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<td>Portable Changeable Message Sign</td>
<td>CMS-T333</td>
<td>CMS-T333.1B</td>
<td>LED</td>
<td>Solar Battery</td>
<td>79x136</td>
<td>Trailer</td>
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<tr>
<td>DAKI-15</td>
<td>Daktronics, Inc., 331 32nd Ave. P O Box 5128, Brookings, SD 57006-5128</td>
<td>Portable Changeable Message Sign</td>
<td>VP-4000</td>
<td>VP-4000 FM</td>
<td>LED</td>
<td>Solar Battery</td>
<td>77x133</td>
<td>Trailer</td>
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<td></td>
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<td>Portable Changeable Message Sign</td>
<td>VP-4000 FM</td>
<td>portable_changeable_message_sign</td>
<td>LED</td>
<td>Solar Battery</td>
<td>77x133</td>
<td>Trailer</td>
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</table>
### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Portable Changeable Message Signs

<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>
</tr>
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<tbody>
<tr>
<td>DISPL 15</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>
<td>Portable Changeable Message Sign</td>
<td>Gen III</td>
<td>Lamp</td>
<td>Diesel</td>
<td>75x94</td>
<td>Trailer</td>
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<tr>
<td></td>
<td>Portable Changeable Message Sign</td>
<td>Gen V</td>
<td>PS-2</td>
<td>Lamp</td>
<td>Diesel</td>
<td>30x89</td>
<td>Trailer</td>
<td>1-Line</td>
</tr>
<tr>
<td></td>
<td>Portable Changeable Message Sign</td>
<td>Gen VI</td>
<td>PS-2</td>
<td>Flip Disk</td>
<td>Diesel</td>
<td>76x124</td>
<td>Trailer</td>
<td>3-Line</td>
</tr>
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<td>Portable Changeable Message Sign</td>
<td>Gen VI-C</td>
<td>PS-2</td>
<td>Flip Disk</td>
<td>Diesel</td>
<td>78x125</td>
<td>Trailer</td>
<td>3-Line</td>
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<tr>
<td></td>
<td>Portable Changeable Message Sign</td>
<td>NightHawk 340</td>
<td>PS-2</td>
<td>Flip Disk</td>
<td>Diesel</td>
<td>78x111</td>
<td>Trailer</td>
<td>3-Line</td>
</tr>
<tr>
<td></td>
<td>Portable Changeable Message Sign</td>
<td>PCMS-2</td>
<td>PS-2</td>
<td>Lamp</td>
<td>Diesel</td>
<td>66x112</td>
<td>Trailer</td>
<td>3-Line</td>
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<td>Portable Changeable Message Sign</td>
<td>Sunray 340</td>
<td>PS-2</td>
<td>LED</td>
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<td>76x111</td>
<td>Trailer</td>
<td>3-Line</td>
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<td>Sunray 360</td>
<td>PS-2</td>
<td>LED</td>
<td>Solar Battery</td>
<td>76x128</td>
<td>Trailer</td>
<td>3-Line</td>
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<tr>
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<td>Portable Changeable Message Sign</td>
<td>Sunray FM</td>
<td>PS-2</td>
<td>LED</td>
<td>Solar Battery</td>
<td>85x129</td>
<td>Trailer</td>
<td>Full Matrix</td>
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<tr>
<td></td>
<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>
</tr>
</tbody>
</table>

| INTTC 15 | International Traffic Control Products, Inc., FM 2169, P.O. Box 24, Junction, TX 76849 | | Portable Changeable Message Sign | CMS-100 | LED | Solar Battery | 76x113 | Trailer | 3-Line | 1996-113 |
|         | Portable Changeable Message Sign | CMS-100 FM | LED | Solar Battery | 84x113 | Trailer | Full Matrix | 1998-005 |

| KKSYS 15 | K & K Systems, 687 Palmetto Road, Tupelo, MS 38801 | http://k-ksystems.com/ | Portable Changeable Message Sign | DDB31-240 | PS-18 | LED | Solar Battery | 72x120 | Trailer | 3-Line | ---- |

| LAKET 15 | Lake Technologies, Inc., 28248 Country Road 561, Tavares, FL 32778 | | Portable Changeable Message Sign | PDM-S18502131 | Flip Disk | Diesel | 79x142 | Trailer | 3-Line | 1987-216 |

| LITSI 15 | LiteSys Inc., 150 Pollywog Lane, Belgrade, MT 59714 | http://www.litesys.com/ | Portable Changeable Message Sign | 1020A-4W | PS-19 | LED | Battery/Vehicle | 31x75 | Vehicle | 2-Line | ---- |
|         | Portable Changeable Message Sign | 1030F-4W | PS-19 | LED | Battery/Vehicle | 41x75 | Vehicle | Full Matrix | ---- |

| NATSG 15 | National Signal, Inc., 2440 Artesia Avenue, Fullerton, CA 92833 | http://www.nationalsignalinc.net/ | Portable Changeable Message Sign | ER200 | PS-17 | LED | Solar Battery | 48x96 | Trailer | 3-Line | ---- |
|         | Portable Changeable Message Sign | ER200 CAB | PS-17 | LED | Solar Battery | 48x96 | Vehicle | 3-Line | ---- |
|         | Portable Changeable Message Sign | ER200 Jr | PS-17 | LED | Solar Battery | 48x96 | Trailer | 3-Line | ---- |
|         | Portable Changeable Message Sign | Vu-Pointe | PS-17 | LED | Solar Battery | 76x116 | Trailer | 3-Line | ---- |
**Section 901: Maintenance and Protection of Traffic During Construction**

### 901.2 Portable Changeable Message Signs

<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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Portable Changeable Message Sign</td>
<td>SMC-1000 ST</td>
<td>PS-8</td>
<td>LED</td>
<td>Solar Battery</td>
<td>77x127</td>
<td>Trailer</td>
<td>3-Line</td>
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<td></td>
<td>Portable Changeable Message Sign</td>
<td>SMC-1000-HE</td>
<td>PS-8</td>
<td>LED</td>
<td>Solar Battery</td>
<td>76x127</td>
<td>Trailer</td>
<td>3-Line</td>
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<tr>
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<td>Portable Changeable Message Sign</td>
<td>SMC-2000</td>
<td>PS-8</td>
<td>LED</td>
<td>Solar Battery</td>
<td>77x127</td>
<td>Trailer</td>
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<td>SMC-2000 FM ST</td>
<td>PS-8</td>
<td>LED</td>
<td>Solar Battery</td>
<td>77x127</td>
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<td>SMC-3000</td>
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<td>Solar Battery</td>
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<td>SMC-4000</td>
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<td>48x96</td>
<td>Trailer</td>
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<td>MB-3048</td>
<td>PS-11</td>
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<td>Solar Battery</td>
<td>76x126</td>
<td>Trailer</td>
<td>Full Matrix</td>
</tr>
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<td>PS-11</td>
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<td>72x120</td>
<td>Trailer</td>
<td>3-Line</td>
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<td></td>
<td>Must be equipped with LED lamps, model HLMT-CL00.</td>
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<td>Portable Changeable Message Sign</td>
<td>MB-4048</td>
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<td>Solar Battery</td>
<td>76x126</td>
<td>Trailer</td>
<td>Full Matrix</td>
<td>1999-038Q</td>
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<td></td>
<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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<td>TELE- 15</td>
<td>Tele-Spot Systems, 76 Progress Drive, Stamford, CT 06902-3600</td>
<td>TELE- 15</td>
<td>Portable Changeable Message Sign</td>
<td>317913-001</td>
<td>(trailer)</td>
<td>Generator</td>
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<td>Portable Changeable Message Sign</td>
<td>317943-001 (sign)</td>
<td>Diesel</td>
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Section 901: Maintenance and Protection of Traffic During Construction

901.2 Portable Changeable Message Signs

<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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<tbody>
<tr>
<td>Portable Changeable Message Sign</td>
<td>YC1-ADS</td>
<td>PS-15</td>
<td>LED</td>
<td>Solar/Vehicle</td>
<td>Trailer Full Matrix</td>
<td>2001-202Q</td>
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</tr>
<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>
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<tr>
<td>Portable Changeable Message Sign</td>
<td>Northern Lights</td>
<td>PS-14</td>
<td>LED</td>
<td>Solar Battery</td>
<td>76x84 Trailer 3-Line</td>
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<td></td>
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<tr>
<td>Portable Changeable Message Sign</td>
<td>PCMS-1500</td>
<td>PS-14</td>
<td>LED</td>
<td>Solar Battery</td>
<td>82x132 Trailer Full Matrix</td>
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<td>Portable Changeable Message Sign</td>
<td>PCMS-320</td>
<td>PS-14</td>
<td>LED</td>
<td>Solar Battery</td>
<td>66x96 Trailer Full Matrix</td>
<td>2009-185Q</td>
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<td>Portable Changeable Message Sign</td>
<td>PCMS-320RT</td>
<td>PS-14</td>
<td>LED</td>
<td>Solar Battery</td>
<td>66x104 Trailer Full Color</td>
<td>2018-011Q</td>
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<td>Portable Changeable Message Sign</td>
<td>PCMS-548</td>
<td>PS-14</td>
<td>LED</td>
<td>Solar Battery</td>
<td>45x80 Trailer Full Matrix</td>
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<td>Portable Changeable Message Sign</td>
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<td>LED</td>
<td>Solar Battery</td>
<td>Vehicle (12V) 45x80 Vehicle Full Matrix</td>
<td>2009-184Q</td>
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<tr>
<td>Portable Changeable Message Sign</td>
<td>WTLMB(A)</td>
<td>LED</td>
<td>Solar Battery</td>
<td>72x130 Trailer 3-Line</td>
<td>1997-167</td>
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<tr>
<td>Portable Changeable Message Sign</td>
<td>WTLMB-S-LL(A)</td>
<td>LED</td>
<td>Solar Battery</td>
<td>72x130 Trailer 3-Line</td>
<td>1997-167</td>
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<tr>
<td>Portable Changeable Message Sign</td>
<td>WTMMB (A)</td>
<td>LED</td>
<td>Solar Battery</td>
<td>72x130 Trailer Full Matrix</td>
<td>2000-264Q</td>
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<tr>
<td>Portable Changeable Message Sign</td>
<td>WTMMB-S-LL(A)</td>
<td>LED</td>
<td>Solar Battery</td>
<td>72x130 Trailer Full Matrix</td>
<td>2000-264Q</td>
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<tr>
<td>Portable Changeable Message Sign</td>
<td>WVTMM-L</td>
<td>LED</td>
<td>Solar Battery</td>
<td>46x96 Trailer Full Matrix</td>
<td>2019-108Q</td>
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<tr>
<td>Portable Changeable Message Sign</td>
<td>WVTMM-M</td>
<td>LED</td>
<td>Solar Battery</td>
<td>48x71 Trailer Full Matrix</td>
<td>2019-153Q</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 <a href="http://workareaprotection.com/">http://workareaprotection.com/</a></td>
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</tr>
<tr>
<td>Portable Changeable Message Sign</td>
<td>VMBS-1000</td>
<td>LED</td>
<td>Solar Battery</td>
<td>77x127 Trailer 3-Line</td>
<td>1992-028</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

<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>VMBS-1000</td>
<td>LED</td>
<td>Solar Battery</td>
<td>77x127 Trailer 3-Line</td>
<td>1992-028</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](https://www.fhwa.dot.gov/)

**Important Notice:** [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](https://www.fhwa.dot.gov/)

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<table>
<thead>
<tr>
<th>Product Type</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>Big Dog SZ-412-2S</td>
<td>PSS-13</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>SZ-412</td>
<td>PSS-13</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>SZ-412FX</td>
<td>PSS-13</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>SZ-412S</td>
<td>PSS-13</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>SZ-460</td>
<td>PSS-13</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>SZ-460-2S</td>
<td>PSS-13</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SZ-484</td>
<td>PSS-13</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>SZ-484-2S</td>
<td>PSS-13</td>
<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](https://www.fhwa.dot.gov/)

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Approved Crash Test Level</th>
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<tbody>
<tr>
<td>Rubber Base Support</td>
<td>DSB100</td>
<td>PSS-4</td>
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<tr>
<td>Rubber Base Support</td>
<td>DSB100HD</td>
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<td>Tripod Support</td>
<td>T155</td>
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<td>2011-186Q</td>
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<td>Tripod Support</td>
<td>T50</td>
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<td>X-Base Support</td>
<td>DF-3003</td>
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<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>DF-4000</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
<td>2001-085Q</td>
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<tr>
<td>X-Base Support</td>
<td>DF3000S</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<td>X-Base Support</td>
<td>DF3000W</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<td>X-Base Support</td>
<td>DF3000WQ</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<td>X-Base Support</td>
<td>DF4000</td>
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<td>TL-3 (62 mph)</td>
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<td>X-Base Support</td>
<td>DF4503</td>
<td>PSS-4</td>
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<td>X-Base Support</td>
<td>DF4700</td>
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<td>DF4700TX</td>
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<td>X-Base Support</td>
<td>DL1003</td>
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<td>X-Base Support</td>
<td>DL1003Latch</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<td>X-Base Support</td>
<td>DL1008</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>MS-Flex-30</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<td>MS-Rigid-30</td>
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<td>TL-3 (62 mph)</td>
<td>2001-085Q</td>
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<tr>
<td>X-Base Support</td>
<td>QFV-60</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>QFV-84</td>
<td>PSS-4</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

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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>
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<tbody>
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<td>X-Base Support</td>
<td>QFV48</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>QFW</td>
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<tr>
<td>X-Base Support</td>
<td>QLVW</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SDF4000</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SDL1000</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SDL1000 Latch</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
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<td>SMS-Flex-30</td>
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<td>TL-3 (62 mph)</td>
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<td>X-Base Support</td>
<td>STF-12C</td>
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<td>TL-3 (62 mph)</td>
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<tr>
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<td>STF-12W</td>
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<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>SUF2000</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SUF2000S</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>TF-12</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>TF-12C</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>TF-12W</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>X-Base Support</td>
<td>TF-18</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>TF-60</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>TF-84</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>TF1214</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>TF1230</td>
<td>PSS-4</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>X-Base Support</td>
<td>UF-2000</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
<td>2001-085Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>UF2000S</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>UF2000T</td>
<td>PSS-4</td>
<td>TL-3 (62 mph)</td>
<td>2010-317Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>QFV48</td>
<td>PSS-7</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>QFVW</td>
<td>PSS-7</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>QLVW</td>
<td>PSS-7</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

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>
</tr>
</thead>
<tbody>
<tr>
<td>Tripod Support</td>
<td>E-350</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2001-156Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-102</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-132</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-142</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-200</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-202</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-232</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-242</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-802</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-832</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-842</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-105Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-902</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-106Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-932</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-106Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>C-942</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-106Q</td>
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<tr>
<td>X-Base Support</td>
<td>X-501</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-106Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>X-500</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-156Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>X-551</td>
<td>TL-3</td>
<td>(62 mph)</td>
<td>2001-106Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>X-552</td>
<td>PSS-5</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>X-553</td>
<td>PSS-5</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>X-600</td>
<td></td>
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<td>2001-157Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>X-601</td>
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<td>2001-106Q</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>X-840</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2001-158Q</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.

<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>Rubber Base Support</td>
<td>350</td>
<td>PSS-6</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Rubber Base Support</td>
<td>351</td>
<td>PSS-6</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

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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>Tripod Support</td>
<td>SS1</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548A</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548AE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548AE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548AETL</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548C</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548CA</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548CAE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548CE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548E</td>
<td>PSS-12</td>
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<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548EE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SS548ETL</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SS548UC</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SS548UCA</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SS548UCR</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
</tr>
<tr>
<td>X-Base Support</td>
<td>SS548UCRA</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SS560</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SS560A</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
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<tr>
<td>X-Base Support</td>
<td>SS560AE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>X-Base Support</td>
<td>SS560AE</td>
<td>PSS-12</td>
<td>TL-3 (62 mph)</td>
<td>----</td>
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<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>SS560EE</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>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Portable Sign Support

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<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></td>
<td>X-Base Support</td>
<td>3612DLK</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>40CÁM</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4812</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4814CS</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4814DLK</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4814HDK</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4814K</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4814NSGK</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4814SL</td>
<td>TL-3 (62 mph)</td>
<td>2015-160QA</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4814SSCK</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4815</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4818</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4850</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4860</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4884CS</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>4884KET</td>
<td>TL-3 (62 mph)</td>
<td>2018-077Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>5012NS</td>
<td>TL-3 (62 mph)</td>
<td>2015-160QC</td>
</tr>
<tr>
<td></td>
<td>X-Base Support</td>
<td>5012NSAL</td>
<td>TL-3 (62 mph)</td>
<td>2015-160QE</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>Marketing Displays, Inc. (MDI WorldWide), 38271 W. Twelve Mile Road, Farmington Hills, MI 48331</td>
<td>X-Base Support 5012SS</td>
<td>TL-3 (62 mph)</td>
<td>2015-160QD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Testing Criteria: NCHRP 350, FHWA Approval Letter: WZ-114</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X-Base Support 5012SSAL</td>
<td>TL-3 (62 mph)</td>
<td>2015-160QF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Testing Criteria: NCHRP 350, FHWA Approval Letter: WZ-114</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X-Base Support 5018K</td>
<td>TL-3 (62 mph)</td>
<td>2015-160QB</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Testing Criteria: NCHRP 350, FHWA Approval Letters: WZ-69, WZ-164</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X-Base Support 50SM</td>
<td>TL-3 (62 mph)</td>
<td>2000-341Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X-Base Support Big Buster</td>
<td>TL-3 (62 mph)</td>
<td>2001-030Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X-Base Support Econo-Buster 80018</td>
<td>PSS-3</td>
<td>TL-3 (62 mph)</td>
<td>2001-031Q</td>
</tr>
<tr>
<td></td>
<td>X-Base Support Li-Buster 24018</td>
<td>TL-3 (62 mph)</td>
<td>2001-032Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X-Base Support Traffic Stand 22000</td>
<td>TL-3 (62 mph)</td>
<td>2001-032Q</td>
<td></td>
</tr>
<tr>
<td>UniqueSource, 500 Bent Creek Boulevard, Mechanicsburg, PA 17050-1876</td>
<td>X-Base Support 9905-0075-010</td>
<td>TL-3 (62 mph)</td>
<td>2001-033Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X-Base Support 9905-0075-015</td>
<td>TL-3 (62 mph)</td>
<td>2001-034Q</td>
<td></td>
</tr>
</tbody>
</table>

901.2 Safety Markers

VAG&S 15 Vara, A. G. & Sons, 4881 Newton Road, Hamburg, NY 14075

Last Revised: 3/27/2015
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Safety Markers

<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

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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Beacon Colors</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

901.2 Speed Display 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>
</tr>
</thead>
<tbody>
<tr>
<td>ALLTS 15</td>
<td>All Traffic Solutions, 3100 Research Drive, State College, PA 16801 <a href="http://www.alltrafficsolutions.com/">http://www.alltrafficsolutions.com/</a></td>
<td>SpeedSentry 18</td>
<td>SDS-3</td>
<td>Trailer</td>
<td>Solar Battery</td>
</tr>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032 <a href="http://protectiveservicesinc.com/">http://protectiveservicesinc.com/</a></td>
<td>ConSAM</td>
<td>SDS-1</td>
<td>Trailer</td>
<td>Solar Battery</td>
</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Speed Display 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>
</tr>
</thead>
<tbody>
<tr>
<td>TRFCN 15</td>
<td>Trafcon Industries, Inc., 81 Texaco Road, Mechanicsburg, PA 17050</td>
<td>SST-2</td>
<td>SDS-2</td>
<td>Trailer</td>
<td>Solar Battery</td>
</tr>
<tr>
<td>VERMI 15</td>
<td>Signalisation VER-MAC, Inc., 1781 Bresse Street, Quebec, Canada G3N 1X3</td>
<td>SP-710</td>
<td>SDS-7</td>
<td>Trailer</td>
<td>Solar Battery</td>
</tr>
<tr>
<td>WANCN 15</td>
<td>Wanco, Inc., 5870 Tennyson Street, Arvada, CO 80003-6903</td>
<td>WSDT-S</td>
<td>SDS-4</td>
<td>Trailer</td>
<td>Solar Battery</td>
</tr>
<tr>
<td>WANCN 15</td>
<td>Wanco, Inc., 5870 Tennyson Street, Arvada, CO 80003-6903</td>
<td>WSDT3</td>
<td>SDS-9</td>
<td>Trailer</td>
<td>Solar Battery</td>
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</tbody>
</table>

901.2 Stop/Slow Paddle, Flashing

<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>
<tr>
<td>EASTM 15</td>
<td>Eastern Metal of Elmira, 1430 Sullivan Street, Elmira, NY 14901</td>
<td>VA-WZ-1872-HI/DGF</td>
<td>18x18</td>
<td>-----</td>
</tr>
<tr>
<td>TRFPC 15</td>
<td>TAPCO, Inc., 5100 W. Brown Deer Road, Brown Deer, WI 53223</td>
<td>BlinkerPaddle 2180</td>
<td>18x18</td>
<td>-----</td>
</tr>
<tr>
<td>TRFPC 15</td>
<td>TAPCO, Inc., 5100 W. Brown Deer Road, Brown Deer, WI 53223</td>
<td>BlinkerPaddle 2180</td>
<td>24x24</td>
<td>-----</td>
</tr>
</tbody>
</table>

901.2 Temporary Barricades

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.

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## 901.2 Temporary Barricades

**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.

<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>ALLPI 15</td>
<td>Allied Plastics, Inc., 150 Holy Hill Road, Twin Lakes, WI 53181</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Barricade, Type 2</td>
<td>Multicade</td>
<td>BAR-11</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>T2HSA</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>2002-076Q</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 1</td>
<td>Plastx 97-01-001</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>Steelcade 97-03-001</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>97-11-003-45 SF Series</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>97-11-45 F Series</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>Plastx 97-01-002</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Barricade, Type 2</td>
<td>Steelcade 97-03-002</td>
<td>BAR-8</td>
<td>TL-3 (62 mph)</td>
<td>-----</td>
<td></td>
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<tr>
<td>HTGCP 15</td>
<td>HTG Custom Plastech, 15002 Cross Creek Parkway, Newbury, OH 44065</td>
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<td></td>
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<tr>
<td>Barricade, Type 3</td>
<td>Sentinel B-30</td>
<td></td>
<td>TL-3 (62 mph)</td>
<td>2002-081Q</td>
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<tr>
<td>Barricade, Type 3</td>
<td>Barricade Series 600</td>
<td>BAR-9</td>
<td>TL-3 (62 mph)</td>
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<td></td>
</tr>
</tbody>
</table>
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.

<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></td>
<td>Barricade, Type 1, 2</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>WBT2 Jammer Plastic</td>
<td>BAR-12</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WBT2 Jammer Steel</td>
<td>BAR-12</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td></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></td>
<td>WBT3HP EZ-Kade</td>
<td>BAR-12</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Barricade, Type 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>WBT3SW Welded Stub</td>
<td>BAR-12</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>PLAPC 15</td>
<td>Plasticade Products Corporation, 7700 North Austin Ave., Skokie, IL 60077 [<a href="http://www.plasticade.com/">http://www.plasticade.com/</a>]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Barricade, Type 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>100-WT12EG</td>
<td>BAR-10</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td></td>
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<tr>
<td></td>
<td>Fibercade 101</td>
<td>BAR-10</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
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<td></td>
<td>Barricade, Type 1, 2, Direction Indicator (DI) SafetyCade</td>
<td>BAR-10</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
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<td></td>
<td>100-T12B8</td>
<td>BAR-10</td>
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<td>TL-3 (62 mph)</td>
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<td></td>
<td>Fibercade 111</td>
<td>BAR-10</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td></td>
<td>Barricade, Type 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>300 Series</td>
<td>BAR-10</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
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<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032 [<a href="http://protectiveservicesinc.com/">http://protectiveservicesinc.com/</a>]</td>
<td></td>
<td></td>
<td></td>
<td>2012-040Q</td>
</tr>
<tr>
<td></td>
<td>Barricade, Type 3</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Type Metallic Barricade</td>
<td>BAR-14</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
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</tr>
<tr>
<td>THDTW 15</td>
<td>Three D Traffic Works, Inc., 430 North Varney Street, Burbank, CA 91502 [<a href="http://www.trafficwks.com/">http://www.trafficwks.com/</a>]</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Barricade, Type 1</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TD 2000 Works</td>
<td></td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>2000-272Q</td>
</tr>
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<td></td>
<td>TD 2150 Works</td>
<td></td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
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<td>Barricade, Type 2</td>
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<tr>
<td></td>
<td>TD 2000 Works</td>
<td></td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
<td>2000-272Q</td>
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<tr>
<td></td>
<td>TD 2150 Works</td>
<td></td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barricades

<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></td>
<td>Barricade, Type 1</td>
<td>TD 36000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td>Barricade, Type 1</td>
<td>TD 37000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td>Barricade, Type 1</td>
<td>TD 39000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td>Barricade, Type 2</td>
<td>TD 36000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td>Barricade, Type 2</td>
<td>TD 37000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td>Barricade, Type 2</td>
<td>TD 39000 Series</td>
<td>BAR-4</td>
<td>Lighted</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td>YODOK 15</td>
<td>Yodock Wall Company, Inc., 900 Patterson Drive, Bloomsburg, PA 17815 <a href="http://www.yodock.com/">http://www.yodock.com</a></td>
<td></td>
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<tr>
<td></td>
<td>Barricade, Type 3</td>
<td>Model 2001</td>
<td>BAR-7</td>
<td></td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td>Maximum water per cell unit: 1060 pounds (482 kg).</td>
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<tr>
<td></td>
<td>Barricade, Type 3</td>
<td>Model 2001M</td>
<td>BAR-7</td>
<td></td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
<td>May not contain water.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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](http://www.fhwa.dot.gov/)

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](http://www.aashto.org/)

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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](#)

<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>Tested 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</td>
<td>Barrier Connection, LLC, 976 Narcissus Avenue, Clearwater, FL 33767-0564</td>
<td>Temporary Concrete Barrier</td>
<td>10' or 20' Modified VDOT Barrier</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>
</tr>
<tr>
<td></td>
<td></td>
<td>Temporary Concrete Barrier</td>
<td>10' or 20' Modified VDOT Barrier</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>
</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>
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<td></td>
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<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</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>
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<tr>
<td></td>
<td></td>
<td>See Section 714 for Precasters.</td>
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<tr>
<td></td>
<td></td>
<td>Drawings for J-J Hooks with NJ or F-Shape Concrete Barrier: <a href="#">B-52 FHWA Approval Letter (3/26/1999)</a></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Temporary Concrete Barrier</td>
<td>12' and 20' J-J Hook Barrier, Bolt Down</td>
<td>MASH 2016</td>
<td>F</td>
<td>J-J Hook (MASH)</td>
<td>32</td>
<td>5.9&quot; (0.49 ft.)</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
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<td>Roadway Use only - Bolted to concrete surface.</td>
<td></td>
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<tr>
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<td>See Section 714 for Precasters.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>J-J Hook F-Shape 12' and 20' Barrier Bolted &amp; Pinned Drawings Signed by PennDOT 3/30/15</td>
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<tr>
<td></td>
<td></td>
<td>Temporary Concrete Barrier</td>
<td>12' and 20' J-J Hook Barrier, Pin Down</td>
<td>MASH 2016</td>
<td>F</td>
<td>J-J Hook (MASH)</td>
<td>32</td>
<td>8.8&quot; (0.73 ft.)</td>
<td>TL-3 (62 mph)</td>
</tr>
<tr>
<td></td>
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<td>Roadway Use only - Pinned down to asphalt surface.</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>See Section 714 for Precasters.</td>
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</tr>
</tbody>
</table>

[403](#)
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

<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>Tested Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KENPR 15</td>
<td>Kentucky Precast, Easi-Set Industries, 5119 Catlett Road, P.O. Box 400, Midland, VA 22728</td>
<td>NCHRP 350</td>
<td>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>
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<tr>
<td></td>
<td>Temporary Concrete Barrier</td>
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<td></td>
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<tr>
<td></td>
<td>Kentucky Barrier</td>
<td></td>
<td></td>
<td></td>
<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>
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<tr>
<td>LINSY 15 Plant</td>
<td>Lindsay Transportation Solutions, Barrier Systems, 180 River Road, Rio Vista, CA 94571</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>
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<td></td>
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<tr>
<td></td>
<td>3.28’ QuickChange Series 200 Moveable Concrete Barrier (MCB)</td>
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<tr>
<td></td>
<td>Approved Drawings: QuickChange Series 200 Moveable Concrete Barrier (MCB) Drawings Signed by PennDOT 1/27/14</td>
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</tr>
<tr>
<td>NYSDO 15</td>
<td>NYSDOT, State Office Campus-Building 5, Room 410, 1220 Washington Avenue, Albany, NY 12232-0751</td>
<td>NCHRP 350</td>
<td>F and NJ</td>
<td>I-Beam</td>
<td>32</td>
<td>3.4 ft.</td>
<td>TL-3 (62 mph)</td>
<td>B-94</td>
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<td></td>
<td>Temporary Concrete Barrier</td>
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<td>20’ NYDOT I-Beam Barrier</td>
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<td>See Section 714.2 for approved precasters.</td>
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<td>MwRSF Report TRP-03-202-08, 03/14/2008</td>
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</tr>
</tbody>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Concrete (DM-2, Chapter 12) Last Revised: 8/17/2018

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

<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>Tested 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>Ohio DOT, Ohio Department of Transportation, P. O. Box 899, Columbus, OH 43216-0899 <a href="http://www.dot.state.oh.us/pages/home.aspx">http://www.dot.state.oh.us/pages/home.aspx</a></td>
<td>Temporary Concrete Barrier 10' Ohio DOT Barrier 10' Ohio DOT Barrier</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>Rockingham Precast, P.O. Box 1347, Harrisonburg, VA 22801 <a href="http://rockinghamprecast.com/">http://rockinghamprecast.com/</a></td>
<td>Temporary Concrete Barrier 12' T-LOK Barrier 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>
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<tr>
<td>VIRDO 15</td>
<td>Virginia DOT, The Dale Building, Suite 205, 1504 Santa Rosa Road, Richmond, VA 23229 <a href="http://www.virginiadot.org/">http://www.virginiadot.org/</a></td>
<td>Temporary Concrete Barrier 10' or 20' VDOT Barrier, Modified MB-7D 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>
<td>-----</td>
</tr>
</tbody>
</table>

901.2 Temporary Barrier, Concrete - Retrofit Systems to Limit Deflection (DM-2, Chapter 12) Last Revised: 2/19/2019

Approved FHWA Barrier System Design only, not manufacturers. Requires approval by District and Central Office BOPD, Highway Delivery Division, before use.

Drawings for Ohio DOT Pin and Loop NJ Shape Concrete Barrier: B-93 FHWA Approval Letter May 8th, 2002 with Drawings

Approved FHWA Barrier System Design only, not manufacturers. Requires approval by District and Central Office BOPD, Highway Delivery Division, before use.

Drawings for T-LOK F Shape Barrier: B-42 FHWA Approval Letter with Drawings

Approved FHWA Barrier System Design only, not manufacturers. Requires approval by District and Central Office BOPD, Highway Delivery Division, before use.

Drawings for T-LOK F Shape Barrier: B-42 FHWA Approval Letter with Drawings
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

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

<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>Tested Retrofit Deflection (ft)</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Barrier Retrofit System (Limit Deflection)</td>
<td>20' NYS I-Beam, Pinned Sections</td>
<td>MwRSF Report #TRP-03-224-10, 01/27/2010. Per Faddis Concrete Products Drawings Dated and Signed by PennDOT 3/15/17</td>
<td></td>
<td></td>
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<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>MASH 2009</td>
<td>NJ Shape Only</td>
<td>I-Beam</td>
<td>1.7 ft.</td>
<td>2017-028</td>
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<tr>
<td></td>
<td>Barrier Retrofit System (Limit Deflection)</td>
<td>20' NYS I-Beam, Pinned Sections</td>
<td>MwRSF Report #TRP-03-224-10, 01/27/2010. Per Faddis Concrete Products Drawings Dated and Signed by PennDOT 3/15/17</td>
<td></td>
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<td></td>
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<tr>
<td>INTSS 15</td>
<td>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
<td>MASH 2009</td>
<td>NJ Shape Only</td>
<td>I-Beam</td>
<td>1.7 ft.</td>
<td>2014-266QA</td>
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<td></td>
<td>Barrier Retrofit System (Limit Deflection)</td>
<td>20' NYS I-Beam, Pinned Sections</td>
<td>MwRSF Report #TRP-03-224-10, 01/27/2010. Per Northeast Precast Drawings Dated 07/30/2012</td>
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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](#)

Important Notice: [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](#)

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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>Tested Retrofit 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>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>
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</tbody>
</table>

Provisionally approved based on successful crash testing by TTI and related FHWA Eligibility Letter to Indiana DOT (B-258). TTI MASH test report #690900-SBK7 (April 2018)  

Per [Strongstown's B&K Enterprises's Double Slot Asphalt Pavement Drawings Signed by PennDOT 7/24/18](#)

<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>Tested Retrofit Deflection (ft)</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
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<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>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>
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</tbody>
</table>

Provisionally approved based on successful crash testing by TTI and related FHWA Eligibility Letter to Indiana DOT (B-258). TTI MASH test report #690900-SBK6 (April 2018)  

Per [Strongstown's B&K Enterprises's Double Slot Concrete Pavement Drawings Signed by PennDOT 7/24/18](#)

<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>Tested Retrofit Deflection (ft)</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
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<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>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>
</tr>
</tbody>
</table>

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&K Enterprises's Asphalt Pavement Retrofit Drawings Signed by PennDOT 9/12/17](#)
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]

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

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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>Tested Retrofit Deflection (ft)</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
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<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’ 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&quot;)</td>
<td>2017-141</td>
<td></td>
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</tbody>
</table>

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 Strongtown’s B&K Enterprises’ Concrete Pavement Retrofit Drawings Signed by PennDOT 9/12/17

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 Strongtown’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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested Deflection (ft)</th>
<th>Barrier Approved Crash Test Level</th>
<th>Structure Mounted</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>BARRS 15</td>
<td>Lindsay Transportation Solutions (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</td>
<td>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>
</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

ENERG 15 | Energy Absorption Systems, Inc. (Trinity Industries, Inc. Company), 70 West Madison Street, Suite 2350, Chicago, IL 60602 [http://energyabsorption.com/] | Plant | Temporary Steel Barrier | 12M Vulcan Barrier and Anchor System | NCHRP 350 | 32 | 1 ft. | TL-3 (62 mph) | No (Ground Only) | B-134C, SWMO4b | 2009-099Q |

Temporary Steel Barrier | 4M and 12M Vulcan Barrier System | NCHRP 350 | 32 | 7.9 ft. | TL-4 (small truck) | No (Ground Only) | B-134D, SWMO4a | 2009-099Q |

Temporary Steel Barrier | 4M and 12M Vulcan Barrier System | NCHRP 350 | 32 | 6.9 ft. | Anchored Ends | TL-3 (62 mph) | No (Ground Only) | B-134, SWMO4b | 2009-099Q |

Temporary Steel Barrier | 4M and 12M Vulcan Barrier System, unanchored ends | NCHRP 350 | 32 | 13.2 ft. | Unanchored Ends | TL-3 (62 mph) | No (Ground Only) | B-134, SWMO4b | 2009-099Q |
# 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](http://www.highwaycareint.com/)

FHWA Acceptance Letters (refer to the FHWA website for any subsequent or follow-up letters for each approved system): [Longitudinal Barrier Letters](http://www.highwaycareint.com/)

**Important Notice:** [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](http://www.highwaycareint.com/)

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested 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>HIGCA 15</td>
<td>Highway Care International, The Highlands, Detling Hill,, Dertling, Maidstone, Kent, United Kingdom ME14 3HT</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: <a href="http://www.highwaycareint.com/">BarrierGuard 800 - System Drawings (14-602 BDTD)</a></td>
<td>Temporary Steel Barrier</td>
<td>BarrierGuard 800</td>
<td>MASH TL-3 Standard</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>PennDOT Drawing: <a href="http://www.highwaycareint.com/">BarrierGuard 800 - System Drawings (14-602 BDTD)</a></td>
<td>Temporary Steel Barrier, Minimum Deflection System</td>
<td>BarrierGuard 800</td>
<td>MDS, 20 ft. Anchoring</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>
</tr>
<tr>
<td>PennDOT Drawing: <a href="http://www.highwaycareint.com/">BarrierGuard 800 - System Drawings (14-602 BDTD)</a></td>
<td>Temporary Steel Barrier, Minimum Deflection System</td>
<td>BarrierGuard 800</td>
<td>MDS, 40 ft. Anchoring</td>
<td>NCHRP 350</td>
<td>31.5</td>
<td>2.92 ft for 40 ft anchor spacing</td>
<td>TL-3 (62 mph)</td>
<td>Structure Mounted</td>
</tr>
</tbody>
</table>

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### Notes

- *MASH TL-3 Standard*
- *BarrierGuard 800 Standard originally tested per NCHRP 350 criteria (FHWA Eligibility Letter B-131).* PennDOT Drawing: [BarrierGuard 800 - System Drawings (14-602 BDTD)](http://www.highwaycareint.com/)
- *BarrierGuard 800 MDS originally crash tested to NCHRP 350 (FHWA Eligibility Letter B-158).* PennDOT Drawing: [BarrierGuard 800 - System Drawings (14-602 BDTD)](http://www.highwaycareint.com/)
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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<th>Name</th>
<th>Tested Criteria</th>
<th>Tested Height (in)</th>
<th>Tested 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 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>4.75 ft.</td>
<td>TL-3 (62 mph)</td>
<td>Structure Mounted</td>
<td>B-176A, SWM10b</td>
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<tr>
<td></td>
<td>PennDOT Drawings: ZoneGuard Portable Steel Barrier System Drawings (12-602-BDTD)</td>
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<tr>
<td></td>
<td>Temporary Steel Barrier</td>
<td>Zoneguard (Standard)</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>
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<td>PennDOT Drawings: ZoneGuard Portable Steel Barrier System Drawings (12-602-BDTD)</td>
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<tr>
<td></td>
<td>Temporary Steel Barrier</td>
<td>Zoneguard, Asphalt (Standard)</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>
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<tr>
<td></td>
<td>Temporary Steel Barrier</td>
<td>Zoneguard, Concrete (Min. Deflection)</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>
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<td>PennDOT Drawings: ZoneGuard Portable Steel Barrier System Drawings (12-602-BDTD)</td>
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Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Steel (DM-2, Chapter 12)

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Approved Bridge and Structure Products

Approved Bridge and Structure Products

Approved Crash Test Level: Yes No

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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<th>Structure Mounted</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>MOBBA 15</td>
<td>Mobile Barriers, LLC, 24918 Genesee Trail Road, Golden, CO 80401</td>
<td>Mobile Barrier Trailer (MBT-1)</td>
<td>MASH 2009</td>
<td>48</td>
<td>2.0 ft.</td>
<td>TL-3 (62 mph)</td>
<td>No</td>
<td>B-178</td>
</tr>
<tr>
<td>SBNA1 15</td>
<td>Safe Barriers North America LLC, 755 Grand Boulevard, Suite B105-227, Miramar Beach, FL 32550</td>
<td>Defender Barrier 100 HC</td>
<td>MASH 2016</td>
<td>31.5</td>
<td>8.1 ft. (97&quot;)</td>
<td>TL-4</td>
<td>No (Ground Only)</td>
<td>B-297</td>
</tr>
</tbody>
</table>

HC = High Containment, Safe Barriers Defender Barrier - PennDOT Signed Drawing 071819

Temporary Steel Barrier, Minimum Deflection System

Defender Barrier 100 LDS | MASH 2016 | 31.5 | 2.9 ft. | TL-3 | No (Ground Only) | B-298 | 2018-209Q |

Safe Barriers Defender Barrier - PennDOT Signed Drawing 071819

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. Approved Crash Test Level: Yes No

Approved Crash Test Level: Yes No

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Barrier Material</th>
<th>Tested Height (in)</th>
<th>Tested Deflection (ft)</th>
<th>Approved Crash Test Level</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

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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](#)

Important Notice: [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Barrier Material</th>
<th>Tested Height (in)</th>
<th>Tested Deflection (ft)</th>
<th>Approved Crash Test Level</th>
<th>FHWA Acc. Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENERG 15 Plant</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>Temporary Water-Filled Barrier Triton NCHRP 350 Plastic with Steel Straps</td>
<td>32</td>
<td>12.8 ft.</td>
<td>TL-2 (44 mph)</td>
<td>B-21, SWM03b</td>
<td>-----</td>
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</tr>
<tr>
<td>Temporary Water-Filled Barrier Triton NCHRP 350 Plastic with Steel Straps</td>
<td>32</td>
<td>19 to 22.64 ft.</td>
<td>TL-3 (62 mph)</td>
<td>B-48, SWM03a</td>
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<tr>
<td>Temporary Water-Filled Barrier Sentry NCHRP 350 Plastic with Steel Cable</td>
<td>46</td>
<td>9 ft.</td>
<td>TL-3 (62 mph)</td>
<td>B-196</td>
<td>2010-039Q</td>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Barrier, Water-Filled (DM-2, Chapter 12)  
Last Revised: 11/1/2017

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](#)

Important Notice: [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](#)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Tested Criteria</th>
<th>Barrier Material</th>
<th>Tested Height (in)</th>
<th>Tested Deflection (ft)</th>
<th>Approved Crash Test Level</th>
<th>FHWA Acc. Letter</th>
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<td></td>
<td></td>
<td>Temporary Water-Filled Barrier Model 2001M</td>
<td>NCHRP 350 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>

Important Notice: [FHWA Acceptance Letter: refer to the FHWA website for any subsequent or follow-up letters for each approved system](#)

<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></td>
<td></td>
<td>FOL200</td>
<td>TPT-01</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
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<td></td>
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<td>FOL300</td>
<td>TPT-01</td>
<td>White</td>
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<td></td>
<td></td>
<td>FOL300</td>
<td>TPT-01</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
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</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>
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</thead>
<tbody>
<tr>
<td>SWAR0 15</td>
<td>Swaro Reflex LLC, 900 N. Denton, Mexia, TX 76667</td>
<td>TPT-02</td>
<td>White</td>
<td>Asphalt and Concrete</td>
<td>1991-229</td>
</tr>
<tr>
<td></td>
<td>Visa-Line C.G</td>
<td></td>
<td></td>
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<td>Temporary Pavement Marking Tape, Nonremovable</td>
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<tr>
<td></td>
<td>Visa-Line C.G</td>
<td>TPT-02</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
<td>1991-230</td>
</tr>
<tr>
<td></td>
<td>Visa-Line E.G</td>
<td>TPT-02</td>
<td>White</td>
<td>Asphalt and Concrete</td>
<td>1991-231</td>
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<tr>
<td></td>
<td>Visa-Line E.G</td>
<td>TPT-02</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
<td>1991-232</td>
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</table>

#### 901.2 Temporary Pavement Marking Tape, Removable

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<th>Tape Color</th>
<th>Tape Surface</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>TT-01</td>
<td>Black Line Mask</td>
<td>Asphalt and Concrete</td>
<td>1992-190</td>
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<tr>
<td></td>
<td>Stamark 145</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stamark 715</td>
<td>TT-01</td>
<td>Black Line Mask</td>
<td>Asphalt and Concrete</td>
<td>2011-215QC</td>
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<td></td>
<td>Stamark Wet Reflective Tape Series 710</td>
<td>TT-01</td>
<td>White</td>
<td>Asphalt and Concrete</td>
<td>2011-215QA</td>
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<tr>
<td></td>
<td>Stamark Wet Reflective Tape Series 711</td>
<td>TT-01</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
<td>2011-215QB</td>
</tr>
<tr>
<td></td>
<td>Stamark Wet Reflective Tape Series 780</td>
<td>TT-01</td>
<td>White</td>
<td>Asphalt and Concrete</td>
<td>2010-126QA</td>
</tr>
<tr>
<td></td>
<td>Stamark Wet Reflective Tape Series 781</td>
<td>TT-01</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
<td>2010-126QB</td>
</tr>
</tbody>
</table>

| ADTMK 15  | Advance Traffic Markings, P.O. Box H, Roanoke Rapids, NC 27870-8082 | TT-02 | Black Line Mask  | Asphalt and Concrete | ----- |
|           | 280B 19-212 Black                          |     |           |                      |          |
|           | ATM200W 19-200/216                         | TT-02 | White  | Asphalt and Concrete | ----- |
|           | ATM200Y 19-201/217                         | TT-02 | Yellow | Asphalt and Concrete | ----- |
Section 901: Maintenance and Protection of Traffic During Construction

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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</thead>
<tbody>
<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series 100</td>
<td>TT-03</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
<td>1993-159A</td>
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<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>TWR</td>
<td>TT-03</td>
<td>White</td>
<td>Asphalt and Concrete</td>
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<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>TWR</td>
<td>TT-03</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 <a href="https://www.swarco.com/northamerica">https://www.swarco.com/northamerica</a></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>Director 2</td>
<td>TT-05</td>
<td>White</td>
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<tr>
<td></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>
</tr>
<tr>
<td></td>
<td>Temporary Pavement Marking Tape, Removable</td>
<td>Director 2 WR</td>
<td>TT-07</td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
</tr>
<tr>
<td></td>
<td>Aztec 390</td>
<td></td>
<td></td>
<td>Yellow</td>
<td>Asphalt and Concrete</td>
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</table>

901.2 Temporary Portable Rumble Strips (Pub 213)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Pipe Certification</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLESS 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>
</tr>
<tr>
<td>Facility</td>
<td>Middlefield, OH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Temporary Portable Rumble Strips</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></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>
</tr>
<tr>
<td></td>
<td>Temporary Portable Rumble Strips</td>
<td>RoadQuake 2F (RQ2F)</td>
<td>TPRS-01</td>
<td>Orange</td>
</tr>
</tbody>
</table>

901.2 Temporary Traffic Control Signals

Publication 408, Section 1124 - Temporary Traffic Control Signals

Publication 213 - Temporary Traffic Control Guidelines
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Temporary Traffic Control Signals

Publication 408, Section 1124 - Temporary Traffic Control Signals

Publication 213 - Temporary Traffic Control Guidelines

<table>
<thead>
<tr>
<th>Product</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></td>
<td>SQ3TS</td>
<td>HOR-00</td>
<td>12/16/2008</td>
<td>Trailer Mount</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>PTL 2.4x</td>
<td>NAT-00</td>
<td>12/16/2008</td>
<td>Trailer Mount</td>
</tr>
</tbody>
</table>

901.2 Traffic Alert Radio

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Power</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>

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.
# 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.

<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>HIGSP 15</td>
<td>Highway Safety Products, 1060 Kaiser Road, P. O. Box 4169, Napa, CA 94558 <a href="http://hsptrafficcones.com/">http://hsptrafficcones.com/</a></td>
<td>BHSP 4328</td>
<td>TC-2</td>
<td>One piece</td>
<td>28</td>
<td>Fluorescent Orange</td>
</tr>
<tr>
<td>Traffic Cone</td>
<td>HSP 4328</td>
<td></td>
<td></td>
<td>28</td>
<td>Red Orange</td>
<td>1994-055</td>
</tr>
<tr>
<td>Traffic Cone</td>
<td>HSP 4328E-10</td>
<td>Slimline</td>
<td>28</td>
<td>Red Orange</td>
<td>1994-058</td>
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<tr>
<td>Traffic Cone</td>
<td>HSP 4336</td>
<td></td>
<td></td>
<td>36</td>
<td>Red Orange</td>
<td>1994-058</td>
</tr>
<tr>
<td>Traffic Cone</td>
<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>Traffic Cone</td>
<td>RS90045CT</td>
<td>10 lb Wide Body</td>
<td>36</td>
<td>Fluorescent Orange</td>
<td>2018-204Q</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 <a href="http://www.lakesideplastics.net/index.html">http://www.lakesideplastics.net/index.html</a></td>
<td>2850-10</td>
<td>TC-4</td>
<td>Trimline</td>
<td>28</td>
<td>Red Orange</td>
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<tr>
<td>Traffic Cone</td>
<td>2850-10</td>
<td>TC-4</td>
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<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>Navigator Channelizer</td>
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<td>2010-275Q</td>
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<td>Facility</td>
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<td>2010-275Q</td>
</tr>
</tbody>
</table>

Provisionally Approved
### Section 901: Maintenance and Protection of Traffic During Construction

#### 901.2 Traffic Cones

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<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>
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<tbody>
<tr>
<td>SERVM 15</td>
<td>Service &amp; Materials Company, Inc., 4835 East County Road 600, Sunman, IN 47041</td>
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<tr>
<td>Traffic Cone</td>
<td>2058647</td>
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<td>28</td>
<td>Red Orange / Black Base</td>
<td>1994-038</td>
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<tr>
<td>Traffic Cone</td>
<td>TC-28FF-PA</td>
<td>Slimline</td>
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<td>Red Orange</td>
<td>2001-184Q</td>
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<tr>
<td>Traffic Cone</td>
<td>TC-28WH-PA</td>
<td>Wide Body</td>
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<td>2001-183Q</td>
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<tr>
<td>Traffic Cone</td>
<td>Enviro-Cone</td>
<td>TDI-TC-14</td>
<td>7 lb</td>
<td>Orange / Fluorescent Orange</td>
<td>2014-236QA</td>
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<tr>
<td>Traffic Cone</td>
<td>Enviro-Cone</td>
<td>TDI-TC-14</td>
<td>10 lb</td>
<td>Orange / Fluorescent Orange</td>
<td>2014-236QB</td>
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<td>Enviro-Cone</td>
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<td>12 lb</td>
<td>Orange / Fluorescent Orange</td>
<td>2014-236QC</td>
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<td>TDI-TC-14</td>
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<td>Enviro-Cone</td>
<td>TDI-TC-14</td>
<td>12 lb</td>
<td>Orange / Fluorescent Orange</td>
<td>2014-237QB</td>
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<td>Traffic Cone</td>
<td>Grabber 42000 Series</td>
<td>TC-13</td>
<td>42</td>
<td>Orange / Fluorescent Orange</td>
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<tr>
<td>Traffic Cone</td>
<td>Looper 46000 Series</td>
<td>TC-13</td>
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<td>Orange / Fluorescent Orange</td>
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<tr>
<td>Traffic Cone</td>
<td>Spring Cone</td>
<td>TC-13</td>
<td>419</td>
<td>Orange</td>
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</tr>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Traffic Cones

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<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>UATLLC15</td>
<td>UAT LLC, 4010 Earls Court, Alpharetta, GA 30004</td>
<td><a href="https://uatsupply.com/">https://uatsupply.com/</a></td>
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<td>10 lb Wide Body</td>
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<td><a href="http://workareaprotection.com/">http://workareaprotection.com/</a></td>
<td>Traffic Cone</td>
<td>18 PVCS</td>
<td>TC-6</td>
<td>3 lb</td>
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<td>Traffic Cone</td>
<td>18 PVCS</td>
<td>TC-6</td>
<td>3 lb</td>
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<td>28 PVCH</td>
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901.2 Traffic Warning Signal Spinning Delineator

This device shall not be used in place of a warning light required by Publication 203.

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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
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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

Product | Name | COA | Approved Crash Test Level | Ref. No. |
|---------|------|-----|---------------------------|----------|
## 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>
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<th>Ref. No.</th>
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<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>
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<td>Vorteq Trailer TMA</td>
<td>TMA-2</td>
<td>TL-3 (62 mph), NCHRP 350</td>
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<tr>
<td>Truck-Mounted Attenuator (TMA)</td>
<td>ALPHA 70K TMA</td>
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<td>1997-055</td>
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<td>U-MAD 100K Trailer Attenuator</td>
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<td>TL-3 (62 mph), NCHRP 350</td>
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<td>U-MAD 70K Trailer Attenuator</td>
<td>TMA-6</td>
<td>TL-2 (44 mph), NCHRP 350</td>
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<td>U-MAD 70K Trailer Attenuator</td>
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<td>TL-2 (44 mph), NCHRP 350</td>
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<tr>
<td><strong>PROTE 15</strong> Plant</td>
<td><strong>Plant Protection Services, Inc., 1000 E Ashland Avenue Folcroft, PA 19032</strong></td>
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<td>Truck-Mounted Attenuator (TMA)</td>
<td>React-350 TMA</td>
<td>TL-3 (62 mph), NCHRP 350</td>
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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](#)

<table>
<thead>
<tr>
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<th>COA</th>
<th>Approved Crash Test Level</th>
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<tbody>
<tr>
<td>RENCO 15</td>
<td>Renco Supply Inc., P.O. Box 730, Pflugerville, TX 78691 <a href="http://rencosupply.com/">http://rencosupply.com</a></td>
<td>RAM 100k</td>
<td>TMA-3</td>
<td>TL-3 (62 mph), NCHRP 350</td>
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<td>Truck-Mounted Attenuator (TMA)</td>
<td>Ren-Gard 815</td>
<td>TMA-3</td>
<td>TL-2 (44 mph), NCHRP 350</td>
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<tr>
<td>SYRS2 15</td>
<td>Syro, Inc., 2525 Stemmons Freeway, Dallas, TX 75207 <a href="http://www.syrologistics.com/">http://www.syrologistics.com</a></td>
<td>MPS-350III</td>
<td>TL-3 (62 mph), NCHRP 350</td>
<td>1997-035</td>
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<td>Trailer Attenuator (TA)</td>
<td>TL3-12TA Trailer</td>
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<td>Truck-Mounted Attenuator (TMA)</td>
<td>Scorpion II Series 10000 TMA</td>
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<td>Scorpion II TMA - PennDOT Approved Drawing 081919</td>
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<td>TL-3 (62 mph), MASH 2016</td>
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<td>TRIN5 15</td>
<td>Trinity Highway Products, LLC, 2525 Stemmons Freeway, Dallas, TX 75207 <a href="http://www.highwayguardrail.com/">http://www.highwayguardrail.com</a></td>
<td>MPS-350</td>
<td>TMA-1(03)</td>
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<td>VERDE 15</td>
<td>Verdegro USA LLC, Biscayne Blvd., Suite 505, Miami, FL 33132 <a href="https://www.blade-tma.com/">https://www.blade-tma.com</a></td>
<td>BLADE TMA</td>
<td>FHWA Eligibility Letter: CC-136</td>
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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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Height (in)</th>
<th>Tubular Marker Color</th>
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<td></td>
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<td>SDC-2036</td>
<td>TM-09</td>
<td>36</td>
<td>Yellow</td>
<td>Butyl Pad</td>
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</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Tubular Markers (Traffic Guide Posts)

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<th>Name</th>
<th>COA</th>
<th>Height (in)</th>
<th>Tubular Marker Color</th>
<th>Tubular Marker Bond</th>
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Section 901: Maintenance and Protection of Traffic During Construction

901.2 Tubular Markers (Traffic Guide Posts)

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<td>FlexStake, Inc., 2150 Andrea Lane, Fort Myers, FL 33912 <a href="http://www.flexstake.com/">http://www.flexstake.com/</a></td>
<td>Tubular Marker</td>
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<td>FG 300-UR/36&quot;</td>
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### 901.2 Tubular Markers (Traffic Guide Posts)

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<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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<tbody>
<tr>
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<td>Use Master Builders Conressive 1011 Epoxy 1 to 1 Mix</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Tubular Marker SH518SMTEAYS</td>
<td>TM-07</td>
<td>18</td>
<td>Yellow</td>
<td>Epoxy</td>
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<tr>
<td>Use Master Builders Conressive 1011 Epoxy 1 to 1 Mix</td>
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</tr>
<tr>
<td>Tubular Marker SH524SMAEAOS</td>
<td>TM-07</td>
<td>24</td>
<td>Orange</td>
<td>Butyl Pad</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>Tubular Marker SH524SMAEAWS</td>
<td>TM-07</td>
<td>24</td>
<td>White</td>
<td>Butyl Pad</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>Tubular Marker SH524SMAEAYS</td>
<td>TM-07</td>
<td>24</td>
<td>Yellow</td>
<td>Butyl Pad</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>Tubular Marker SH524SMAEAYS</td>
<td>TM-07</td>
<td>36</td>
<td>Orange</td>
<td>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.

<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>
</tr>
</thead>
</table>
| **UNISO 15** UniqueSource, 500 Bent Creek Boulevard, Mechanicsburg, PA 17050-1876 [https://www.uniquesource.com/](https://www.uniquesource.com/)  
Formerly PIBH-15 |
| Tubular Marker | PIBH-18TM | TM-11 | 18 | White | Epoxy |
| Tubular Marker | PIBH-18TM | TM-11 | 18 | Yellow | Epoxy |
| Tubular Marker | PIBH-18TM | TM-11 | 18 | Orange | Epoxy |
| Tubular Marker | PIBH-24TM | TM-11 | 24 | White | Epoxy |
| Tubular Marker | PIBH-24TM | TM-11 | 24 | Yellow | Epoxy |
| Tubular Marker | PIBH-24TM | TM-11 | 24 | Orange | Epoxy |
| Tubular Marker | PIBH-28TM | TM-11 | 28 | White | Epoxy |
| Tubular Marker | PIBH-28TM | TM-11 | 28 | Yellow | Epoxy |
| Tubular Marker | PIBH-28TM | TM-11 | 28 | Orange | Epoxy |
| Tubular Marker | PIBH-36TM | TM-11 | 36 | White | Epoxy |
| Tubular Marker | PIBH-36TM | TM-11 | 36 | Yellow | Epoxy |
| Tubular Marker | PIBH-36TM | TM-11 | 36 | Blue | Epoxy |
| Tubular Marker | PIBH-36TM | TM-11 | 36 | Orange | Epoxy |
| Tubular Marker | PIBH-48TM | TM-11 | 48 | White | Epoxy |
| Tubular Marker | PIBH-48TM | TM-11 | 48 | Yellow | Epoxy |
| Tubular Marker | PIBH-48TM | TM-11 | 48 | Blue | Epoxy |
| Tubular Marker | PIBH-48TM | TM-11 | 48 | Orange | Epoxy |
| Tubular Marker | PIBH-TMB | TM-11 | ----- | ----- | ----- |

*Surface Mount Base, Pin Lock, Epoxy*

### 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>
</tr>
</thead>
<tbody>
<tr>
<td>Variable Speed Limit Sign</td>
<td>CST-1</td>
<td>VSL-1</td>
<td>Trailer</td>
<td>Solar Battery</td>
</tr>
</tbody>
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Last Revised: 6/17/2015
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>
</tr>
</thead>
</table>

**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>IMPRS 15</td>
<td>Vertical Panel</td>
<td>320 F Portable Base</td>
<td>VP-4</td>
<td>Single Panel</td>
<td>TL-3 (62 mph)</td>
</tr>
<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>PLASS 15</td>
<td>Facility</td>
<td>MVP</td>
<td>VP-5</td>
</tr>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032 <a href="http://protectiveservicesinc.com/">http://protectiveservicesinc.com</a></td>
<td>PROTE 15</td>
<td>Vertical Panel</td>
<td>Big Foot</td>
<td>VP-2</td>
</tr>
<tr>
<td>PROTE 15</td>
<td>Vertical Panel</td>
<td>Big Foot II</td>
<td>VP-2</td>
<td>Single Panel</td>
<td>TL-3 (62 mph)</td>
</tr>
</tbody>
</table>
## Section 901: Maintenance and Protection of Traffic During Construction

### 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>Vertical Panel</td>
<td>TD6000</td>
<td>VP-6</td>
<td>Single Panel</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Vertical Panel</td>
<td>TD6500</td>
<td>VP-6</td>
<td>Single Panel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical Panel</td>
<td>33000 Series</td>
<td>VP-3</td>
<td>Single Panel</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
<tr>
<td>Vertical Panel</td>
<td>40000 Series</td>
<td>VP-3</td>
<td>Double Panel</td>
<td>TL-3 (62 mph)</td>
<td></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></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical Panel</td>
<td>320 Series</td>
<td>VP-8</td>
<td>Single Panel</td>
<td>TL-2 (44 mph)</td>
<td></td>
</tr>
<tr>
<td>Vertical Panel</td>
<td>320 Series</td>
<td>VP-8</td>
<td>Single Panel</td>
<td>TL-3 (62 mph)</td>
<td></td>
</tr>
</tbody>
</table>

### 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>C&amp;CSG 15</td>
<td>C&amp;C Signal, LLC, 216 South Alma School Road, Mesa, AZ 85210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>BL1V.3W00</td>
<td>WL-13</td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>BL3V.3WXX</td>
<td>WL-13</td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>BLU36.3W</td>
<td>WL-13</td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>BLU36.3W00</td>
<td>WL-13</td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>S8.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></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type B, White</td>
<td>BLU6.BL100</td>
<td>PWL-5</td>
<td></td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# 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>C&amp;CSG 15</td>
<td>C&amp;C Signal, LLC, 216 South Alma School Road, Mesa, AZ 85210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>BL3V.BL100</td>
<td>WL-13</td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>BLU6.BL1-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>BL1V.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>BLU36.3W</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>SB.ACX</td>
<td>WL-13</td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PS-120</td>
<td></td>
<td></td>
</tr>
<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>
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<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>
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</tr>
<tr>
<td>DORMA 15</td>
<td>Dorman Smith Traffic Products, Rufford Road, Southport, England</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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</tbody>
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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>
</thead>
<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>
</tr>
<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>1996-196</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>
</tr>
<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>
</tr>
<tr>
<td>Provisionally Approved</td>
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</tr>
<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>
</tr>
<tr>
<td>Provisionally Approved</td>
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<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>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>100</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>100 LED</td>
<td>WL-2</td>
<td>1995-133</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>2006</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>400</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>400 LED</td>
<td>WL-2</td>
<td>1994-270</td>
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</table>
## 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>Warning Light: Type C, Yellow</td>
<td>400 LED-DH</td>
<td>WL-2</td>
<td>1994-134</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>499L3</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type C, Yellow</td>
<td>Y2K</td>
<td>WL-2</td>
<td>2000-162Q</td>
</tr>
<tr>
<td>Warning Light: Type D, Yellow</td>
<td>499L3D</td>
<td>WL-2</td>
<td>-----</td>
</tr>
<tr>
<td>PENTC 15</td>
<td>Pennsylvania Turnpike Commission, P.O. Box 67676, Harrisburg, PA 17106 <a href="https://www.paturnpike.com/">https://www.paturnpike.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>T-1</td>
<td>PWL-3</td>
<td>-----</td>
</tr>
</tbody>
</table>

*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>PROTE 15 Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032 <a href="http://protectiveservicesinc.com/">http://protectiveservicesinc.com/</a></td>
<td></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>PF3-P-12V-A</td>
<td>WL-1</td>
<td>-----</td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PF3P-12V-PC-S</td>
<td>WL-1</td>
<td>-----</td>
</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>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>200 LED</td>
<td>1995-075</td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>Active WZ Light (Act 229)</td>
<td>PWL-4</td>
<td>-----</td>
</tr>
<tr>
<td>Provisionally Approved</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>HI-3-120</td>
<td>WL-1</td>
<td>1983-143</td>
</tr>
<tr>
<td>Warning Light: Type B, Yellow</td>
<td>HI-3-120</td>
<td>WL-1</td>
<td>1987-313</td>
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<td>Warning Light: Type B, Yellow</td>
<td>HI-4</td>
<td>WL-1</td>
<td>1995-004</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>200-1-LED</td>
<td>1983-071</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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<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-6V</td>
<td>WL-1</td>
<td></td>
</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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</tr>
</tbody>
</table>
## 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>
<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>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>301</td>
<td>1981-103</td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>501</td>
<td>1981-103</td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>NF5003</td>
<td>1983-139</td>
<td></td>
</tr>
<tr>
<td>Warning Light: Type A, Yellow</td>
<td>PAR7003</td>
<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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<td>Warning Light: Type B, Yellow</td>
<td>PAR1764</td>
<td>WL-9</td>
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<td>Warning Light: Type B, Yellow</td>
<td>PAR1774</td>
<td>WL-9</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>301</td>
<td>1981-103</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>501</td>
<td>1981-103</td>
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<tr>
<td>Warning Light: Type C, Yellow</td>
<td>NF5001</td>
<td>WL-9</td>
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<td>Warning Light: Type C, Yellow</td>
<td>NF5001</td>
<td>WL-9</td>
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<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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<td>Warning Light: Type B, Yellow</td>
<td>M90</td>
<td>1990-021</td>
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<tr>
<td>WLITL 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>
<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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<tr>
<td>Warning Light: Type B, Yellow</td>
<td>2540</td>
<td>WL-12</td>
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</table>

### 901.2 Warning Lights, Sequential

**Last Revised: 9/5/2018**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
Section 901: Maintenance and Protection of Traffic During Construction

901.2 Warning Lights, Sequential

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Pi-Lit Sunflower Sequential Cone-Top Warning Lamp</td>
<td>2016-293Q</td>
</tr>
<tr>
<td></td>
<td>Provisional Approval for Sunflower Cone-Top Lamps - Contact Ryan Palman (<a href="mailto:rpalman@pa.gov">rpalman@pa.gov</a>) before using on a Department highway; Contact Tom Macchione (<a href="mailto:tmacchio@paturnpike.com">tmacchio@paturnpike.com</a>) before using on the Pennsylvania Turnpike.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FHWA Crashworthiness Eligibility: Self-Certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UNID2 15</td>
<td>Unipart Dorman, Wennington Road, Southport, England PR97TN</td>
<td>ConeLITE Synchro</td>
<td>2016-137</td>
</tr>
<tr>
<td></td>
<td>Sequential Warning Lights</td>
<td>This light cannot be used on 28&quot; cones due to the MUTCD requirement of a 30&quot; minimum mounting height (Section 6F.83 paragraph 11). FHWA MASH Crashworthiness Eligibility Letter: WZ-339</td>
<td></td>
</tr>
<tr>
<td>UNIDO 15</td>
<td>Unipart Dorman, 173 Main Street, Bath, Ontario, Canada K0H 1G0 <a href="http://www.unipartdorman.com/">http://www.unipartdorman.com/</a></td>
<td>SynchroGUIDE model BAB6N/AW/P/H</td>
<td>2012-164Q</td>
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</tbody>
</table>

901.3(b) Dust Control Palliatives

Publication 447, Section MS-0440-0020 Dust Palliatives [Publication 447, Approved Products for Lower Volume Local Roads](https://www.dot.state.pa.us/pcdpubs/PH/PH447/PH447.html)

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](https://www.dot.state.pa.us/pcdpubs/PH/PH447/PH447.html)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
</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>PENSU 15</td>
<td>PennzSuppress Corporation, P.O. Box 4993, Lago, TX 78701 <a href="http://pennzsuppress.com/">http://pennzsuppress.com/</a></td>
<td>PENSU 15</td>
</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>SUIT3 15</td>
</tr>
</tbody>
</table>
**Section 910: Highway Lighting**

### 910.3(d) Pole Foundations (Alternates): Drilled Concrete Caissons

Approved product alternative for Section 910.3(d).

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

*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](#)*

*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](#)*
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>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Steel Finned Pipe Foundation</td>
<td>Safe (Sign Foundation)</td>
<td></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>
</thead>
<tbody>
<tr>
<td><strong>3M-06 15</strong></td>
<td><strong>Plant</strong> 3M Company, 4501 Highway 377 South, Brownwood, TX 76804 4501 Highway 377 South Brownwood, TX 76804 [<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>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Linear Delineation System Series 340</td>
<td>LDS-341.5 (1.5 inch)</td>
<td>LDS-01</td>
<td></td>
<td></td>
<td>2013-150</td>
</tr>
<tr>
<td></td>
<td>Installation with manual fasteners only.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Linear Delineation System Series 340</td>
<td>LDS-344 (4 inch)</td>
<td>LDS-01</td>
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<td></td>
<td>2013-150</td>
</tr>
<tr>
<td></td>
<td>Installation with manual fasteners only.</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Linear Delineation System Series 340</td>
<td>LDS-346 (6 inch)</td>
<td>LDS-01</td>
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<td>2013-150</td>
</tr>
<tr>
<td></td>
<td>Installation with manual fasteners only.</td>
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<tr>
<td><strong>AMEMP 15</strong></td>
<td>American Molded Plastic, Inc., P.O. Box 434, Newton Falls, OH 44444 [<a href="http://americanmoldedplastic.com/">http://americanmoldedplastic.com/</a>]</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>Flex-D</td>
<td>BMD-12</td>
<td>White and Yellow</td>
<td>Type R</td>
<td>-----</td>
</tr>
<tr>
<td><strong>ARTUK 15</strong></td>
<td>Artuk Corporation, 1200 Abbott Dr., Elgin, IL 60123 [<a href="http://artukinc.com/">http://artukinc.com/</a>]</td>
<td></td>
<td></td>
<td></td>
<td>Type P</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>FB-38</td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction, Single/Double Sided</td>
<td>Type O</td>
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<tr>
<td></td>
<td></td>
<td>FB33-1</td>
<td>BMD-08</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction</td>
<td>Type O</td>
</tr>
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<td>(Formerly listed under Supplier Code ASTR-15)</td>
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<td></td>
<td>Barrier Mounted Delineator</td>
<td>FB33-2</td>
<td>BMD-08</td>
<td>White and Yellow</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type O</td>
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<td>(Formerly listed under Supplier Code ASTR-15)</td>
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<td>Barrier Mounted Delineator</td>
<td>FB34-1</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>(Formerly listed under Supplier Code ASTR-15)</td>
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<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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<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>
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<tbody>
<tr>
<td><strong>ARTUK 15</strong></td>
<td>Artuk Corporation, 1200 Abbott Dr., Elgin, IL 60123 <a href="http://artukinc.com/">http://artukinc.com/</a></td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction, Single Sided</td>
<td>Type R</td>
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</tr>
<tr>
<td>Barrier Mounted Delineator</td>
<td>FT-1</td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction, Single Sided</td>
<td>Type R</td>
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</tr>
<tr>
<td>Barrier Mounted Delineator</td>
<td>FT-2</td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Impact Resistant, Bidirectional, Double Sided</td>
<td>Type R</td>
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<tr>
<td>Barrier Mounted Delineator</td>
<td>660-IR-BMD</td>
<td>BMD-01</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction</td>
<td>Type O</td>
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<tr>
<td>Barrier Mounted Delineator</td>
<td>661-IR-BMD</td>
<td>BMD-01</td>
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<td>Impact Resistant, Bidirectional</td>
<td>Type O</td>
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<tr>
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<td>662-IR-BMD</td>
<td>BMD-01</td>
<td>White and Yellow</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type O</td>
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<tr>
<td><strong>HALMC 15</strong></td>
<td>Hall Manufacturing Corporation, 297 Margaret King Avenue, Ringwood, NJ 07456 <a href="http://www.hallmanufacturing.com/">http://www.hallmanufacturing.com/</a></td>
<td>BMD-09</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type R</td>
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<tr>
<td>Barrier Mounted Delineator</td>
<td>Flexx 2020</td>
<td>BMD-09</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type R</td>
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<td><strong>PEXCO 15</strong></td>
<td>Pexco Davidson Traffic Control Products, 3110 70th Avenue East, Tacoma, WA 98424 <a href="http://www.pexco.com/markets/industrial/traffic">http://www.pexco.com/markets/industrial/traffic</a></td>
<td>BMD-02</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type R</td>
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<tr>
<td>Barrier Mounted Delineator</td>
<td>PCB M T12</td>
<td>BMD-02</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type R</td>
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<tr>
<td>Barrier Mounted Delineator</td>
<td>PCB M-12</td>
<td>BMD-02</td>
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<tr>
<td>Barrier Mounted Delineator</td>
<td>PCB M-15</td>
<td>BMD-02</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type P</td>
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</tbody>
</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></td>
<td>Barrier Mounted Delineator</td>
<td>SH216RBM-AS, 16&quot; Post</td>
<td>BMD-05</td>
<td>Gray</td>
<td>Impact Resistant, Single Direction</td>
<td>Type S</td>
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<tr>
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<td>Barrier Mounted Delineator</td>
<td>SH216RBM-RS, 16&quot; Post</td>
<td>BMD-05</td>
<td>Red</td>
<td>Impact Resistant, Single Direction</td>
<td>Type S</td>
</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>SH216RBM-YA, 16&quot; Post</td>
<td>BMD-05</td>
<td>Yellow</td>
<td>Impact Resistant, Single Direction</td>
<td>Type S</td>
</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>SH216RBMD-AA, 16&quot; Post</td>
<td>BMD-05</td>
<td>Gray</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type S</td>
</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>SH216RBMD-RA, 16&quot; Post</td>
<td>BMD-05</td>
<td>Red</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type S</td>
</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>SH216RBMD-WS, 16&quot; Post</td>
<td>BMD-05</td>
<td>White</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type S</td>
</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>SH216RBMD-YA, 16&quot; Post</td>
<td>BMD-05</td>
<td>Yellow</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type S</td>
</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>SH216RMB-WS, 16&quot; Post</td>
<td>BMD-05</td>
<td>White</td>
<td>Impact Resistant, Single Direction</td>
<td>Type S</td>
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</tbody>
</table>

### 937.2(b) Delineation Devices, Guardrail 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 <a href="https://www.uniquesource.com/">https://www.uniquesource.com/</a></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>PIBH-16BMW, 16&quot; Post</td>
<td>BMD-07</td>
<td>White</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type S</td>
</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>PIBH-16BMY, 16&quot; Post</td>
<td>BMD-07</td>
<td>Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type S</td>
</tr>
<tr>
<td></td>
<td>Barrier Mounted Delineator</td>
<td>PIBH-BMB BM Base</td>
<td>BMD-07</td>
<td>Pin Lock, Epoxy</td>
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</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>3M-06 15</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>LDS-341.5 (1.5 inch)</td>
<td>LDS-01</td>
<td>2013-150</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Linear Delineation System Series 340</td>
<td></td>
<td>Installation with manual fasteners only.</td>
<td></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>
<td>2013-150</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>
<td>2013-150</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Installation with manual fasteners only.</td>
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</tr>
<tr>
<td>AMEMP 15</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>Flex-DS</td>
<td>BMD-12</td>
<td>Type CS</td>
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</tr>
<tr>
<td></td>
<td>Strong Post Guiderail Mounted Delineator</td>
<td></td>
<td>Single/Bidirectional</td>
<td>Type CW</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weak Post Guiderail Mounted Delineator</td>
<td></td>
<td>Single/Bidirectional</td>
<td>Type CW</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Guiderail Mounted Delineator</td>
<td></td>
<td>White and Yellow</td>
<td>Type A</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>717</td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Type D</td>
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<tr>
<td></td>
<td>Strong Post Guiderail Mounted Delineator</td>
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<td>Impact Resistant, Single/Bidirectional</td>
<td>Type CS</td>
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</tr>
<tr>
<td></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>
<td></td>
<td>Strong Post Guiderail Mounted Delineator</td>
<td></td>
<td>Impact Resistant, Single Direction</td>
<td>Type CS</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FR-2</td>
<td>BMD-06</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single Direction</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
<td></td>
<td>Type D</td>
<td></td>
<td></td>
</tr>
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</table>

**Provisionally Approved**
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</td>
<td>CFGBK300 Bracket for Guiderail</td>
<td>White</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type A</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Guiderail Mounted Delineator</td>
<td>CGR-302701</td>
<td>White</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type A</td>
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</tr>
<tr>
<td></td>
<td>Guiderail Mounted Delineator</td>
<td>CGR-302702</td>
<td>Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type A</td>
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</tr>
<tr>
<td></td>
<td>Guiderail Mounted Delineator</td>
<td>651-IR-GMD</td>
<td>White and Yellow</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type D</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Guiderail Mounted Delineator</td>
<td>652-IR-GMD</td>
<td>White and Yellow</td>
<td>Impact Resistant, Bidirectional</td>
<td>Type D</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Guiderail Mounted Delineator</td>
<td>GRD-ST</td>
<td>White and Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type A</td>
<td>2014-246Q</td>
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<tr>
<td></td>
<td>Weak Post Guiderail Mounted Delineator</td>
<td>Weak Post Railrider</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>
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<td>Impact Resistant, Single/Bidirectional</td>
<td>Type D</td>
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</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>
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</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>
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<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>
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</tr>
</tbody>
</table>

| Guiderail Mounted Delineator | SH227GRS-YS1 2, 27" Post | BMD-05 | Yellow | Impact Resistant, Bidirectional | Type B | ----- |
| Guiderail Mounted Delineator | SH227GRS-WS12, 27" Post | BMD-05 | White | Impact Resistant, Single Direction | Type B | ----- |
| Guiderail Mounted Delineator | SH227GRS-YS12, 27" Post | BMD-05 | Yellow | Impact Resistant, Single Direction | Type B | ----- |
| Guiderail Mounted Delineator | SH227GRSD-WS12, 27" Post | BMD-05 | White | Impact Resistant, Bidirectional | Type B | ----- |
| Guiderail Mounted Delineator | SH227GRSE-UL-LA, 27" Post | BMD-05 | Blue | Impact Resistant, Single Direction | Type B | ----- |
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</td>
<td>PIBH-27GRY, 27&quot; Post</td>
<td>BMD-07 Yellow</td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type B</td>
<td>Unassigned</td>
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<tr>
<td></td>
<td>SHUR-FLEX Guiderail Post &quot;Flat Mount&quot; Delineator (#SF2752)</td>
<td></td>
<td></td>
<td>Impact Resistant, Single/Bidirectional</td>
<td>Type B</td>
<td>2015-148</td>
</tr>
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</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>DPOST-02 Ground Mounted</td>
<td>1993-188</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>DPOST-02 Ground Mounted</td>
<td>Unassigned</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>DPOST-02 Ground Mounted</td>
<td>Unassigned</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>DPOST-02 Ground Mounted</td>
<td>Unassigned</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>DPOST-02 Ground Mounted</td>
<td>Unassigned</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>DPOST-02 Surface Mounted</td>
<td>Unassigned</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>DPOST-02 Surface Mounted</td>
<td>Unassigned</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delineator Post</td>
<td>DPOST-03 Surface Mounted</td>
<td>1992-072A-F</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>FRANK 15</td>
<td>Franklin Industries, 645 Atlantic Ave., Franklin, PA 16323 <a href="http://store.franklinindustriesco.com/">http://store.franklinindustriesco.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delineator Post</td>
<td>PC-220</td>
<td>DPOST-06</td>
<td>Ground Mounted</td>
<td>2000-046Q</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>
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</tr>
<tr>
<td>Delineator Post</td>
<td>FG 300-UR</td>
<td>DPOST-05</td>
<td>Surface Mounted (Epoxy)</td>
<td>-----</td>
</tr>
<tr>
<td>Delineator Post</td>
<td>FG-500 Series FG-95</td>
<td>DPOST-05</td>
<td>Ground Mounted</td>
<td>-----</td>
</tr>
<tr>
<td>Delineator Post</td>
<td>FG-500 Series FG-96</td>
<td>DPOST-05</td>
<td>Ground Mounted</td>
<td>-----</td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SH-SMA-1-BL</td>
<td>DPOST-01</td>
<td>Surface Mounted Base (Pin Lock, Epoxy)</td>
<td>-----</td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SH236SMA-SP12</td>
<td>DPOST-01</td>
<td>Surface Mounted</td>
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</tr>
<tr>
<td>Delineator Post</td>
<td>SH248GP3-SP-12</td>
<td>DPOST-01</td>
<td>Ground Mounted</td>
<td>-----</td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SH136SMA-SP12</td>
<td>DPOST-01</td>
<td>Surface Mounted</td>
<td>-----</td>
</tr>
<tr>
<td>Delineator Post</td>
<td>SH134GP3-SP-12</td>
<td>DPOST-01</td>
<td>Ground Mounted</td>
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</tr>
<tr>
<td>Delineator Post</td>
<td>SHA1-08OE-GL (8&quot; Steel Anchor)</td>
<td>DPOST-01</td>
<td>Ground Mounted</td>
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</tr>
<tr>
<td>Delineator Post</td>
<td>SHA3-18C-GL (18&quot; Steel Anchor)</td>
<td>DPOST-01</td>
<td>Ground Mounted</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>
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</tr>
<tr>
<td><strong>Formerly PIBH-15</strong></td>
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<tr>
<td>Delineator Post</td>
<td>PIBH-36G</td>
<td>DPOST-04</td>
<td>Surface Mounted</td>
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</tr>
<tr>
<td>Delineator Post</td>
<td>PIBH-48G</td>
<td>DPOST-04</td>
<td>Ground Mounted</td>
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<tr>
<td>Delineator Post</td>
<td>PIBH-52G</td>
<td>DPOST-04</td>
<td>Ground Mounted</td>
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</tr>
<tr>
<td>Delineator Post</td>
<td>PIBH-A18 (18&quot; Steel Anchor)</td>
<td>DPOST-04</td>
<td>Ground Mounted</td>
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</tr>
<tr>
<td>Delineator Post</td>
<td>PIBH-A8 (8&quot; Steel Anchor)</td>
<td>DPOST-04</td>
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</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>
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<td>Ground Mounted</td>
<td>2015-147Q</td>
</tr>
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<td></td>
<td>Delineator Item #SD0031</td>
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</tr>
<tr>
<td>Delineator Post</td>
<td>SHUR-FLEX Surface Mount</td>
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<td>Surface Mounted</td>
<td>2015-149</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>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>APEX 15</td>
<td>Apex Fabrication &amp; Design, Inc., 7938 Boyertown Pike, Boyertown, PA 19512-8144</td>
<td>Boyertown</td>
<td>PA</td>
<td>-----</td>
</tr>
<tr>
<td>BRFAB 15</td>
<td>Brookfield Fabricating Corporation, P. O. Box 406, Brookfield, MO 64628</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</td>
<td>Export</td>
<td>PA</td>
<td>-----</td>
</tr>
<tr>
<td>GRENR 15</td>
<td>Greiner Industries, Inc., 1650 Steel Way, Mount Joy, PA 17552</td>
<td>Mount Joy</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</td>
<td>Ellwood City</td>
<td>PA</td>
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</tr>
<tr>
<td>HALL3 15</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>HASSC 15</td>
<td>Harris Structural Steel Company, Inc., 1640 New Market Ave., South Plainfield, NJ 07080</td>
<td>South Plainfield</td>
<td>NJ</td>
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</tr>
<tr>
<td>HURFC 15</td>
<td>Hurt Fabricating Corporation, 26707 E. Scott Road, Mareline, MO 64658</td>
<td>Mareline</td>
<td>MO</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>L&amp;MFM 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>Steel Sign Structure Fabricator</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>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>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>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>Plant</td>
<td>220 Lincoln Avenue Pittsburgh, PA 15209</td>
<td>Steel Sign Structure Fabricator</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>SOVGN 15</td>
<td>Sovereign Steel Manufacturing LLC, 225 Kiwanis Blvd, West Hazleton, PA 18202</td>
<td>West Hazleton</td>
<td>PA</td>
<td>2018-184Q</td>
</tr>
<tr>
<td>SPECF 15</td>
<td>Specialty Fab, Inc., 11950 South Avenue, North Lima, OH 44452</td>
<td>North Lima</td>
<td>OH</td>
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<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>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>
</tr>
<tr>
<td>UNIIS 15</td>
<td>Universal Industrial Sales, P.O. Box 699, Pleasant Grove, UT 84062</td>
<td>Lindon</td>
<td>UT</td>
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</tr>
<tr>
<td>VAL-2 15</td>
<td>Valmont Specialty Structures/Plymouth, 1545 Pidco Drive, Plymouth, IN 46563</td>
<td>Plymouth</td>
<td>IN</td>
<td>-----</td>
</tr>
<tr>
<td>WALPR 15</td>
<td>Walpar, Inc., 4200 Jefferson Ave., S.W., Birmingham, AL 35228</td>
<td>Birmingham</td>
<td>AL</td>
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</tr>
</tbody>
</table>

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>
</tr>
</thead>
<tbody>
<tr>
<td>SHAIN 15</td>
<td>Shaner Industries, LLC, 260 Pullman Square #169, Butler, PA 16001</td>
<td>1995-290</td>
</tr>
</tbody>
</table>
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>
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<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>
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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>Product</th>
<th>Name</th>
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<td>HTPM-01</td>
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</table>
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 Plant</td>
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<td>885625</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.

<table>
<thead>
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</table>


Formerly Dobco, Business Unit of Sherwin-Williams
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>
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<tr>
<td>SWAR15</td>
<td>Swarco Industries LLC, 270 Rutherford Lane, P.O. Box 89, Columbia, TN 38402</td>
<td>WHAASHTO</td>
<td>HTPM-03</td>
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960.2 Hot Thermoplastic Decorative Crosswalks (Conditionally Approved)

See Standard Drawing TC-8600 Pavement Markings (Publication 111)

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<td>TRACA 15</td>
<td>Traffic Calming, 110 Thompson Road, Suite 102A, Hiram, GA 30141</td>
<td><a href="http://www.trafficcalmingusa.com/services.html">http://www.trafficcalmingusa.com/services.html</a></td>
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</table>
|         | Alternate System - Hot Applied Synthetic Asphalt | Brinkprint 45 Decorative Crosswalks | For decorative crosswalks only. Marking Surface: Asphalt only. Conditionally Approved as an alternate.
### 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.

#### Table of Qualified Products

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<td>Asphalt and Concrete</td>
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<td>Ceramic</td>
<td>Lines and Other Uses</td>
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<td>Brite-Line Technologies LLC, 10660 E. 51st Ave., Denver, CO 80239</td>
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### 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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<tr>
<td>SWAR1 15</td>
<td>Swarco Industries LLC, 270 Rutherford Lane, P.O. Box 89, Columbia, TN 38402</td>
<td><a href="https://www.swarco.com/northamerica">Link</a></td>
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<td>Lighted Roadways Only</td>
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- **Restricted Use:** surface applied on existing pavements only.
# Section 962: Waterborne Pavement Markings

## 962.2 Waterborne Pavement Markings

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<td>Ennis-Flint, Inc., 4161 Piedmont Parkway, Suite 370, Greensboro, NC 27410 <a href="http://www.ennisflintamericas.com/">http://www.ennisflintamericas.com/</a> Plant 1509 South Kaufman Street Ennis, TX 75120</td>
<td>991022</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>WP-03</td>
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<td>2012-197QA</td>
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<tr>
<td></td>
<td>Waterborne Pavement Marking</td>
<td>2015</td>
<td>WP-03</td>
<td>Yellow</td>
<td>2012-197QB</td>
</tr>
</tbody>
</table>

*Use on concrete pavement only.*
### Section 962: Waterborne Pavement Markings

#### 962.2 Waterborne Pavement Markings

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Marking Color</th>
<th>NTPEP Test Number</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>Waterborne Pavement Marking</td>
<td>058-004 (TM2382)</td>
<td>WP-02</td>
<td>White</td>
<td>2007-014Q</td>
<td></td>
</tr>
<tr>
<td>Waterborne Pavement Marking</td>
<td>058-006 (TM2383)</td>
<td>WP-02</td>
<td>Yellow</td>
<td>2007-016Q</td>
<td></td>
</tr>
<tr>
<td>Waterborne Pavement Marking</td>
<td>2008138105</td>
<td>WP-02</td>
<td>White</td>
<td>2011-245Q</td>
<td></td>
</tr>
</tbody>
</table>

Last Revised: 12/11/2018

Site Name: The Sherwin-Williams Company, Protective & Marine Coatings, 101 West Prospect Avenue, Cleveland, OH 44115

https://protective.sherwin-williams.com/
## 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></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Epoxy Pavement Marking</td>
<td>ACNT-W-A</td>
<td>EPM-01</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>Lines Only</td>
<td>------</td>
<td></td>
<td></td>
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<tr>
<td>Epoxy Pavement Marking</td>
<td>ACNT-W-S</td>
<td>EPM-01</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>Lines Only</td>
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<td></td>
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<tr>
<td>Epoxy Pavement Marking</td>
<td>ACNT-W-T</td>
<td>EPM-01</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>Lines Only</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epoxy Pavement Marking</td>
<td>ACNT-Y-S</td>
<td>EPM-01</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Concrete</td>
<td>Lines Only</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BALTP 15</td>
<td>Baltimore Paint &amp; Chemical, Division of Sherwin Williams, 2325 Hollins Ferry Road, Baltimore, MD 21230</td>
<td>PM-5-5 White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>No</td>
<td>M247</td>
<td>Lines and Other Uses</td>
<td>------</td>
<td></td>
</tr>
</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>
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</tr>
</thead>
<tbody>
<tr>
<td>Epoxy Pavement Marking</td>
<td>HPS-3</td>
<td>EPM-05</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>Vary</td>
<td>Lines and Other Uses</td>
<td>2008-154Q A</td>
</tr>
<tr>
<td>Epoxy Pavement Marking</td>
<td>HPS-3</td>
<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>
<td>2008-154Q B</td>
</tr>
<tr>
<td>Epoxy Pavement Marking</td>
<td>HPS-4</td>
<td>EPM-05</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>Vary</td>
<td>Lines and Other Uses</td>
<td>2010-019Q A</td>
</tr>
<tr>
<td>Epoxy Pavement Marking</td>
<td>HPS-4</td>
<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>
<td>2010-019Q B</td>
</tr>
</tbody>
</table>

Beads vary by type and rate of application. Refer to Certificate of Approval.

1509 South Kaufman Street Ennis, TX 75120
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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</thead>
<tbody>
<tr>
<td>Epoxy Pavement Marking</td>
<td>HPS-3</td>
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<tr>
<td>Epoxy Pavement Marking</td>
<td>HPS-3</td>
<td></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>
<td>-----</td>
</tr>
<tr>
<td>Epoxy Pavement Marking</td>
<td>HPS-4</td>
<td></td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>Vary</td>
<td>Lines and Other Uses</td>
<td>-----</td>
</tr>
<tr>
<td>Epoxy Pavement Marking</td>
<td>HPS-4</td>
<td></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>
<td>-----</td>
</tr>
</tbody>
</table>

Beads vary by type and rate of application. Refer to Certificate of Approval.
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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</thead>
<tbody>
<tr>
<td>EPOPX 15</td>
<td>Epoplex, 1000 East Park Avenue, Maple Shade, NJ 08052 <a href="http://www.epoplex.com/">http://www.epoplex.com/</a></td>
<td>EPM-03</td>
<td>White</td>
<td>Lighted and Unlighted</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>Vary</td>
<td>Lines and Other Uses</td>
<td>2007-003Q A</td>
</tr>
<tr>
<td>Epoxy Pavement Marking</td>
<td>LS50</td>
<td>EPM-03</td>
<td>Yellow</td>
<td>Lighted and Unlighted</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>Vary</td>
<td>Lines and Other Uses</td>
<td>2007-003Q B</td>
</tr>
<tr>
<td>Epoxy Pavement Marking</td>
<td>LS50</td>
<td>EPM-03</td>
<td>Black Line Mask</td>
<td>Lighted and Unlighted</td>
<td>Concrete</td>
<td>No</td>
<td>No</td>
<td>Lines Only</td>
<td>2011-017Q</td>
</tr>
<tr>
<td>Epoxy Pavement Marking</td>
<td>LS65</td>
<td>EPM-03</td>
<td>White</td>
<td>Lighted and Unlighted</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>Vary</td>
<td>Lines and Other Uses</td>
<td>2010-330Q</td>
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<tr>
<td>Epoxy Pavement Marking</td>
<td>LS65</td>
<td>EPM-03</td>
<td>Yellow</td>
<td>Lighted and Unlighted</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>Vary</td>
<td>Lines and Other Uses</td>
<td>2010-331Q</td>
</tr>
</tbody>
</table>

Beads vary by type and rate of application. Refer to Certificate of Approval.
### 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>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plant</td>
<td>125 Industrial Park Rd. Roberta, GA 31078 Formerly POLY-CARB, Inc.</td>
<td>Epoxy Pavement Marking</td>
<td>Mark-55.3</td>
<td>EPM-04 White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>M237 Type 4 Lines and Other Uses</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Epoxy Pavement Marking</td>
<td>Mark-55.3</td>
<td>EPM-04 Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>M237 Type 4 Lines Only</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Epoxy Pavement Marking</td>
<td>Mark-55.3</td>
<td>EPM-04 Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>M237 Type 4 Lines Only</td>
</tr>
<tr>
<td>SWAR3 15</td>
<td>Colorado Paint Company, the SWARCO Group, 4747 Holly Street, Denver, CO 80216 <a href="https://www.swarco.com/cpc">https://www.swarco.com/cpc</a></td>
<td>SWAR3 15</td>
<td>Epoxy Pavement Marking</td>
<td>1180</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>Type E (Megalux Utah Blend) at 24lbs/gal.</td>
</tr>
<tr>
<td></td>
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<td>Epoxy Pavement Marking</td>
<td>1186</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>Type E (Megalux Utah Blend) at 24 lbs/gal.</td>
</tr>
</tbody>
</table>

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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>
<th>Primer?</th>
<th>Beads</th>
<th>Application Uses</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLINT 15 Plant Ennis-Flint, Inc., 4161 Piedmont Parkway, Suite 370, Greensboro, NC 27410 <a href="http://www.ennisflintamericas.com/">http://www.ennisflintamericas.com/</a> 115 Todd Court Thomasville, NC 27360</td>
<td>Preformed Thermoplastic Pavement Marking</td>
<td>9WPASTR96</td>
<td>PTPM-02 White</td>
<td>Lighted Roadways Only</td>
<td>Asphalt</td>
<td>No</td>
<td>PT260</td>
<td>Lines and Other Uses</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Preformed Thermoplastic Pavement Marking</td>
<td>9WPASTR96</td>
<td>PTPM-02 White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Concrete</td>
<td>No</td>
<td>PT260</td>
<td>Lines and Other Uses</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Preformed Thermoplastic Pavement Marking</td>
<td>9WPASTR96</td>
<td>PTPM-02 Yellow</td>
<td>Lighted Roadways Only</td>
<td>Asphalt</td>
<td>No</td>
<td>PT260</td>
<td>Lines and Other Uses</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Preformed Thermoplastic Pavement Marking</td>
<td>9WPASTR96</td>
<td>PTPM-02 Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Concrete</td>
<td>No</td>
<td>PT260</td>
<td>Lines Only</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Preformed Thermoplastic Pavement Marking</td>
<td>LD981035</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>No</td>
<td></td>
<td>Lines and Other Uses</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Provisionally Approved. (Formerly ENN-1 15 product)</strong></td>
<td>Preformed Thermoplastic Pavement Marking</td>
<td>LD981036</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>No</td>
<td></td>
<td>Lines and Other Uses</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Formerly ENN-1 15 product</strong></td>
<td>Preformed Thermoplastic Pavement Marking</td>
<td>PreMark</td>
<td>PTPM-02 White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
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<td>Lines and Other Uses</td>
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</tbody>
</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>
</tr>
</thead>
<tbody>
<tr>
<td>OZARK 15</td>
<td>Ozark Materials, LLC, 591 Glendale Avenue, Greenville, AL 36037 <a href="http://ozarkmaterials.net">http://ozarkmaterials.net</a></td>
<td>Preformed Thermoplastic Pavement Marking 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>
<td>2018-075Q</td>
<td></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](http://www.ennisflintamericas.com/)

<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>
<tbody>
<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 Asphalt and Concrete</td>
<td>N/A</td>
<td>Decorative Crosswalk</td>
<td>-----</td>
<td></td>
<td></td>
</tr>
</tbody>
</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>
<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 (125 mil thickness).*
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>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAYOL 15</td>
<td>Rayolite, 4500 N. Sam Houston Parkway West, Suite 120, Houston, TX 77086 <a href="http://www.rayolite.com/">http://www.rayolite.com/</a></td>
<td>RPM Casting</td>
<td>H-1010 Low Profile (Narrow) RPM-C2</td>
<td>One Way / Two Way</td>
</tr>
<tr>
<td>RAYOL 15</td>
<td>Rayolite, 4500 N. Sam Houston Parkway West, Suite 120, Houston, TX 77086 <a href="http://www.rayolite.com/">http://www.rayolite.com/</a></td>
<td>RPM Casting</td>
<td>H-960 Low Profile RPM-C2</td>
<td>One Way / Two Way</td>
</tr>
</tbody>
</table>

### 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>
<th>Recessed?</th>
<th>Ref. No.</th>
</tr>
</thead>
</table>
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>
<th>Direction</th>
<th>Recessed?</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 <a href="http://www.3m.com/3M/en_US/company-us/">http://www.3m.com/3M/en_US/company-us/</a></td>
<td>RPM Reflector Unit</td>
<td>194</td>
<td>RPM-04</td>
<td>Yellow / Blank</td>
<td>One Way</td>
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</tbody>
</table>

|          |                                                  | RPM Reflector Unit | C40 | RPM-01 | Yellow / Blank | One Way | No | 2006-050Q |
|          |                                                  | RPM Reflector Unit | C40 | RPM-01 | White / Blank | One Way | No | 2006-051Q |
|          |                                                  | RPM Reflector Unit | C40 | RPM-01 | ‘Red / White’ | Two Way | No | 2010-164QA |
|          |                                                  | RPM Reflector Unit | C40 | RPM-01 | ‘Red / Yellow’ | Two Way | No | 2010-164QB |
|          |                                                  | RPM Reflector Unit | C80 Nonsnowplowable | RPM-01 | White / Blank | One Way | No | 2013-019A |
|          |                                                  | RPM Reflector Unit | C80 Nonsnowplowable | RPM-01 | Yellow / Yellow | Two Way | No | 2013-019B |
|          |                                                  | RPM Reflector Unit | C80 Nonsnowplowable | RPM-01 | Yellow / Blank | One Way | No | 2013-019C |

Last Revised: 1/25/2018
## 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>
<th>Direction</th>
<th>Recessed?</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>RPM Reflector Unit</td>
<td>C40</td>
<td>RPM-01</td>
<td>Yellow / Blank</td>
<td>One Way</td>
<td>No</td>
<td>2013-019A</td>
</tr>
<tr>
<td>RPM Reflector Unit</td>
<td>C40</td>
<td>RPM-01</td>
<td>White / Blank</td>
<td>One Way</td>
<td>No</td>
<td>2013-019B</td>
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<tr>
<td>RPM Reflector Unit</td>
<td>C40</td>
<td>RPM-01</td>
<td>Red / Yellow</td>
<td>Two Way</td>
<td>No</td>
<td>2014-249QA</td>
</tr>
<tr>
<td>RPM Reflector Unit</td>
<td>C40</td>
<td>RPM-01</td>
<td>Red / White</td>
<td>Two Way</td>
<td>No</td>
<td>2014-249QB</td>
</tr>
<tr>
<td>RPM Reflector Unit</td>
<td>C80 Nonsnowplowable</td>
<td>RPM-01</td>
<td>White / Blank</td>
<td>One Way</td>
<td>No</td>
<td>2013-019C</td>
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<td>RPM Reflector Unit</td>
<td>C80 Nonsnowplowable</td>
<td>RPM-01</td>
<td>Yellow / Yellow</td>
<td>Two Way</td>
<td>No</td>
<td>2014-249QA</td>
</tr>
<tr>
<td>RPM Reflector Unit</td>
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<td>RPM-01</td>
<td>Yellow / Blank</td>
<td>One Way</td>
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<td>RPM Reflector Unit</td>
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<td>RPM-02</td>
<td>Red / White</td>
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<td>RPM Reflector Unit</td>
<td>C80 Nonsnowplowable</td>
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<tr>
<td>PEXCO 15</td>
<td>Pexco Davidson Traffic Control Products, 3110 70th Avenue East, Tacoma, WA 98424 <a href="http://www.pexco.com/markets/industrial/traffic">http://www.pexco.com/markets/industrial/traffic</a></td>
<td></td>
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<td>RPM Reflector Unit</td>
<td>Halftrack Nonsnowplowable</td>
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<td>One Way / Two Way</td>
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<td>RPM Reflector Unit</td>
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<td>RPM-02</td>
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<td>One Way / Two Way</td>
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<td>2014-249QB</td>
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<td>RPM Reflector Unit</td>
<td>Halftrack Nonsnowplowable</td>
<td>RPM-02</td>
<td>Yellow / Yellow</td>
<td>One Way / Two Way</td>
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<td>White / Blank</td>
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<td>RPM-02</td>
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<td>One Way / Two Way</td>
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<td>RPM Reflector Unit</td>
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<td>RPM-02</td>
<td>White / Blank</td>
<td>One Way / Two Way</td>
<td>No</td>
<td>2014-249QA</td>
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<td>RPM Reflector Unit</td>
<td>TOM Nonsnowplowable</td>
<td>RPM-02</td>
<td>Yellow / Blank</td>
<td>One Way / Two Way</td>
<td>No</td>
<td>2014-249QB</td>
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<tr>
<td>RPM Reflector Unit</td>
<td>TOM Nonsnowplowable</td>
<td>RPM-02</td>
<td>Yellow / Yellow</td>
<td>One Way / Two Way</td>
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<td>One Way / Two Way</td>
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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>
<th>Direction</th>
<th>Recessed?</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RAYOL 15</strong></td>
<td>Rayolite, 4500 N. Sam Houston Parkway West, Suite 120, Houston, TX 77086 <a href="http://www.rayolite.com/">http://www.rayolite.com/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>4500 N. Sam Houston Parkway West Suite 120 Houston, TX 77086</td>
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<td></td>
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<tr>
<td>RPM Reflector Unit</td>
<td>2002 B</td>
<td>RPM-05</td>
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<tr>
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<td>2002 C</td>
<td>RPM-05</td>
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<td>RPM Reflector Unit</td>
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<td>RPM-05</td>
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<td>Two Way</td>
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<td>RPM Reflector Unit</td>
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<td>RPM-05</td>
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<td>Two Way</td>
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<tr>
<td>RPM Reflector Unit</td>
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<td>RPM-05</td>
<td>Yellow / Yellow</td>
<td>Two Way</td>
<td>Yes</td>
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</table>

| | | | | | | |
| RPM Reflector Unit | CM Nonsnowplowable | RPM-03 | White / Blank | One Way / Two Way | No | ----- |
| RPM Reflector Unit | CM Nonsnowplowable | RPM-03 | Yellow / Blank | One Way / Two Way | No | ----- |
| RPM Reflector Unit | CM Nonsnowplowable | RPM-03 | Yellow / Yellow | One Way / Two Way | No | ----- |
| RPM Reflector Unit | TPM Nonsnowplowable | RPM-03 | White / Blank | One Way / Two Way | No | ----- |
| RPM Reflector Unit | TPM Nonsnowplowable | RPM-03 | Yellow / Blank | One Way / Two Way | No | ----- |
| RPM Reflector Unit | TPM Nonsnowplowable | RPM-03 | Yellow / Yellow | One Way / Two Way | No | ----- |
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)**

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Grade</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<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>Structural Steel (SS) 50, Class 2</td>
<td>2010-207Q</td>
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<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>Structural Steel (SS) 40</td>
<td>----</td>
</tr>
<tr>
<td>HALFE 15</td>
<td>Halferty Metals Company, 294 Bergman Road, Derry, PA 15627</td>
<td>Structural Steel (SS) 40</td>
<td>2012-212QAB</td>
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</table>
## 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)**

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>Grade</th>
<th>Ref. No.</th>
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<tr>
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<td>Metal Bridge Deck Form Structural Steel (SS) 37</td>
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<td>Metal Bridge Deck Form Structural Steel (SS) 40</td>
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<td>Metal Bridge Deck Form Structural Steel (SS) 50, Class 1</td>
<td>1989-125</td>
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<td></td>
<td>Metal Bridge Deck Form Structural Steel (SS) 80</td>
<td>1989-125</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>
<td>Metal Bridge Deck Form Structural Steel (SS) 33</td>
<td>2012-152Q</td>
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<td>Metal Bridge Deck Form Structural Steel (SS) 37</td>
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<td>Metal Bridge Deck Form Structural Steel (SS) 50, Class 1</td>
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<td>Metal Bridge Deck Form Structural Steel (SS) 80</td>
<td>2012-152Q</td>
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<tr>
<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>
<td>Metal Bridge Deck Form Structural Steel (SS) 40</td>
<td>1985-024</td>
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<td>Metal Bridge Deck Form Structural Steel (SS) 50, Class 1</td>
<td>1995-076</td>
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</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>BARSP 15</td>
<td>Barsplice Products, Inc., 4900 Webster Street, Dayton, OH 45430 <a href="http://www.barsplice.com/">http://www.barsplice.com/</a></td>
<td>BPI Barsplicer System # 4, 5, 6, 7, 8, 9, 10, 11</td>
<td>2000-204Q</td>
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<tr>
<td>Mechanical Splice System</td>
<td>Mechanical Splice System</td>
<td>4 - 18</td>
<td>1996-198</td>
</tr>
<tr>
<td>Mechanical Splice System</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>Mechanical Splice System</td>
<td>ZAP Screwlok Type 2 Series</td>
<td># 4, 5, 6, 7, 8, 9, 10, 11</td>
<td>1996-255</td>
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<td>ZAP Screwlok Type 2 Series</td>
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<td>Mechanical Splice System</td>
<td>Mechanical Splice System</td>
<td># 14</td>
<td>2016-116Q</td>
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<tr>
<td>Mechanical Splice System</td>
<td>Coupler</td>
<td># 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 18</td>
<td>1992-351</td>
</tr>
<tr>
<td>Mechanical Splice System</td>
<td>DB/DI Splice Connector</td>
<td>4 - 18</td>
<td>1989-288</td>
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<tr>
<td>(D101A, D101)</td>
<td>(D110, D111, D112)</td>
<td>4 - 18</td>
<td>1994-219</td>
</tr>
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<td>Mechanical Splice System</td>
<td>US/MC-SAE Rebar Splice</td>
<td>4 - 18</td>
<td>1994-219</td>
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<td>Mechanical Splice System</td>
<td>D250L Bar Lock L-Series</td>
<td># 3, 4, 5, 6, 7, 8, 9, 10, 11, 14</td>
<td>1992-351</td>
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<td>Mechanical Splice System</td>
<td>DB/DI Splice Connector</td>
<td>4 - 18</td>
<td>1989-288</td>
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<td>(D101A, D101)</td>
<td>(D110, D111, D112)</td>
<td>4 - 18</td>
<td>1994-219</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 <a href="http://www.daytonsuperior.com/">http://www.daytonsuperior.com/</a></td>
<td>D250L Bar Lock L-Series Coupler # 3, 4, 5, 6, 7, 8, 9, 10, 11, 14</td>
<td>1992-351</td>
</tr>
<tr>
<td></td>
<td>Mechanical Splice System</td>
<td>DB/ID Splice Connector (D101A, D101) 4 - 18</td>
<td>1989-288</td>
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<tr>
<td></td>
<td>Mechanical Splice System</td>
<td>US/MC-SA Rebar Splice (D110, D111, D112) 4 - 18</td>
<td>1994-219</td>
</tr>
<tr>
<td>DAYT6 15 Plant</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>D310 Taper-Lock Standard Coupler # 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 18</td>
<td>2018-018Q</td>
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<td>Mechanical Splice System</td>
<td>nVent Lenton Form Saver (SA) Coupler 4 - 11</td>
<td>2013-078Q</td>
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<tr>
<td></td>
<td>Mechanical Splice System</td>
<td>nVent Lenton Standard (A2) Coupler # 4, 5, 6, 7, 8, 9, 10, 11, 14, 18</td>
<td>1996-118</td>
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<td></td>
<td>Mechanical Splice System</td>
<td>RC-53 Smooth and RC-54 Smooth Flanged</td>
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<td>Per letter dated September 19, 2014: Meadow Burke has elected to suspend shipments to PennDOT temporarily.</td>
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</table>

1002.2(c) Epoxy Coaters of Mechanical Splice Couplers

Last Revised: 7/5/2016
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>Approved Epoxy Coater of Mechanical Splice Couplers 2013-242Q</td>
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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>
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<tbody>
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<td>AZTEC 15</td>
<td>Aztec Concrete Accessories, Inc., 14760 Santa Ana Ave., Fontana, CA 92337 Aztec E Z Lok Slab Bolster</td>
<td>2&quot;and 2-1/2&quot;, Molded Plastic</td>
<td>1997-063</td>
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<tr>
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<td>Aztec E Z Chair</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> Bip Chair (Black Resin) with Sandplate Base</td>
<td>#4 and #5 Rebar with 2&quot; Cover</td>
<td>2013-007QA</td>
</tr>
<tr>
<td></td>
<td>Bip Chair (Black Resin) with Sandplate Base</td>
<td>#6 Rebar with 2.5&quot; Cover</td>
<td>2013-007QA</td>
</tr>
<tr>
<td></td>
<td>Bip Chair (Black Resin) with Sandplate Base</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>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>Rebar Support Chair BIP Chair (Black Resin) with Sandplate Base #6 Rebar with 1.5&quot;, 3&quot; and 4&quot; Cover</td>
<td>2013-160Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Metal Reinforcing Bar Supports Galvanized Chairs, Bolsters, including SBU</td>
<td>1987-374B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rebar Support Chair Galvanized HCM with Plastic Tips</td>
<td>1987-374A</td>
</tr>
<tr>
<td>GENTC 15</td>
<td>General Technologies, Inc., 13022 Trinity Drive, P.O. Box 1503, Stafford, TX 77477 <a href="http://www.gti-usa.net/">http://www.gti-usa.net/</a></td>
<td>Rebar Support Bolster GTI Composite Slab and Beam Bolster - Black, Series 209</td>
<td>2009-039QB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rebar Support Bolster GTI Composite Slab and Beam Bolster - Grey, Series 215</td>
<td>2009-039QB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rebar Support Bolster GTI Composite Slab Bolster Upper, Series 260</td>
<td>2009-140</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Top layer double mat support.</td>
<td>2009-039QE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rebar Support Chair GTI Composite Bar Chair, Series 210</td>
<td>2009-039QD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rebar Support Chair GTI Composite High Chair, Series 208</td>
<td>2009-039QF</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rebar Support Chair GTI Composite PC Chair, Series 216</td>
<td>2009-039QC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rebar Support Chair 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>HHHUL 15</td>
<td>H &amp; H Hulls, Inc., 35 Industrial Tract, Hudson, NY 12534</td>
<td>Rebar Support Chair</td>
<td>Q3 Void Chair</td>
</tr>
<tr>
<td>MDSP1 15</td>
<td>Meadow Burke Products, 6467 S. Falkenburg Road, Riverview, FL 33578</td>
<td>Metal Reinforcing Bar Supports</td>
<td>Epoxy Coated Chairs, Bolsters</td>
</tr>
<tr>
<td></td>
<td>Plant</td>
<td>Metal Reinforcing Bar Supports</td>
<td>Galvanized Chairs, Bolsters, including BB</td>
</tr>
<tr>
<td>VIMC- 15</td>
<td>Vimco, Inc., 300 Hansen Access Road, King of Prussia, PA 19406</td>
<td>Metal Reinforcing Bar Supports</td>
<td>Epoxy Coated Chairs, Bolsters; including BB, BBU, CHC, CHCU, HC, SB, SBU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Metal Reinforcing Bar Supports</td>
<td>Galvanized Chairs, Bolsters</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Metal Reinforcing Bar Supports</td>
<td>Stainless Steel Chairs, Bolsters with Plastic Tips</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></td>
<td>Steel H-Pile Tip Hard Bite H-Pile Tip HP-77750-B 1994-286</td>
<td></td>
</tr>
<tr>
<td>Steel H-Pile Tip PAR-T Series H-Pile Points 1994-042</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONSC 15</td>
<td>Construction Supply Company, P. O. Box 1682, Tualatin, OR 97062</td>
<td>Steel H-Pile Tip HT 3300 Series H-Pile Points 2004-053Q</td>
</tr>
</tbody>
</table>
Section 1012: Pedestrian Railing

1012.2 Aluminum Pedestrian Railing

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

2nd Facility: 20 Steel Rd., Morrisville, PA 19067
### Section 1013: Aluminum Bridge Railing

#### 1013.2 Aluminum Bridge Railing

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Last Revised: 3/9/2018</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>
</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>CIANB15</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> <em>Formerly Foster Precise Structural Products (FOSPR)</em>.</td>
<td>2010-249Q</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>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>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>SSW-1 15</td>
<td>Shawnee Steel &amp; Welding, 6124 Merriam Drive, Merriam, KS 66203</td>
<td>2017-187Q</td>
</tr>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</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>
</tr>
</thead>
<tbody>
<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>
</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>

Last Revised: 5/17/2017
### 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</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groco Specialty Coatings, 10818 Hawn Freeway, Dallas, TX 75217</td>
<td>Si-Rex03 Silicone</td>
<td>2009-074</td>
</tr>
</tbody>
</table>

Conditionally approved as an alternate per manufacturer’s specifications and usage guidelines.

#### 1019.2(b) Epoxy Resins (For Abutments, Pier Caps and Endwalls)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groco Specialty Coatings, 10818 Hawn Freeway, Dallas, TX 75217</td>
<td>Si-Rex03 Silicone</td>
<td>2009-074</td>
</tr>
</tbody>
</table>

Conditionally approved as an alternate per manufacturer’s specifications and usage guidelines.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Coatings, 2810 S. 18th Place, Phoenix, AZ 85034</td>
<td>Canyon Tone Stain</td>
<td>2011-166</td>
</tr>
</tbody>
</table>

Approved as an aesthetic coating, not a protective coating. Conditionally approved as an alternate per manufacturer's specifications and usage guidelines.

#### 1019.2(c) Penetrating Sealers (For Reinforced Concrete Substructure Surfaces)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Chemical Technologies, Inc., 100 W. Wilshire Blvd. Ste. C-1, Oklahoma City, OK 73116</td>
<td>SIL-ACT ATS-100LV</td>
<td>2012-114Q</td>
</tr>
</tbody>
</table>

BASF Corporation Building Systems, 889 Valley Park Drive, Shakopee, MN 55379 | MasterProtect H 400 (previously Enviroseal 40) | 1987-129 |

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.
Section 1019: Protective Coatings for Reinforced Concrete Surfaces

1019.2(c) Penetrating Sealers (For Reinforced Concrete Substructure Surfaces)  
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</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Penetrating Sealer, Organo-Silicon Compounds in Solvents</td>
<td>MasterProtect H 1000 (previously Hydrozo 100)</td>
</tr>
<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></td>
<td>Penetrating Sealer, Silicates in Water</td>
<td>ConBlock SH</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></td>
<td>Penetrating Sealer, Silicates in Water</td>
<td>Baracade WB 244</td>
</tr>
<tr>
<td>Plant</td>
<td>4201 Degussa Road Theodore, AL 36590</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Penetrating Sealer, Organo-Silicon Compounds in Solvents</td>
<td>Protectosil BHN</td>
</tr>
<tr>
<td>PROS1 15</td>
<td>Prosoco, Inc., 3741 Greenway Circle, Lawrence, KS 66046</td>
<td><a href="http://www.prosoco.com/">http://www.prosoco.com/</a></td>
</tr>
<tr>
<td></td>
<td>Penetrating Sealer, Silicates in Water</td>
<td>Consolideck Saltguard WB</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></td>
<td>Penetrating Sealer, Organo-Silicon Compounds in Solvents</td>
<td>Vexcon Certi-Penseal 244 100%</td>
</tr>
<tr>
<td></td>
<td>Penetrating Sealer, Organo-Silicon Compounds in Solvents</td>
<td>Vexcon Powerseal 40</td>
</tr>
<tr>
<td></td>
<td>Penetrating Sealer, Organo-Silicon Compounds in Solvents</td>
<td>2012-202Q</td>
</tr>
<tr>
<td></td>
<td>Penetrating Sealer, Organo-Silicon Compounds in Solvents</td>
<td>2010-146QB</td>
</tr>
<tr>
<td>WKTEK 15</td>
<td>Wicktek, Inc., 103 General Braddock Drive, Braddock, PA 15104</td>
<td><a href="http://wicktek.com/">http://wicktek.com/</a></td>
</tr>
<tr>
<td></td>
<td>Penetrating Sealer, Silicates in Water</td>
<td>DensiCrete</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>
<tr>
<td></td>
<td>Penetrating Sealer, Silicates in Water</td>
<td>Xypex Concentrate (C500)</td>
</tr>
<tr>
<td></td>
<td>Alternate (solid concentrate mixed on job, not liquid form)</td>
<td>2002-019Q</td>
</tr>
</tbody>
</table>

1019.2(d) Penetrating Sealers (For Bridge Superstructure)
### 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>
</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>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>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>WATSB 15</td>
<td>Watson Bowman Acme Corporation, 95 Pineview Drive, Amherst, NY 14228 <a href="http://www.wbacorp.com/">https://wbacorp.com/</a></td>
<td>-----</td>
</tr>
</tbody>
</table>

1020.2(h) Drain Trough Material for Tooth Expansion Dams

Last Revised: 5/9/2019
# Section 1020: Tooth Expansion Dam with Drain Trough

## 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></td>
<td>Fabric Reinforced Rubberized Trough Material</td>
<td>Nitrile Draintrough Material</td>
</tr>
<tr>
<td></td>
<td>Fabric Reinforced Rubberized Trough Material</td>
<td>Fabric-Elastomer Trough Material</td>
</tr>
<tr>
<td>HBD-1 15</td>
<td>HBD/Thermoid, Inc., 240 Industrial Lane, P.O. Box 4310, Oneida, TN 37841 <a href="http://www.hbdthermoid.com/">http://www.hbdthermoid.com/</a></td>
<td>2010-134Q</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) Last Revised: 7/23/2019

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Reference Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADVSC 15</td>
<td>Advantage Steel &amp; Construction, LLC, 2300 South Noah Drive, Saxonburg, PA 16056</td>
<td><a href="http://www.advsteel.com/">http://www.advsteel.com/</a></td>
<td>2015-022Q</td>
</tr>
<tr>
<td></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
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<td></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
<td>2011-159Q</td>
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<tr>
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<td>Steel Bridge Hand Railing Fabricator</td>
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<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIANB 15</td>
<td>Cianbro Fabrication &amp; Coating Corporation, 3 Farm Lane, Georgetown, MA 01833</td>
<td><a href="http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx">http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx</a></td>
<td>2010-250Q</td>
</tr>
<tr>
<td></td>
<td>Formerly Foster Precise Structural Products (FOSPR).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOST0 15</td>
<td>L.B. Foster Company, 415 Holiday Drive, Pittsburgh, PA 15220</td>
<td><a href="http://www.lb">http://www.lb</a> foster.com/</td>
<td>07/19/1996</td>
</tr>
<tr>
<td></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
<td>07/19/1996</td>
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<tr>
<td></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
<td>07/19/1996</td>
</tr>
<tr>
<td>FUTFAB 15</td>
<td>Future Fabricating, 23450 Regency Park Drive, Warren, MI 48089</td>
<td><a href="http://futurefabricating.com/">http://futurefabricating.com/</a></td>
<td>2017-100Q</td>
</tr>
<tr>
<td></td>
<td>Steel Bridge Hand Railing Fabricator</td>
<td></td>
<td></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</th>
<th>Name</th>
<th>Reference Letter</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<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>
<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>
</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>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKBAY15</td>
<td>Ackerman &amp; Baynes, LLC, 4211 Erdman Ave., Baltimore, MD 21213</td>
<td></td>
<td>2018-282Q</td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUCEL-15</td>
<td>Auciello Iron Works, Inc., 560 Main St., Hudson, MA 01749</td>
<td></td>
<td>1991-009C</td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOST015</td>
<td>L.B. Foster Company, 415 Holiday Drive, Pittsburgh, PA 15220</td>
<td>07/19/1996</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOST215</td>
<td>L.B. Foster Company, 202 Weber Lane, Bedford, PA 15522</td>
<td>07/19/1996</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FUTFAB15</td>
<td>Future Fabricating, 23450 Regency Park Drive, Warren, MI 48089</td>
<td></td>
<td>2017-101Q</td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HALL115</td>
<td>Hall Industries, Inc., Hall Equipment Division, 1 USS Industrial Park, Ellwood City, PA 16117</td>
<td></td>
<td>2002-178Q</td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HALL315</td>
<td>Hall Industries, Inc., HGH Facility, 606 2nd Street, Ellwood City, PA 16117</td>
<td></td>
<td>2017-029Q</td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PELET15</td>
<td>Pelet Welding, Inc., 19 North 12th Avenue, Coatesville, PA 19320</td>
<td></td>
<td>2011-101QC</td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PENNF15</td>
<td>PennFab, Inc., 1431 Ford Rd., Bensalem, PA 19020</td>
<td></td>
<td>2015-154QF</td>
</tr>
<tr>
<td></td>
<td>2nd Facility: 20 Steel Rd., Morrisville, PA 19067</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RP-MA15</td>
<td>RPS Machinery Sales, Inc., 175 Old Route 220 Highway, P. O. Box 507, Jersey Shore, PA 17740</td>
<td></td>
<td>2004-096Q</td>
</tr>
<tr>
<td></td>
<td>Aluminum Bridge Hand Railing Fabricator</td>
<td></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>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 Description</th>
<th>Retainer ID/Shop Drawing #</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BROWD 15</td>
<td>D.S. Brown Company, 300 East Cherry Street, North Baltimore, OH 45872</td>
<td>SSPA02SC</td>
<td>1996-196</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) 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>WATRJ 15</td>
<td>R. J. Watson, Inc., 11035 Walden Avenue, Alden, NY 14007</td>
<td>SV-400</td>
<td>1992-039</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>PADOT 92-280-PEQ</td>
<td>1992-280</td>
</tr>
<tr>
<td>WATSB 15</td>
<td>Watson Bowman Acme Corporation, 95 Pineview Drive, Amherst, NY 14228</td>
<td>C-11382</td>
<td>1992-027</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>C-12164</td>
<td>1992-027</td>
</tr>
<tr>
<td></td>
<td>Neoprene Strip Seal Dam (Strip Seal Retainer)</td>
<td>C-14398</td>
<td>1992-327</td>
</tr>
</tbody>
</table>

1026.2(a) Neoprene Strip Seal Dam (Fabricators) Last Revised: 5/9/2019

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 Description</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></td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BROWD 15</td>
<td>D.S. Brown Company, 300 East Cherry Street, North Baltimore, OH 45872</td>
<td>North Baltimore</td>
<td>OH</td>
<td>2006-198Q</td>
</tr>
<tr>
<td></td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOST2 15</td>
<td>L.B. Foster Company, 202 Weber Lane, Bedford, PA 15522</td>
<td>Bedford</td>
<td>PA</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HALL1 15</td>
<td>Hall Industries, Inc., Hall Equipment Division, 1 USS Industrial Park, Ellwood City, PA 16117</td>
<td>Elwood</td>
<td>PA</td>
<td>2012-175Q</td>
</tr>
<tr>
<td></td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HALL3 15</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></td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</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>Facility</td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility</td>
<td>Neoprene Strip Seal Dam Fabricator</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 <a href="http://www.rpsmachinery.com/">http://www.rpsmachinery.com/</a></td>
<td>Jersey Shore</td>
<td>PA</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>Millvale</td>
<td>PA</td>
<td>.....</td>
</tr>
<tr>
<td>Plant</td>
<td>Neoprene Strip Seal Dam Fabricator</td>
<td></td>
<td></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>Amherst</td>
<td>NY</td>
<td>.....</td>
</tr>
</tbody>
</table>
# Qualified Products List for Construction

## 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>

- Softwood (Glue Laminated)
- Softwood (Non-Laminated)
- Timber Treater Facility
- Formerly Burke-Parsons-Bowby Corp. (BURPB 15)
## Section 1043: Shotcrete

### 1043.2(a) Shotcrete

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Condition</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shotcrete (Pre-Packaged)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MasterEmaco S211 SP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shotcrete (Pre-Packaged)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eucoshot</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shotcrete (Pre-Packaged)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SureShot</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QUIKR 15 Plant</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></td>
<td>2002-014Q</td>
</tr>
<tr>
<td></td>
<td>Shotcrete (Pre-Packaged)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Commercial Grade QUIKRETE Shotcrete MS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shotcrete (Pre-Packaged)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GUNITE 7001d (dry-mix)</td>
<td></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</td>
<td><a href="http://www.kwikbondpolymers.com">http://www.kwikbondpolymers.com</a></td>
<td>2015-900</td>
</tr>
<tr>
<td>Polyester Polymer Concrete</td>
<td>PPC 1121 EC</td>
<td></td>
</tr>
</tbody>
</table>

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>GRACO 15</td>
<td>Grace Composites, 351 Ruth Road, Lonoke, AR 72086</td>
<td>2005-117Q</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>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>
<td>2014-208QA BC</td>
</tr>
</tbody>
</table>
**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>
<tr>
<td>Three Coat Paint System (using Organic, Zinc-Rich Primer)</td>
<td>Plants in Lake Charles, LA, Green Bay, WI, and Dayton, NV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 (g/L)</th>
<th>Intermediate VOC (g/L)</th>
<th>Finish Coat</th>
<th>Finish VOC</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Three Coat Paint System</td>
<td>Carbomastic 90</td>
<td>245</td>
<td>Carbothane 90</td>
<td>245</td>
<td>Carbothane 336</td>
<td>134HS</td>
<td>--------</td>
</tr>
</tbody>
</table>

|               | Three Coat Paint System                   | Amercoat 450 AL  | 240              | Amercoat 450 HS         | 340                    | Amercoat 450 HS | 340       | -------- |

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></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) 5 Star Grout</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) 5 Star Instant Grout</td>
<td>1976-060</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>

| ADMXT 15 | Admixtures, Inc., 200 Furnace Road, P. O. Box 225, Wernersville, PA 19565-0225 | 1976-053 |
| | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) BC Grout | |

| | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) MasterFlow 100 (previously Construction Grout) | 1976-006 |
| | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) MasterFlow 713 | 1975-005 |
| | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) MasterFlow 816 | 1987-058 |
| | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) Set Grout | |
| | One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi). | |

| | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) Pro-Grout 90 | |
| | One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi). | |

| | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) Conset Grout | |
| | One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi). | |

| CONSM 15 | Concrete Service Materials Company, Elm & Walnut St., P. O. Box 447, Conshohocken, PA 19428-0447 [http://www.concreteservicematerials.com/](http://www.concreteservicematerials.com/) | 1972-067 |
| | Premixed, Nonshrink Grout (Metallic Grout Admixture) CSMC Shrink Proof Grout | |
| | Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) Diamondcrete | |
### 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>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>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sure-Grip High Performance Grout</td>
<td>1982-094</td>
</tr>
<tr>
<td></td>
<td><em>One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sure-Grip Precision Grout (formerly Multi-Purpose Grout)</td>
<td>1986-040</td>
</tr>
<tr>
<td></td>
<td>Suregrip Util.</td>
<td>1991-055</td>
</tr>
<tr>
<td></td>
<td><em>One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).</em></td>
<td></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>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Euco Cable Grout PTX</td>
<td>2004-008Q</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Euco NS Grout</td>
<td>1976-019</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hi-Flow Grout</td>
<td>2002-152Q</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NC Grout</td>
<td>2000-281Q</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gill 33B&amp;P</td>
<td>1972-050</td>
</tr>
<tr>
<td>Plant</td>
<td>59 Brunswick Avenue Edison, NJ 08817</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ProSpec High Strength Precision Grout</td>
<td>1972-054</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Penn Grout</td>
<td>1975-079</td>
</tr>
<tr>
<td></td>
<td><em>One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).</em></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sure Grout-Met</td>
<td>1981-052</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sure Grout</td>
<td>1976-048</td>
</tr>
<tr>
<td></td>
<td><em>One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).</em></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>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Keligrout</td>
</tr>
<tr>
<td>L&amp;MCC 15</td>
<td>L&amp;M Construction Chemicals, Inc., 14851 Calhoun Road, Omaha, NE 68152</td>
<td><a href="http://www.lmcc.com/">http://www.lmcc.com/</a></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Crystex</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Duragrun</td>
</tr>
<tr>
<td>MAPEIA15 Plant</td>
<td>MAPEI Corporation, 1144 East Newport Center Drive, Deerfield Beach, FL 33442</td>
<td><a href="http://www.mapei.com/US-EN/">http://www.mapei.com/US-EN/</a></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Planigrout 712</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>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>CG-86 Construction-Grade Grout</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Sealight 588</td>
</tr>
<tr>
<td>MEDW1 15 Plant</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>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>CG-86 Construction-Grate Grout</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>CG-86 N.E. Construction-Grade Grout</td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Sealtight 588</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></td>
</tr>
<tr>
<td></td>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Permagrout</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>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Commercial Grade QUIKRETE Non-Shrink General Purpose Grout (No. 1585-01)</td>
<td>2000-289Q</td>
</tr>
<tr>
<td>Premixed, Nonshrink Grout (Non-Metallic, Non-Staining)</td>
<td>Commercial Grade QUIKRETE Non-Shrink Precision Grout (No. 1585-00)</td>
<td></td>
</tr>
</tbody>
</table>

**One-day Compressive Strength is equal to or greater than 26 Mpa (3750 psi).**

| Premixed, Nonshrink Grout (Non-Metallic, Non-Staining) | Sikagrout 212 | |

| Sika1 15 | Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 [http://usa.sika.com/](http://usa.sika.com/) 1682 Marion Williamsport Road E Marion, OH 43302 | 2007-147Q |
| Prempixed, 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 | |

**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> 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.

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sika Corporation</td>
<td>Sikatop Plus 122</td>
<td>1979-036</td>
</tr>
<tr>
<td>201 Polito Avenue</td>
<td>Sikatop Plus 123</td>
<td>1982-007</td>
</tr>
</tbody>
</table>

Facility 201 Polito Avenue Lyndhurst, NJ 07071

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 44473 <a href="http://www.mackconcrete.com/">http://www.mackconcrete.com/</a></td>
<td>Precast Box Culvert</td>
<td>-</td>
</tr>
</tbody>
</table>

Previous Supplier Codes: SRST0 15 & ADVPS 15
## 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></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
<td>01/02/1992</td>
<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>2006-185Q</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>
<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>05/17/1989</td>
<td>-----</td>
</tr>
<tr>
<td>Plant</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>Precast Box Culvert</td>
<td></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></td>
<td>2016-138</td>
</tr>
<tr>
<td></td>
<td>Precast Box Culvert</td>
<td></td>
<td>-</td>
</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>Last Revised: 7/9/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARMCL 15</td>
<td>Armacell, LLC, 7600 Oakwood Street Extension, P. O. Box 1038, Mebane, NC 27302 <a href="http://www.armacell.us/index.php?id=6">http://www.armacell.us/index.php?id=6</a></td>
<td></td>
</tr>
<tr>
<td>Closed-Cell Neoprene Sponge</td>
<td>F-2045, Type 2, Class C, Grade 5</td>
<td>2005-109Q</td>
</tr>
<tr>
<td>Closed-Cell Neoprene Sponge</td>
<td>DK5151 PADOT, Type 2, Class C, Grade 5</td>
<td>2014-158Q</td>
</tr>
</tbody>
</table>

## 1085.3(m) Protective Coating (SSPC-PS 16-82)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Last Revised: 7/9/2015</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></td>
</tr>
<tr>
<td>Protective Coating (SSPC-PS 16-82)</td>
<td>Black No. 775 Epoxy Tar Coating</td>
<td>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>Vesapanel Sound Barrier (Reflective Barrier Only) 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>Acrylite Soundstop Structure Mounted Sound Barrier System 2012-050</td>
</tr>
</tbody>
</table>

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:

<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>
</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</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FABCO 15</strong></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>Sound Barrier Wall Panel (Alternate)</td>
<td>Sentry-Cast Wall Sound Panel (Reflective Barrier Only)</td>
<td></td>
</tr>
<tr>
<td><strong>FACADE15</strong></td>
<td>Facade Technology, 680 Ben Franklin Highway, Birdsboro, PA 19508 <a href="http://www.soundzero.com">www.soundzero.com</a></td>
<td>2015-153</td>
</tr>
<tr>
<td>Facility 1441 Stoneridge Drive</td>
<td>Sound Zero</td>
<td></td>
</tr>
<tr>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td>AcoustaCrete</td>
<td></td>
</tr>
<tr>
<td>Precast Absorptive Sound Panel Wall System, per SOL 431-08-16</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FADD2 15</strong></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>Sound Barrier Wall Panel (Alternate)</td>
<td>AcoustaCrete</td>
<td></td>
</tr>
<tr>
<td>Precast Absorptive Sound Panel Wall System, per SOL 431-08-16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td>Plywall</td>
<td></td>
</tr>
<tr>
<td><strong>J&amp;RS1 15</strong></td>
<td>Slaw Precast, J &amp; R Slaw, Inc., 438 Riverview Road, Lehighton, PA 18235 <a href="http://www.slawprecast.com">http://www.slawprecast.com</a></td>
<td>2007-040Q</td>
</tr>
<tr>
<td>Note: Previously assigned J&amp;RS2 15 for same facility</td>
<td>Concrete Innovation Series / Whisper Wall</td>
<td></td>
</tr>
<tr>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absorptive Sound Barrier System, per SOL 431-08-01</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MACK0 15</strong></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>2008-092Q</td>
</tr>
<tr>
<td>Sound Barrier Wall Panel (Alternate)</td>
<td>Concrete Innovation Series / Whisper Wall</td>
<td></td>
</tr>
<tr>
<td>Absorptive Sound Barrier System, per SOL 431-08-01</td>
<td></td>
<td></td>
</tr>
</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</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 <a href="https://www.transparentnb.com/">https://www.transparentnb.com/</a></td>
<td>2017-332</td>
</tr>
</tbody>
</table>

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:

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.
8 ft. Post Spacing: Wall Height of > 13 ft. thru 14 ft.
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>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>
</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>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>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
<td></td>
<td></td>
<td>2015-142QC</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>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>2010-246Q</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>
</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>PREC1 15</td>
<td>Precision International, 435 Burt Street, Sistersville, WV 26175 [<a href="http://precisioninc.net/">http://precisioninc.net/</a>]</td>
<td>Sistersville</td>
<td>WV</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 [<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>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>Pulaski</td>
<td>PA</td>
<td>2006-191Q</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>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 [<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>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>
</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>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>Millvale</td>
<td>PA</td>
<td>2015-142QE</td>
</tr>
</tbody>
</table>
# Bulletin 15 (Publication 35)
## Qualified Products List for Construction

### Section 1101: Highway Lighting

#### 1101.02 Highway Lighting Poles (Aluminum)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<tr>
<td>PHIHA 15</td>
<td>Philips Hadco, 100 Craftway, Littlestown, PA 17340 <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 <a href="http://www.springcity.com/">http://www.springcity.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>2018-177Q</td>
</tr>
</tbody>
</table>
### Section 1101: Highway Lighting

#### 1101.02 Highway Lighting Poles (Cast Iron)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Cast iron)</td>
</tr>
</tbody>
</table>

**Last Revised: 4/3/2015**

#### 1101.02 Highway Lighting Poles (Steel)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
</tr>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
</tr>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
</tr>
<tr>
<td>UMIC1 15</td>
<td>Union Metal Industries Corporation, 1432 Maple Avenue NE Canton, Ohio 44705, Canton, OH 44705</td>
</tr>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
</tr>
<tr>
<td>Plant</td>
<td>Valley, NE 68064</td>
</tr>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
</tr>
<tr>
<td>Plant</td>
<td>Brenham, TX</td>
</tr>
<tr>
<td></td>
<td>Highway Lighting Pole Fabricator (Steel)</td>
</tr>
</tbody>
</table>

**Last Revised: 8/29/2018**

#### 1101.06(c) Arm Mount Luminaires - LED - (Cobra Head)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACUITY15</td>
<td>Acuity Brands Lighting, Inc., 1170 Peachtree Street, NE, Suite 2300, Atlanta, GA 30309-7676</td>
</tr>
<tr>
<td>Plant</td>
<td>Guadalupe, Mexico</td>
</tr>
<tr>
<td></td>
<td>Conventional LED Luminaire</td>
</tr>
</tbody>
</table>

**Last Revised: 10/21/2019**
### Section 1101: Highway Lighting

#### 1101.06(c) Arm Mount Luminaires - LED - (Cobra Head)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<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>
<td></td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>Autobahn ATB2</td>
<td>2017-349Q</td>
</tr>
<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> East Flat Rock, NC</td>
<td></td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>GE Evolve ERL1</td>
<td>2018-101Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>GE Evolve ERL2</td>
<td>2018-045Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>GE Evolve ERLH</td>
<td>2018-044Q</td>
</tr>
<tr>
<td><strong>LEOEC 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>
<td></td>
</tr>
<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>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>GCJ0-15H GreenCobra LED Street Light - GCJ Series</td>
<td>2018-089Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>GCJ1-20H GreenCobra LED Street Light - GCJ Series</td>
<td>2018-099Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>GCJ2-20H GreenCobra LED Street Light - GCJ Series</td>
<td>2018-099Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>GCM2-30H GreenCobra Midsize LED Street Light - GCM H-Series</td>
<td>2017-351Q</td>
</tr>
<tr>
<td>Conventional LED Luminaire</td>
<td>GCM2-40H GreenCobra Midsize LED Street Light - GCM H-Series</td>
<td>2017-351Q</td>
</tr>
</tbody>
</table>
Section 1101: Highway Lighting

1101.06(c) Arm Mount Luminaires - LED - (Cobra Head)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signify (formerly Philips Lighting), 200 Franklin Square Drive, Somerset, NJ 08873</td>
<td>RoadFocus LED Cobra Head - Large (RFL)</td>
<td>2018-152Q</td>
</tr>
<tr>
<td>Camargo Chihuahua, Mexico</td>
<td>RoadFocus LED Cobra Head - Medium (RFM)</td>
<td>2018-152Q</td>
</tr>
<tr>
<td></td>
<td>RoadFocus LED Cobra Head - Small (RFS)</td>
<td>2018-152Q</td>
</tr>
</tbody>
</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>Fabricated Aluminum Sign Manufacturer</td>
<td>----</td>
</tr>
<tr>
<td>INSHS 15</td>
<td>Interstate Highway Sign Company, 7415 Lindsey Road, Little Rock, AR 72206</td>
<td>Fabricated Aluminum Sign Manufacturer</td>
<td>----</td>
</tr>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032 <a href="http://protectiveservicesinc.com/">http://protectiveservicesinc.com/</a></td>
<td>Fabricated Aluminum Sign Manufacturer</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>Fabricated Aluminum Sign Manufacturer</td>
<td>----</td>
</tr>
<tr>
<td>TRFSC 15</td>
<td>Trafco Supply Company, 1420 Ford Avenue, Harrisburg, PA 17109</td>
<td>Fabricated Aluminum Sign Manufacturer</td>
<td>----</td>
</tr>
</tbody>
</table>
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>Sheeting Type</th>
<th>Colors</th>
<th>Restricted Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>USMUS 15</td>
<td>U. S. Municipal Supply, Inc., P. O. Box 574, Huntingdon, PA 16652</td>
<td>Fabricated Aluminum Sign Manufacturer</td>
<td>-----</td>
<td></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>
</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>-----</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Reflective Sheeting</td>
<td>3314</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>Orange</td>
</tr>
<tr>
<td></td>
<td>Reflective Sheeting</td>
<td>334/336</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>White/Orange</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
<td></td>
<td></td>
<td>Only</td>
</tr>
<tr>
<td></td>
<td>Reflective Sheeting</td>
<td>3340</td>
<td>RS-1</td>
<td>Type VIII</td>
<td>White</td>
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<tr>
<td></td>
<td>Reflective Sheeting</td>
<td>3811-I</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>Yellow</td>
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<tr>
<td></td>
<td>Reflective Sheeting</td>
<td>3872</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>Red</td>
</tr>
<tr>
<td></td>
<td>Reflective Sheeting</td>
<td>3910</td>
<td>RS-1</td>
<td>Type III / Type IV (reboundable)</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>Reflective Sheeting</td>
<td>3914</td>
<td>RS-1</td>
<td>Type III / Type IV (reboundable)</td>
<td>Fluorescent Orange</td>
</tr>
<tr>
<td></td>
<td>Reflective Sheeting</td>
<td>3924</td>
<td>RS-1</td>
<td>Type VII</td>
<td>Fluorescent Orange</td>
</tr>
<tr>
<td></td>
<td>Reflective Sheeting</td>
<td>3930</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>Reflective Sheeting</td>
<td>3931</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>Yellow</td>
</tr>
<tr>
<td></td>
<td>Reflective Sheeting</td>
<td>3934</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>Orange</td>
</tr>
</tbody>
</table>
### 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>
</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></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflective Sheeting 3935</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>Blue</td>
<td>No Restrictions</td>
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<td></td>
</tr>
<tr>
<td>Reflective Sheeting 3937</td>
<td>RS-1</td>
<td>Type III / Type IV</td>
<td>Green</td>
<td>No Restrictions</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Reflective Sheeting 3981</td>
<td>RS-1</td>
<td>Type IX</td>
<td>Fluorescent Yellow</td>
<td>No Restrictions</td>
<td>1999-165Q</td>
<td></td>
</tr>
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## Section 1103: Traffic Signing and Marking

### 1103.02(c) Reflective Sheeting

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# Section 1103: Traffic Signing and Marking

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1103.02(c) Reflective Sheeting

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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.
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<td>No Restrictions</td>
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<td>D89-1541 AR1000</td>
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<td>RSF-2</td>
<td>Type V</td>
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<td>White</td>
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<td>Marathon</td>
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<td>Type VI</td>
<td>Fluorescent Orange</td>
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<td>ORALITE 5900-010</td>
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<td>Type IV</td>
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<td>ORALITE 5900-030</td>
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<td>Type IV</td>
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<td>ORALITE 5900-050</td>
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<tr>
<td>ORALITE 5900-060</td>
<td>Reflective Sheeting</td>
<td>RSF-2</td>
<td>Type IV</td>
<td>Green</td>
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<td>ORALITE 5930-038</td>
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<td>Type IV</td>
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<td>ORALITE 5930-038</td>
<td>Reflective Sheeting</td>
<td>RSF-2</td>
<td>Type IX</td>
<td>Fluorescent Orange</td>
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<td>2016-177Q</td>
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<tr>
<td>ORALITE 7900-010</td>
<td>Reflective Sheeting</td>
<td>Type IX</td>
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<td>ORALITE 7900-029</td>
<td>Reflective Sheeting</td>
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<td>Fluorescent Yellow-Green</td>
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<td>ORALITE 7900-037</td>
<td>Reflective Sheeting</td>
<td>Type IX</td>
<td>Fluorescent Yellow</td>
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### Section 1103: Traffic Signing and Marking

#### 1103.02(c) Reflective Sheeting

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<td>Formerly Reflexite North America (REFLE 15)</td>
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<td>Super Brite</td>
<td>Type VI</td>
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Provisionally Approved

#### 1103.03 Electrically Powered Traffic Signs

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<td>SH12 ATS-001P</td>
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<td>Speed Display Sign</td>
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<td>HS15 ATS-002P</td>
<td>12/1/2011</td>
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<td>Speed Display Sign</td>
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<td>SS12 ATS-003P</td>
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<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
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<tr>
<td></td>
<td>Warning Sign System</td>
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<td>BP-IN12 CAS-001P</td>
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Section 1103: Traffic Signing and Marking

1103.03 Electrically Powered Traffic Signs

<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>ELAN1 15</td>
<td>Elan City Inc., 10-34 44th Drive, Long Island City, NY 11101 <a href="https://www.elancity.net/">https://www.elancity.net/</a></td>
<td>ELAN1</td>
<td>15</td>
<td></td>
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<tr>
<td>Plant</td>
<td>Elan Cité Orvault, France</td>
<td></td>
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</tr>
<tr>
<td>Speed Display Sign</td>
<td>Evolis</td>
<td>ELA-001P</td>
<td>12/21/2018</td>
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<td>S891161</td>
<td>ECH-020P</td>
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<td>School Warning Sign System</td>
<td>S891162</td>
<td>ECH-021P</td>
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<td>Warning Sign System</td>
<td>CautionGuard</td>
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<td>Warning Sign System</td>
<td>S891166</td>
<td>ECH-025P</td>
<td>12/7/2011</td>
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<tr>
<td>School Warning Sign System</td>
<td>MSRS-101-I</td>
<td>GHP-001P</td>
<td>4/13/1995</td>
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<tr>
<td>INFDC 15</td>
<td>Information Display Company, 10950 SW 5th Street, Beaverton, OR 97005 <a href="http://informationdisplay.com/">http://informationdisplay.com/</a></td>
<td>INFDC</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Blankout Sign</td>
<td>DLED</td>
<td>NSI-002P</td>
<td>10/22/2010</td>
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<tr>
<td>Blankout Sign</td>
<td>NuArt IIRS Series</td>
<td>NSI-001P</td>
<td>9/29/2009</td>
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Section 1103: Traffic Signing and Marking

1103.03 Electrically Powered Traffic Signs

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
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<tbody>
<tr>
<td>NATSS 15</td>
<td>National Sign &amp; Signal Company, 301 S. Armstrong Road, Battle Creek, MI 49037</td>
<td>NSS-007P</td>
<td>3/9/2012</td>
<td>2016-014Q</td>
</tr>
<tr>
<td></td>
<td>Blankout Sign</td>
<td>48LEDRSA-PA</td>
<td></td>
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<tr>
<td></td>
<td>Blankout Sign</td>
<td>E-101-WW Series</td>
<td>NSS-003S</td>
<td>2/26/1976</td>
</tr>
<tr>
<td></td>
<td>Blankout Sign</td>
<td>E-101-WW-1</td>
<td>NSS-001S</td>
<td>12/6/1974</td>
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<tr>
<td></td>
<td>Blankout Sign</td>
<td>FO-BO</td>
<td>NSS-006S</td>
<td>10/6/1987</td>
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<tr>
<td></td>
<td>Blankout Sign</td>
<td>SF-107-2 Series</td>
<td>NSS-002S</td>
<td>12/18/1974</td>
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<td>Fire Warning Sign</td>
<td>FIRE SIGN</td>
<td>NSS-004S</td>
<td>9/26/1977</td>
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<td></td>
<td>Internally Illuminated Sign</td>
<td>FSF Series</td>
<td>NSS-006P</td>
<td>6/5/2012</td>
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<tr>
<td></td>
<td>Internally Illuminated Sign</td>
<td>XXLEDBLB-R</td>
<td>NSS-010P</td>
<td>4/27/2016</td>
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<tr>
<td>ORANG 15</td>
<td>Orange Traffic, 18195 Rue J A Bombardier, Mirabel, Quebec J7J 0E7</td>
<td>OTR-001P</td>
<td>7/13/2018</td>
<td>2016-147Q</td>
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<td></td>
<td>Blankout Sign</td>
<td>LED Blank Out Sign</td>
<td>OTR-001P</td>
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<tr>
<td>PATH-15</td>
<td>Path Master, Inc., 1960 Midway Drive, P.O. Box 451, Twinsburg, OH 44087</td>
<td>QFA Series</td>
<td>PHM-003P</td>
<td>11/15/2010</td>
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<tr>
<td></td>
<td>School Warning Sign System</td>
<td>TC-600S Full Matrix</td>
<td>RAA-001P</td>
<td>5/9/2019</td>
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<td></td>
<td>Speed Display Sign</td>
<td>FIRE</td>
<td>RTC-003P</td>
<td>8/27/1996</td>
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<tr>
<td>RADAR 15</td>
<td>Radarsign, LLC, 1220 Kennestone Circle, Ste 130, Marietta, GA 30066</td>
<td>SWD-1</td>
<td>SSI-005S</td>
<td>1/9/1989</td>
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<td></td>
<td>School Warning Sign System</td>
<td>SWD-1 LED</td>
<td>SSI-007P</td>
<td>10/4/2011</td>
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<tr>
<td>RTC-M 15</td>
<td>RTC Manufacturing Inc., P. O. Box 150189, Arlington, TX 76015</td>
<td>FIRE</td>
<td>RTC-003P</td>
<td>8/27/1996</td>
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<tr>
<td>SIGNS 15</td>
<td>Signal Service Inc., 1020 Andrew Drive, West Chester, PA 19380</td>
<td>SWD-1</td>
<td>SSI-005S</td>
<td>1/9/1989</td>
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<tr>
<td></td>
<td>School Warning Sign System</td>
<td>SWD-1 LED</td>
<td>SSI-007P</td>
<td>10/4/2011</td>
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<td>SIGP2 15</td>
<td>Signal Control Products, Inc., 737 Hagey Center Drive, Unit B1, Souderton, PA 18964</td>
<td>School Speed Limit Sign</td>
<td>SCP-004P</td>
<td>2/17/2010</td>
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## Section 1103: Traffic Signing and Marking

### 1103.03 Electrically Powered Traffic Signs

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<td>SOUMC 15</td>
<td>Internally Illuminated Sign FF-1.1</td>
<td>SMC-001P</td>
<td>2/14/1994</td>
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<td>Internally Illuminated Sign FF-1.1S680022120</td>
<td>SMC-002P</td>
<td>2/14/1994</td>
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<tr>
<td>TLX-1 15</td>
<td>Speed Display Sign SafePace Evolution 12</td>
<td>TLX-001P</td>
<td>4/18/2019</td>
<td>2019-011</td>
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<td>TRAC 15</td>
<td>School Warning Sign System 3654PASOP</td>
<td>TCP-001P</td>
<td>1/18/2002</td>
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<td></td>
<td>School Warning Sign System SSA-PA-II</td>
<td>TCP-003P</td>
<td>7/8/2011</td>
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<tr>
<td>TRAF 15</td>
<td>Speed Display Sign IQ 1200 Driver Feedback</td>
<td>TAC-001P</td>
<td>9/14/2018</td>
<td>2017-259Q</td>
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<tr>
<td>TRAS 15</td>
<td>Blankout Sign 6000-FOBO</td>
<td>TSI-001P</td>
<td>5/22/2002</td>
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</tr>
<tr>
<td></td>
<td>Blankout Sign 6000-LED BO</td>
<td>TSI-004P</td>
<td>10/5/2010</td>
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<td>Internally Illuminated Sign 6000-CASE</td>
<td>TSI-002P</td>
<td>12/20/2002</td>
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<td>Internally Illuminated Sign 6000-LED II</td>
<td>TSI-005P</td>
<td>10/5/2010</td>
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<td>Internally Illuminated Sign 6000-SNS</td>
<td>TSI-003P</td>
<td>12/20/2002</td>
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<tr>
<td>TRAST 15</td>
<td>Internally Illuminated Sign JXM-STN</td>
<td>TRA-030P</td>
<td>11/23/2010</td>
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### Section 1103: Traffic Signing and Marking

#### 1103.03 Electrically Powered Traffic Signs

<table>
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<th>Product</th>
<th>Name</th>
<th>COA</th>
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<th>Ref. No.</th>
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Formerly Traffic & Parking Control Company |  |  |  | |
|  | School Warning Sign System | Dual BlinkerBeacon School | TCO-003P | 8/14/2018 | 2017-196Q |
|  | Warning Sign System | BlinkerBeacon LED Beacons | TCO-002P | 4/10/2018 | 2017-237Q |
| WELSM 15 | Wells Sign Manufacturing, Inc., 109 Brothers Road, Woodland, WA 98674 |  |  | |
|  | Blankout Sign | BO | WEL-001P | 10/10/1992 | -----
|  | Internally Illuminated Sign | II | WEL-003P | 10/10/1992 | -----

#### 1103.03 Flat Sheet Aluminum Signs with Stiffeners (Post Mounted Types A, D, and E; and Structure)

<table>
<thead>
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<th>Name</th>
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Plant Traffic Control Devices Department 3M Center, Building 582-1-15 St. Paul, MN 55144-1000 | Fabricated Aluminum Sign Manufacturer |  | -----
|  | Fabricated Aluminum Sign Manufacturer |  | -----
| INSHS 15 | Interstate Highway Sign Company, 7415 Lindsey Road, Little Rock, AR 72206 | Fabricated Aluminum Sign Manufacturer | -----

**Last Revised: 5/10/2019**  
**Last Revised: 1/23/2018**
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1103.03 Flat Sheet Aluminum Signs with Stiffeners (Post Mounted Types A, D, and E; and Structure)

<table>
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<th>Name</th>
<th>COA</th>
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<td>Fabricated Aluminum Sign Manufacturer</td>
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<tr>
<td>MAISI15</td>
<td>Main Stream Industries, Inc., 7340 Bernville Road, Bernville, PA 19506</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Fabricated Aluminum Sign Manufacturer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MILLS15</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></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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</tr>
<tr>
<td>PROTE15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032 <a href="http://protectiveservicesinc.com/">http://protectiveservicesinc.com/</a></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Fabricated Aluminum Sign Manufacturer</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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<tr>
<td>STRBK15</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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<td></td>
</tr>
<tr>
<td></td>
<td>Fabricated Aluminum Sign Manufacturer</td>
<td></td>
<td></td>
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<tr>
<td>TRFSC15</td>
<td>Trafco Supply Company, 1420 Ford Avenue, Harrisburg, PA 17109</td>
<td></td>
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<tr>
<td></td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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<tr>
<td>USMUS15</td>
<td>U. S. Municipal Supply, Inc., P. O. Box 574, Huntingdon, PA 16652</td>
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<td></td>
<td>Fabricated Aluminum Sign Manufacturer</td>
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</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"
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>
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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>
<td></td>
</tr>
<tr>
<td>ACESI 15</td>
<td>Ace of Signs, 500 Airport Road, Selinsgrove, PA 17870 <a href="http://www.aceofsigns.com/">http://www.aceofsigns.com/</a></td>
<td>PDT 1870-04</td>
<td>-</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>AMEFT 15</td>
<td>American Fiber Technologies, 500 Bostwick Avenue, Bridgeport, CT 06605 <a href="https://www.frpsigns.com/">https://www.frpsigns.com/</a></td>
<td>PDT 2040-11</td>
<td>Only faces manufactured by 3M, PDT 110-68</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>ASSPR 15</td>
<td>Associated Products Company, 2 East Road, Mechanicsburg, PA 17050 <a href="http://www.associated-products.com/">http://www.associated-products.com/</a></td>
<td>PDT 820-78</td>
<td>Cut Out Characters</td>
<td>Black on Orange Construction Series Only</td>
<td>-----</td>
</tr>
<tr>
<td>ATLAS 15</td>
<td>Atlas Flasher &amp; Supply Company, 2949 Felton Road, Norristown, PA 19401 <a href="http://www.atlasflasher.com/">http://www.atlasflasher.com/</a></td>
<td>PDT 1100-84</td>
<td>-</td>
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Section 1103: Traffic Signing and Marking

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<tr>
<th>Product Code</th>
<th>Manufacturer Name</th>
<th>Address</th>
<th>Website</th>
<th>COA</th>
<th>Special Approvals</th>
<th>Restrictions</th>
<th>Ref. No.</th>
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<tr>
<td>BLAIR 15</td>
<td>Blair Excavating Company Inc.</td>
<td>R. R. #5, Box 308A, Tyrone, PA 16686</td>
<td></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></td>
<td>PDT 2050-11</td>
<td>Cut Out Characters</td>
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<tr>
<td>CENTS 15</td>
<td>Keystone Sign Systems DBA Central Sign Systems</td>
<td>5215 Simpson Ferry Road, Mechanicsburg, PA 17050</td>
<td></td>
<td>PDT 1560-95</td>
<td>Cut Out Characters and Silk Screen</td>
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<td></td>
</tr>
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<th>Sign Special Approvals</th>
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<tbody>
<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>
<td>-----</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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<tr>
<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>
<td>-----</td>
<td></td>
</tr>
<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>
<td>-----</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;DLE 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>
<td>-----</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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<th>Ref. No.</th>
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<tbody>
<tr>
<td>DECAL 15</td>
<td>Decal Driven.com, Box 108, Walston, PA 15781</td>
<td>PDT 1880-04</td>
<td>Cut Out Characters</td>
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<td></td>
<td>Sign Manufacturer</td>
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<tr>
<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 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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<tr>
<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 and Silk Screen</td>
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<tr>
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<td>Sign Manufacturer</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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<tr>
<td>Facility</td>
<td>1580 Gabler Road Suite 103 Chambersburg, PA 17201</td>
<td></td>
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<tr>
<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 and Silk Screen</td>
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<td></td>
<td>Sign Manufacturer</td>
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<td>PDT 021-75</td>
<td>Cut Out Characters and Silk Screen</td>
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<tr>
<td>ELDL 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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<tr>
<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>
<td>----</td>
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</tr>
<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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<tr>
<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 <a href="http://www.ibistek.com/">http://www.ibistek.com/</a></td>
<td>PDT 2010-08</td>
<td>Silk Screen</td>
<td>Street Name Signs D 3-1</td>
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<tr>
<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>JLSCR 15</td>
<td>J. L. Screen Printing, Rt.#31, P.O. Box 324, Ruffs Dale, PA 15697 <a href="http://www.jlscreen.com/">http://www.jlscreen.com/</a></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>Kemmer Graphics, 6169 Sullivan Trail, Nazareth, PA 18064</td>
<td>PDT 2000-08</td>
<td>Cut Out Characters</td>
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<td>LIGH1 15</td>
<td>Lightle Enterprises of Ohio, LLC, P.O. Box 329, 22 East Springfield Street, Frankfort, OH 45628 <a href="http://www.lightleenterprisesohio.com/">http://www.lightleenterprisesohio.com/</a></td>
<td>PDT 2100-17</td>
<td>Cut Out Characters, Silk Screen, Borders</td>
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<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>
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<tr>
<td>MARKE 15</td>
<td>Marketing Displays, Inc., 38271 West 12 Mile Road, Farmington, MI 48331 <a href="https://www.mdiworldwide.com/">https://www.mdiworldwide.com/</a></td>
<td>PDT 1160-85</td>
<td>Silk Screen Flexible Retroflective Signs Only</td>
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<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>
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<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>
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<tr>
<td>NISSL 15</td>
<td>Andrew W. Nissly, Inc., 544 W. Mill Ave., P.O. Box 633, Lancaster, PA 17608</td>
<td>PDT 230-68</td>
<td>Cut Out Characters and Silk Screen</td>
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<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>
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<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>
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<tr>
<td>PEXCO 15</td>
<td>Pexco Davidson Traffic Control Products, 3110 70th Avenue East, Tacoma, WA 98424 <a href="http://www.pexco.com/markets/industrial/traffic">http://www.pexco.com/markets/industrial/traffic</a></td>
<td>PDT 1780-02</td>
<td>Yield to Pedestrian Signs and Barricade Rails Only</td>
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<tr>
<td>POWEL 15</td>
<td>Powell Engineering Contractors Inc., P. O. Box 4100, Reading, PA 19606</td>
<td>PDT 1420-92</td>
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<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032 <a href="http://protectiveservicesinc.com/">http://protectiveservicesinc.com/</a></td>
<td>PDT 060-68</td>
<td>Cut Out Characters and Silk Screen</td>
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<td>PSU-15</td>
<td>Penn State University, 101M Physical Plant, University Park, PA 16802</td>
<td>PDT 2160-19</td>
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<td>Penn State Football Signs Only</td>
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<td>Sign Manufacturer</td>
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<td>RAELY 15</td>
<td>Rae-Lyn Enterprises, Inc., P.O. Box 50, Spring Church, PA 15686</td>
<td>PDT 1900-05</td>
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<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>
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<td>RAPSI 15</td>
<td>Rapp Signs, Inc, 3979 Ny Route 206, Greene, NY 13778</td>
<td>PDT 2030-09</td>
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<td></td>
<td>Sign Manufacturer</td>
<td></td>
<td></td>
<td>May manufacture and sell only signs made using prepared faces from Eastern Metal of Elmira Inc., PDT 021-75.</td>
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<tr>
<td>REIDL 15</td>
<td>Reidler Decal Corporation, 264 Industrial Park Road, St. Clair, PA 17970</td>
<td>PDT 340-69</td>
<td>Silk Screen</td>
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<td>RELSS 15</td>
<td>Reliable Sign &amp; Striping Inc., 354 W. Moorestown Road, Nazareth, PA 18064</td>
<td>PDT 1650-97</td>
<td>Cut Out Characters and Silk Screen</td>
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<td>ROCAL 15</td>
<td>Rocal, Inc., 3186 CR 550, Frankfort, OH 45628</td>
<td>PDT 1030-82</td>
<td>Cut Out Characters</td>
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<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>
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<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>
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<td></td>
<td>Sign Manufacturer</td>
<td></td>
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<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>
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<tr>
<td>S&amp;SSS 15</td>
<td>S &amp; S Signs And Safety Equipment, Inc., P. O. Box 102, Big Flats, NY 14814</td>
<td>PDT 1530-95</td>
<td>Cut Out Characters and Silk Screen</td>
<td>Flexible Material, C-II and Non-Reflective</td>
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<td>Sign Manufacturer</td>
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<td>SAFSG 15</td>
<td>Safety Sign Company, P. O. Box 360500, Cleveland, OH 44136</td>
<td>PDT 1060-82</td>
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<td>SAFTS 15</td>
<td>Signs Plus of Kanona, Inc., 7964 N.Y.S. Rt. 53, Bath, NY 14810</td>
<td>PDT 1380-91</td>
<td>Cut Out Characters, Silk Screen, Borders</td>
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<td>SHANN 15</td>
<td>Shannon-Baum Signs, Inc., 105 Competitive Goals Drive, Eldersburg, MD 21784</td>
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<td>SHASG 15</td>
<td>Sharp Signs &amp; Graphics, 202 S. 6th Street, Emmaus, PA 18049</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)

All listed manufacturers are approved to make signs using prepared faces.

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<tr>
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<th>Sign Manufacturer Restrictions</th>
<th>Ref. No.</th>
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<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>
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<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>
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<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>](Formerly PIBH-15)</td>
<td>PDT 1300-89</td>
<td>Cut Out Characters and Silk Screen</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>PDT 210-68</td>
<td>Cut Out Characters and Silk Screen</td>
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<td></td>
</tr>
</tbody>
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Section 1103: Traffic Signing and Marking

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<thead>
<tr>
<th>Product</th>
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<th>Sign Special Approvals</th>
<th>Sign Manufacturer Restrictions</th>
<th>Ref. No.</th>
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<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>
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<td></td>
</tr>
<tr>
<td>VULSS 15</td>
<td>Vulcan Signs, 408 E. Berry Avenue, P. O. Box 1850, Foley, AL 36536-1850 <a href="http://www.vulcaninc.com/?p=vulcan_signs">http://www.vulcaninc.com/?p=vulcan_signs</a></td>
<td>PDT 570-73</td>
<td>Cut Out Characters and Silk Screen</td>
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</table>
| WALSH 15 | Stephenson Equipment, Inc., 796 Unionville Rd., Prospect, PA 16052  
Formerly Walsh Equipment, Inc. | PDT 460-70 | Cut Out Characters | ----- | |
| WHELA 15 | J.S. Whelan Co., Inc., 13810 Route 30, North Huntingdon, PA 15642 | PDT 400-70 | Cut Out Characters and Silk Screen | ----- | |
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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<tr>
<th>Product</th>
<th>Name</th>
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<th>Sign Special Approvals</th>
<th>Sign Manufacturer Restrictions</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>WKZSS 15</td>
<td>Work Zone Safety Specialists Inc., 1764 Columbia Turnpike, Castleton, NY 12033</td>
<td>Sign Manufacturer</td>
<td>PDT 1740-01</td>
<td>Cut Out Characters</td>
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</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.

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

1103.07(b) Breakaway Systems (For Post Mounted Signs, Type A)

Steel Products Procurement Act Applies.

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
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</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>
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<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>
</tr>
</tbody>
</table>
### 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>SP-4</td>
<td>4 lb/ft (5.94kg/m) or less</td>
<td>2</td>
<td>Erect Ease</td>
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</tr>
<tr>
<td></td>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<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>
</tr>
<tr>
<td></td>
<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>
</tr>
</tbody>
</table>

**FRANK 15** Franklin Industries, 645 Atlantic Ave., Franklin, PA 16323 [http://store.franklinindustriesco.com/](http://store.franklinindustriesco.com/)

<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>
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<tr>
<td></td>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td>SP-3</td>
<td>4 lb/ft (5.94kg/m) or less</td>
<td>2</td>
<td>EZE-Erect System</td>
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<tr>
<td></td>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td>SP-3</td>
<td>4 lb/ft (5.94kg/m) or less</td>
<td>3</td>
<td>Base Bolted System</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td>SP-3</td>
<td>1.12 lb/ft (1.66kg/m)</td>
<td></td>
<td>Universal Spacer</td>
<td>-----</td>
</tr>
</tbody>
</table>

**Must match the same configuration as tested and approved by FHWA, as shown in Publication 111. 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/)**

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/)

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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.  

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<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>
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<tbody>
<tr>
<td>NUCR6 15</td>
<td>Nucor Steel Marion, Inc., 912 Cheney Ave., Marion, OH 43302</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td>NUCR6 15</td>
<td>1.12 lb/ft (1.66kg/m) or less</td>
<td>Multiple Sign Mounting Stringers</td>
<td>1992-153</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td>NUCR6 15</td>
<td>3 lb/ft (4.46kg/m) or less</td>
<td>1 Minute Man System</td>
<td>1992-153</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td>NUCR6 15</td>
<td>4 lb/ft (5.94kg/m) or less</td>
<td>3 Lap Splice System</td>
<td>1992-153</td>
<td></td>
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<tr>
<td></td>
<td>Steel Channel Bar Post (For Post Mount Sign, Type B)</td>
<td>NUCR6 15</td>
<td>4 lb/ft (5.94kg/m) or less</td>
<td>3 Universal Spacer</td>
<td>1992-153</td>
<td></td>
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1103.08(b) Steel Square 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>Gauge</th>
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<tbody>
<tr>
<td>ALLTC 15</td>
<td>Allied Tube &amp; Conduit Corporation, 16100 South Lathrop Ave., Harvey, IL 60426</td>
<td></td>
<td>12 ga (33 ksi)</td>
<td>2&quot;, 2.25&quot;, 2.5&quot;</td>
<td>1994-136B</td>
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<tr>
<td></td>
<td>Steel Square Posts (For Post Mount Sign, Type B)</td>
<td></td>
<td>12 ga (60 ksi)</td>
<td>2&quot;, 2.25&quot;, 2.5&quot;</td>
<td>1994-136B</td>
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<tr>
<td></td>
<td>Steel Square Posts (For Post Mount Sign, Type B)</td>
<td></td>
<td>12 ga (33 ksi)</td>
<td>1.75&quot;, 2&quot;, 2.25&quot;, 2.5&quot;</td>
<td>1994-136B</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)

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<tbody>
<tr>
<td>ALLTC 15</td>
<td>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></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<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>
<td></td>
</tr>
<tr>
<td>Steel Square Posts (For Post Mount Sign, Type B)</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>
<td></td>
</tr>
<tr>
<td>Steel Square Posts (For Post Mount Sign, Type B)</td>
<td>Sign Posts</td>
<td>10 ga (33 ksi)</td>
<td>2.5&quot;</td>
<td>1994-136A</td>
<td></td>
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<tr>
<td>STLSP 15</td>
<td>St. Louis Steel Products, Inc., 191 Rock Industrial Park Drive, St. Louis, MO 63044-1210</td>
<td></td>
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</tr>
<tr>
<td>Steel Square Posts (For Post Mount Sign, Type B)</td>
<td>Sign Posts</td>
<td>12 ga</td>
<td>1.75&quot;, 2&quot;, 2.25&quot;</td>
<td>1999-153Q</td>
<td></td>
</tr>
<tr>
<td>Steel Square Posts (For Post Mount Sign, Type B)</td>
<td>Sign Posts</td>
<td>14 ga</td>
<td>1.75&quot;</td>
<td>1999-153Q</td>
<td></td>
</tr>
<tr>
<td>WESTH 15</td>
<td>Ultimate Highway Solutions, 11095 West Olive Road, Grand Haven, MI 49417 <a href="http://www.uhsolutions.net/">http://www.uhsolutions.net/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steel Square Posts (For Post Mount Sign, Type B)</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>
<td>1997-054</td>
</tr>
<tr>
<td>Steel Square Posts (For Post Mount Sign, Type B)</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>
<td>1997-054</td>
</tr>
<tr>
<td>Steel Square Posts (For Post Mount Sign, Type B)</td>
<td>Sleeve</td>
<td>SP-5</td>
<td>12 ga (50 ksi)</td>
<td>2.25&quot;, 2.5&quot;</td>
<td>1997-054</td>
</tr>
</tbody>
</table>

- Use 18" anchor stiffener sleeves with each Department-installed post system. No dual post approval.

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
Section 1103: Traffic Signing and Marking

1103.09(a) Treated Wood Posts (For Post Mount Signs, Types C and E)  

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<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></td>
<td>1999-136Q</td>
</tr>
<tr>
<td></td>
<td>Treated Wood Post (For Post Mount Sign, Type C and E)</td>
<td></td>
<td></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></td>
<td>2011-162Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Hagerstown, MD</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Wood Preservers, Inc.</td>
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1103.12 Sign and Distance Marker Supports

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tr>
<td>Plant</td>
<td>Cleveland, OH</td>
</tr>
<tr>
<td></td>
<td>Type A, Reflective Glass Bead</td>
</tr>
<tr>
<td></td>
<td>Type C, Reflective Glass Bead Visibeads</td>
</tr>
<tr>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>1994-084</td>
</tr>
<tr>
<td>Plant</td>
<td>Potsdam, NY</td>
</tr>
<tr>
<td></td>
<td>Type A, Reflective Glass Bead</td>
</tr>
<tr>
<td></td>
<td>Type C, Reflective Glass Bead Visibeads</td>
</tr>
<tr>
<td></td>
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<td>1994-084</td>
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## Section 1103: Traffic Signing and Marking

### 1103.14 Reflective Glass Beads (For Pavement Markings)

<table>
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<tr>
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<th>Bead Type</th>
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<tr>
<td></td>
<td>Plant Apex, NC</td>
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<td></td>
<td>Plant Malvern, PA</td>
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<td></td>
<td>Plant Muscatine, IA</td>
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<tr>
<td></td>
<td>Plant Paris, TX</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>SWAR0 15</td>
<td>Swarco Reflex LLC, 900 N. Denton, Mexia, TX 76667</td>
<td><a href="https://www.swarco.com/northamerica">https://www.swarco.com/northamerica</a></td>
<td>Type B, Reflective Glass Bead</td>
<td>2005-016Q</td>
</tr>
<tr>
<td></td>
<td>Plant Paris, TX</td>
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</tr>
<tr>
<td>SWAR1 15</td>
<td>Swarco Industries LLC, 270 Rutherford Lane, P.O. Box 89, Columbia, TN 38402</td>
<td><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>
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<td>Type B, Reflective Glass Bead</td>
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<td></td>
<td>Type E, Reflective Glass Bead</td>
<td>2012-165Q</td>
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Section 1104: Traffic Signals

1104.02 Traffic Signal Supports (Steel)


<table>
<thead>
<tr>
<th>Product</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>Plant</td>
<td>Valley, NE 68064</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VALM5 15</td>
<td>Valmont Industries, Inc., 2551 Valmont Drive, Brenham, TX 77833</td>
<td>Traffic Signal Support Fabricator</td>
<td>-----</td>
</tr>
<tr>
<td>Plant</td>
<td>Brenham, TX</td>
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</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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<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td>AMBBO 15</td>
<td>Ameribolt, Inc., 18060 AL Highway 21, Sycamore, AL 35149</td>
<td>Anchor Bolts</td>
<td>A-449</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>A-449</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>A-449</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>A-449 Bolts</td>
</tr>
</tbody>
</table>
### Section 1104: Traffic Signals

#### 1104.02(e) Traffic Signal Anchor Bolts, Hex Nuts, and Washers

Last Revised: 7/16/2015

Refer to [Hardware Manufacturing Symbols](#)

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<tr>
<th>Product</th>
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<tbody>
<tr>
<td>DECKM15</td>
<td>Decker Manufacturing Corporation, 703 North Clark Street, Albion, MI 49224</td>
<td>Anchor Bolts, Hex Nuts and Washers</td>
<td>A-563, Grade C Hex Nut</td>
</tr>
<tr>
<td>FOUND15</td>
<td>Foundation Systems and Anchors, Inc., 2300 Allen Avenue, SE, Canton, OH 44707</td>
<td>Galvanized Anchor Bolts</td>
<td>A-449</td>
</tr>
<tr>
<td>GAFBC15</td>
<td>Gaffney Bolt Company, Inc., 6100 Material Avenue, Rockford, IL 61111</td>
<td>Anchor Bolts</td>
<td>A-449</td>
</tr>
<tr>
<td>HAYDN15</td>
<td>Haydon Bolts, Inc., 1181 Unity Street, Philadelphia, PA 19124</td>
<td>Galvanized Anchor Bolts</td>
<td>A-449</td>
</tr>
<tr>
<td>HERBC15</td>
<td>Hercules Bolt Company, 1010 River Bluff Drive, Madison, TN 37115</td>
<td>Galvanized Anchor Bolts</td>
<td>A-449</td>
</tr>
<tr>
<td>JHBTS15</td>
<td>J. H. Botts, Inc., 253 East Bruce St., Joliet, IL 60432</td>
<td>Galvanized Anchor Bolts</td>
<td>A-449</td>
</tr>
<tr>
<td>PORBM15</td>
<td>Portland Bolt and Manufacturing, Inc., 3441 NW Guam Street, P.O. Box 2866, Portland, OR 97210</td>
<td>Galvanized Anchor Bolts</td>
<td>A-449</td>
</tr>
<tr>
<td>SOEBS15</td>
<td>Southeastern Bolt and Screw, Inc., 1037 16th Avenue West, Birmingham, AL 35204</td>
<td>Galvanized Anchor Bolts</td>
<td>A-449</td>
</tr>
<tr>
<td>STCBS15</td>
<td>Steel City Bolt and Screw, LLC, 230 West Valley Road, Birmingham, AL 35201</td>
<td>Galvanized Anchor Bolts</td>
<td>A-449</td>
</tr>
<tr>
<td>UNIQU15</td>
<td>Unique Industries, P.O. Box 683, 13488 Highway 25 North, Calera, AL 35040</td>
<td>Anchor Bolts</td>
<td>A-449</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>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECT 15</td>
<td>Electrotechnics Corporation, 1310 Commerce Street, Marshall, TX 75672 [<a href="http://www.elteccorp.com/">http://www.elteccorp.com/</a>]</td>
<td>ECH-026P</td>
<td>2/17/2012</td>
<td>-----</td>
</tr>
<tr>
<td>PDC- 15</td>
<td>PDC, 210 Estates Drive, Suite 110, Roseville, CA 95678</td>
<td>PDC SSF-86</td>
<td>1/9/1989</td>
<td>-----</td>
</tr>
<tr>
<td>TRAPA 15</td>
<td>Traffic Parts, Inc., P. O. Box 837, Spring, TX 77383 [<a href="http://www.trafficparts.com/">http://www.trafficparts.com/</a>]</td>
<td>FL-200</td>
<td>5/5/2004</td>
<td>-----</td>
</tr>
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</table>

### 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>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON0 15</td>
<td>Econolite Control Products, 1250 N. Tustin Avenue, Anaheim, CA 92807 [<a href="http://www.econolite.com/">http://www.econolite.com/</a>]</td>
<td>ECO-117P</td>
<td>10/21/2009</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller</td>
<td>ASC/3 Rack Mounted</td>
<td>ECO-117P</td>
<td>10/21/2009</td>
</tr>
<tr>
<td></td>
<td>NEMA TS-1 Signal Controller</td>
<td>ASC/3-2100</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>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEMA TS-1 Signal Controller</td>
<td>X-1</td>
<td>INT-004P</td>
<td>9/24/2013</td>
</tr>
<tr>
<td>NEMA TS-1 Signal Controller</td>
<td>X-1L</td>
<td>INT-003P</td>
<td>9/24/2013</td>
</tr>
<tr>
<td>NEMA TS-1 Signal Controller</td>
<td>X-2</td>
<td>INT-005P</td>
<td>9/24/2013</td>
</tr>
<tr>
<td>NEMA TS-1 Signal Controller</td>
<td>980</td>
<td>TFW-003P (NAZ-011P)</td>
<td>4/13/2016</td>
</tr>
<tr>
<td>NEMA TS-1 Signal Controller</td>
<td>3000 E Series</td>
<td>PTS-022P</td>
<td>3/21/1994</td>
</tr>
<tr>
<td>NEMA TS-1 Signal Controller</td>
<td>LMD-9200 Series</td>
<td>PTS-040P</td>
<td>5/15/1995</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>SMS-211S</td>
<td>1/9/1989</td>
</tr>
<tr>
<td>NEMA TS-1 Signal Controller</td>
<td>Eagle EPA C300 Series</td>
<td>SMS-211S</td>
<td>1/9/1989</td>
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<tr>
<td>NEMA TS-1 Signal Controller</td>
<td>Eagle EPAC 3108 M40</td>
<td>SMS-001P</td>
<td>9/27/2004</td>
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<td>NEMA TS-1 Signal Controller</td>
<td>Eagle EPAC 3608 M40</td>
<td>SMS-002P</td>
<td>9/27/2004</td>
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<td>NEMA TS-1 Signal Controller</td>
<td>Eagle EPAC M50</td>
<td>SMS-205P</td>
<td>1/3/2003</td>
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<tr>
<td>NEMA TS-1 Signal Controller</td>
<td>Eagle MARC 360</td>
<td>SMS-210P</td>
<td>8/1/1985</td>
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<tr>
<td>NEMA TS-1 Signal Controller</td>
<td>Eagle MARC 390 M34</td>
<td>SMS-208P</td>
<td>6/4/2003</td>
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<td>NEMA TS-1 Signal Controller</td>
<td>820A</td>
<td>UST-137S</td>
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### 1104.03(b)1 Traffic Signal Controller Assembly: NEMA TS-2

Last Revised: 9/4/2018
### 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>
</tr>
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<tbody>
<tr>
<td>ECON0 15</td>
<td>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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<td></td>
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<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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<td>NEMA TS-2 Signal Controller ASC/3-1000</td>
<td>Type 1</td>
<td>ECO-115P</td>
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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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<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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<td>NEMA TS-2 Signal Controller Cobalt C</td>
<td>Types 1 and 2</td>
<td>ECO-128P</td>
<td>10/3/2017</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>
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<td>NEMA TS-2 Signal Controller 2070LC</td>
<td>Types 1 and 2</td>
<td>INT-012P</td>
<td>7/7/2017</td>
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<td>NEMA TS-2 Signal Controller ATC TS2</td>
<td>Types 1 and 2</td>
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<td>11/1/2011</td>
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<td>Types 1 and 2</td>
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<td>NEMA TS-2 Signal Controller X-1</td>
<td>Types 1 and 2</td>
<td>INT-004P</td>
<td>9/24/2013</td>
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<td>NEMA TS-2 Signal Controller X-1L</td>
<td>Types 1 and 2</td>
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<td>Types 1 and 2</td>
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<td>9/24/2013</td>
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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>
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<td>NEMA TS-2 Signal Controller X3L</td>
<td>Types 1 and 2</td>
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<td>7/7/2017</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>
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<td>Types 1 and 2</td>
<td>TFW-011P</td>
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<td>Types 1 and 2</td>
<td>TFW-004P (NAZ-01)</td>
<td>4/13/2016</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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## Section 1104: Traffic Signals

### 1104.03(b)1 Traffic Signal Controller Assembly: NEMA TS-2

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<tr>
<td></td>
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<td>NEMA TS-2 Signal Controller ATC-1000</td>
<td>Type 2</td>
<td>PTS-042P</td>
<td>7/11/2011</td>
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<tr>
<td></td>
<td></td>
<td>NEMA TS-2 Signal Controller LMD-9200 Series</td>
<td>Type 2</td>
<td>PTS-040P</td>
<td>5/15/1995</td>
</tr>
<tr>
<td>SIEME</td>
<td>Siemens ITS, 8004 Cameron Road, Austin, TX 78754-3899</td>
<td>NEMA TS-2 Signal Controller Eagle EPA C300 Series</td>
<td>Types 1 and 2</td>
<td>SMS-211S</td>
<td>1/9/1989</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NEMA TS-2 Signal Controller Eagle EPAC 3108 M42</td>
<td>Type 2</td>
<td>SMS-003P</td>
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### 1104.03(b)2 Traffic Signal Controller Assembly: Type 170E

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<td>DYNTS</td>
<td>Dynamic Traffic Systems, Inc., 5050 Cohasset Road, Bldg. #4, Chico, CA 95973</td>
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<td>MCCAN</td>
<td>McCain Inc., 2365 Oak Ridge Way, Vista, CA 92081</td>
<td>Type 170E Signal Controller 170E</td>
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<td>SAFET</td>
<td>Safetran Traffic Systems, 1485 Garden Of The God's Road, Colorado Springs, CO 80904</td>
<td>Type 170E Signal Controller 170E</td>
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### 1104.03(c)5 Traffic Signal Time Clock

Last Revised: 7/2/2019
# Bulletin 15 (Publication 35)
## Qualified Products List for Construction

### Section 1104: Traffic Signals

#### 1104.03(c)5 Traffic Signal Time Clock

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(Merger with Naztec, Inc.) | Time Signal Time Clock | CHRONOMAX 100 | TFW-001P (NAZ-008P) | 2/27/1997 | ----- |

#### 1104.04 Traffic Signal Systems and Communications

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<td>TORK- 15</td>
<td>Tork, Inc., 1 Grove Street, Mount Vernon, NY 10550</td>
<td>Time Signal Time Clock</td>
<td>DTS100B</td>
<td>TKI-003S</td>
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<td>TORK- 15</td>
<td>Tork, Inc., 1 Grove Street, Mount Vernon, NY 10550</td>
<td>Time Signal Time Clock</td>
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[Last Revised: 7/2/2019]

[Last Revised: 10/15/2015]
## Section 1104: Traffic Signals

### 1104.04 Traffic Signal Systems and Communications

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<td>ECON0 15</td>
<td>Econolite Control Products, 1250 N. Tustin Avenue, Anaheim, CA 92807 <a href="http://www.econolite.com/">http://www.econolite.com/</a></td>
<td>NEMA Master Controller Assembly ASC/2-M</td>
<td>ECO-103S</td>
<td>10/31/1997</td>
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<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>NEMA Master Controller Assembly Eagle MARC 360</td>
<td>SMS-210P</td>
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<td>NEMA Master Controller Assembly EPAC M51</td>
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### 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.

<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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<td><strong>NEWBA 15</strong></td>
<td>Newbasis, 2626 Kansas Avenue, Riverside, CA 92507 <a href="http://www.newbasis.com/">http://www.newbasis.com/</a></td>
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<td><strong>OLES1 15</strong></td>
<td>Oldcastle Enclosure Solutions, 801 South Pine Street, Madera, CA 96367 <a href="http://www.oldcastleprecast.com/Pages/default.aspx">http://www.oldcastleprecast.com/Pages/default.aspx</a></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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#### 1104.06(a) Vehicular Signal Head Housings

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1104.06(a) Vehicular Signal Head Housings

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1104.06(b) LED Circular Vehicle Traffic Signal Modules

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<td>12-inch Green, LED Module</td>
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<td>12-inch Green, LED Module</td>
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<td>12-inch Green, LED Module</td>
<td>433-2270-001XL</td>
<td>Direct Current (DC)</td>
<td>DIA-078P</td>
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<td>12-inch Green, LED Module</td>
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<td>DIA-066P</td>
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<td>433-3230-001XL</td>
<td>Direct Current (DC)</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 Circular Vehicle Traffic Signal Modules

Last Revised: 8/4/2017

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### Section 1104: Traffic Signals

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<td>Direct Current (DC)</td>
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#### 1104.06(b) LED Vehicle Arrow Traffic Signal Modules

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Last Revised: 8/4/2017

Last Revised: 8/11/2017
## Section 1104: Traffic Signals

### 1104.06(b) LED Vehicle Arrow Traffic Signal Modules

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<tr>
<td>12-inch Green Arrow, LED Module</td>
<td>432-2324-001XOD</td>
<td>DIA-052P</td>
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<td>12-inch Yellow Arrow, LED Module</td>
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<td>12-inch Yellow Arrow, LED Module</td>
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<td>12-inch Yellow Arrow, LED Module</td>
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Section 1104: Traffic Signals

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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Section 1104: Traffic Signals

1104.06(b) LED Vehicle Arrow Traffic Signal Modules

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<td>Duralight JXJ300-07G03</td>
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1104.06(c) LED Optically Programmed Signal Heads

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1104.06(d) Pedestrian Signal Housings

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### Section 1104: Traffic Signals

#### 1104.06(d) Pedestrian Signal Housings

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<td>CHMAI 15</td>
<td>C H Manufacturing Inc., 200 Elder Road, Conroe, TX 77385</td>
<td>Pedestrian Signal Housing</td>
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## Section 1104: Traffic Signals

### 1104.06(d) Pedestrian Signal Housings

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<td>Facility</td>
<td>Chapel Hill Manufacturing 27895 Robinson Road Conroe, TX 77385</td>
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### 1104.06(e) LED Pedestrian Signal Modules

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## Section 1104: Traffic Signals

### 1104.06(e) LED Pedestrian Signal Modules

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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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<td>LEO-060P</td>
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<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>
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### 1104.06(f) LED Countdown Pedestrian Signal Modules

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<td>Countdown Pedestrian Signal, LED Module, Dual Unit</td>
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### Section 1104: Traffic Signals

#### 1104.06(f) LED Countdown Pedestrian Signal Modules

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<tr>
<td>GELUM 15</td>
<td><strong>GE Lighting Solutions, 2713 N.E. 14th Street, Fort Lauderdale, FL 33304</strong> <a href="http://www.gelighting.com/">http://www.gelighting.com/</a></td>
<td>PS7-CFF1-26A</td>
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<td>Duralight JXM-200VIE</td>
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#### 1104.06(g) LED Lane Use Traffic Control Signal Heads

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## Section 1104: Traffic Signals

### 1104.06(g) LED Lane Use Traffic Control Signal Heads

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<td>Lane Use Signal Head, LED Module</td>
<td>MP, Green Arrow Indicator</td>
<td>PTS-033P</td>
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<td>PEKTS 15</td>
<td>Lane Use Signal Head, LED Module</td>
<td>MP, Red X Indicator</td>
<td>PTS-031S</td>
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<td>MP, Yellow X Indicator</td>
<td>PTS-032S</td>
<td>3/20/2007</td>
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<td>Lane Use Signal Head, LED Module</td>
<td>JXM-LC1818, Green Arrow / Yellow X / Red X Indicator</td>
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### 1104.07(a)1 Loop Detector Sealants

Last Revised: 6/8/2015

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<td>Loop Detector Sealant</td>
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<td>BASBS 15</td>
<td>Loop Detector Sealant</td>
<td>Gold Label Loop Sealant</td>
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<td>CHEMQ 15</td>
<td>Loop Detector Sealant</td>
<td>Q-Seal 296-06</td>
<td>1996-237</td>
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<td>DURPT 15</td>
<td>Loop Detector Sealant</td>
<td>Stat-A-Flex</td>
<td>1995-275</td>
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<td>DYNAT 15</td>
<td>Loop Detector Sealant</td>
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<td>MAGNL 15</td>
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<td>1977-055</td>
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<td>RAIPR 15</td>
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<td>RUSCE 15</td>
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Section 1104: Traffic Signals

1104.07(b)1 Vehicular Detection: Loop Amplifier Systems

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### 1104.07(b)1 Vehicular Detection: Loop Amplifier Systems

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## 1104.07(b)1 Vehicular Detection: Loop Amplifier Systems

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## 1104.07(b)2 Vehicular Detection: Video Detection Systems

Last Revised: 4/17/2019

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#### 1104.07(b)2 Vehicular Detection: Video Detection Systems

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<td>LEDTI 15</td>
<td>LeddarTech, Inc., 2740 Einstein Street, Quebec City, Canada G1P 4S4</td>
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<td>Peek Traffic Corporation, 2906 Corporate Way, Palmetto, FL 34221</td>
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<td>VideoTrak IQ</td>
<td>PTS-043P</td>
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<td>Rhythm Engineering, LLC, 12351 W. 96th Terrace, Suite 107, Lenexa, KS 66215</td>
<td>Video Detection System</td>
<td>InSync</td>
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<td>Traficon USA LLC, 10161 Park Run Drive Suite 150, Las Vegas, NV 89145</td>
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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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<th>COA Date</th>
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<tr>
<td></td>
<td></td>
<td>Microwave Radar Detection System VantageRadius</td>
<td>ITE-005P</td>
<td>10/4/2018</td>
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<td></td>
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<td>Microwave Radar Detection System TC-30</td>
<td>MSD-005P</td>
<td>11/13/1989</td>
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<td></td>
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<td>Microwave Radar Detection System TC-CK1-SBE/TCIB-4</td>
<td>MSD-006P</td>
<td>6/7/2011</td>
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<tr>
<td>SMART 15</td>
<td>Smart Microwave Sensors, 3921 Coachman Circle, Mississauga ON, L5M 6R1 Canada</td>
<td>Microwave Radar Detection System UMRR-OA</td>
<td>SMI-001P</td>
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<td>Microwave Radar Detection System Smart Sensor Matrix Radar Detection System</td>
<td>WAV-002S</td>
<td>6/13/2012</td>
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</table>
# Section 1104: Traffic Signals

## 1104.07(b)3 Vehicular Detection: Microwave Radar Detection Systems

<table>
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<tr>
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## 1104.07(b)6 Vehicular Detection: Magnetic Detection Systems

<table>
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## 1104.07(c)1 Pedestrian Detection: Pedestrian Pushbuttons

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
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<th>Ref. No.</th>
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</thead>
</table>
| Pedestrian Pushbutton System 4EVR 700 Rnd | DCC-003P | 9/10/2003 | -----
| Pedestrian Pushbutton System 4EVR 800 Rec | DCC-004P | 9/10/2003 | -----
| Pedestrian Pushbutton System DCC 200 Series | 1562-P001 | 8/31/2001 | -----
| Pedestrian Pushbutton System DCC Enlightened PPB | DCC-007P | 11/18/2008 | ----- |
Section 1104: Traffic Signals

### 1104.07(c)1 Pedestrian Detection: Pedestrian Pushbuttons

<table>
<thead>
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<tr>
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<td>Pedestrian Pushbutton System</td>
<td>SE-2005-08</td>
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<td>Pedestrian Pushbutton System</td>
<td>SE-2119-P29</td>
<td>11/28/2011</td>
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<td>Pedestrian Pushbutton System</td>
<td>SE-2120-P29</td>
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<td>Pedestrian Pushbutton System</td>
<td>SE-2154-P29</td>
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<td>Pedestrian Pushbutton System</td>
<td>BDL3-X</td>
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### 1104.07(c)2 Pedestrian Detection: Accessible Pedestrian Signals (APS)

<table>
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<td>Accessible Pedestrian Signal System</td>
<td>A 915</td>
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<td>Accessible Pedestrian Signal System</td>
<td>AAPS</td>
<td>DCC-012P</td>
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<td>Accessible Pedestrian Signal System</td>
<td>Advisor APS A912</td>
<td>DCC-006P</td>
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<td>Accessible Pedestrian Signal System</td>
<td>AGPS</td>
<td>DCC-013P</td>
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<td>Accessible Pedestrian Signal System</td>
<td>APB 915</td>
<td>DCC-009P</td>
<td>5/20/2011</td>
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<td></td>
<td>Accessible Pedestrian Signal System</td>
<td>Guardian APS</td>
<td>DCC-015P</td>
<td>4/25/2019</td>
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<td></td>
<td>Accessible Pedestrian Signal System</td>
<td>WIAAPS</td>
<td>DCC-014P</td>
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<td>Accessible Pedestrian Signal System</td>
<td>DS3000</td>
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<td>Accessible Pedestrian Signal System</td>
<td>Intellicross</td>
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Section 1104: Traffic Signals

### 1104.07(c)2 Pedestrian Detection: Accessible Pedestrian Signals (APS)

<table>
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<tr>
<th>Product</th>
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<tr>
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<td>Accessible Pedestrian Signal System</td>
<td>iNavigator 2-Wire APS POL-015P</td>
<td>3/16/2018</td>
<td>2017-156Q</td>
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<td>Accessible Pedestrian Signal System</td>
<td>iNavigator 3-Wire APS POL-016P</td>
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### 1104.07(d) LED Preemption Confirmation Lights

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<th>Ref. No.</th>
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<tbody>
<tr>
<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>
<td>TP08B-WS LEO-114P</td>
<td>3/4/2016</td>
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### 1104.07(d) Traffic Signal Preemption Systems

<table>
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<tr>
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<td>Optical Preemption System</td>
<td>ST-9340 4-Channel Optical Priority Detector ESI-001P</td>
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<td></td>
<td>Optical Preemption System</td>
<td>ST-9730 Optical Sensor ESI-001P</td>
<td>4/25/2019</td>
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<td></td>
<td>Optical Preemption System</td>
<td>ST-9731 Optical Sensor ESI-001P</td>
<td>4/25/2019</td>
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<td></td>
<td>Optical Preemption System</td>
<td>ST-9732 Optical Sensor ESI-001P</td>
<td>4/25/2019</td>
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</table>
## Section 1104: Traffic Signals

### 1104.07(d) Traffic Signal Preemption Systems

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<td>Optical Preemption System</td>
<td>MMM-029P</td>
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<td>Optical Preemption System</td>
<td>MMM-028P</td>
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<td>Optical Preemption System</td>
<td>GTT-004P</td>
<td>11/11/2012</td>
</tr>
<tr>
<td></td>
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<td>Optical Preemption System</td>
<td>GTT-005P</td>
<td>11/11/2012</td>
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<td>MMM-030P</td>
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<td></td>
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<td>Optical Preemption System</td>
<td>GTT-002P</td>
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<tr>
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<td>GTT-003P</td>
<td>2/20/2012</td>
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<td>Optical Preemption System</td>
<td>OPTICOM</td>
<td>MMM-006S</td>
</tr>
<tr>
<td>TOMEI 15</td>
<td>Tomar Electronics, Inc., 2100 West Obispo Ave., Gilbert, AZ 85233</td>
<td>Strobecom I</td>
<td>TEL-002S</td>
<td>4/2/1998</td>
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<td></td>
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<td>Strobecom II</td>
<td>TEL-003P</td>
<td>4/27/1998</td>
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<tr>
<td>TRASY 15</td>
<td>Traffic Systems LLC, 15207 North 75th Street, Scottsdale, AZ 85259-2638</td>
<td>SONEM 2000</td>
<td>TSL-001S</td>
<td>6/1/2001</td>
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<tr>
<td>WAPEN 15</td>
<td>Wapiti Engineering, LLC, 4565 Glenbrook Road, 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</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTBN 15</td>
<td>Auto Bolt Company, 4740 Manufacturing Avenue, Cleveland, OH 44135 <a href="http://autobolt.net">http://autobolt.net</a></td>
<td>2005-099Q</td>
</tr>
<tr>
<td>BIRFM 15</td>
<td>Birmingham Fastener Manufacturing, 931 Avenue W, P.O. Box 10323, Birmingham, AL 35234</td>
<td>2003-146Q</td>
</tr>
</tbody>
</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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Bolt (ASTM A307, Grade A)</td>
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<tr>
<td></td>
<td>Bolt (ASTM A307, Grade A)</td>
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</tr>
<tr>
<td>NUCR0 15</td>
<td>Nucor Fastner, 6730 County Rd. 60, St. Joe, IN 46785 <a href="http://nucor-fastener.com/">http://nucor-fastener.com/</a></td>
<td>1990-197A</td>
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<tr>
<td></td>
<td>Bolt (ASTM A307, Grade A)</td>
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<tr>
<td></td>
<td>Nut (ASTM A563)</td>
<td>1990-197B</td>
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<tr>
<td></td>
<td>Bolt (ASTM A307, Grade A)</td>
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<td></td>
<td>Washer (ANSI B18.22M)</td>
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<td>ROCBC 15</td>
<td>Rockford Bolt and Steel Company, 126 Mill Street, Rockford, IL 61101</td>
<td>2003-056Q</td>
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<td>Bolt (ASTM A307, Grade A)</td>
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<td>Bolt (ASTM A307, Grade A)</td>
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<td>Bolt (ASTM A307, Grade A)</td>
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<tr>
<td>TELFI 15</td>
<td>Telefast Industries, Inc., 777 West Bagley Road, Berea, OH 44017</td>
<td>2004-107Q</td>
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<td></td>
<td>Nut (ASTM A563)</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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>BIRFM 15</td>
<td>Birmingham Fastener Manufacturing, 931 Avenue W, P.O. Box 10323, Birmingham, AL 35234</td>
<td>2006-040Q</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>
<td>1987-299</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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<td>Washer (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

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<th>Product</th>
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<tbody>
<tr>
<td></td>
<td>Anchor Bolt (ASTM F1554, Grade 105)</td>
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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></td>
<td>Anchor Bolt (ASTM F1554, Grade 105)</td>
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<td>Anchor Bolt (ASTM F1554, Grade 36)</td>
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<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 36)</td>
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<td>Anchor Bolt (ASTM F1554, Grade 55)</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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
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<td>Anchor Bolt (ASTM F1554, Grade 55)</td>
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<td>A weldable grade 55 anchor bolt may not be supplied as a substitute when Grade 36 is specified.</td>
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<td>Anchor Bolt (ASTM F1554, Grade 36)</td>
<td>2015-146Q</td>
</tr>
<tr>
<td></td>
<td>Anchor Bolt (ASTM F1554, Grade 105)</td>
<td>2015-146Q</td>
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| BIRFM 15 Birmingham Fastener Manufacturing, 931 Avenue W, P.O. Box 10323, Birmingham, AL 35234 | Anchor Bolt (ASTM F1554, Grade 105) | 2014-004Q |
| Anchor Bolt (ASTM F1554, Grade 36) | 2006-039Q |
| Anchor Bolt (ASTM F1554, Grade 55) | 2006-038Q |

| CFAST 15 CFAST, LLC, 801 43rd Street North, Birmingham, AL 35212 | Anchor Bolt (ASTM F1554, Grade 105) | 2005-123Q |
| Anchor Bolt (ASTM F1554, Grade 36) | 2005-122Q |


| Nut (ASTM A563) | 2000-210Q |

| EASCT 15 East Coast Threading Company, 1520 Manatawny Road, P.O. Box 347, Pine Forge, PA 19548 [http://eastcoastthreading.com/](http://eastcoastthreading.com/) | Anchor Bolt (ASTM F1554, Grade 105) | 2008-089QC |
| Anchor Bolt (ASTM F1554, Grade 36) | 2008-089QA |
| Anchor Bolt (ASTM F1554, Grade 55) | 2008-089QB |
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>Nut (ASTM A563) 2011-020QA</td>
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<td>Anchor Bolt (ASTM F1554, Grade 105) 2003-109Q</td>
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<td>Haydon 15</td>
<td>Anchor Bolt (ASTM F1554, Grade 105) 2003-117Q</td>
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<td>Anchor Bolt (ASTM F1554, Grade 36) 2003-117Q</td>
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<td>Hercules 15</td>
<td>Anchor Bolt (ASTM F1554, Grade 105) 2003-114Q</td>
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<td>Anchor Bolt (ASTM F1554, Grade 36) 2003-112Q</td>
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<td>Anchor Bolt (ASTM F1554, Grade 55) 2003-113Q</td>
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<td>JHBTS 15</td>
<td>Anchor Bolt (ASTM F1554, Grade 105) 2001-001Q</td>
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<td>Anchor Bolt (ASTM F1554, Grade 36) 2001-001Q</td>
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<tr>
<td>JHBTS 15</td>
<td>Anchor Bolt (ASTM F1554, Grade 55) 2001-001Q</td>
</tr>
<tr>
<td>Portland 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>
</tr>
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<td>Anchor Bolt (ASTM F1554, Grade 105) 2008-049QF</td>
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<td>Portland 15</td>
<td>Anchor Bolt (ASTM F1554, Grade 36) 2008-049QD</td>
</tr>
<tr>
<td>Portland 15</td>
<td>Anchor Bolt (ASTM F1554, Grade 55) 2008-049QE</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

<table>
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<th>Product</th>
<th>Name</th>
<th>Ref. No.</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>
<td>2003-129Q</td>
</tr>
<tr>
<td>TFI-1 15</td>
<td>Threaded Fasteners, Inc., 3200 Crichton Street, Mobile, AL 36607</td>
<td>2017-001Q</td>
</tr>
<tr>
<td>Facility</td>
<td>2650-B North Schillingers Road Semmes, AL 36575</td>
<td>2017-001Q</td>
</tr>
</tbody>
</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](#).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<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>2003-150Q</td>
</tr>
<tr>
<td></td>
<td>Anchor Bolt (ASTM F1554, Grade 105)</td>
<td>2003-150Q</td>
</tr>
<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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</table>

**1105.02(d) High Strength Bolt Assemblies**

See [Hardware Manufacturing Symbols](#).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td></td>
<td>Washer (ASTM F436)</td>
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</tr>
<tr>
<td></td>
<td>Nut, Galvanized (ASTM A563)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nut, Non-Galvanized (plain), (ASTM A194)</td>
<td></td>
</tr>
<tr>
<td>BBC-F 15</td>
<td>BBC Fastners, Inc., 4210 Shirley Lane, Alsip, IL 60803 <a href="http://www.bbcfasteners.com/">http://www.bbcfasteners.com</a></td>
<td>1996-171</td>
</tr>
<tr>
<td></td>
<td>High Strength Bolt (ASTM A490, Type 3)</td>
<td></td>
</tr>
<tr>
<td>BIRFM 15</td>
<td>Birmingham Fastener Manufacturing, 931 Avenue W, P.O. Box 10323, Birmingham, AL 35234</td>
<td>2011-114Q</td>
</tr>
<tr>
<td></td>
<td>High Strength Bolt (ASTM A325)</td>
<td></td>
</tr>
<tr>
<td>CHIFM 15</td>
<td>Chicago Fasteners Manufacturing, 10902 Walnut Lane, Mokena, IL 60448 <a href="http://www.chicagofastener.com/">http://www.chicagofastener.com</a></td>
<td>1997-193</td>
</tr>
<tr>
<td></td>
<td>High Strength Bolt (ASTM A325)</td>
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</table>
# Section 1105: Fabricated Structural Steel and Aluminum

## 1105.02(d) High Strength Bolt Assemblies

See [Hardware Manufacturing Symbols](#).

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<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td></td>
<td>High Strength Bolt (ASTM A325)</td>
<td>2000-209Q</td>
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<td></td>
<td>High Strength Bolt (ASTM A325)</td>
<td>2007-146QB</td>
</tr>
<tr>
<td></td>
<td>Nut, Non-Galvanized (plain), (ASTM A194)</td>
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<tr>
<td></td>
<td>High Strength Bolt (ASTM A325)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Washer (ASTM F436)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Strength Bolt (ASTM A325)</td>
<td></td>
</tr>
<tr>
<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>
<td>1991-022A</td>
</tr>
<tr>
<td></td>
<td>High Strength Bolt (ASTM A325)</td>
<td></td>
</tr>
<tr>
<td>NUCR0 15</td>
<td>Nucor Fastner, 6730 County Rd. 60, St. Joe, IN 46785 <a href="http://nucor-fastener.com/">http://nucor-fastener.com/</a></td>
<td>1989-021</td>
</tr>
<tr>
<td></td>
<td>High Strength Bolt (ASTM A325)</td>
<td>1990-198</td>
</tr>
<tr>
<td></td>
<td>Nut, Galvanized (ASTM A563)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Washer (ASTM F436)</td>
<td></td>
</tr>
</tbody>
</table>
# BULLETIN 15 (Publication 35)

## Qualified Products List for Construction

**Section 1105: Fabricated Structural Steel and Aluminum**

### 1105.02(d) High Strength Bolt Assemblies

See [Hardware Manufacturing Symbols](#).

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ROCBC 15</strong></td>
<td>Rockford Bolt and Steel Company, 126 Mill Street, Rockford, IL 61101</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High Strength Bolt (ASTM A325)</td>
<td>2003-054Q</td>
</tr>
<tr>
<td></td>
<td>High Strength Bolt (ASTM A490, Types 1 &amp; 3)</td>
<td>2003-055Q</td>
</tr>
</tbody>
</table>

| **STCBS 15** | Steel City Bolt and Screw, LLC, 230 West Valley Road, Birmingham, AL 35201 [http://www.steelcitybolt.com/](http://www.steelcitybolt.com/) |  |
| | Heavy Hex Structural Bolt (ASTM A325, Type 1) | 2016-070Q |

| **STLSB 15** | St. Louis Screw & Bolt, P.O. Box 260, 2000 Access Blvd., Madison, IL 62060 [http://www.stlouisscrewbolt.com/](http://www.stlouisscrewbolt.com/) |  |
| | Heavy Hex Structural Bolt (ASTM A490, Types 1 & 3) | 2015-112Q |
| | Heavy Hex Structural Bolt (ASTM A490, Types 1 & 3) | 2015-112Q |
| | High Strength Bolt (ASTM A325) | 1984-194 |
| | Nut, Galvanized (ASTM A563) | 1984-194 |
| | Washer (ASTM F436) | 1984-194 |

| | Washer (ASTM F436) | 2006-078Q |

| | Direct Tension Indicator Device (DTI) | 2010-256Q |

| **TXBLT 15** | Texas Bolt Company, 3233 West 11th Street, Houston, TX 77008 |  |
| | High Strength Bolt (ASTM A325) | 1989-029 |
| | Nut, Non-Galvanized (plain), (ASTM A194) | 1989-031 |

| **UNITT 15** | Unytite, Inc., 1 Unytite Drive, Peru, IL 61354 [http://www.unytiteusa.com/](http://www.unytiteusa.com/) |  |
| | High Strength Bolt (ASTM A325) | 1991-117 |
| | Nut, Galvanized (ASTM A563) | 1991-117 |

| **WWASH 15** | Wrought Washer Manufacturing, Inc., 2100 South Bay Street, Milwaukee, WI 53207 |  |
| | Washer (ASTM F436) | 1993-279 |
Section 1105: Fabricated Structural Steel and Aluminum

1105.02(e) Welded Stud Shear Connectors

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Welded Stud Shear Connector</td>
<td>1/2</td>
<td>2011-076Q</td>
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<tr>
<td>Welded Stud Shear Connector</td>
<td>3/8</td>
<td>2011-076Q</td>
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<td>Welded Stud Shear Connector</td>
<td>5/8</td>
<td>2011-076Q</td>
<td></td>
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<tr>
<td>Welded Stud Shear Connector</td>
<td>3/4</td>
<td>2011-076Q</td>
<td></td>
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<td>Welded Stud Shear Connector</td>
<td>7/8</td>
<td>2011-076Q</td>
<td></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>
<td></td>
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<tr>
<td>Welded Stud Shear Connector</td>
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<td>1991-104</td>
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<tr>
<td>Welded Stud Shear Connector</td>
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<td>1991-104</td>
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<tr>
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<td>Welded Stud Shear Connector</td>
<td>5/8</td>
<td>1994-006</td>
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<tr>
<td>Welded Stud Shear Connector</td>
<td>7/8</td>
<td>1994-006</td>
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<tr>
<td>Formerly TRW Nelson Stud Welding Div. (TRWNS)</td>
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<tr>
<td>Welded Stud Shear Connector</td>
<td>1/2</td>
<td>1992-290C</td>
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<td>Welded Stud Shear Connector</td>
<td>5/8</td>
<td>1992-290D</td>
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<td>Welded Stud Shear Connector</td>
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<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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<td>Welded Stud Shear Connector</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>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>Welded Stud Shear Connector</td>
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<td>1992-221</td>
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<td>3/8</td>
<td>1992-221</td>
<td></td>
</tr>
<tr>
<td>Welded Stud Shear Connector</td>
<td>1/2</td>
<td>1992-221</td>
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<td>Welded Stud Shear Connector</td>
<td>5/8</td>
<td>1992-221</td>
<td></td>
</tr>
<tr>
<td>Welded Stud Shear Connector</td>
<td>3/4</td>
<td>1992-221</td>
<td></td>
</tr>
<tr>
<td>Welded Stud Shear Connector</td>
<td>7/8</td>
<td>1992-221</td>
<td></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 |
| Welded Stud Shear Connector | 3/8 | 1993-224 |
| Welded Stud Shear Connector | 1/2 | 1993-224 |
| Welded Stud Shear Connector | 5/8 | 1993-224 |
| Welded Stud Shear Connector | 3/4 | 1993-224 |
| Welded Stud Shear Connector | 7/8 | 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>
</tr>
</thead>
<tbody>
<tr>
<td>AMEGV 15</td>
<td>American Galvanizing Company, Inc., P.O. Box 408, Folsom, NJ 08037 <a href="http://www.amergalv.com/">http://www.amergalv.com/</a></td>
<td>55 ft. x 6 ft.-6 in. x 8 ft. -6 in.</td>
<td>1987-211</td>
</tr>
</tbody>
</table>
### Section 1105: Fabricated Structural Steel and Aluminum

**1105.02(s) Galvanizers**

<table>
<thead>
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<th>Product</th>
<th>Name</th>
<th>Tank Size (L x W x D)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARTGV 15</td>
<td>Art Galvanizing Works, Inc., 3935 Valley Road, Cleveland, OH 44109 <a href="http://www.artgalvanizing.com/">http://www.artgalvanizing.com/</a></td>
<td>12 ft. x 2 ft.-4 in. x 4 ft.</td>
<td>2002-136Q</td>
</tr>
<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></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></td>
<td>42' x 5'-6&quot; x 7'</td>
<td>2006-033Q</td>
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<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></td>
<td>45' x 6' x 8'</td>
<td>2007-035Q</td>
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<tr>
<td>AZZ-1315</td>
<td>AZZ Galvanizing, Inc., 1461 Kin Ark Court, St. Louis, MO 63132 <a href="http://www.azz.com/">http://www.azz.com/</a></td>
<td>51' x 7'-3&quot; x 10'</td>
<td>2013-060Q</td>
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<tr>
<td>AZZ-1415</td>
<td>AZZ Galvanizing Services, Tulsa, 1800 West 21st Street, Tulsa, OK 74107 <a href="http://www.azz.com/">http://www.azz.com/</a></td>
<td>56' x 5'-3&quot; x 7'</td>
<td>2014-084Q</td>
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<tr>
<td>AZZ-2 15</td>
<td>AZZ Galvanizing Services, Hamilton, 7825 South Homestead Drive, Hamilton, IN 46724 <a href="http://www.azz.com/">http://www.azz.com/</a></td>
<td>35' x 6' x 12'-6&quot;</td>
<td>2003-060Q</td>
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<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></td>
<td>51' x 6'-6&quot; x 9'-3&quot;</td>
<td>2007-069Q</td>
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<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></td>
<td>51' x 8'-6&quot; x 8'-8&quot;</td>
<td>2006-105Q</td>
</tr>
<tr>
<td>AZZ-5 15</td>
<td>AZZ Galvanizing Services, Nashville, 200 32nd Avenue, North, Nashville, TN 37209-3901 <a href="http://www.azz.com/">http://www.azz.com/</a></td>
<td>51' x 6'-6&quot; x 8'-6&quot;</td>
<td>2010-108QA</td>
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</tbody>
</table>
## Section 1105: Fabricated Structural Steel and Aluminum

### 1105.02(s) Galvanizers

<table>
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<th>Product</th>
<th>Name</th>
<th>Tank Size (L x W x D)</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AZZ-6 15</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>
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<tr>
<td>AZZ-7 15</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>
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<tr>
<td>AZZ-9 15</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>
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<tr>
<td>BALGV 15</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>
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<tr>
<td>BBGAL 15</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>
</tr>
<tr>
<td>COLUB 15</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>
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<td>CONGV 15</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 15</td>
<td>Duncan Galvanizing, 69 Norman Street, Everatt, 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 15</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>
<td>-----</td>
</tr>
<tr>
<td>GALVA 15</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>
</tr>
<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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</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>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>
</tr>
<tr>
<td>INDGA 15</td>
<td>Indiana Galvanizing, LLC, 51702 Lovejoy Drive, Middlebury, IN 46540</td>
<td>33' x 5'-4&quot; 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&quot; x 9'</td>
<td>2010-160Q</td>
</tr>
<tr>
<td>KORNS 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&quot; 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&quot; x 6'</td>
<td>2011-218Q</td>
</tr>
<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>
</tr>
<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>
</tr>
<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>24' x 4' x 5'-6&quot;</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 5' x 4'-6&quot;</td>
<td>1991-027</td>
</tr>
<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>22' x 4'-4&quot; x 5'-6&quot;</td>
<td>1984-203</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>42' x 5' x 6'</td>
<td>1984-203</td>
</tr>
<tr>
<td>MPGV3 15</td>
<td>Metalplate Galvanizing, Inc., 500 Selig Drive, Atlanta, GA 30336 <a href="http://www.metalplate.com">http://www.metalplate.com</a></td>
<td>42' x 5' x 6'</td>
<td>1984-203</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>MPGV4</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>MPGV5</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>NEVGV5</td>
<td>Neville Galvanizing, 3005 Grand Avenue, Neville Island, Pittsburgh, PA 15225</td>
<td>21’ x 4’-6” x 3’-2”</td>
<td>-----</td>
</tr>
<tr>
<td>NICGV5</td>
<td>Nicholas Galvanizing Company, 120 Duffield Avenue, Jersey City, NJ 07306</td>
<td>21’ x 3’ x 3’-4”</td>
<td>1989-005</td>
</tr>
<tr>
<td>NJG&amp;TV</td>
<td>New Jersey Galvanizing and Tinning Works, 139 Hayes Avenue, Newark, NJ 07114</td>
<td>40’-6” x 4’-4” x 4’-6”</td>
<td>-----</td>
</tr>
<tr>
<td>OH-GV</td>
<td>Ohio Galvanizing Corporation, 467 West Fairground Street, Marion, OH 43302</td>
<td>30’-6” x 5’ x 7’-6”</td>
<td>1996-254</td>
</tr>
<tr>
<td>PLTCO</td>
<td>Plateco, Inc., 1375 Industrial St., Reedsburg, WI 53959</td>
<td>6’-7” x 2’-4” x 3’-6”</td>
<td>2012-078Q</td>
</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>RGBGV5</td>
<td>Rogers Brothers Inc., 2007 Kishwaukee Street, Rockford, IL 61104</td>
<td>22’ x 4’ x 5’ (2 tanks)</td>
<td>1995-214</td>
</tr>
<tr>
<td>SAGV0</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”</td>
<td>-----</td>
</tr>
<tr>
<td>SAGV1</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>SAGV2</td>
<td>South Atlantic Galvanizing, P.O. Box 876, Highway 280 West, Claxton, GA 30417</td>
<td>28’ x 4’ x 6’-6”</td>
<td>1983-142</td>
</tr>
<tr>
<td>SAGV3</td>
<td>South Atlantic Galvanizing, 4186 South Creek Road East, Chattanooga, TN 37406</td>
<td>45’ x 5’-6” x 9’</td>
<td>-----</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>
</table>
| SAGV 15 | South Atlantic Galvanizing, 11022 Lewistown Road, Ashland, VA 23005 [http://www.southatlanticllc.com/](http://www.southatlanticllc.com/)  
   Formerly Virginia Galvanizing (VAGAL) | Hot Dip - 42' x 6'-6" x 8'-6" | 1997-053 |
| SOUGV 15 | Southern Galvanizing, Inc., 1620 Bush Street, Baltimore, MD 21230 [http://southerngalvanizing.com/](http://southerngalvanizing.com/) | Hot Dip - 35' x 6'-6" x 8' | ----- |
| SWGLV 15 | Southwest Galvanizing, Inc., 737 Aileen Street, P.O. Box 24188, Houston, TX 77229-4188 [http://www.swgalvanizing.com/](http://www.swgalvanizing.com/) | Hot Dip - 42' x 5' x 5'-6" | 1998-210 |
|          |       | Hot Dip - 32'-6" x 4'-2" x 5' | 1998-210 |
|          |       | Hot Dip - 30'-6" x 4" x 5' | 1998-210 |
|          |       | Hot Dip - 14' x 3' x 4'-2" | 1998-210 |
| TENNG 15 | Tennessee Galvanizing, Inc., 1535 Industrial Boulevard, P.O. Box 609, Jasper, TN 37347 [http://tennesseegalvanizing.com/](http://tennesseegalvanizing.com/) | Hot Dip - 42' x 5' x 7' | 2001-083Q |
|          |       | Hot Dip - 18' x 2'-2" x 6'-6" | 2001-083Q |
|          |       | Hot Dip - 14' x 4' x 5' | 2001-083Q |
| TRIN6 15 | Trinity Highway Products, LLC, 2525 Stemmons Freeway, Dallas, TX 75207  
   600 Prosperity Drive Orangeburg, SC 29115 | Hot Dip - 42 ft. x 12 ft. x 8 ft. - 6 in. | 2017-260Q |
| VALM0 15 | Valmont Industries, Inc., P. O. Box 358, Highway #275, Valley, NE 68064 [http://www.valmont.com/](http://www.valmont.com/) | Hot Dip - 58' x 6' x 8'-6" | 1991-142 |
# 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>VALM3 15</td>
<td>Valmont Industries, Inc., 10909 Franklin Ave., Franklin Park, IL 60131</td>
<td>Hot Dip Galvanizer: Hot Dip 52' x 4'-8&quot; x 6'</td>
<td>2000-152Q</td>
</tr>
<tr>
<td>VALM3 15</td>
<td>Valmont Industries, Inc., 10909 Franklin Ave., Franklin Park, IL 60131</td>
<td>Hot Dip Galvanizer: Hot Dip 26' x 5' x 7'</td>
<td>2000-152Q</td>
</tr>
<tr>
<td>VALM6 15</td>
<td>Valmont Salina Galvanizing, 1100 North Ohio Street, Salina, KS 67401</td>
<td>Hot Dip Galvanizer: Hot Dip 55' x 12' x 10'-6&quot;</td>
<td>2013-203Q</td>
</tr>
<tr>
<td>VALM7 15</td>
<td>Valmont Coatings Gateway Galvanizing, 1117 Brown Forman Road, Jeffersonville, IN 47130</td>
<td>Hot Dip 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</td>
<td>Hot Dip Galvanizer: Hot Dip 49' x 5'-8&quot; x 8'-8&quot;</td>
<td>1998-092</td>
</tr>
<tr>
<td>VICTA 15</td>
<td>Victaulic Company Of America, Apex Facility, 119 Edison Road, Stewartsville, NJ 08886</td>
<td>Hot Dip Galvanizer: Hot Dip 21' x 3' x 4'-6&quot;</td>
<td>2000-277Q</td>
</tr>
<tr>
<td>VOISG 15</td>
<td>V&amp;S Detroit Galvanizing, LLC, 12600 Arnold Street, Redford, MI 48239</td>
<td>Hot Dip Galvanizer: Hot Dip 42' x 6' x 8'-6&quot;</td>
<td>2000-311Q</td>
</tr>
<tr>
<td>VSAGV 15</td>
<td>V&amp;S Amboy Galvanizing, LLC, 1190 Amboy Avenue, Perth Amboy, NJ 08861</td>
<td>Hot Dip Galvanizer: Hot Dip 25' x 6' x 10'</td>
<td>2000-278Q</td>
</tr>
<tr>
<td>VSDGV 15</td>
<td>V&amp;S Delaware Galvanizing, LLC, 511 Carroll Drive, New Castle, DE 19720</td>
<td>Hot Dip Galvanizer: Hot Dip 29' x 6' x 10'</td>
<td>2010-239Q</td>
</tr>
<tr>
<td>VSLGV 15</td>
<td>V&amp;S Lebanon Galvanizing, LLC, 153 Micro Drive, Jonestown, PA 17038</td>
<td>Hot Dip Galvanizer: Hot Dip 56' x 7'-2&quot; x 10'-2&quot;</td>
<td>2002-033Q</td>
</tr>
<tr>
<td>VSMGV 15</td>
<td>V&amp;S Memphis Galvanizing, LLC, 3348 Fite Road, Millington, TN 38053</td>
<td>Hot Dip Galvanizer: Hot Dip 48' x 6'-4&quot; x 11'</td>
<td>2017-279Q</td>
</tr>
<tr>
<td>VSTGV 15</td>
<td>V&amp;S Taunton Galvanizing, LLC, 585 John Hancock Road, Taunton, MA 02780</td>
<td>Hot Dip Galvanizer: Hot Dip 29' x 6' x 10'</td>
<td>2007-045Q</td>
</tr>
<tr>
<td>YOUNG 15</td>
<td>Young Galvanizing, Inc., P. O. Box 334, Route 551, Pulaski, PA 16143</td>
<td>Hot Dip Galvanizer: Hot Dip 48' x 5' x 8'-6&quot;</td>
<td>-----</td>
</tr>
<tr>
<td>YOUNG 15</td>
<td>Young Galvanizing, Inc., P. O. Box 334, Route 551, Pulaski, PA 16143</td>
<td>Hot Dip Galvanizer: Hot Dip 24' x 5' x 6&quot;</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></td>
<td>Previous Supplier Codes:  SRST0 15 &amp; ADVPS 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prestressed Straight-Strand Bridge Member Only</td>
<td>2017-162Q</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></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>HICG 15</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></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></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Working Load = 2,150,000 pounds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note: Previously assigned J&amp;RS2 15 for same facility</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></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>8/13/1997</td>
<td>1995-044</td>
</tr>
<tr>
<td></td>
<td>(PCI Code: B3)</td>
<td></td>
<td></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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<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></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 = 232 ft-k.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Working Load = 1,548,000 lbs.</td>
<td></td>
<td></td>
</tr>
<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>2011-077Q</td>
<td>MACIN 15</td>
</tr>
<tr>
<td></td>
<td>Formerly NEW-0 15.</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>Precast Plank Beam - Post Tensioned</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prestressed Deflected and Straight-Strand Bridge</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Member (PCI Code: B4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Precast Bridge Structures</td>
<td></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>2017-198Q</td>
<td>MILL0 15</td>
</tr>
<tr>
<td></td>
<td>Precast Plank Beam - Post Tensioned</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Next Beam Producer (SOL 483-13-07)</td>
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</tr>
<tr>
<td></td>
<td>Allowable Bed Moment = 37,200,000 pound inches.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Working Load = 2,480,000 pounds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prestressed Deflected and Straight-Strand Bridge</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Member (PCI Code: B4)</td>
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<td></td>
</tr>
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<td></td>
<td>Total Precast Bridge Structures</td>
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<td></td>
</tr>
</tbody>
</table>

Note: Applicable Prestressed Concrete Institute (PCI) Plant Certification codes listed after product name. [Approved Bridge and Structure Products](http://www.license.com)
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>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>----</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Prestressed Deflected and Straight-Strand Bridge</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Member (PCI Code: B4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Precast Bridge Structures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1107.02(m) Box Beam Void Forms

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLFNA 15</td>
<td>Cellofoam North America, Inc., 33 Baron Park Road, Falmouth, VA 22405 <a href="http://cellofoam.com/">http://cellofoam.com/</a> Box Beam Void Form</td>
<td>Cellofoam EPS</td>
<td>1999-080Q</td>
</tr>
<tr>
<td>DOW-3 15</td>
<td>The Dow Chemical Company, 200 Lackin Center, 1605 Joseph Drive, Midland, MI 48674 <a href="http://www.dow.com/">http://www.dow.com/</a> Box Beam Void Form</td>
<td>Styrofoam (EPS)</td>
<td>1999-182Q</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> Box Beam Void Form</td>
<td>Ica-Lite (EPS)</td>
<td>1993-032</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> Box Beam Void Form</td>
<td>Insul-Board (EPS)</td>
<td>1988-107</td>
</tr>
<tr>
<td>PACEM 15</td>
<td>Pacemaker Plastics Co., 126 New Pace Rd., Newcomertown, OH 43832 Box Beam Void Form</td>
<td>Chemform Polyvoid (EPS)</td>
<td>1992-149</td>
</tr>
<tr>
<td>POLMD 15</td>
<td>Poly Molding LLC, 96 Fourth Avenue, Haskell, NJ 07420 <a href="http://polymoldingllc.com/">http://polymoldingllc.com/</a> Box Beam Void Form</td>
<td>Poly Foam</td>
<td>1995-311</td>
</tr>
</tbody>
</table>
Section 1107: Prestressed Concrete Bridge Beams

1107.02(m) Box Beam Void Forms

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Product</th>
<th>Name</th>
<th>Last Revised: 7/9/2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHELE 15</td>
<td>Shelter Enterprises, Inc., 8 Saratoga Street, Cohoes, NY 12047</td>
<td>Box Beam Void Form Shelterfoam</td>
<td>2003-068Q</td>
</tr>
<tr>
<td>SPRCC 15</td>
<td>Spring Cove Container, 301 Cove Lane, Roaring Spings, PA 16673</td>
<td>Box Beam Void Form Cardboard</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>Ref. No.</th>
<th>Product</th>
<th>Name</th>
<th>Strength</th>
<th>Last Revised: 5/30/2018</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>7-Wire, Uncoated, Low-Relaxation Strand 0.500&quot;, 0.520&quot;, 0.600&quot;</td>
<td>2016-181Q</td>
<td></td>
</tr>
<tr>
<td>INST2 15</td>
<td>Insteel Wire Products, 638 Rappahannock Wire Road, Gallatin, TN 37066</td>
<td>7-Wire, Uncoated, Low-Relaxation Strand 0.500&quot;, 0.520&quot;, 0.600&quot; LoLax 270K</td>
<td>1994-081</td>
<td></td>
</tr>
<tr>
<td>INST8 15</td>
<td>Insteel Wire Products, 1 Wiremil Road, Sanderson, FL 32087</td>
<td>7-Wire, Uncoated, Low-Relaxation Strand 0.500&quot;, 0.520&quot;, 0.600&quot; LoLax 270K</td>
<td>2012-237Q</td>
<td></td>
</tr>
<tr>
<td>STRTM 15</td>
<td>Liberty Strand Tech Manufacturing, Inc., 258 Deming Way, Summerville, SC 29484</td>
<td>7-Wire, Uncoated, Low-Relaxation Strand 0.500&quot;, 0.520&quot;, 0.600&quot; LoLax 270K</td>
<td>2000-051Q</td>
<td></td>
</tr>
<tr>
<td>SUMWP 15</td>
<td>Sumiden Wire Products Corporation, 710 Marshall Stuart Drive, Dickson, TN 37055</td>
<td>7-Wire, Uncoated, Low-Relaxation Strand 0.500&quot;, 0.520&quot;, 0.600&quot; LoLax 270K</td>
<td>1998-151</td>
<td></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 Ref. No.</th>
<th>Name</th>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMCSC 15</td>
<td>Wire Mesh Corporation, 25219 Kuykendahl Rd Ste 290, The Woodlands, TX 77375</td>
<td>7-Wire, Uncoated, Low-Relaxation Strand</td>
</tr>
<tr>
<td>Facility State Road S-9-205</td>
<td>St. Matthews, SC 29135</td>
<td>0.500&quot;, 0.520&quot;, 0.600&quot; WMC Strand</td>
</tr>
</tbody>
</table>

1107.02(p) Neoprene Joint Material

<table>
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<tr>
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<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>Closed-Cell Neoprene Sponge</td>
<td>F-2062</td>
<td><a href="http://www.armacell.us/index.php?id=6">http://www.armacell.us/index.php?id=6</a></td>
</tr>
</tbody>
</table>

| MONRP 15         | Monmouth Rubber and Plastics, 75 Longbranch Avenue, Long Branch, NJ 07740 | 2005-094Q |
| Closed-Cell Neoprene Sponge | DK 2121 PADOT | http://www.monmouthrubber.com/ |

| RUBAT 15         | Rubatex International, LLC, 906 Adams Street, Bedford, VA 24523-2168 | 2005-116Q |
| Closed-Cell Neoprene Sponge | G-207-N | http://www.rubatexitusa.com/ |
| Closed-Cell Neoprene Sponge | R-470 | |
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](http://www.highwaysafety.net/)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Rail Element</td>
<td>1991-345</td>
</tr>
<tr>
<td></td>
<td>Rubbing Rail</td>
<td>1991-345</td>
</tr>
<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>1994-014</td>
</tr>
<tr>
<td></td>
<td>Rail Element</td>
<td>1994-014</td>
</tr>
<tr>
<td></td>
<td>Rubbing Rail</td>
<td>1994-014</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>-----</td>
</tr>
<tr>
<td></td>
<td>Rail Element</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Rubbing Rail</td>
<td>-----</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>2012-194Q</td>
</tr>
<tr>
<td></td>
<td>Rubbing Rail</td>
<td>2012-194Q</td>
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<tr>
<td></td>
<td>Rail Element</td>
<td>1996-230</td>
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<tr>
<td></td>
<td>Rail Element</td>
<td>RG-400</td>
</tr>
<tr>
<td></td>
<td>Rubbing Rail</td>
<td>1999-077Q</td>
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</table>
**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)

Last Revised: 12/4/2018

Important Notice: [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](http://www.highwayguardrail.com/)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRIN2 15</td>
<td>Trinity Highway Products, LLC, 550 East Robb Ave., Lima, OH 45801</td>
<td></td>
</tr>
<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&quot; p/6' 3&quot; Guide Rail), 11G (12' 6&quot; p/3' 1 1/2&quot; Guide Rail)</td>
<td>2010-132QA</td>
</tr>
<tr>
<td></td>
<td>* Approved MM-USA marking as Identifiable Steel</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</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>600 Prosperity Drive Orangeburg, SC 29115</td>
<td></td>
</tr>
<tr>
<td>Rail Element</td>
<td>11G (12' 6&quot; p/3' x 1 1/2&quot; Guide Rail)</td>
<td>2018-104Q</td>
</tr>
<tr>
<td>V&amp;SSE 15</td>
<td>V &amp; S Schuler Engineering, 2240 Allen Ave. S.E., Canton, OH 44707</td>
<td></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.vsschuler.com/">http://www.vsschuler.com/</a></td>
<td></td>
</tr>
<tr>
<td>Rubbing Rail</td>
<td></td>
<td>1994-046</td>
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</table>

**1109.02 Guide Rail: Terminal Sections**

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary).

Last Revised: 3/9/2018

Important Notice: [AASHTO/FHWA Joint Implementation Agreement for MASH 2016](http://www.highwayguardrail.com/)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</tr>
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<tbody>
<tr>
<td>Di-HS 15</td>
<td>Di Highway Sign &amp; Structure Corporation, P. O. Box 123, New York Mills, NY 13417-0123</td>
<td>1991-345</td>
</tr>
</tbody>
</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).

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</tr>
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<tbody>
<tr>
<td></td>
<td>Alternate Terminal Section W Beam End Section (Buffer)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alternate Terminal Section W Beam End Section (Rounded)</td>
<td>1994-281B</td>
</tr>
<tr>
<td></td>
<td>Flared Terminal Section W Beam End Section (Flared)</td>
<td>1994-281A</td>
</tr>
<tr>
<td></td>
<td>Guide Rail Terminal Section</td>
<td>1994-281C</td>
</tr>
<tr>
<td></td>
<td>Terminal Section Bridge Connection W Beam Terminal Connector</td>
<td></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>-----</td>
</tr>
<tr>
<td></td>
<td>Alternate Terminal Section RG-475 Terminal Half Wrap</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alternate Terminal Section 907G Circular Terminal (RC-51M)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alternate Terminal Section 974G Guide Rail to Bridge Barrier Transition Section (RC-50M)</td>
<td>2010-132QA</td>
</tr>
<tr>
<td></td>
<td>Flared Terminal Section 901G Flared Terminal (RC-53M, Sheet 2, Detail F)</td>
<td>2010-132QA</td>
</tr>
<tr>
<td></td>
<td>Guide Rail Terminal Section</td>
<td>2010-132QA</td>
</tr>
<tr>
<td></td>
<td>Terminal Section Bridge Connection 926G Terminal Section Bridge Connection - Straight (RC-51M, Sheet 2)</td>
<td>2010-132QA</td>
</tr>
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<td>Terminal Section Bridge Connection 928G Terminal Section Bridge Connection (RC-51M, Sheet 2, Detail A)</td>
<td>2010-132QA</td>
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</table>

1109.03 Guide Rail: Posts

Last Revised: 9/20/2018
# 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://www.americantimberandsteel.com/)

Or [Standard Drawing of Type 2 Weak Post Guide Rail RC-53M (Publication 72M)](http://www.americantimberandsteel.com/)

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

<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>1995-252</td>
</tr>
<tr>
<td></td>
<td>Breakaway Terminal Foundation Wood Post</td>
<td>1995-252</td>
</tr>
<tr>
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<td>Breakaway Terminal Wood Post</td>
<td>1995-252</td>
</tr>
<tr>
<td></td>
<td>Timber Guide Rail Post</td>
<td>1995-252</td>
</tr>
<tr>
<td></td>
<td>Welded Steel Post</td>
<td>2008-114Q</td>
</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>
</tr>
<tr>
<td>Facility</td>
<td>105 North Owen Street Sutton, NE 68979</td>
<td>2014-241QD</td>
</tr>
<tr>
<td></td>
<td>Long Breakaway Timber Post</td>
<td>2014-241QD</td>
</tr>
<tr>
<td></td>
<td>Short Breakaway Timber Post</td>
<td>2014-241QD</td>
</tr>
<tr>
<td></td>
<td>Timber Guide Rail Post</td>
<td>2014-241QD</td>
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<tr>
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<td>Steel I-Beam Post</td>
<td>1991-344</td>
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<tr>
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<td>Steel I-Beam Post</td>
<td>1987-158</td>
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<tr>
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<td>Welded Steel Post</td>
<td>2006-020Q</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

<table>
<thead>
<tr>
<th>Product</th>
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<tbody>
<tr>
<td>GRE-2 15</td>
<td>Great Southern Wood Preserving, P. O. Box 610, Abberville, AL 36310</td>
<td>2011-163QABC</td>
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<tr>
<td>Plant Rocky Mount, VA</td>
<td>Breakaway Terminal Foundation Wood Post</td>
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<td>Breakaway Terminal Wood Post</td>
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<tr>
<td></td>
<td>Timber Guide Rail Post</td>
<td></td>
</tr>
<tr>
<td>GREGV 15</td>
<td>Gregory Industries, Inc., 4100 13th Street SW, P.O. Box 80508, Canton, OH 44708</td>
<td>1995-321</td>
</tr>
<tr>
<td></td>
<td>Steel I-Beam Post</td>
<td></td>
</tr>
<tr>
<td>HIGSC 15</td>
<td>Highway Safety Corporation, 239 Commerce Street, P. O. Box 358, Glastonbury, CT 06033-0358</td>
<td>2005-105Q</td>
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<tr>
<td></td>
<td>Steel C-Post and Channel Post</td>
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<tr>
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<td>Steel I-Beam Post</td>
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<tr>
<td></td>
<td>Welded Steel Post</td>
<td></td>
</tr>
<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>
<td></td>
<td>Long Breakaway Timber Post</td>
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<tr>
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<td>Short Breakaway Timber Post</td>
<td></td>
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<tr>
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<td>Timber Guide Rail Post</td>
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</tr>
<tr>
<td>QuABF 15</td>
<td>Quality Bridge and Fab, Inc., 3608 Sharon Road, West Middlesex, PA 16159</td>
<td>2012-156Q</td>
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<tr>
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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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</tbody>
</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>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td></td>
<td>Steel I-Beam Post</td>
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<td>Welded Steel Post</td>
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</tr>
<tr>
<td></td>
<td>Formerly Burke-Parsons Bowlby (BURPB 15)</td>
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</tr>
<tr>
<td></td>
<td>Timber Guide Rail Post</td>
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</tr>
<tr>
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<td>Long Breakaway Timber Post</td>
<td>2016-041QB</td>
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<td>Short Breakaway Timber Post</td>
<td>2016-041QC</td>
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<td>Timber Guide Rail Post</td>
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<td></td>
<td>Steel I-Beam Post</td>
<td>2007-186Q</td>
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<td>* Approved MM-USA marking as Identifiable Steel</td>
<td></td>
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<td>Welded Steel Post</td>
<td></td>
</tr>
<tr>
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<td>Breakaway Terminal Wood Post</td>
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<tr>
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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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<thead>
<tr>
<th>Product</th>
<th>Name</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>
</tr>
<tr>
<td>Wood Offset Bracket (4&quot; x 6&quot; x 14&quot;)</td>
<td>2003-116</td>
</tr>
<tr>
<td>Wood Offset Bracket (6&quot; x 8&quot; x 14&quot;)</td>
<td>1995-185</td>
</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>
</tr>
<tr>
<td>Facility</td>
<td>105 North Owen Street Sutton, NE 68979</td>
</tr>
<tr>
<td>Wood Offset Bracket - Routed for Steel Posts (6&quot; x 8&quot; x 14&quot;)</td>
<td>2014-241QB</td>
</tr>
<tr>
<td>CREAT 15</td>
<td>Creative Building Products, 4307 Arden Drive, Fort Wayne, IN 46804-4446 <a href="http://creativebuildingproducts.com/">http://creativebuildingproducts.com/</a></td>
</tr>
<tr>
<td>Plastic Offset Bracket</td>
<td>1996-199</td>
</tr>
<tr>
<td>DEKLB 15</td>
<td>DeKALB Molded Plastics, 550 West Main Street, Butler, IN 46721 <a href="http://www.dekalbplastics.com/">http://www.dekalbplastics.com/</a></td>
</tr>
<tr>
<td>Composite Offset Bracket</td>
<td>Lightweight</td>
</tr>
<tr>
<td>IAWP1 15</td>
<td>Iowa Wood Preservers, Inc., 2102 South 17th Street, Oskaloosa, IA 52577</td>
</tr>
<tr>
<td>Wood Offset Bracket - Routed for Steel Posts (6&quot; x 8&quot; x 14&quot;)</td>
<td>2014-047B</td>
</tr>
<tr>
<td>MOND 15</td>
<td>Mondo Polymer Technologies, State Route 7, P.O. Box 250, Reno, OH 45773 <a href="http://www.mondopolymer.com/">http://www.mondopolymer.com/</a></td>
</tr>
<tr>
<td>Composite Offset Bracket</td>
<td>GB14SH</td>
</tr>
<tr>
<td>Plastic Offset Bracket</td>
<td>2002-062Q</td>
</tr>
<tr>
<td>MONM1 15</td>
<td>Monroeville Industrial Molding, 75 Ontario St., Norwalk, OH 44857 <a href="http://www.monroevillemouldings.com/">http://www.monroevillemouldings.com/</a></td>
</tr>
<tr>
<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>
</tr>
<tr>
<td>Plastic Offset Bracket</td>
<td>1999-200Q</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)

Last Revised: 11/2/2018

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</thead>
</table>
| STEJ15  | Stella-Jones Corporation, 3424 Parkersburg Road, Reedy, WV 25270-9402 [http://stella-jones.com/](http://stella-jones.com/)  
Formerly Burke-Parsons Bowlby (BURPB 15)  
Wood Offset Bracket (6" x 8" x 14") |
Wood Offset Bracket - Non-Routed for Wood Posts (6" x 8" x 14") |
Wood Offset Bracket - Routed for Steel Posts (6" x 8" x 14") |

1109.05 Guide Rail: Miscellaneous Material

Impact Attenuating Devices: See Section 619.2 (Permanent) and Section 696.2 (Temporary)

Last Revised: 4/15/2019

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</table>
| AUTBN 15| Auto Bolt Company, 4740 Manufacturing Avenue, Cleveland, OH 44135 [http://autobolt.net](http://autobolt.net)  
Bolt  
Bolt |
2" x 3/8" x 6" Galvanized Anchor Bar (BC-709M)  
Nut, Bolt, and Washer |
| BIRFM 15| Birmingham Fastener Manufacturing, 931 Avenue W, P.O. Box 10323, Birmingham, AL 35234  
Nut, Bolt, and Washer |
| CENMC 15| CenMac Metalworks, 1339 E. Fairground Road, Marion, OH 43302 [http://cenmacmetalworks.com/](http://cenmacmetalworks.com/)  
Base Plate, Post Plate, End Post Support Angle, and Hardware |
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)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>2427 East Judd Road Burton, MI 48529</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3/4&quot; (6x19) Swaged Galvanized Cable (RC-51M) BCT Cable Assembly Fabricator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Original approval from 1990-078A, former supplier code: CWR&amp;S 15</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Tremont, PA 17981</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anchor Insert Assemblies (A, B, C, and D per BC-734)</td>
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</tr>
<tr>
<td></td>
<td>Base Plate, Post Plate, End Post Support Angle, and Hardware</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nut, Bolt, and Washer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1991-344</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Base Plate, Post Plate, End Post Support Angle, and Hardware</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nut, Bolt, and Washer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1987-158</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nut, Bolt, and Washer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bolts</td>
<td>1990-048</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></td>
</tr>
<tr>
<td></td>
<td>Base Plate, Post Plate, End Post Support Angle, and Hardware</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nut, Bolt, and Washer</td>
<td></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>1989-180</td>
<td></td>
</tr>
<tr>
<td>MIDW1 15</td>
<td>Mid West Fabricating Company, 313 North Johns Street, Amanda, OH 43102 <a href="http://midwestfab.com/">http://midwestfab.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nut, Bolt, and Washer</td>
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<tr>
<td></td>
<td>Bolts</td>
<td>1999-168Q</td>
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</table>
## 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)

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIDW2</td>
<td>Mid West Fabricating Company, 3115 West Fair Avenue, Rockmill Division, Lancaster, OH 43130 <a href="http://midwestfab.com/">http://midwestfab.com/</a></td>
<td>2012-105Q</td>
</tr>
<tr>
<td>QUABF</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>
</tr>
<tr>
<td>STCBS</td>
<td>Steel City Bolt and Screw, LLC, 230 West Valley Road, Birmingham, AL 35201 <a href="http://www.stealcitybolt.com/">http://www.stealcitybolt.com/</a></td>
<td>1990-036</td>
</tr>
</tbody>
</table>
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)

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

Nut, Bolt, and Washer Nuts Only

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>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td></td>
<td>Formerly Anchor Fence Company.</td>
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</tr>
<tr>
<td></td>
<td>Aluminum-coated Steel Fabric</td>
<td>1995-243</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric</td>
<td>2003-191Q</td>
</tr>
<tr>
<td></td>
<td>Zinc-coated (Galvanized) Steel Fabric</td>
<td>2003-192Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2003-190Q</td>
</tr>
<tr>
<td></td>
<td>Aluminum-coated Steel Fabric</td>
<td>2003-190Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric</td>
<td>2003-191Q</td>
</tr>
<tr>
<td></td>
<td>Zinc-coated (Galvanized) Steel Fabric</td>
<td>2003-192Q</td>
</tr>
<tr>
<td></td>
<td>Aluminum-coated Steel Fabric</td>
<td>2017-280Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric</td>
<td>2017-281Q</td>
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<tr>
<td></td>
<td>Zinc-coated (Galvanized) Steel Fabric</td>
<td>2017-207Q</td>
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<tr>
<td>Facility</td>
<td>SPS Jamestown 2151 N. Main Highway 127 Jamestown, KY 42649</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aluminum-coated Steel Fabric</td>
<td>2016-118Q</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric</td>
<td>2016-103Q</td>
</tr>
<tr>
<td></td>
<td>OnGuard Aluminum Coated Steel Chain Link Fence Fabric</td>
<td>2016-118Q</td>
</tr>
<tr>
<td></td>
<td>OnGuard SPSV Fused and Bonded Poly (Vinyl Chloride) - PVC Coated Steel Chain Link Fence Fabric</td>
<td>2016-103Q</td>
</tr>
<tr>
<td>SPSMD 15</td>
<td>Stephens Pipe &amp; Steel, LLC, 2224 E. Highway 619, P.O. Box 618, Russell Springs, KY 42642 <a href="http://www.spsfence.com/">http://www.spsfence.com/</a></td>
<td>2016-221Q</td>
</tr>
<tr>
<td>Facility</td>
<td>SPS Bladensburg 4301 46th Street Bladensburg, MD 20710</td>
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<tr>
<td></td>
<td>Aluminum-coated Steel Fabric</td>
<td>2016-221Q</td>
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<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) and Other Organic Polymer-coated Steel Fabric</td>
<td>2016-220Q</td>
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<tr>
<td></td>
<td>OnGuard Aluminum Coated Steel Chain Link Fence Fabric</td>
<td>2016-221Q</td>
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<tr>
<td></td>
<td>OnGuard SPSV Fused and Bonded Poly (Vinyl Chloride) - PVC Coated Steel Chain Link Fence Fabric</td>
<td>2016-220Q</td>
</tr>
</tbody>
</table>
**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>State</th>
<th>Address</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>STASW 15</td>
<td>Stateside Steel and Wire, 304 Wyanoke Road, West Memphis, AR 72301</td>
<td><a href="http://statesidesteel.com/">http://statesidesteel.com/</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zinc-coated (Galvanized) Steel Fabric</td>
<td>2007-149QB</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Zinc-coated (Galvanized) Steel Fabric</td>
<td>2007-149QA</td>
<td></td>
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</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>Product Name Ref. No.</th>
<th>State</th>
<th>Address</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galvanized Steel Fabric</td>
<td>1999-027Q</td>
<td></td>
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</tr>
</tbody>
</table>

**Last Revised: 11/8/2018**
### 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>BENNE 15</td>
<td>Bennett Bolt Works, Inc., 12 Elbridge Street, P. O. Box 922, Jordan, NY 13080 <a href="http://www.bennettboltworks.com/">http://www.bennettboltworks.com/</a></td>
<td>BENNE 15</td>
</tr>
</tbody>
</table>

---

Approved to manufacture fence parts 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/)

Approved to manufacture fence 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 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>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></td>
</tr>
<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>H Fabric up to 8'</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>LANCC 15</td>
<td>Lancaster Composite, Inc., P.O. Box 27, Millersville, PA 17551-0027 <a href="http://lancastercomposite.com/">http://lancastercomposite.com/</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td>Composite Post 40 1995-239</td>
</tr>
<tr>
<td></td>
<td>Provisional Approval: ECMS Special Provision P-C06241-A.</td>
<td></td>
</tr>
<tr>
<td>MTMNC15</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></td>
</tr>
<tr>
<td></td>
<td>Braces</td>
<td>MT-40 Fence Tubing 2015-119Q</td>
</tr>
<tr>
<td></td>
<td>End Posts (2 3/8&quot;)</td>
<td>MT-40 Fence Tubing 2015-119Q</td>
</tr>
<tr>
<td></td>
<td>Approved for fabric heights of 4, 5, and 6 feet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Line Posts (1 7/8&quot;)</td>
<td>MT-40 Fence Tubing 2015-119Q</td>
</tr>
<tr>
<td></td>
<td>Approved for fabric heights of 4 feet</td>
<td></td>
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</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) Last Revised: 8/10/2017

<table>
<thead>
<tr>
<th>Facility</th>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>SPSKY 15</td>
<td>Braces</td>
<td>OnGuard SPS40E</td>
<td>2016-051Q</td>
</tr>
<tr>
<td></td>
<td>End Posts (2 3/8&quot;)</td>
<td>OnGuard SPS40E</td>
<td>2016-051Q</td>
</tr>
<tr>
<td></td>
<td>Approved for fabric heights of 4, 5, and 6 feet</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fence Fittings and Hardware</td>
<td>OnGuard SPS40E Tension Band, Dome Cap, Rail End, Brace Band</td>
<td>2016-051Q</td>
</tr>
<tr>
<td></td>
<td>Fence Fittings and Hardware</td>
<td>OnGuard SPS40E Top Rail Sleeve, Line Post Eye Cap, Truss Rod Bracket, Line Clamp</td>
<td>2016-051Q</td>
</tr>
<tr>
<td></td>
<td>Line Posts (1 7/8&quot;)</td>
<td>OnGuard SPS40E</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved for fabric heights of 4 feet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHETC 15</td>
<td>Fence Posts</td>
<td></td>
<td>1998-110</td>
</tr>
<tr>
<td></td>
<td>Fence Posts</td>
<td></td>
<td>1998-136</td>
</tr>
</tbody>
</table>
Section 1111: 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>Product Name</th>
<th>Ref. No.</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>BROWD 15</td>
<td>D.S. Brown Company, 300 East Cherry Street, North Baltimore, OH 45872</td>
<td>Disc Bearing</td>
<td>2005-082Q</td>
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<tr>
<td></td>
<td></td>
<td>Pot Bearing</td>
<td>2005-082Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spherical Bearing</td>
<td>2005-082Q</td>
</tr>
<tr>
<td>CONSV 15</td>
<td>Con-Serv, Inc., 2963 Interstate Parkway, Brunswick, OH 44212</td>
<td>Disc Bearing</td>
<td>2003-012Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pot Bearing</td>
<td>2003-012Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spherical Bearing</td>
<td>2003-012Q</td>
</tr>
<tr>
<td>COSME 15</td>
<td>Cosmec Inc., 1501 Rocky Ridge Road, Athens, TX 75751</td>
<td>Pot Bearing</td>
<td>1990-146</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spherical Bearing</td>
<td>1990-146</td>
</tr>
<tr>
<td>HALL1 15</td>
<td>Hall Industries, Inc., Hall Equipment Division, 1 USS Industrial Park, Ellwood City, PA 16117</td>
<td>Disc Bearing</td>
<td>2016-031Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pot Bearing</td>
<td>2001-022Q</td>
</tr>
<tr>
<td>HALL3 15</td>
<td>Hall Industries, Inc., HGH Facility, 606 2nd Street, Ellwood City, PA 16117</td>
<td>Disc Bearing</td>
<td>2017-029Q</td>
</tr>
<tr>
<td></td>
<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</td>
<td>Pot Bearing</td>
<td>1990-309AB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spherical Bearing</td>
<td>1990-309AB</td>
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</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 Structure Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
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<tbody>
<tr>
<td>Facility</td>
<td>Pottstown, PA</td>
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<tr>
<td></td>
<td>Disc Bearing</td>
<td></td>
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<td></td>
<td>Reston Disc</td>
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</tr>
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<td></td>
<td>Disc Bearing</td>
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</table>
## Section 1112: Glued Laminated Hardwood Timber Members

### 1112 Glued Laminated Hardwood Timber Members

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Product Name</th>
<th>Company Name</th>
<th>Address</th>
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<tbody>
<tr>
<td>ALAWP 15</td>
<td>Alamco Wood Products, Inc.</td>
<td>1410 West Ninth Street, Albert Lea, MN 56007</td>
<td><a href="http://www.alamcowood.com/">http://www.alamcowood.com/</a></td>
<td>2000-236Q</td>
</tr>
<tr>
<td>KOPRS 15</td>
<td>Koppers Industries, Inc.</td>
<td>50 Koppers Lane, Montgomery, PA 17752</td>
<td><a href="http://www.koppers.com/">http://www.koppers.com/</a></td>
<td>1999-194Q</td>
</tr>
<tr>
<td>NORSO 15</td>
<td>North-South Wood Preserving Company</td>
<td>160 Preserver Road, North, SC 29112</td>
<td></td>
<td>2012-117Q</td>
</tr>
<tr>
<td>RIGID 15</td>
<td>Rigidply Rafters, Inc.</td>
<td>701 East Linden Street, Richland, PA 17087</td>
<td><a href="http://www.rigidply.com/">http://www.rigidply.com/</a></td>
<td>1999-176Q</td>
</tr>
<tr>
<td>STEJ2 15</td>
<td>Stella-Jones Corporation</td>
<td>R.R. 3, P. O. Box 275, Dubois, PA 15801</td>
<td><a href="http://stella-jones.com/">http://stella-jones.com/</a></td>
<td>2002-079Q</td>
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</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>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Plain 60D Neoprene Bearing Pad</td>
<td>1986-118</td>
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<tr>
<td></td>
<td></td>
<td>Steel Laminated 50D Neoprene Bearing Pad</td>
<td>1986-119A</td>
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<td>Steel Laminated 60D Neoprene Bearing Pad</td>
<td>1986-119B</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Plain 60D Neoprene Bearing Pad</td>
<td>2001-174Q</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>Plain 50D Neoprene Bearing Pad</td>
<td>2012-251Q</td>
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<tr>
<td></td>
<td></td>
<td>Plain 60D Neoprene Bearing Pad</td>
<td>1998-178</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Steel Laminated 50D Neoprene Bearing Pad</td>
<td>1998-178</td>
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<td>Steel Laminated 60D Neoprene Bearing Pad</td>
<td>1998-178</td>
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<td></td>
<td></td>
<td>Plain 60D Neoprene Bearing Pad</td>
<td>2000-198Q</td>
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<td>Plain 60D Neoprene Bearing Pad</td>
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</table>
## 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></td>
<td>Plain 60D Neoprene Bearing Pad 1999-051Q</td>
<td></td>
</tr>
</tbody>
</table>

### 1113.03(h) Bedding Material for Bridge Shoes

<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>Bedding Material for Bridge Shoes Fabreeka, Type II -----</td>
<td>-----</td>
</tr>
<tr>
<td>HBD-1 15</td>
<td>HBD/Thermoid, Inc., 240 Industrial Lane, P.O. Box 4310, Oneida, TN 37841 <a href="http://www.hbdthermoid.com/">http://www.hbdthermoid.com/</a></td>
<td>Bedding Material for Bridge Shoes No. 24-34-5111-72 Type II 2008-096</td>
<td>2008-096</td>
</tr>
</tbody>
</table>
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>Ref. No.</th>
</tr>
</thead>
</table>

|                      |      |          |


Last Revised: 2/14/2018
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 Name Ref. No.</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHTC 15 Adhesives Technology Corporation, 450 East Copans, Pompano Beach, FL 33064 <a href="http://www.atcepoxy.com/">http://www.atcepoxy.com/</a></td>
<td>ULTRABOND HS-200</td>
<td>2002-048Q</td>
</tr>
<tr>
<td>ADVAC 15 Advance Coatings, 42 Depot Road, Westminster, MA 01473 <a href="http://advancecoatings.com/">http://advancecoatings.com/</a></td>
<td>Keligrout 101-P</td>
<td>2004-123QA</td>
</tr>
<tr>
<td></td>
<td>Keligrout Polyester Adhesive</td>
<td>2004-132Q</td>
</tr>
<tr>
<td>DAYT0 15 Dayton Superior Corporation, 1125 Byers Road, Miamisburg, OH 45342-5765 <a href="http://www.daytonsuperior.com/">http://www.daytonsuperior.com/</a></td>
<td>Type A and B Anchors, per BC-734</td>
<td>1997-169</td>
</tr>
<tr>
<td>EUCLD 15 Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110-2799 <a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
<td>Dural 452 Gel</td>
<td>2003-098Q</td>
</tr>
<tr>
<td></td>
<td>Dural Fast Set Epoxy LV</td>
<td>1999-183Q</td>
</tr>
<tr>
<td>HILT- 15 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>HIT-RE 500 Anchoring Epoxy</td>
<td>2001-101Q</td>
</tr>
<tr>
<td></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></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

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>EPCON C6+ High Strength Epoxy</td>
<td>1988-131</td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>EPCON G5 High Strength Epoxy</td>
<td>1993-276</td>
</tr>
<tr>
<td>Mechanical Anchor</td>
<td>Trubolt Wedge Anchor, Galvanized</td>
<td>1992-363A</td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>Sure-Poxy 116</td>
<td>1992-169</td>
</tr>
<tr>
<td>Anchoring 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>Anchoring Adhesive</td>
<td>Rezi-Weld Gel Paste (Construction Epoxy)</td>
<td>1993-280</td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>Liquid Roc 300 Twin Tube</td>
<td>1996-092E</td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>Liquid Roc 500 Low Odor Twin Tube</td>
<td>1996-092F</td>
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<tr>
<td>Mechanical Anchor</td>
<td>Sup-R-Stud Wedge Anchor</td>
<td>1996-092B</td>
</tr>
<tr>
<td>Mechanical Anchor</td>
<td>Taper Bolt</td>
<td>1996-092A</td>
</tr>
<tr>
<td>Anchoring Adhesive</td>
<td>1257 Epoxy Anchoring Adhesive</td>
<td>1993-270</td>
</tr>
<tr>
<td>Mechanical Anchor</td>
<td>Power-Bolt</td>
<td>1991-206</td>
</tr>
<tr>
<td>Mechanical Anchor</td>
<td>Power-Stud</td>
<td>1991-205</td>
</tr>
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</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>
</tr>
</thead>
<tbody>
<tr>
<td>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071</td>
<td>Sikadur DOT SP 3/4 DBA (Epoxy as Injection Gel)</td>
</tr>
<tr>
<td>Plant 1682 Marion Williamsport Road E Marion, OH 43302</td>
<td>Sikadur Injection Gel</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simpson Strong-Tie, Inc., 136 Official Road, Addison, IL 60101</td>
<td>AT Acrylic Adhesive</td>
</tr>
<tr>
<td>(Formerly known as Acrylic-Tie)</td>
<td>ET-HP Epoxy Adhesive</td>
</tr>
<tr>
<td>(Formerly known as ET Epoxy-Tie)</td>
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</table>

MISC Asphalt Paving Course, FB Modified

Forged asphalt pavement course, FB Modified

<table>
<thead>
<tr>
<th>Product</th>
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</thead>
<tbody>
<tr>
<td>Gorman Brother's, Church Street, Port Of Albany, Albany, NY 12202</td>
<td>FB Modified</td>
</tr>
<tr>
<td>FB Modified Wearing Course</td>
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Last Revised: 2/7/2019

Last Revised: 9/14/2017
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>
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<tbody>
<tr>
<td>HEILM15</td>
<td>FB Modified</td>
<td>1996-134</td>
<td></td>
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<tr>
<td>HEILM15</td>
<td>FB-3 Modified Wearing Course</td>
<td>1996-134</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
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<tbody>
<tr>
<td>RUSS615</td>
<td>FB Modified</td>
<td>1996-104</td>
<td></td>
</tr>
<tr>
<td>RUSS615</td>
<td>FB-3 Modified Wearing Course</td>
<td>1996-104</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Letter Date</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUIT015</td>
<td>FB Modified</td>
<td>2003-089Q</td>
<td></td>
</tr>
<tr>
<td>SUIT015</td>
<td>FB-3 Modified Wearing Course</td>
<td>2003-089Q</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>
<th>Letter Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBL15</td>
<td>Carboline Company, 2150 Schuetz Road, St. Louis, MO 63146 <a href="http://www.carboline.com/">http://www.carboline.com/</a></td>
<td>Bitumastic No. 300-M</td>
<td>-----</td>
</tr>
</tbody>
</table>

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
## 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>
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<tbody>
<tr>
<td>BAS-1 15 Plant</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td>Corrosion Inhibitor [CI]</td>
<td>MasterLife CI 30 (Rheocrete CNI)</td>
<td>1 to 6 gallons per cubic yard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrosion Inhibitor [CI]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAS-1215 Plant</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td>Corrosion Inhibitor [CI]</td>
<td>MasterLife CI 222 (Rheocrete 222+)</td>
<td>1 gallon per cubic yard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrosion Inhibitor [CI]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAS-2 15 Plant</td>
<td>BASF Construction Chemicals, LLC, 23700 Chagrin Blvd., Cleveland, OH 44122</td>
<td>Corrosion Inhibitor [CI]</td>
<td>MasterLife CI 30 (Rheocrete CNI)</td>
<td>1 to 6 gallons per cubic yard</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrosion Inhibitor [CI]</td>
<td></td>
<td></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>

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

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>
<tbody>
<tr>
<td></td>
<td></td>
<td>Corrosion Inhibitor [CI]</td>
<td>DCI Calcium Nitrite</td>
<td>1980-040</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrosion Inhibitor [CI]</td>
<td>DCIS</td>
<td>1997-149</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrosion Inhibitor [CI]</td>
<td>DCI Calcium Nitrite</td>
<td>1980-040</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrosion Inhibitor [CI]</td>
<td>DCIS</td>
<td>1997-149</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Corrosion Inhibitor [CI]</td>
<td>Sika CNI</td>
<td>CADD-2015-01-111</td>
</tr>
<tr>
<td></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>SIK1A 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>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>1682 Marion Williamsport Road E Marion, OH 43302</td>
<td>Corrosion Inhibitor [CI] FerroGard-901 (formerly Armatec 2000)</td>
<td></td>
<td>1996-264</td>
</tr>
</tbody>
</table>
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> Formerly NRI Industries</td>
<td>1994-031</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</th>
<th>Name</th>
<th>Ref. No.</th>
<th>Last Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>MISC Embedded Galvanic Anodes</td>
<td>Cathodic Protection (CP) systems</td>
<td>Conditionally approved</td>
<td>6/23/2016</td>
</tr>
</tbody>
</table>

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](http://www.euclidchemical.com/)

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>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>Embedded Galvanic Anodes - Point</td>
<td>Sentinel GL</td>
<td></td>
</tr>
</tbody>
</table>

| JAR-1 15 Plant | Jarden Zinc Products, 2500 Old Stage Road, Greeneville, TN 37744 | http://www.jardenzinc.com/ | 2014-117 |
| Embedded Galvanic Anodes - Point | MasterProtect 8065 CP Anodes | | |
| Use & Approval Guidelines: [Cathodic Protection (CP) Systems](http://www.euclidchemical.com/) | | | |
| Embedded Galvanic Anodes - Point | MasterProtect 8105 CP Anodes | | |
| Use & Approval Guidelines: [Cathodic Protection (CP) Systems](http://www.euclidchemical.com/) | | | |
| Embedded Galvanic Anodes - Point | MasterProtect 8150 CP Anodes | | |
| Use & Approval Guidelines: [Cathodic Protection (CP) Systems](http://www.euclidchemical.com/) | | | |
Section MISC: Miscellaneous

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.

<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>Embedded Galvanic Anodes - Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use &amp; Approval Guidelines: Cathodic Protection (CP) Systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1682 Marion Williamsport Road E, Marion, OH 43302</td>
<td>Sika FerroGard 670</td>
<td>2018-186</td>
</tr>
<tr>
<td>Embedded Galvanic Anodes - Point</td>
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</tr>
<tr>
<td>Use &amp; Approval Guidelines: Cathodic Protection (CP) Systems</td>
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<td></td>
</tr>
<tr>
<td>Embedded Galvanic Anodes - Point</td>
<td>Sika FerroGard 675</td>
<td>2018-187</td>
</tr>
<tr>
<td>Use &amp; Approval Guidelines: Cathodic Protection (CP) Systems</td>
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</table>

Vector Corrosion Technologies, 13312 North 56th Street, #102, Tampa, FL 33617

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embedded Galvanic Anodes - Distributed</td>
<td>Galvanode DAS</td>
<td>2008-166</td>
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<tr>
<td>Use &amp; Approval Guidelines: Cathodic Protection (CP) Systems</td>
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</tr>
<tr>
<td>Embedded Galvanic Anodes - Point</td>
<td>Galvashield XP</td>
<td>2001-145</td>
</tr>
<tr>
<td>Use &amp; Approval Guidelines: Cathodic Protection (CP) Systems</td>
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<tr>
<td>Embedded Galvanic Anodes - Point</td>
<td>Galvashield XP4</td>
<td>2011-075</td>
</tr>
<tr>
<td>Use &amp; Approval Guidelines: Cathodic Protection (CP) Systems</td>
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</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>Ref. No.</th>
<th>Product Name</th>
<th>Name</th>
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</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</td>
<td><a href="http://www.euclidchemical.com/">http://www.euclidchemical.com/</a></td>
</tr>
<tr>
<td>Epoxy Resin Binder</td>
<td>Flexolith</td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
</tr>
<tr>
<td>KWK1 15</td>
<td>Kwik Bond Polymers, 923 Teal Drive, Benicia, CA 94510</td>
<td><a href="http://www.kwikbondpolymers.com">http://www.kwikbondpolymers.com</a></td>
</tr>
<tr>
<td>Polyester Resin Binder</td>
<td>PPC-HFST</td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
</tr>
<tr>
<td>MAPEIB15 Plant</td>
<td>MAPEI Corporation, 1144 East Newport Center Drive, Deerfield Beach, FL 33442</td>
<td><a href="http://www.mapei.com/US-EN/">http://www.mapei.com/US-EN/</a></td>
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<tr>
<td>Epoxy Resin Binder</td>
<td>Planiseal Traffic Coat</td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
</tr>
<tr>
<td>Epoxy Resin Binder</td>
<td>Impervious ME</td>
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<tr>
<td>Epoxy Resin Binder</td>
<td>Flexogrid (Mark-163)</td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
</tr>
<tr>
<td>Epoxy Resin Binder</td>
<td>Mark-154 PA</td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
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</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>Sika 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>Epoxy Resin Binder Sikadur 22, Lo-Mod FS</td>
<td>2015-007MB</td>
</tr>
<tr>
<td></td>
<td>Provisionally approved per ECMS Provisional Specification c10431.</td>
<td></td>
</tr>
</tbody>
</table>

| Epoxy Based Surface Treatment System for Bridge Decks | T-48 Polysulfide Epoxy Overlay System | 2006-046Q |
| Conditionally Approved as an alternate per manufacturer's specifications. |

| UNITX 15 | Dayton Superior Corporation - UNITEX, 3101 Gardner Ave., Kansas City, MO 64120 | http://www.daytonsuperior.com/brands/chemicals/unitex |
| Epoxy Based Surface Treatment System for Bridge Decks | Pro-Poxy Type III DOT | 2007-002Q |
| Provisionally approved per ECMS Provisional Specification c10431. |

| MISC Expanded Foam Backfill For Post Mounted Signs Types B, C and E | Last Revised: 6/25/2019 |
| 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) |

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<tr>
<th>Product</th>
<th>Name</th>
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<tr>
<td>FOREI 15</td>
<td>Forward Enterprises, Inc., 9430 Telephone Road, Houston, TX 77075</td>
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<tr>
<td>Expanded Foam Backfill For Post Mounted Signs Types B, C and E</td>
<td>Poly-Set HD-2</td>
<td>2000-089</td>
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<td>2000-089</td>
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<td>Poly-Set HD-5</td>
<td>2000-089</td>
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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)

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<tr>
<td>FOREI 15</td>
<td>Forward Enterprises, Inc., 9430 Telephone Road, Houston, TX 77075</td>
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MISC Flexible Weatherproofing Coating for Concrete

Last Revised: 4/8/2015

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<th>Product</th>
<th>Name</th>
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<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>Flexible Weatherproofing Coating for Concrete</td>
<td>Dural 355</td>
<td></td>
</tr>
<tr>
<td>Flexible Weatherproofing Coating for Concrete</td>
<td>Plastic Dip UV 1800</td>
<td></td>
</tr>
<tr>
<td>WATSB 15</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>Flexible Weatherproofing Coating for Concrete</td>
<td>EP Elastic Waterproofing</td>
<td></td>
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MISC Geosynthetic Clay Liner (GCL)

Last Revised: 2/17/2017

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<td>(Formerly Colloid Environmental Technologies Company)</td>
<td>Geosynthetic Clay Liner (GCL)</td>
<td>2011-206Q</td>
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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.

<table>
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<tr>
<td>CETCO Geosynthetic Clay Liner (GCL)</td>
<td>Bentomat ST</td>
<td>1999-075Q</td>
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</tbody>
</table>

MISC Geotextile and Fiberglass Reinforced Paving Fabrics and Grids (Asphalt)

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>
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</thead>
<tbody>
<tr>
<td>ADFORS Fiberglass Reinforced Paving Grid</td>
<td>GlasGrid 8511 Asphalt Reinforcement System</td>
<td>2014-122</td>
</tr>
<tr>
<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>
<td></td>
</tr>
<tr>
<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>
<td></td>
</tr>
<tr>
<td>TenCate Geosynthetics, 365 South Holland Drive, Pendergrass, GA 30567</td>
<td><a href="http://www.tencate.com/">http://www.tencate.com/</a></td>
<td></td>
</tr>
<tr>
<td>TenCate Mirafi PGM-G4 Manufacturer's Specifications</td>
<td></td>
<td></td>
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<tr>
<td>TenCate Mirafi MPV 600 Manufacturer's Specifications</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiberglass Reinforced Paving Grid</td>
<td>Petromat 4597</td>
<td>2011-181</td>
</tr>
<tr>
<td>Fiberglass Reinforced Paving Grid (Pendergrass, GA)</td>
<td>Mirafi PGM-G4</td>
<td>2015-133</td>
</tr>
<tr>
<td>Geotextile Paving Fabric, Type II (Asphalt)</td>
<td>Mirafi MPV 600</td>
<td>2012-183</td>
</tr>
</tbody>
</table>
### Section MISC: Miscellaneous

#### MISC High-Tension Cable Median Barrier Systems

*Last Revised: 6/8/2018*

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>Designator</th>
<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>Ref. No.</th>
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<tbody>
<tr>
<td>BRIF0 15</td>
<td>Brifen USA, Inc., 12501 North Santa Fe Avenue, Oklahoma City, OK 73114 <a href="http://www.brifenusa.com/">http://www.brifenusa.com/</a></td>
<td>High-Tension Barrier System</td>
<td>Brifen TL-4 Wire Rope Safety Fence (WRSF) (4 Cable)</td>
<td>NCHRP 350</td>
<td>TL-4</td>
<td>B-82B</td>
<td>2013-165M</td>
</tr>
<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>High-Tension Barrier System</td>
<td>Gibraltar TL-4 Cable Barrier System (4 Cable)</td>
<td>NCHRP 350</td>
<td>Multiple</td>
<td>B-137A, B-137A1, B-137B, B-137D</td>
<td>2015-129M</td>
</tr>
<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>High-Tension Barrier System</td>
<td>NU-CABLE TL-4 High Tension Barrier System (4 Cable)</td>
<td>NCHRP 350</td>
<td>Multiple</td>
<td>B-167</td>
<td>2010-166MB</td>
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**MISC Metal Cribbing**

Steel Products Procurement Act applies.

*Last Revised: 1/27/2016*
Section MISC: Miscellaneous

**MISC Metal Cribbing**  
Steel Products Procurement Act applies.

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<tr>
<th>Product</th>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>CON00 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> Metal Cribbing</td>
<td>_____</td>
</tr>
<tr>
<td>CON06 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> Plant Winchester, KY Metal Cribbing</td>
<td>_____</td>
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</table>

**MISC Modular Glare Screen**  

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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**MISC PA Structure Mounted Guide Rail Bridge Barrier (BD-609M)**  

<table>
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<tr>
<th>Product</th>
<th>Name</th>
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</table>
# Qualified Products List for Construction

BULLETIN 15 (Publication 35)  
**Section MISC: Miscellaneous**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Name</th>
<th>Contact Information</th>
<th>Ref. No.</th>
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<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>PA Structure Mounted Guide Rail Bridge Barrier</td>
<td>2010-246Q</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>PA Structure Mounted Guide Rail Bridge Barrier</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>PA Structure Mounted Guide Rail Bridge Barrier</td>
<td>2016-281</td>
</tr>
<tr>
<td>STRUS 15</td>
<td>Structures, USA, 333 Peterson Drive, P. O. Box 2281, Elizabethtown, KY 42701</td>
<td>PA Structure Mounted Guide Rail Bridge Barrier</td>
<td>2015-142QF</td>
</tr>
</tbody>
</table>

Last Revised: 7/23/2019
Section MISC: Miscellaneous

MISC Photovoltaic Modules

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>
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</thead>
</table>

MISC Polymer Modified and Special Cements, Mortars, and Concrete

Conditionally approved per manufacturer's specifications and usage guidelines. [Pavemend SL Technical Datasheet](http://www.aquafin.net/) [Pavemend SLQ Technical Datasheet] [Pavemend VR Technical Datasheet]

<table>
<thead>
<tr>
<th>Product</th>
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<tbody>
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<td>Pavemend SL</td>
<td>2010-277</td>
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<td>Conditionally approved per manufacturer's specifications and usage guidelines.</td>
<td>Pavemend SLQ</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>
<th>Cement Usage</th>
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<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>Type M Masonry Cement</td>
<td>2010-233QA</td>
</tr>
<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>Type S Masonry Cement</td>
<td>2010-233QB</td>
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</table>
## Section MISC: Miscellaneous

### MISC Polymer Modified and Special Cements, Mortars, and Concrete

<table>
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<tr>
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<th>Cement Usage</th>
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<tr>
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<td>Chem Comp III / Komponent (for Type K)</td>
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<td>Rapid Set Cement</td>
<td>1986-358</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Rapid Set Concrete Mix, Section 624.2(c)</td>
<td>1993-092</td>
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<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>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>1995-161</td>
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<tr>
<td></td>
<td>Acrylic Bonding Agent J40, formerly Day Chem, AD Bond (J-40)</td>
<td>Vertical and Overhead</td>
<td>1999-207Q</td>
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<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>Polymer Modified and Special Cements, Mortars, and Concrete</td>
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<td>Concrete Top Supreme</td>
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<td>Dural Top Gel</td>
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<td>Eucocrete</td>
<td>Vertical and Overhead</td>
<td>2001-143Q</td>
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<td>Speedcrete Red Line</td>
<td>Vertical and Overhead</td>
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<td>Thin Top Supreme</td>
<td>Vertical and Overhead</td>
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<td>FLETE 15</td>
<td>Flexkrete Technologies, 1181 Terrace Manor, Prosper, TX 75078 <a href="http://flexkrete.com/">http://flexkrete.com/</a></td>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
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<td>Flexkrete Technologies 102</td>
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# Section MISC: Miscellaneous

## MISC Polymer Modified and Special Cements, Mortars, and Concrete

<table>
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<tr>
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<tbody>
<tr>
<td>Plant</td>
<td>301 Old Highway S2 S Mount Airy, NC 27030</td>
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<td>Plant</td>
<td>59 Brunswick Avenue Edison, NJ 08817</td>
<td>Pre-cast, Prestressed and Dry-Cast Cosmetic Repairs Only</td>
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<td>ProSpec BlendCrete</td>
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<td>~ ProSpec BlendCrete Features &amp; Benefits, Datasheets, and Specs</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>HiCap (Light) Patching Compound</td>
<td>1994-269</td>
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<td>HiCap (Medium) Patching Compound</td>
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<td>Approved per manufacturer's specifications: HiCap FT Product Datasheet</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>PipeWipe Pre-cast, Prestressed and Dry-Cast Cosmetic Repairs Only</td>
<td>2004-033Q</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>2008-037Q</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>T-SF Blended Not Approved for ASR Mitigation</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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### Section MISC: Miscellaneous

#### MISC Polymer Modified and Special Cements, Mortars, and Concrete

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<tr>
<td><strong>LEH-9 15 Plant</strong></td>
<td>Lehigh Cement Company, LLC, 3938 Easton Nazareth Highway, Nazareth, PA 18064</td>
<td>Type M Cement</td>
<td>2002-108Q</td>
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<td>(Formerly Essroc ESS-7 15)</td>
<td>Polymeric Modified and Special Cements, Mortars, and Concrete</td>
<td>2002-109Q</td>
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<td>Plant 3938 Easton Nazareth Highway Nazareth, PA 18064</td>
<td>Type S Cement</td>
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<td><strong>LEH13 15 Plant</strong></td>
<td>Lehigh Cement Company, LLC, Highway 31, Speed, IN 47172</td>
<td>Brixment Type M Cement</td>
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<td><strong>MAPEIA15 Plant</strong></td>
<td>MAPEI Corporation, 1144 East Newport Center Drive, Deerfield Beach, FL 33442</td>
<td>Planitop X</td>
<td>2017-295Q</td>
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<td>(Formerly Essroc ESS13 15)</td>
<td>ASTM C928, R2 Repair Mortar - Planitop X Technical Data Sheet</td>
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<td>Plant Fredericksburg, VA</td>
<td>Planitop XS</td>
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<td>ASTM C928, R1 Repair Mortar - Planitop XS Technical Data Sheet</td>
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<td><strong>NATPC 15</strong></td>
<td>National Permacrete Company, 590 N. Valley Forge Rd., P. O. Box 886, Devon, PA 19333</td>
<td>Pre-cast, Prestressed and Dry-Cast Cosmetic Repairs Only</td>
<td>1998-168</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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<th>Product</th>
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<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><a href="http://www.quikrete.com/">http://www.quikrete.com/</a></td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Commercial Grade QUIKRETE FastSet™ Concrete Mix</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Commercial Grade QUIKRETE FastSet™ DOT Mix</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Commercial Grade QUIKRETE FastSet™ Non-Shrink Grout</td>
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<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>Commercial Grade QUIKRETE FastSet™ Repair Mortar</td>
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<tr>
<th>ROKLIN15 Facility</th>
<th>Roklin Systems Incorporated, 300 East Shell Road, Ventura, CA 93001</th>
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<tr>
<td>300 East Shell Road</td>
<td>Ventura, CA 93001</td>
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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>
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*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>
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<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>
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<tr>
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<td>Sika Cem 133</td>
<td>Vertical and Overhead</td>
<td>1992-006</td>
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<td></td>
<td>Sikadur 42 Grout Pak (for seating base plates)</td>
<td>1992-005</td>
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<tr>
<td></td>
<td>Sikatop Plus 111</td>
<td>1978-043</td>
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<td>Sikatop Plus 121</td>
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<td>Sikatop Plus 123</td>
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<th>SIKA1 15 Plant</th>
<th>Sika Corporation, 201 Polito Avenue, Lyndhurst, NJ 07071 <a href="http://usa.sika.com/">http://usa.sika.com/</a></th>
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<td>Sikadur 42 Grout Pak (for seating base plates)</td>
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Section MISC: Miscellaneous

MISC Polymer Modified and Special Cements, Mortars, and Concrete

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<td>Sikatop Plus 123</td>
<td>Vertical and Overhead</td>
<td>1982-007</td>
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<tr>
<td>US Concrete Products, 16 Green Meadow Drive, Suite 202, Timonium, MD 21093</td>
<td>Polymer Modified and Special Cements, Mortars, and Concrete</td>
<td>High Power Cement</td>
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<td>2002-141Q</td>
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<td>High Power DOT Grade</td>
<td>Repair Mortar</td>
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<td>High Power Fast Setting</td>
<td>Concrete</td>
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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 Precast Concrete Products

Last Revised: 4/11/2019
# Section MISC: Miscellaneous

## MISC Precast Concrete Products

Approval Guidelines: [Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14](#)

SOLs 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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<tr>
<td></td>
<td>Alternate Concrete Arch System (Non-Precast)</td>
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<td></td>
<td>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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<td></td>
<td>Earth Retainment System Wall Lagging</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>431-01-06 (00-602-BQAD)</td>
<td>2018-222Q</td>
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<td></td>
<td>Earth Retainment System Wall Lagging</td>
<td></td>
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</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>431-01-06 (00-602-BQAD)</td>
<td>2015-045Q</td>
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<td>Earth Retainment System Foster Geotechnical (MSE wall)</td>
<td>431-94-53 (94-603-BQAD)</td>
<td>2018-222Q</td>
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<tr>
<td></td>
<td>Earth Retainment System Reinforced Earth Company (MSE Wall - Cross Panel)</td>
<td>431-01-06 (00-602-BQAD)</td>
<td>2018-222Q</td>
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<td>Earth Retainment System Wall Lagging</td>
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<td>Earth Retainment System Foster Geotechnical (MSE wall)</td>
<td>431-94-53 (94-603-BQAD)</td>
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<td>Earth Retainment System Reinforced Earth Company (MSE Wall - Cross Panel)</td>
<td>431-01-06 (00-602-BQAD)</td>
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<tr>
<td></td>
<td>Earth Retainment System Reinforced Earth Company (MSE Wall - Cross Panel)</td>
<td>431-94-53 (94-603-BQAD)</td>
<td>1995-070</td>
</tr>
<tr>
<td>EAGLE 15</td>
<td>Eagle Concrete Products, 1019 East Bakersville Edie Road, Somerset, PA 15501</td>
<td>2002-135Q</td>
<td>1995-070</td>
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**Posted:** 10/21/2019 3:02:16PM
### Section MISC: Miscellaneous

#### MISC Precast Concrete Products

Approval Guidelines: [Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14](#)

SOLs 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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<tr>
<td><strong>FADD1 15</strong></td>
<td>Faddis Concrete Products, 3515 Kings Highway, Downingtown, PA 19335 <a href="http://www.faddis.com/">http://www.faddis.com/</a></td>
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<td>Earth Retainment System</td>
<td>Dura-Hold</td>
<td>431-11-10 (95-144R PE)</td>
<td>1999-190Q</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>
<td>2011-214Q</td>
</tr>
<tr>
<td>Earth Retainment System</td>
<td>SINE WALL (MSE wall)</td>
<td>463-17-4</td>
<td>2017-049Q</td>
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<td>Earth Retainment System</td>
<td>Wall Lagging</td>
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<td>2007-127Q</td>
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<tr>
<td><strong>FADD2 15</strong></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>Earth Retainment System</td>
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<td>431-94-53 (94-603-BQAD)</td>
<td>2011-070Q</td>
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<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>463-17-4</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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<td>Earth Retainment System</td>
<td>Wall Lagging</td>
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<td>2001-121Q</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](https://example.com)

SOLs of approved Earth Retainment Systems, Precast and Alternate Concrete Arch Systems, and Precast Bridge Superstructures: [Approved Bridge and Structure Products](https://example.com)

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<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
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<tr>
<td><strong>FADD3 15</strong> Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530</td>
<td>Fosler Geotechnical (MSE wall)</td>
<td>431-01-06 (00-602-BQAD)</td>
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<tr>
<td><strong>FADD3 15</strong> Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530</td>
<td>Reinforced Earth Company (MSE Wall - Cross Panel)</td>
<td>431-94-53 (94-603-BQAD)</td>
</tr>
<tr>
<td><strong>FADD3 15</strong> Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530</td>
<td>Reinforced Earth Company (MSE Wall - Rectangular Panel)</td>
<td>431-04-10 (04-601-BQAD)</td>
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<tr>
<td><strong>FADD3 15</strong> Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530</td>
<td>SINE WALL (MSE wall)</td>
<td>483-17-4</td>
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<tr>
<td><strong>FADD3 15</strong> Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530</td>
<td>T-Wall Units (Reinforced Earth Company, formerly Neel)</td>
<td>483-17-01 rev. IV (2016-129)</td>
</tr>
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<td><strong>FADD3 15</strong> Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530</td>
<td>Wall Lagging</td>
<td>2014-267Q</td>
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<td><strong>FADD3 15</strong> Faddis Concrete Products (Precast), 210 Hinterleiter Road, Kutztown, PA 19530</td>
<td>ECO-SPAN Precast Arch-Box System</td>
<td>483-18-04 (2014-115A, PreTek Group)</td>
</tr>
<tr>
<td><strong>FTML1 15</strong> Fort Miller Company, Inc., P.O. Box 98, Schuylerville, NY 12871-0098</td>
<td>T-Wall Units (Reinforced Earth Company, formerly Neel)</td>
<td>483-17-01 rev. IV (2016-129)</td>
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<td><strong>FTML1 15</strong> Fort Miller Company, Inc., P.O. Box 98, Schuylerville, NY 12871-0098</td>
<td>Wall Lagging</td>
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<tr>
<td><strong>FTML1 15</strong> Fort Miller Company, Inc., P.O. Box 98, Schuylerville, NY 12871-0098</td>
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<td><strong>GADSP 15</strong> Garden State Precast, Inc., P. O. Box 702, Farmingdale, NJ 07727</td>
<td>Stone Strong Systems</td>
<td>483-13-04</td>
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<tr>
<td><strong>GCLI- 15</strong> GCL, Inc., 2559 Brandt School Road, Heritage Center, Suite 200, Wexford, PA 15090</td>
<td>Wall Lagging</td>
<td>2011-240Q</td>
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<tr>
<td><strong>HYDR1 15</strong> Hydro Conduit Corporation dba Rinker Materials/Concrete Pipe Division, 2000 Gregg Station Road, Oakdale, PA 15071</td>
<td>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

SOLs 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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<th>Name</th>
<th>SOL Number</th>
<th>Ref. No.</th>
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<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>483-17-4 (86-353PE Change #2)</td>
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<td>Precast Concrete Arch System</td>
<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 Retention System</td>
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<td>Note: Previously assigned J&amp;RS2 15 for same facility</td>
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<td>Alternate Precast Concrete Parapet Parapet</td>
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<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>483-13-10</td>
<td>2011-203</td>
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<td>Plant</td>
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<td>6845 Erie Avenue NW P.O. Box 578 Canal Fulton, OH 44614</td>
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<td>Precast Concrete Arch System</td>
<td>ECO-SPAN Precast Arch-Box System</td>
<td>483-18-04 (2014-115A, PreTek Group)</td>
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<td>483-13-04</td>
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<tr>
<td>MIDAP 15</td>
<td>Mid Atlantic Precast Inc., 401 Railroad Street, Monongahela, PA 15063</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](#)

SOLs 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>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>483-17-4 (86-353PE Change #2)</td>
<td>2000-072Q</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>431-03-09 (92-047PE)</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>483-17-01 rev. IV (2016-129)</td>
<td>2009-150Q</td>
</tr>
<tr>
<td>Formerly Oldcastle Precast</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<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>2009-150Q</td>
</tr>
<tr>
<td>Oldcastle Precast</td>
<td>T-Wall Units (Reinforced Earth Company, formerly Neel)</td>
<td>483-17-01 rev. IV (2016-129)</td>
<td>2009-150Q</td>
</tr>
<tr>
<td>Formerly Oldcastle Precast</td>
<td>Wall Lagging</td>
<td>483-17-01 rev. IV (2016-129)</td>
<td>2009-150Q</td>
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</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>SOL Number</th>
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<tbody>
<tr>
<td>REDRK 15</td>
<td>Redi Rock of Southeastern Pennsylvania, 451 East Reliance Road, Telford, PA 18969-0000</td>
<td>Redi-Rock Gravity Wall</td>
<td>483-18-02 (2016-030) 2016-030M</td>
</tr>
<tr>
<td></td>
<td>Earth Retainment System</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Redi-Rock Positive Connection Retaining Wall System</td>
<td>483-18-02 (2015-067)</td>
<td>2015-067A</td>
</tr>
<tr>
<td>SIDP1 15</td>
<td>Sidley Precast Division of R.W. Sidley, Inc., 88 East Hills Street, Youngwood, PA 15697</td>
<td>Wall Lagging</td>
<td>483-18-02 (2015-067) 2015-067A</td>
</tr>
<tr>
<td>STOCO 15</td>
<td>Stone and Company, 1718 Roseytown Road, Greensburg, PA 15601</td>
<td>Wall Lagging</td>
<td>483-18-02 (2015-067) 2015-067A</td>
</tr>
<tr>
<td></td>
<td>Earth Retainment System</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Redi-Rock Positive Connection Retaining Wall System</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TERRH1 15</td>
<td>Terre Hill Concrete Products, PLANT #4; 42 South Butler Road, Lebanon, PA 17042</td>
<td>Wall Lagging</td>
<td>483-18-02 (2015-067) 2015-067A</td>
</tr>
<tr>
<td>Plant</td>
<td>PLANT #4: P.O. Box 10 Terre Hill, PA 17581</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Precast Concrete Arch System</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Con-Span Precast Structure Standard</td>
<td>483-17-4 (86-353PE Change #2)</td>
<td>2009-013Q</td>
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<td></td>
<td>Provisional Approval: ECMS Special Provision I-c1084-A</td>
<td></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</td>
<td>Wall Lagging</td>
<td>483-18-02 (2015-067) 2015-067A</td>
</tr>
<tr>
<td></td>
<td>Earth Retainment System</td>
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</table>
Section MISC: Miscellaneous

MISC Precast Concrete Products

Approval Guidelines: Design Manual, Part 4 (Publication 15M), Part A, Chapter 1, Section 1.14

SOLs 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>WILLA 15</td>
<td>K. J. Williams Concrete Company, Inc., P.O. Box 5137, Cresaptown, MD 21505-5137</td>
<td>431-01-06 (00-602-BQAD)</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>15213 McMullen Highway S.W. Cumberland, MD 21502</td>
<td>431-94-53 (94-603-BQAD)</td>
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<tr>
<td></td>
<td>Earth Retainment System Foster Geotechnical (MSE wall)</td>
<td>431-01-06 (00-602-BQAD)</td>
<td></td>
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<tr>
<td></td>
<td>Earth Retainment System Reinforced Earth Company (MSE Wall - Cross Panel)</td>
<td>431-94-53 (94-603-BQAD)</td>
<td></td>
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<td></td>
<td>Earth Retainment System SINE WALL (MSE Wall)</td>
<td>483-17-4</td>
<td>2018-027Q</td>
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</tbody>
</table>

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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</thead>
<tbody>
<tr>
<td></td>
<td>Sediment Filter Bag Dirt Bag</td>
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</tr>
<tr>
<td>ENVGE 15</td>
<td>Environmental Geosynthetics, 1314 State Road, Coopersburg, PA 18036</td>
<td><a href="http://www.environmentalgeosynthetics.com/">http://www.environmentalgeosynthetics.com/</a></td>
</tr>
<tr>
<td></td>
<td>Sediment Filter Bag The Protector 1515 10 oz Sediment Filter Bag</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sediment Filter Bag 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</td>
<td><a href="http://www.jmdcompany.com/">http://www.jmdcompany.com/</a></td>
</tr>
<tr>
<td></td>
<td>Sediment Filter Bag Enviro-Protection Filter Bag</td>
<td></td>
</tr>
<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>
</tr>
<tr>
<td></td>
<td>Sediment Filter Bag FB-3 Filter Bag</td>
<td></td>
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</table>
# 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>
</tr>
</thead>
<tbody>
<tr>
<td>COLMM 15</td>
<td>Cold Mix Manufacturing Corporation, 65 Edison Avenue, Mount Vernon, NY 10550</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GreenPatch High Performance Cold Mix</td>
<td>2013-034M</td>
</tr>
<tr>
<td>CRAF0 15 Plant</td>
<td>Crafo, Inc., 6165 W. Detroit Street, Chandler, AZ 85226</td>
<td></td>
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<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crafco HP Cold Patch</td>
<td>2011-136</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mastic One Part No. 33339</td>
<td>2014-270</td>
</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer's specifications: Mastic One 33339 Product Data Sheet (manufacturer’s specifications)</td>
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<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
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</tr>
<tr>
<td></td>
<td>Polypatch Type 1, Hot Applied</td>
<td>2000-064</td>
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<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
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<tr>
<td></td>
<td>Polypatch Type 2, Hot Applied</td>
<td>2000-064</td>
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<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
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<tr>
<td></td>
<td>Polypatch Type 3, Hot Applied</td>
<td>2000-064</td>
</tr>
<tr>
<td>EZSCO 15</td>
<td>EZ Street Company, 1786 NW 82nd Avenue, Miami, FL 33126</td>
<td></td>
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<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EZ Street Cold Asphalt Patching Material</td>
<td>2007-007Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally approved per manufacturer's specifications: EZ Street Cold Asphalt Patching Material - Manufacturer’s Specifications</td>
<td></td>
</tr>
<tr>
<td>HEILM 15</td>
<td>Heilman Pavement Specialties, 290 North Pike Road, Sarver, PA 16055-9735</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HEI-Way General Purpose Permanent Patching Material</td>
<td>1983-128</td>
</tr>
<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>HEI-Way Latex Modified Permanent Patching Material</td>
<td>1983-127</td>
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<td></td>
<td>Special Asphalt Patching Material</td>
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<tr>
<td></td>
<td>HEI-Way Premium Stockpile Permanent Patching Material</td>
<td>1980-077</td>
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<tr>
<td>INNMU 15</td>
<td>Innovative Municipal U.S., Inc., P.O. Box 712, Niagara Falls, NY 14302</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Propatch High Performance</td>
<td>2008-146Q</td>
</tr>
<tr>
<td>PERMA 15</td>
<td>Perma-Patch, Inc., 6123 Oakleaf Avenue, Baltimore, MD 21215</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perma-Patch</td>
<td>86-037</td>
</tr>
</tbody>
</table>
### 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>
</tr>
</thead>
</table>

**Product description and specifications:**

- **QPR High Performance Cold Patch 2004-153Q**
- **Aquaphalt Technical Data Sheet - Specifications**
- **Polypave Stockpile Patch 1982-025**
- **JASA HP-5 Cutback Asphalt**
- **BOND-X High Performance Cold Patch Product Data Sheet**
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>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td>SK-MOD 1994-086</td>
</tr>
<tr>
<td></td>
<td>Modified stockpile patching material. Product description, recommended uses, and specifications: <a href="http://www.suit-kote.com/">SK-MOD Product Data Sheet</a></td>
<td></td>
</tr>
<tr>
<td>SUIT8 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>SUIT8 15</td>
</tr>
<tr>
<td>Facility</td>
<td>10965 McHenry Street Meadville, PA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td>SK-CAMP 2007-037Q</td>
</tr>
<tr>
<td></td>
<td>Provisionally Approved. Coarse aggregate modified patch. Product description, recommended uses, and specifications: <a href="http://www.suit-kote.com/">SK-CAMP Product Data Sheet</a></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Special Asphalt Patching Material</td>
<td>UPM Permanent Pavement Repair Material 1992-058</td>
</tr>
<tr>
<td></td>
<td>(product name formerly listed as UPM High Performance Cold Patch)</td>
<td>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

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>Facility</td>
<td>Van Buren, AR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Fibers for Reinforced Concrete, Type 1 Deformed</td>
<td>Dramix 3D 1999-018Q</td>
</tr>
<tr>
<td></td>
<td>Not for use with Ultra High Performance Concrete.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steel Fibers for Reinforced Concrete, Type 2</td>
<td>Fibercon Steel Fibers 1991-133</td>
</tr>
<tr>
<td></td>
<td>Not for use with Ultra High Performance Concrete.</td>
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</tr>
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</table>

MISC Subgrade Stabilization Treatment

Provisional Specification: ECMS Special Provision I-c02101B
### Section MISC: Miscellaneous

#### MISC Subgrade Stabilization Treatment

Provisional Specification: ECMS Special Provision I-c02101B

<table>
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<th>Name</th>
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</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Route 422 &amp; Clear Springs Road Annville, PA 17003</td>
<td>2006-037QB, 2006-036Q</td>
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</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>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Conditionally approved as an alternate.</td>
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</tr>
<tr>
<td></td>
<td>Alternate System (Conditionally Approved) V-400 Temporary Expansion Dam</td>
<td>2011-040B</td>
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<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></td>
<td>Asphalitic Plug Matrix 501 Asphalitic Plug Bridge Joint System</td>
<td>2013-017Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer's specifications: <a href="http://www.crafco.com/c%3Cstdlib/c501-pds.pdf">Crafco Matrix 501 Product Data Sheet</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asphalitic Plug Matrix 502 Asphalitic Plug Bridge Joint System</td>
<td>1995-189Q</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conditionally approved per manufacturer's specifications: <a href="http://www.crafco.com/cstdlib/c502-pds.pdf">Crafco Matrix 502 Product Data Sheet</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>LymTal International, Inc. 4150 South Lapeer Road Lake Orion, MI 48359</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asphalitic Plug BJS</td>
<td>9/3/1997</td>
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</tr>
<tr>
<td></td>
<td>Asphalitic Plug Thormo Joint</td>
<td>9/3/1997</td>
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</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>
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### 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>
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<tbody>
<tr>
<td>MISC Waterproofing Fabric (Asphalt)</td>
<td>Last Revised: 4/14/2015</td>
<td>678</td>
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**Section MISC: Miscellaneous**

**MISC Waterproofing Fabric (Asphalt)**

<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BREWR 15</td>
<td>Brewer Company, 30060 Lakeland Boulevard, Wickliffe, OH 44092</td>
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</tr>
<tr>
<td>9400 Cotton Fabric (Asphalt Saturated)</td>
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</table>

Last Revised: 4/14/2015
## 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>DriveSafe (ARLE)</td>
<td>XSL-001P</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>SmartStud</td>
<td>SST-001E</td>
<td>6/16/2005</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.

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>COA Date</th>
<th>Ref. No.</th>
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</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>
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<td></td>
<td>TS600YYL4</td>
<td>TSC-003E</td>
<td>9/26/2012</td>
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<td>ZA 230</td>
<td>1534-X001</td>
<td>4/11/2001</td>
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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

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

<table>
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<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>ENN-6 15</td>
<td>Ennis-Flint, Inc., 4161 Piedmont Parkway, Greensboro, NC 27410 Atlanta, GA</td>
<td>Integrated Multi-Polymer Pavement Marking</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>
</tr>
</tbody>
</table>

MISC Pavement Marking Systems, Methyl Methacrylate

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

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<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>Methyl Methacrylate Pavement Marking</td>
<td>SP01W-40 MMA-02 White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>Yes</td>
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<td></td>
<td></td>
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<tr>
<td>Methyl Methacrylate Pavement Marking</td>
<td>SP01W-90 MMA-02 White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>Yes</td>
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<tr>
<td>Methyl Methacrylate Pavement Marking</td>
<td>SP01W-90 MMA-02 White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Concrete</td>
<td>No</td>
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</table>
**Section MISC: Miscellaneous Traffic**

**MISC Pavement Marking Systems, Methyl Methacrylate**

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

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</thead>
<tbody>
<tr>
<td>AEXCE 15</td>
<td>Aexcel Coatings, 7373 Production Drive, Mentor, OH 44061-0780</td>
<td><a href="http://www.aexcelcoatings.com/index.html">http://www.aexcelcoatings.com/index.html</a></td>
<td>Methyl Methacrylate Pavement Marking</td>
<td>SP01Y-40</td>
<td>MMA-02</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>No</td>
</tr>
<tr>
<td>AEXCE 15</td>
<td>Methyl Methacrylate Pavement Marking</td>
<td>SP01Y-90</td>
<td>MMA-02</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>No</td>
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<tr>
<td>ENN-1 15</td>
<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>
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<td>ENN-1 15</td>
<td>Methyl Methacrylate Pavement Marking</td>
<td>HPS-7</td>
<td>MMA-01</td>
<td>White</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt</td>
<td>Yes</td>
<td>2011-139Q</td>
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*(Also known as 999105 or Pathfinder-05MPW)*

**MISC Pavement Marking Systems, Modified Polyacrylate**

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

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<thead>
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</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

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<tbody>
<tr>
<td>SWAR3 15</td>
<td>Colorado Paint Company, the SWARCO Group, 4747 Holly Street, Denver, CO 80216 <a href="https://www.swarco.com/cpc">https://www.swarco.com/cpc</a></td>
<td>MFUA-10</td>
<td>MPPM-01</td>
<td>White</td>
<td>Asphalt and Concrete</td>
<td>No</td>
<td>12/12 (See note)</td>
<td>No</td>
<td>2014-065M</td>
</tr>
<tr>
<td>Modified Polyacrylate Pavement Marking</td>
<td>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.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Modified Polyacrylate Pavement Marking</td>
<td>MFUA-10</td>
<td>MPPM-01</td>
<td>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>
<tr>
<td>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.</td>
<td></td>
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</table>

MISC Pavement Marking Systems, Polyester

Lines: Center, Lane and Edge Lines

Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

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<tr>
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</thead>
<tbody>
<tr>
<td>Polyester Pavement Marking</td>
<td>Lighted and Unlighted Roadways</td>
<td></td>
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<tr>
<td>Polyester Pavement Marking</td>
<td>SP01W-90</td>
<td>PPM-01</td>
<td>Yellow</td>
<td>Asphalt</td>
<td>No</td>
<td>M247</td>
<td>No</td>
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<td>Lighted and Unlighted Roadways</td>
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</table>

MISC Pavement Marking Systems, Polyurea

Last Revised: 6/23/2015
## Section MISC: Miscellaneous Traffic

### MISC Pavement Marking Systems, Polyurea

Lines: Center, Lane and Edge Lines  
Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

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</thead>
<tbody>
<tr>
<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>
<td>-----</td>
<td>UPRM-01</td>
</tr>
<tr>
<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>
<td>-----</td>
<td>UPRM-01</td>
</tr>
</tbody>
</table>

| Polyurea Pavement Marking | HPS-5 | PUPM-01 | White | Lighted and Unlighted Roadways | Asphalt and Concrete | M247 | Yes | ----- | UPRM-01 |
| Polyurea Pavement Marking | HPS-5 | PUPM-01 | Yellow | Lighted and Unlighted Roadways | Asphalt and Concrete | M247 | Yes | ----- | UPRM-01 |

| Polyurea Pavement Marking | LS90 | PM-05-05 | White | Asphalt and Concrete | See COA | No | ----- | UPRM-01 |
| Polyurea Pavement Marking | LS90 | PM-05-05 | Yellow | Asphalt and Concrete | See COA | No | ----- | UPRM-01 |

### MISC Pavement Marking Systems, Preformed Wet Reflective Striping Tape

Lines: Center, Lane and Edge Lines  
Other Uses: Crosshatching, Crosswalks, Legends and Stop Lines

Last Revised: 6/23/2015

Last Revised: 3/17/2017
### 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>Preformed Wet Reflective Striping Tape Pavement Marking</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>Yes</td>
<td></td>
<td>380AW</td>
</tr>
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</tr>
<tr>
<td>Preformed Wet Reflective Striping Tape Pavement Marking</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></td>
<td>380IES</td>
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<tr>
<td>Preformed Wet Reflective Striping Tape Pavement Marking</td>
<td>Stamark™ Series 380WR</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>
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<td>380WR</td>
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<tr>
<td>Preformed Wet Reflective Striping Tape Pavement Marking</td>
<td>Stamark™ Series 381AW</td>
<td>WRST-01</td>
<td>Yellow</td>
<td>Lighted and Unlighted Roadways</td>
<td>Asphalt and Concrete</td>
<td>Yes</td>
<td>Yes</td>
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<td>381AW</td>
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<tr>
<td>Preformed Wet Reflective Striping Tape Pavement Marking</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>
<td></td>
<td>381IES</td>
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</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>
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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>
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</thead>
<tbody>
<tr>
<td>CARMH 15</td>
<td>Carmanah Technologies Corporation, 203 Harbour Road Building 4-203, Victoria, BC V9A 3S2</td>
<td>8/2/2013</td>
<td>----</td>
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</tr>
<tr>
<td>Formerly Spot Devices, Inc. (SPODE 15)</td>
<td>R920 Series Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>CTC-004X</td>
<td></td>
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<tr>
<td></td>
<td>RRFB Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>CTC-005X</td>
<td>7/25/2013</td>
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</table>
Section MISC: Miscellaneous Traffic

### 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.

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<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>ELECT 15</td>
<td>Electrotechnics Corporation, 1310 Commerce Street, Marshall, TX 75672 <a href="http://www.elteccorp.com/">http://www.elteccorp.com/</a></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>AC890371-X</td>
<td>ETC-001X</td>
<td>5/14/2010</td>
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</tr>
<tr>
<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>
<tr>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>S891070-X</td>
<td>ETC-003X</td>
<td>5/14/2010</td>
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<tr>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>S891071</td>
<td>ETC-004X</td>
<td>5/14/2010</td>
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</tr>
<tr>
<td>Rectangular Rapid Flashing Beacon (RRFB) Systems</td>
<td>Enhancer</td>
<td>RDO-001X</td>
<td>11/19/2015</td>
<td>-</td>
</tr>
<tr>
<td>RTC-M 15</td>
<td>RTC Manufacturing Inc., P. O. Box 150189, Arlington, TX 76015 <a href="http://www.rtc-traffic.com/">http://www.rtc-traffic.com/</a></td>
<td></td>
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<tr>
<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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### MISC Traffic Operations, Auxiliary

Last Revised: 9/4/2018

<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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</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 <a href="http://www.cabproducts.com/">http://www.cabproducts.com/</a></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Auxiliary Traffic Operations Item</td>
<td>Cable Rings and Saddles, CAB</td>
<td>1520-0000</td>
<td>10/22/1999</td>
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### 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>
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<tbody>
<tr>
<td>IBITK 15</td>
<td>Ibis Tek, LLC, 496 Pittsburgh Road, Butler, PA 16002</td>
<td><a href="http://www.ibistek.com/">http://www.ibistek.com/</a></td>
<td></td>
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<td>Auxiliary Traffic Operations Item</td>
<td>IBS-001P</td>
<td>1/11/2013</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</td>
<td>7/10/1997</td>
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<td>Auxiliary Traffic Operations Item</td>
<td>LIN-002P</td>
<td>7/10/1997</td>
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<td>NAZTC 15</td>
<td>Trafficware, Inc., 522 Gillingham Drive, Sugar Land, TX 77478</td>
<td></td>
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<td></td>
<td>(Merger with Naztec, Inc.)</td>
<td>TFW-005P</td>
<td>4/13/2016</td>
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<tr>
<td>QUIEI 15</td>
<td>Quindar Electronics, Inc., 60 Fadem Road, Springfield, NJ 07081</td>
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<td></td>
<td>Mounting Frames, QX Series</td>
<td>QEI-004S</td>
<td>7/14/1976</td>
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<td></td>
<td>Power Supply, QP Series</td>
<td>QEI-001S</td>
<td>7/14/1976</td>
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<td></td>
<td>Tone Receiver, QR Series</td>
<td>QEI-002S</td>
<td>7/14/1976</td>
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<td></td>
<td>Tone Transmitter, QT Series</td>
<td>QEI-003S</td>
<td>7/14/1976</td>
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#### 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>CONSF 15</td>
<td>Continental Safety Supply Company, Inc., 790 Bloomfield Avenue, Clifton, NJ 07012</td>
<td>QEI-001S</td>
<td>Cone with Sign</td>
<td>18&quot; x 36&quot;</td>
<td>Surface (unfastened)</td>
<td>1998-011</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>DICKE 15</td>
<td>Dicke Tool Company, 1201 Warren Avenue, Downers Grove, IL 60515 <a href="http://dicketool.com/">http://dicketool.com/</a></td>
<td>SBL1236-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></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; (two-sided)</td>
<td>Surface (unfastened)</td>
</tr>
<tr>
<td>PEXCO 15</td>
<td>Pexco Davidson Traffic Control Products, 3110 70th Avenue East, Tacoma, WA 98424 <a href="http://www.pexco.com/markets/industrial/traffic">http://www.pexco.com/markets/industrial/traffic</a></td>
<td>8FG342FLGEFX613</td>
<td>PED-08</td>
<td>Vertical Panel</td>
<td>12&quot; x 42&quot;</td>
<td>Surface (unfastened)</td>
</tr>
<tr>
<td>PROTE 15</td>
<td>Protection Services, Inc., 1000 E Ashland Avenue, Folcroft, PA 19032 <a href="http://protectiveservicesinc.com/">http://protectiveservicesinc.com/</a></td>
<td>Big Foot</td>
<td>Vertical Panel</td>
<td>12&quot; x 36&quot;</td>
<td>Surface (unfastened)</td>
<td>2000-161Q</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>R1-6</td>
<td>PED-10</td>
<td>Vertical Panel</td>
<td>12&quot; x 42&quot;</td>
<td>Surface (unfastened)</td>
</tr>
</tbody>
</table>
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>Facility</td>
<td>Salt Mines: Avery Island, LA; Cleveland, OH; Lansing, NY</td>
<td>ClearLane enhanced deicer</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>Conditionally approved per manufacturer's specifications for winter road maintenance. Liquid pre-wetting facility located in Newark, CA.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Manufacturer's specifications for ClearLane enhanced deicer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETECH 15</td>
<td>EnviroTech Services, Inc., 4676 284th Street East, Randolph, MN 55065-0000</td>
<td></td>
<td>2016-075</td>
</tr>
<tr>
<td></td>
<td>PNS Inhibitor Category A3 - Corrosion Inhibitor for Sodium Chloride (Minimum 15% NaCl)</td>
<td>AMP</td>
<td></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>
</tbody>
</table>
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

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<table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>COA</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISS-1 15</td>
<td>Innovative Municipal Products US Inc. (dba Innovative Surface Solutions), 454 River Road, Glenmont, NY 12077</td>
<td><a href="http://www.innovativecompany.com">http://www.innovativecompany.com</a></td>
<td></td>
</tr>
<tr>
<td>PNS Category 1 - Corrosion Inhibited Liquid Magnesium Chloride</td>
<td>ProMelt Ultra 1000 INH</td>
<td>2018-109Q</td>
<td></td>
</tr>
<tr>
<td>Conditionally approved per manufacturer’s specifications for winter road maintenance.</td>
<td>Manufacturer’s specifications for ProMelt Ultra 1000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNS Experimental Category - Liquid Corrosion Inhibited Products</td>
<td>Magic Minus Zero (MAGIC-0) Concentrate</td>
<td>2014-007</td>
<td></td>
</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>
<td></td>
</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>Manufacturer’s specifications for ProMelt Ultra 2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KTECH 15</td>
<td>K-Tech Specialty Coatings, Inc., P.O. Box 428, Ashley, IN 46705-0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNS Experimental Category - Liquid Corrosion Inhibited Products</td>
<td>BEET HEET Concentrate</td>
<td>2013-117</td>
<td></td>
</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 applications as a liquid deicer.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NATOS 15</td>
<td>NATURES OWN SOURCE LLC, 7033 Mill Road, Becksville, OH 44141-0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNS Experimental Category - Liquid Corrosion Inhibited Products</td>
<td>AquaSalina+</td>
<td>2014-043</td>
<td></td>
</tr>
<tr>
<td>Conditionally approved per manufacturer's specifications for winter road maintenance.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section MISC: Winter Road Maintenance

MISC Snow and Ice Control Chemical Products

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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>SNIS1 15</td>
<td>SNI SOLUTIONS, 205 North Stewart Street, Geneseo, IL 61254-0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PNS Inhibitor Category A3 - Corrosion Inhibitor for Sodium Chloride (Minimum 15% NaCl)</td>
<td>Biomelt AG</td>
<td></td>
<td>2016-024</td>
</tr>
<tr>
<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>
<td></td>
</tr>
<tr>
<td>PNS Inhibitor Category A3 - Corrosion Inhibitor for Sodium Chloride (Minimum 15% NaCl)</td>
<td>Geomelt 55</td>
<td></td>
<td>2011-042</td>
</tr>
<tr>
<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>
<td></td>
</tr>
</tbody>
</table>
Section AISC: Certified Facilities

AISC Department Register of Certified Structural Steel Fabricators (AISC)  

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMTHR 15</td>
<td>Amthor Steel, 1717 Gaskell Ave., Erie, PA 16503</td>
<td>Certified Structural Steel Fabricator</td>
<td>2013-121</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>2015-152Q</td>
</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>Plant</td>
<td>25581 Hillman Highway Abingdon, VA 24210</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Certified Structural Steel Fabricator</td>
<td></td>
<td>Not approved to perform submerged arc welding.</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></td>
<td>25581 Hillman Highway Abingdon, VA 24210</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>25581 Hillman Highway Abingdon, VA 24210</td>
<td></td>
<td>-----</td>
</tr>
<tr>
<td>CANAM 15</td>
<td>Canam Steel Corporation, 4010 Clay Street, P.O. Box 285, Point of Rocks, MD 21777 <a href="http://www.canam-construction.com/en/">http://www.canam-construction.com/en/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td></td>
<td>25581 Hillman Highway Abingdon, VA 24210</td>
<td></td>
<td>2013-223</td>
</tr>
<tr>
<td></td>
<td>Approved to fabricate high performance steel.</td>
<td></td>
<td></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>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td></td>
<td>25581 Hillman Highway Abingdon, VA 24210</td>
<td></td>
<td>2010-087</td>
</tr>
</tbody>
</table>
### Section AISC: Certified Facilities

#### AISC Department Register of Certified Structural Steel Fabricators (AISC)

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<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<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>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</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</td>
<td><a href="http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx">http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx</a></td>
<td>Certified Structural Steel Fabricator</td>
</tr>
<tr>
<td>CON13 15 Plant</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>Certified Structural Steel Fabricator</td>
</tr>
</tbody>
</table>
Section AISC: Certified Facilities

AISC Department Register of Certified Structural Steel Fabricators (AISC)  

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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>CON14 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>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td>Plant</td>
<td>Anderson, SC</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formerly Continental Bridge (CONBR)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified Structural Steel Fabricator</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Approved to fabricate pedestrian bridge only.**

| CORNL 15 | Cornell & Company, Inc., P. O. Box 807, Woodbury, NJ 08096 http://www.cornellcraneandsteel.com/ | Certified Structural Steel Fabricator | IBR, FCE | 15 |
|          | Certified Structural Steel Fabricator | | | |

DECKI 15 | Cameron Bridge Works LLC, 1051 South Main Street, Elmira, NY 14904 http://www.cameronbridgeworks.com/ | Certified Structural Steel Fabricator | Major Steel Bridges with Fracture Critical Endorsement (CBR/F) | 2009-052 |
|          | Formerly Echo Bridge, Inc. / Decker Inc. | | | |

**Approved to fabricate pedestrian bridge only.**

| DURAB 15 | Dura-Bond Steel Corporation, 2658 Puckety Drive, Export, PA 15632 http://www.dura-bond.com/ | Certified Structural Steel Fabricator | SBR | 15 |
|          | Approved to perform heat-cambering and heat curving of rolled beams. | | | |

| DURBD 15 | Dura-Bond Pipe, LLC, 2716 South Front Street, Steelton, PA 17113 http://www.dura-bond.com/ | Certified Structural Steel Fabricator | SBR | 15 |


Posted: 10/21/2019 3:02:16PM
Section AISC: Certified Facilities

AISC Department Register of Certified Structural Steel Fabricators (AISC)

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ABR: Certified Bridge Fabricator - Advanced (Major) | CPT: Certified Component Manufacturer - Bridge | FCE: Fracture Critical Endorsement

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOODS 15</td>
<td>Goodhart Sons, Inc., 2515 Horeshoe Road, P. O. Box 10308, Lancaster, PA 17605-0308 <a href="http://www.goodhartsons.com/">http://www.goodhartsons.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Simple Steel Bridges (SBR)</td>
</tr>
</tbody>
</table>

Not approved to perform welding.
Section AISC: Certified Facilities

AISC Department Register of Certified Structural Steel Fabricators (AISC)

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IBR: Certified Bridge Fabricator - Intermediate (Major) | SBR: Certified Bridge Fabricator - Simple | AISC Certification

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<thead>
<tr>
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<th>Name</th>
<th>AISC Category</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>Certified Structural Steel Fabricator</td>
<td>Component Manufacturer - Bridge (CPT)</td>
</tr>
<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>HIGH2 15</td>
<td>High Steel Structures, Inc., 3501 W 4th Street, Williamsport, PA 17701 <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>
</tbody>
</table>

Approved to fabricate high performance steel.
Section AISC: Certified Facilities

AISC Department Register of Certified Structural Steel Fabricators (AISC)

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<th>Ref. No.</th>
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<tbody>
<tr>
<td>HIR02 15</td>
<td>W&amp;W</td>
<td>Hirschfeld Division, Nash County Plant, 241 Corbett Road, Nashville, NC 27856</td>
<td><a href="http://hirschfeld.wwafcosteel.com/">http://hirschfeld.wwafcosteel.com/</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified Structural Steel Fabricator</td>
<td></td>
</tr>
<tr>
<td>HIR03 15</td>
<td>W&amp;W</td>
<td>Hirschfeld Division, Abingdon Plant, 15083 Industrial Park Road, Bristol, VA 24201</td>
<td><a href="http://hirschfeld.wwafcosteel.com/">http://hirschfeld.wwafcosteel.com/</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified Structural Steel Fabricator</td>
<td></td>
</tr>
<tr>
<td>INDS1 15</td>
<td>Industrial Steel Construction, Inc., 86 North Bridge Street, Gary, IN 46404</td>
<td><a href="http://www.iscbridge.com/">http://www.iscbridge.com/</a></td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified Structural Steel Fabricator</td>
<td></td>
</tr>
<tr>
<td>INDS2 15</td>
<td>Industrial Steel Construction, Inc., 6120 River Road, Hodgkins, IL 60525</td>
<td><a href="http://www.iscbridge.com/">http://www.iscbridge.com/</a></td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified Structural Steel Fabricator</td>
<td></td>
</tr>
<tr>
<td>JGM-1 15</td>
<td>JGM, 1201 Valley Road, Coatesville, PA 19320</td>
<td></td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified Structural Steel 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></td>
<td>Major Steel Bridges (CBR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified Structural Steel Fabricator</td>
<td></td>
</tr>
<tr>
<td>KIN-1 15</td>
<td>Kinsley Manufacturing, 1100 East Princess Street, York, PA 17403</td>
<td><a href="http://www.kinsleymanufacturing.com/">http://www.kinsleymanufacturing.com/</a></td>
<td>Major Steel Bridges (CBR)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Certified Structural Steel Fabricator</td>
<td></td>
</tr>
</tbody>
</table>
### Section AISC: Certified Facilities

**AISC Department Register of Certified Structural Steel Fabricators (AISC)**

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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></td>
<td>KIN-2 15</td>
<td>Not approved to perform submerged arc welding.</td>
<td></td>
</tr>
<tr>
<td>L&amp;MF2 15</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></td>
<td>Facility 7230 Beth-Bath Pike Bath, PA 18014</td>
<td></td>
<td>2017-347Q</td>
</tr>
<tr>
<td>L&amp;MFM 15</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>
</tr>
<tr>
<td></td>
<td>Facility 6814 Chrisphalt Dr. Bath, PA 18014</td>
<td></td>
<td>2006-001</td>
</tr>
<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>Simple Steel Bridges (SBR)</td>
</tr>
<tr>
<td></td>
<td>LEVAN 15</td>
<td>Not approved to perform submerged arc welding.</td>
<td>2010-310</td>
</tr>
<tr>
<td>LTEL 15</td>
<td>Littel Steel Company, 100 Fallston Street, New Brighton, PA 15066 <a href="http://www.littellsteel.com/">http://www.littellsteel.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>IBR, FCE</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>IBR, FCE</td>
</tr>
<tr>
<td></td>
<td>MACIND15</td>
<td></td>
<td>2015-180Q</td>
</tr>
</tbody>
</table>
# Section AISC: Certified Facilities

**AISC Department Register of Certified Structural Steel Fabricators (AISC)**

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<th>Product Ref. No.</th>
<th>Name</th>
<th>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<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>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td>MCMAN 15</td>
<td>J. A. McMahon, Inc., 649 Grant Street, Niles, OH 44446 <a href="http://www.jamcmahon.com/home.htm">http://www.jamcmahon.com/home.htm</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<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>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 Plant</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>Certified Structural Steel Fabricator</td>
<td>IBR, FCE</td>
</tr>
</tbody>
</table>
BULLETIN 15 (Publication 35)
Qualified Products List for Construction

Section AISC: Certified Facilities

AISC Department Register of Certified Structural Steel Fabricators (AISC)  
Last Revised: 9/4/2019

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<table>
<thead>
<tr>
<th>Product</th>
<th>Name and Address</th>
<th>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Not approved to perform submerged arc welding.</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>Certified Structural Steel Fabricator</td>
<td>IBR, FCE</td>
</tr>
<tr>
<td>PSFAB 15</td>
<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
<td>Certified Structural Steel Fabricator</td>
<td>Simple Steel Bridges (SBR)</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>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Approved to perform heat cambering and heat curving of rolled beams.</td>
<td></td>
</tr>
<tr>
<td>RCCFI 15</td>
<td>RCC Fabricators, Inc., 2035 Route 206 South, Southampton, NJ 18434</td>
<td>Certified Structural Steel Fabricator</td>
<td>Simple Steel Bridges (SBR)</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>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Approved to Perform Heat-Cambering and Heat Curving of Rolled Beams. Not approved to perform submerged arc welding. (Initial Approval Ref. No. 2011-045Q)</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 <a href="http://www.rpsmachinery.com/">http://www.rpsmachinery.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>IBR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Approved to perform heat cambering and heat curving of rolled beams.</td>
<td></td>
</tr>
</tbody>
</table>
### Section AISC: Certified Facilities

#### AISC Department Register of Certified Structural Steel Fabricators (AISC)

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<th>Name</th>
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<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFGD 15</td>
<td>Safety Guard Steel Fabricating Company, 113 Lincoln Avenue, Pittsburgh, PA 15209</td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>Plant</td>
<td>220 Lincoln Avenue Pittsburgh, PA 15209</td>
<td>Approved to perform heat cambering and heat curving of rolled beams.</td>
<td></td>
</tr>
<tr>
<td>SBR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCOUG 15</td>
<td>Scougal Rubber Corporation, 885 Denmark Dr. Ste. 103b, McCarran, NV 89434</td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>SEISM 15</td>
<td>D.S. Brown Company, 300 East Cherry Street, North Baltimore, OH 45872 <strong>(Formerly Seismic Energy Products, Inc.)</strong></td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>Plant</td>
<td>518 Progress Way Athens, TX 75751</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>SEMMW 15</td>
<td>Seibel Modern Manufacturing &amp; Welding Corporation, 38 Palmer Place, Lancaster, NY 14086</td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>SHANE 15</td>
<td>Shane Felter Industries, P. O. Box 2022, Rt. 51, Uniontown, PA 15401</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</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>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<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> Formerly Structual Bridges, Div. of Canam Steel Corporation</td>
<td>Certified Structural Steel Fabricator Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
<td>2014-202</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 2014-110</td>
</tr>
<tr>
<td>STSSI 15</td>
<td>STS Steel, Inc., 301 Nott Street, Building 304, Schenectady, NY 12305 <a href="http://stsssteel.com/">http://stsssteel.com/</a></td>
<td>Certified Structural Steel Fabricator Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
<td>2010-161QB</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 2018-177Q</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 Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
<td>-----</td>
</tr>
</tbody>
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<th>Name</th>
<th>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>Valley, NE 68064</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>Elkhart, IN 46517</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>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td>Plant</td>
<td>2800 Melby Street  Eau Claire, WI 54703</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VETS2 15</td>
<td>Veritas Steel, 3526 W. Sherman Street, Wausau, WI 54401 <a href="http://www.veritassteel.com/">http://www.veritassteel.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
<tr>
<td>Plant</td>
<td>3526 W. Sherman Street  Wausau, WI 54401</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>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges with Fracture Critical Endorsement (CBR/F)</td>
</tr>
</tbody>
</table>
Section AISC: Certified Facilities

AISC Department Register of Certified Structural Steel Fabricators (AISC)

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<th>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATS 15</td>
<td>Watson Bowman Acme Corporation, 95 Pineview Drive, Amherst, NY 14228 <a href="https://wbacorp.com/">https://wbacorp.com/</a></td>
<td>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
<tr>
<td>WHELU 15</td>
<td>Wheeler Lumber, LLC, 1151 Chaparral Ave., Shakopee, MN 55379</td>
<td>Certified Structural Steel Fabricator</td>
<td>Major Steel Bridges (CBR)</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>Certified Structural Steel Fabricator</td>
<td>SBR</td>
</tr>
</tbody>
</table>

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.

These plants have been pre-approved to paint items for PennDOT by the Structural Materials Engineer, Materials Testing Laboratory, Harrisburg, PA. The Paint Shops listed below are approved by either the AISC Sophisticated Paint Endorsement (SPE), Category P1 (enclosed shop category) Program or the Society For Protective Coatings (SSPC) QP3 Certification Program enclosed shop category.

<table>
<thead>
<tr>
<th>Product Ref. No.</th>
<th>Name</th>
<th>AISC Category</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCIND 15</td>
<td>B-C Industries, 12 Hawksley Rd., Oxford, MA 01540</td>
<td>Certified Paint Shop</td>
<td>2009-172Q</td>
</tr>
</tbody>
</table>

Plant 12 Hawksley Rd. Oxford, MA 01540
## Section AISC: Certified Facilities

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>25581 Hillman Highway Abingdon, VA 24210</td>
<td>Certified Paint Shop</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>15</td>
</tr>
<tr>
<td></td>
<td>298 Cherry Hill Drive, Latrobe, PA 15650</td>
<td>Certified Paint Shop</td>
</tr>
<tr>
<td></td>
<td>Shop has SSPC-QP3 required for removal and disposal of hazardous coatings.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td></td>
</tr>
<tr>
<td>CBSSI 15</td>
<td>Casco Bay Steel Structures, Inc., One Wallace Avenue, South Portland, ME 04106</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Casco Bay Steel Structures, Inc. is approved for the following two paint shop facilities:</td>
<td>2016-209Q</td>
</tr>
<tr>
<td></td>
<td>1st Facility: One Wallace Avenue, South Portland, ME 04106</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2nd Facility: 1156 Broadway, South Portland, ME 04106</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>15</td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td>2010-213</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>Ref. No.</th>
</tr>
</thead>
</table>
| CIANB 15 | Cianbro Fabrication & Coating Corporation, 3 Farm Lane, Georgetown, MA 01833 [http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx](http://www.cianbro.com/ProjectsMarkets/FabricationCoating.aspx)  
Formerly Foster Precise Structural Products (FOSPR).  
Certified Paint Shop | ----- |
Certified Paint Shop | 2007-176Q |
Fort Payne, AL  
Certified Paint Shop | 2001-154 |
Certified Paint Shop | ----- |
Certified Paint Shop | ----- |
Certified Paint Shop | ----- |
| CPMP1 15 | Carney's Point Metal Processing, Inc., 351 North Virginia Avenue, Carneys Point, NJ 08069  
Certified Paint Shop | 2016-102Q |
| DECKI 15 | Cameron Bridge Works LLC, 1051 South Main Street, Elmira, NY 14904 [http://www.cameronbridgeworks.com/](http://www.cameronbridgeworks.com/)  
Formerly Echo Bridge, Inc. / Decker Inc.  
Certified Paint Shop | 2016-094Q |
Section AISC: Certified Facilities

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<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPAC 15 Plant</td>
<td>EPACoat, Inc, 4500 Oakleys Lane, Richmond, VA 23231 4500 Oakleys Lane Richmond, VA 23231</td>
<td>2012-004Q</td>
</tr>
<tr>
<td>ESAFE 15 Plant</td>
<td>Envirosafe Stripping, Inc., 785 Arch Street, Carnegie, PA 15106 785 Arch Street Carnegie, PA 15106</td>
<td>2009-130Q</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>GATEW 15</td>
<td>Gateway Industrial Services, 805 Harrison Street, Allentown, PA 18103</td>
<td>2013-139Q</td>
</tr>
<tr>
<td></td>
<td>805 Harrison Street Allentown, PA 18103</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td></td>
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<tr>
<td></td>
<td>Certified Paint Shop</td>
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<tr>
<td></td>
<td>Certified Paint Shop</td>
<td></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></td>
<td>Certified Paint Shop</td>
<td></td>
</tr>
</tbody>
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Section AISC: Certified Facilities

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<tbody>
<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</td>
<td>Industrial Painting Specialists, 5858 152nd Street North, Hugo, MN 55038</td>
<td>2012-007Q</td>
</tr>
<tr>
<td>INDPS 5</td>
<td>Plant 5858 152nd Street North Hugo, MN 55038</td>
<td>2012-007Q</td>
</tr>
<tr>
<td>KARDW 15</td>
<td>Kard Welding, Inc., 480 Osterloh Road, P. O. Box 124, Minster, OH 45865</td>
<td>2008-094</td>
</tr>
<tr>
<td>L&amp;MF2 15</td>
<td>L&amp;M Fabrication and Machine, Inc., 6814 Chrisphalt Drive, Bath, PA 18014</td>
<td>2012-007Q</td>
</tr>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niagc 15</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>
<tr>
<td>Oeste 15</td>
<td>Oesterling's Sandblasting &amp; Painting, 686 Glenwood Way, Butler, PA 16001</td>
<td>-</td>
</tr>
<tr>
<td>Plant 686 Glenwood Way Butler, PA 16001</td>
<td>Certified Paint Shop</td>
<td>Shop has SSPC-QP3 required for removal and disposal of hazardous coatings.</td>
</tr>
<tr>
<td>Plant 6120 Pricetown Road Berlin Center, OH 44401</td>
<td>Certified Paint Shop</td>
<td>Approved for Shop Application Metalizing.</td>
</tr>
<tr>
<td>Pdmb1 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>
</tbody>
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Section AISC: Certified Facilities

AISC Department Register of Certified Paint Shops (AISC or SSPC)  

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<th>Name</th>
<th>Ref. No.</th>
</tr>
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<tbody>
<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>POWSC 15</td>
<td>Powell Steel Corporation, 625 Baumgardner Road, Lancaster, PA 17603</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 <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>
</tbody>
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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>SECON 15</td>
<td>Secondary Service, 757 East Ferry, Buffalo, NY 14211</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>757 East Ferry  Buffalo, NY 14211</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Shop has SSPC-QP3 required for removal and disposal of hazardous coatings.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approved for shop application of metalizing.</td>
<td></td>
</tr>
<tr>
<td>SEISM 15</td>
<td>D.S. Brown Company, 300 East Cherry Street, North Baltimore, OH 45872</td>
<td><a href="http://www.dsbrown.com/">http://www.dsbrown.com/</a></td>
</tr>
<tr>
<td>Plant</td>
<td>518 Progress Way  Athens, TX 75751</td>
<td>(Formerly Seismic Energy Products, Inc.)</td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td>2010-199</td>
</tr>
<tr>
<td>SHANE 15</td>
<td>Shane Felter Industries, P. O. Box 2022, Rt. 51, Uniontown, PA 15401</td>
<td><a href="http://www.shanefelterindustries.com/">http://www.shanefelterindustries.com/</a></td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td>-----</td>
</tr>
<tr>
<td>SRTSS 15</td>
<td>SRT Sales and Services, LLC, 4936 Southway Street SW, Canton, OH 44706</td>
<td><a href="http://www.srtsands.com/">http://www.srtsands.com/</a></td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td>-----</td>
</tr>
<tr>
<td>STRBR 15</td>
<td>Canam Bridges US, Inc., a Canam Group Business, 386 River Road, Claremont, NH 03743</td>
<td><a href="https://www.canambridges.com/">https://www.canambridges.com/</a></td>
</tr>
<tr>
<td></td>
<td>Formerly Structural Bridges, Div. of Canam Steel Corporation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td>2014-015</td>
</tr>
<tr>
<td>STSSI 15</td>
<td>STS Steel, Inc., 301 Nott Street, Building 304, Schenectady, NY 12305</td>
<td><a href="http://stssteel.com/">http://stssteel.com/</a></td>
</tr>
<tr>
<td></td>
<td>Certified Paint Shop</td>
<td>2010-161QB</td>
</tr>
</tbody>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>Plant</td>
<td>Valley, NE 68064</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>Plant</td>
<td>3526 W. Sherman Street Wausau, WI 54401</td>
<td>-----</td>
</tr>
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<th>Product</th>
<th>Name</th>
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</tr>
</thead>
<tbody>
<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>
</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>ACMGS 15</td>
<td>Acme Grinding Services, Inc., 126 East Niagara St., Tonawanda, NY 14150</td>
<td>2015-198Q</td>
</tr>
</tbody>
</table>

*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.*
## Section MACH: PennDOT Register of Certified Machine Shops

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<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACMMW 15</td>
<td>Acme Machine &amp; Welding Company, 46 Anchor Inn Road, Punxsutawney, PA 15767</td>
<td><a href="http://www.acmemw.com/">http://www.acmemw.com/</a></td>
<td>Cutting Operation</td>
<td>2009-168Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2009-168Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Grinding Operation</td>
<td>2009-168Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Drilling or Punching Operation</td>
<td>----</td>
</tr>
<tr>
<td>ADVSC 15</td>
<td>Advantage Steel &amp; Construction, LLC, 2300 South Noah Drive, Saxonburg, PA 16056</td>
<td><a href="http://www.advsteel.com/">http://www.advsteel.com/</a></td>
<td>Bending Operation</td>
<td>2015-024Q</td>
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<td>Cutting Operation</td>
<td>2015-024Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
<td>2015-024Q</td>
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<td></td>
<td></td>
<td></td>
<td>Grinding Operation</td>
<td>2015-024Q</td>
</tr>
<tr>
<td>ALTPS 15</td>
<td>Pechter, Inc. DBA Altoona Pipe and Steel, 1128 Ninth Ave., Altoona, PA 16603</td>
<td><a href="http://www.altoonapipeandsteel.com/">http://www.altoonapipeandsteel.com/</a></td>
<td>Bending Operation</td>
<td>2012-051Q</td>
</tr>
<tr>
<td></td>
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<td>Cutting Operation</td>
<td>2012-051Q</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2012-051Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Grinding Operation</td>
<td>2012-051Q</td>
</tr>
<tr>
<td>AMCTC 15</td>
<td>A.M. Castle &amp; Company, 26800 Miles Road, Bedford Heights, OH 44146</td>
<td><a href="http://www.amcastle.com/">http://www.amcastle.com/</a></td>
<td>Bending Operation</td>
<td>2002-089Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cutting Operation</td>
<td>2002-089Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2002-089Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Grinding Operation</td>
<td>2002-089Q</td>
</tr>
</tbody>
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</tr>
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<tbody>
<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>2015-152Q</td>
</tr>
<tr>
<td>AXSAC 15</td>
<td>A &amp; X Steel and Aluminum Company, 2825 Annapolis Road, Baltimore, MD 21230</td>
<td>2015-155Q</td>
</tr>
</tbody>
</table>
## Section MACH: PennDOT Register of Certified Machine Shops

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<tbody>
<tr>
<td>Bending Operation</td>
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<td>2014-172Q</td>
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<tr>
<td>Cutting Operation</td>
<td></td>
<td>2014-172Q</td>
</tr>
<tr>
<td>Drilling or Punching Operation</td>
<td></td>
<td>2014-172Q</td>
</tr>
<tr>
<td>Grindng Operation</td>
<td></td>
<td>2014-172Q</td>
</tr>
<tr>
<td>Press Brake (Tubular)</td>
<td></td>
<td>2014-172Q</td>
</tr>
<tr>
<td>Water Jet Cutting Operation</td>
<td></td>
<td>2014-172Q</td>
</tr>
<tr>
<td>Project by project approval by Chief Structural Materials Engineer.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Drilling or Punching Operation | | 2011-131Q |

| **BENNE 15** | Bennett Bolt Works, Inc., 12 Elbridge Street, P. O. Box 922, Jordan, NY 13080 [http://www.bennettboltworks.com/](http://www.bennettboltworks.com/) | |
| Bending Operation | | 2015-144Q |
| Cutting Operation | | 2015-144Q |
| Drilling or Punching Operation | | 2015-144Q |
| Grinding Operation | | 2015-144Q |
| Laser Cutting Operation | | 2015-144Q |
| Project by project approval by Chief Structural Materials Engineer. | | |

| Cutting Operation | | 2010-189Q |
| Drilling or Punching Operation | | 2010-189Q |

| Cutting Operation | | 2010-279Q |
Section MACH: PennDOT Register of Certified Machine Shops

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<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2010-298Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2010-298Q</td>
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<td></td>
<td>Grinding Operation</td>
<td>2010-298Q</td>
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<tr>
<td></td>
<td>Bending Operation</td>
<td>2010-280Q</td>
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<td></td>
<td>Cutting Operation</td>
<td>2010-280Q</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2010-280Q</td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td>2010-280Q</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2013-087QA</td>
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<tr>
<td></td>
<td>Cutting Operation</td>
<td>2013-087QA</td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2013-087QA</td>
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<td></td>
<td>Grinding Operation</td>
<td>2013-087QA</td>
</tr>
<tr>
<td></td>
<td>Induction Bending Operation</td>
<td>2013-087QA</td>
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<td>Bending Operation</td>
<td>2002-113Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2002-113Q</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2002-113Q</td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td>2002-113Q</td>
</tr>
<tr>
<td></td>
<td>Stud Welding of Embed Plates Only</td>
<td>2015-181Q</td>
</tr>
<tr>
<td></td>
<td>Water Jet Cutting Operation</td>
<td>2015-177Q</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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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BLALP 15</td>
<td>Black Lion Products, LLC, 3710 Henricks Road, Youngstown, OH 44515</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2014-213Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2014-213Q</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2014-213Q</td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td>2014-213Q</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2013-119Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2013-119Q</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2013-119Q</td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td>2013-119Q</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></td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2011-190Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2011-190Q</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2011-190Q</td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td>2011-190Q</td>
</tr>
<tr>
<td>CBSSI 15</td>
<td>Casco Bay Steel Structures, Inc., One Wallace Avenue, South Portland, ME 04106</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td>2016-210</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td>2016-210</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2016-210</td>
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<tr>
<td></td>
<td>Grinding Operation</td>
<td>2016-210</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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<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACH Certified Machine Shop Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cutting Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drilling or Punching Operation</td>
<td></td>
<td></td>
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<tr>
<td>MACH Certified Machine Shop Operations</td>
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<tr>
<td>Cutting Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drilling or Punching Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MACH Certified Machine Shop Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bending Operation</td>
<td></td>
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<tr>
<td>Cutting Operation</td>
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<tr>
<td>Drilling or Punching Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grinding Operation</td>
<td></td>
<td></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>2012-052Q</td>
</tr>
<tr>
<td>MACH Certified Machine Shop Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bending Operation</td>
<td></td>
<td></td>
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<tr>
<td>Cutting Operation</td>
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<td></td>
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<tr>
<td>Drilling or Punching Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grinding Operation</td>
<td></td>
<td></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>2010-328Q</td>
</tr>
<tr>
<td>MACH Certified Machine Shop Operations</td>
<td></td>
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<tr>
<td>Bending Operation</td>
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<tr>
<td>Cutting Operation</td>
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<td></td>
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<tr>
<td>Drilling or Punching Operation</td>
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<td></td>
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<tr>
<td>Grinding Operation</td>
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</tr>
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Section MACH: PennDOT Register of Certified Machine Shops

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<thead>
<tr>
<th>Product</th>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>Cutting Operation</td>
<td>2001-118Q</td>
</tr>
<tr>
<td>Drilling or Punching Operation</td>
<td>2001-118Q</td>
</tr>
<tr>
<td>Grinding Operation</td>
<td>2001-118Q</td>
</tr>
<tr>
<td>DELT1 15</td>
<td>Delta Steel, Inc., 1585 Edgefield Way, Cedar Hill, TX 75104 <a href="https://www.deltasteel.com/">https://www.deltasteel.com/</a></td>
</tr>
<tr>
<td>Cutting Operation</td>
<td>----</td>
</tr>
<tr>
<td>Drilling or Punching Operation</td>
<td>----</td>
</tr>
<tr>
<td>Grinding Operation</td>
<td>----</td>
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<tr>
<td>Bending Operation</td>
<td>----</td>
</tr>
<tr>
<td>Cutting Operation</td>
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</tr>
<tr>
<td>Drilling or Punching Operation</td>
<td>----</td>
</tr>
<tr>
<td>Grinding Operation</td>
<td>----</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>
</tr>
<tr>
<td>Bending Operation</td>
<td>2015-047Q</td>
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<td>Cutting Operation</td>
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<tr>
<td>Drilling or Punching Operation</td>
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Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

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<table>
<thead>
<tr>
<th>Product Name</th>
<th>Facility</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dolan's Welding &amp; Steel Fabricating, 118 Venture Street, Johnstown, PA 15909-4224</td>
<td>Dolan's Welding &amp; Steel Fabricating, 118 Venture Street, Johnstown, PA 15909-4224</td>
<td>2017-167Q</td>
</tr>
<tr>
<td>DS Pipe &amp; Steel Supply LLC, P.O. Box 6367, 1301 Wicomico Street, Baltimore, MD 21230</td>
<td>DS Pipe &amp; Steel Supply LLC, P.O. Box 6367, 1301 Wicomico Street, Baltimore, MD 21230</td>
<td>2016-067Q</td>
</tr>
<tr>
<td>Duffy Fabrication, Inc., 32 Mechanic Avenue, Woonsocket, RI 02895</td>
<td>Duffy Fabrication, Inc., 32 Mechanic Avenue, Woonsocket, RI 02895</td>
<td>2014-094Q</td>
</tr>
<tr>
<td>Delaware Valley Steel, 2249 Manor Ave, Upper Darby, PA 19082</td>
<td>Delaware Valley Steel, 2249 Manor Ave, Upper Darby, PA 19082</td>
<td>2017-355Q</td>
</tr>
</tbody>
</table>
Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

<table>
<thead>
<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bending Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td></td>
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<tr>
<td></td>
<td>Grinding Operation</td>
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</tr>
<tr>
<td></td>
<td>Bending Operation</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>
<td></td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<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>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EASSM 15</td>
<td>Eastern Shaft &amp; Manufacturing, 160 Court St., Lancaster, NY 14086</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td></td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EXC-0 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>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td></td>
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<tr>
<td></td>
<td>Grinding Operation</td>
<td></td>
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</tbody>
</table>
# Qualified Products List for Construction

Section MACH: PennDOT Register of Certified Machine Shops

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<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<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>
</tr>
<tr>
<td>Plant</td>
<td>9723 Hwy 322 P.O. Box 605 Conneaut Lake, PA 16316</td>
</tr>
<tr>
<td>Bending Operation</td>
<td>2013-170Q</td>
</tr>
<tr>
<td>Cutting Operation</td>
<td>2013-170Q</td>
</tr>
<tr>
<td>Drilling or Punching Operation</td>
<td>2013-170Q</td>
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<tr>
<td>Grinding Operation</td>
<td>2013-170Q</td>
</tr>
<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>
</tr>
<tr>
<td>Plant</td>
<td>9723 Hwy 322 P.O. Box 605 Conneaut Lake, PA 16316</td>
</tr>
<tr>
<td>Bending Operation</td>
<td>2013-171Q</td>
</tr>
<tr>
<td>Cutting Operation</td>
<td>2013-171Q</td>
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<tr>
<td>Drilling or Punching Operation</td>
<td>2013-171Q</td>
</tr>
<tr>
<td>Grinding Operation</td>
<td>2013-171Q</td>
</tr>
<tr>
<td>Plant</td>
<td>Hermitage, PA 16148</td>
</tr>
<tr>
<td>Bending Operation</td>
<td>2000-265Q</td>
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<tr>
<td>Cutting Operation</td>
<td>2000-265Q</td>
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<tr>
<td>Drilling or Punching Operation</td>
<td>2000-265Q</td>
</tr>
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<td>Grinding Operation</td>
<td>2000-265Q</td>
</tr>
<tr>
<td>FASCM 15</td>
<td>Fastenal Company Manufacturing Division, 1801 Theurer Blvd., Winona, MN 55987 <a href="https://www.fastenal.com/home.ex">https://www.fastenal.com/home.ex</a></td>
</tr>
<tr>
<td>Plant</td>
<td></td>
</tr>
<tr>
<td>Bending Operation</td>
<td>2000-342Q</td>
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<tr>
<td>Cutting Operation</td>
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<tr>
<td>Drilling or Punching Operation</td>
<td>2000-342Q</td>
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<td>Grinding Operation</td>
<td>2000-342Q</td>
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</table>
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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GILCR 15</td>
<td>Gilcher Machine LLC, 65671 Rabbit Road, Cambridge, OH 43725</td>
<td>2013-208Q</td>
</tr>
</tbody>
</table>
Section MACH: PennDOT Register of Certified Machine Shops

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<tr>
<th>Product</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLOFA 15</td>
<td>Gortech Global Fabrication, 215 Beaver Drive, Dubois, PA 15801</td>
<td>2009-015Q</td>
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<td>Bending Operation</td>
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<td></td>
<td>Cutting Operation</td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
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<td>Bending Operation</td>
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<td></td>
<td>Cutting Operation</td>
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<td></td>
<td>Drilling or Punching Operation</td>
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<tr>
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<td>Grinding Operation</td>
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<tr>
<td></td>
<td>Induction Bending Operation</td>
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</tr>
<tr>
<td>HABSI 15</td>
<td>Haberle Steel, Inc., 1946 East Cherry Lane, Souderton, PA 18964 [<a href="http://haberlesteel.com/">http://haberlesteel.com/</a>]</td>
<td>2010-211Q</td>
</tr>
<tr>
<td></td>
<td>Bending Operation</td>
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<td>Cutting Operation</td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</td>
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</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td></td>
</tr>
<tr>
<td>HALL15</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></td>
</tr>
<tr>
<td></td>
<td>Bending Operation</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>Grinding Operation</td>
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</table>

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### Section MACH: PennDOT Register of Certified Machine Shops

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<table>
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<tr>
<th>Product</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HALL2 15</strong></td>
<td>Hall Industries, Inc., 514 Mecklem Lane, Ellwood City, PA 16117 <a href="http://hallindustries.com/">http://hallindustries.com/</a></td>
</tr>
<tr>
<td>Bending Operation</td>
<td>2002-011Q</td>
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<tr>
<td>Cutting Operation</td>
<td>2002-011Q</td>
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<tr>
<td>Drilling or Punching Operation</td>
<td>2002-011Q</td>
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<tr>
<td>Grinding Operation</td>
<td>2002-011Q</td>
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<tr>
<td><strong>HALL3 15</strong></td>
<td>Hall Industries, Inc., HGH Facility, 606 2nd Street, Ellwood City, PA 16117 <a href="http://hallindustries.com/">http://hallindustries.com/</a></td>
</tr>
<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>2017-029Q</td>
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<tr>
<td>Grinding Operation</td>
<td>2017-029Q</td>
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<tr>
<td>Bending Operation</td>
<td>2011-262Q</td>
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<td>Cutting Operation</td>
<td>2011-262Q</td>
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<tr>
<td>Drilling or Punching Operation</td>
<td>2011-262Q</td>
</tr>
<tr>
<td>Grinding Operation</td>
<td>2011-262Q</td>
</tr>
</tbody>
</table>
| **HEART 15** | Heartland Fabrication, LLC, 1800 Paul Thomas Boulevard, Brownsville, PA 15417 [https://www.hl-fabrication.com/](https://www.hl-fabrication.com/)  
Formerly Brownsville Marine Products |
| Bending Operation | 2013-095Q |
| Cutting Operation | 2013-095Q |
| Drilling or Punching Operation | 2013-095Q |
| Grinding Operation | 2013-095Q |
| Press Brake (Tubular) | 2013-095Q |
Section MACH: PennDOT Register of Certified Machine Shops

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<th>Product Name Ref. No.</th>
<th>Product Name</th>
<th>Name</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HERSA 15</td>
<td>Herr and Sacco, Incorporated, 1831 Auction Road, Manheim, PA 17545</td>
<td><a href="http://www.herrandsacco.com/index.html">http://www.herrandsacco.com/index.html</a></td>
<td>2014-192Q</td>
</tr>
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<td>Bending Operation</td>
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<td>2014-192Q</td>
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<tr>
<td></td>
<td>Cutting Operation</td>
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<td>2014-192Q</td>
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<td></td>
<td>Grinding Operation</td>
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<td>2014-192Q</td>
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<tr>
<td></td>
<td>Laser Cutting Operation</td>
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</tr>
<tr>
<td></td>
<td>Water Jet Cutting Operation</td>
<td></td>
<td>2014-192Q</td>
</tr>
<tr>
<td></td>
<td>Project by project approval by Chief Structural Materials Engineer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIGH1 15</td>
<td>High Steel Structures, Inc., 1915 Old Philadelphia Pike,, P.O. Box 10008, Lancaster, PA 17605-0008</td>
<td><a href="http://www.highsteel.com/">http://www.highsteel.com/</a></td>
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<tr>
<td>HREVA 15</td>
<td>HR Evans Steel Company, 193 N. James Street, East Palestine, OH 44413</td>
<td><a href="http://www.hrevans.com/">http://www.hrevans.com/</a></td>
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Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

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<tr>
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<th>Name</th>
<th>Ref. No.</th>
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</thead>
<tbody>
<tr>
<td>HWN-15</td>
<td>H. W. Nicholson Welding and Manufacturing Inc., 3899 Route 66, Apollo, PA 15613</td>
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<td>INFR-2</td>
<td>Infra-Metals Company, 1 Sturgills Way, New Boston, OH 45662</td>
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<td>INFRA-1</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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<th>Name</th>
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</thead>
<tbody>
<tr>
<td>INTSF 15</td>
<td>Interstate Safety Service, Inc., 1301 Winola Road, Clarks Summit, PA 18411</td>
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<td>INTSS 15</td>
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<td>Bending Operation 2015-006Q, Cutting Operation 2015-006Q</td>
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<tr>
<td>J&amp;RS 15</td>
<td>J &amp; R Slaw, Inc., 438 Riverview Road, Lehighton, PA 18235 [<a href="http://www.slawprecast.com/">http://www.slawprecast.com/</a>]</td>
<td>Cutting Operation ----, Drilling or Punching Operation ----</td>
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<tr>
<td>KARDW 15</td>
<td>Kard Welding, Inc., 480 Osterloh Road, P. O. Box 124, Minster, OH 45865</td>
<td>Bending Operation 2010-228Q, Cutting Operation 2010-228Q, Drilling or Punching Operation 2010-228Q, Grinding Operation 2010-228Q</td>
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</table>
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<td>Cutting Operation Machine Shop</td>
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<td>Drilling or Punching Operation</td>
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<td>KEYSN 15</td>
<td>Keystone North, Inc., 310 South Main Street, Mansfield 16933</td>
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<td>Cutting Operation</td>
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<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
<td>2015-190Q</td>
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<tr>
<td>KLENY 15</td>
<td>Klein Steel of Western New York, 1050 Military Road, Buffalo, NY 14217</td>
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<td>Bending Operation</td>
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<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
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<td>Cutting Operation</td>
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<td>2001-126Q</td>
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<tr>
<td>Drilling or Punching Operation</td>
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<td>Kloeckner Metals - Temtco Steel Division, 500 Manchester Court, York, PA 17408 <a href="http://www.kloecknermetals.com/Home.aspx">http://www.kloecknermetals.com/Home.aspx</a></td>
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<td>Kottler Metal Products, 1595 Lost Nation Road, Willoughby, OH 44094-4633 <a href="http://www.kottlermetal.com/">http://www.kottlermetal.com/</a></td>
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<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>
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<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>
<td>2003-103Q</td>
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<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>MGLOS 15</td>
<td>M. Glosser &amp; Sons, Inc., 72 Messenger Street, Johnstown, PA 15902</td>
<td>2012-219Q</td>
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<td>MIDATL15</td>
<td>Mid-Atlantic Steel, LLC, 1144 River Road, New Castle, DE 19720</td>
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<td>MILMF 15</td>
<td>Miller Metal Fabrication, Inc., 16356 Sussex Hwy, P.O. Box 249, Bridgeville, DE 19933</td>
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<td>MORGAN 15</td>
<td>Morgan's Welding Inc. (Neenah Enterprises, Inc.), 1941 Camp Swatara Road, Myerstown, PA 17067</td>
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<td>MTGFAB15</td>
<td>Manufacturing Technology Group, Inc., 85 Servistar Industrial Way, Westfield, MA 01085</td>
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<tbody>
<tr>
<td>MUNMT 15</td>
<td>Muncy Machine &amp; Tool Company, P. O. Box 205, Muncy, PA 17756 <a href="http://www.muncyindustries.com/">http://www.muncyindustries.com/</a></td>
<td>Bending Operation ---- Cut Operation ---- Drilling or Punching Operation ---- Grinding Operation ----</td>
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<td>NAMCO 15</td>
<td>Namascoc Corporation, 3835 Singleton Blvd., Dallas, TX 75212</td>
<td>Cutting Operation 2011-140Q Drilling or Punching Operation 2011-140Q Grinding Operation 2011-140Q</td>
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<td>NIVERT15</td>
<td>Nivert Metal Supply, Inc., 1100 Marshwood Road, Throop, PA 18512</td>
<td>Cutting Operation 2017-273Q</td>
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<td>OLYCD 15</td>
<td>Olympic Steel, Cleveland Division, 5080 Richmond Road, Bedford Heights, OH 44146 <a href="http://www.olysteel.com/">http://www.olysteel.com/</a></td>
<td>Cutting Operation 2003-057Q Drilling or Punching Operation 2003-057Q</td>
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</tbody>
</table>
Section MACH: PennDOT Register of Certified Machine Shops

MACH Certified Machine Shops

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<td></td>
<td>Bending Operation</td>
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<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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<td>Cutting Operation</td>
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<td></td>
<td>Grinding Operation</td>
<td></td>
</tr>
<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>
<td>2009-005Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
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</tr>
<tr>
<td></td>
<td>Grinding Operation</td>
<td></td>
</tr>
<tr>
<td>PEIWF 15</td>
<td>Peirce Welding &amp; Fabricating, 170 Airport Rd., P.O. Box 369, Bethel, PA 19507 <a href="http://www.peircwelding.com/index.html">http://www.peircwelding.com/index.html</a></td>
<td>——</td>
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<tr>
<td></td>
<td>Bending Operation</td>
<td>——</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>Grinding Operation</td>
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<td>Bending Operation</td>
<td>2012-109Q</td>
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<td>Grinding Operation</td>
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<td></td>
<td>Water Jet Cutting Operation</td>
<td>2012-109QB</td>
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<td>PERPV 15</td>
<td>Performance Processing Venture, LLC, 660 Martin Luther King Jr. Blvd., Farrell, PA 16121</td>
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<td></td>
<td>Cutting Operation</td>
<td>2009-136Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
<td>2009-136Q</td>
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<tr>
<td>PKMAC 15</td>
<td>P. K. Machine, 9 Brooks Ave., Willow Street, PA 17584</td>
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<tr>
<td></td>
<td>Bending Operation</td>
<td>2001-165Q</td>
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<td></td>
<td>Cutting Operation</td>
<td>2001-165Q</td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2001-165Q</td>
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<tr>
<td></td>
<td>Grinding Operation</td>
<td>2001-165Q</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>
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<tr>
<td></td>
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<td>Cutting Operation</td>
<td>2018-218Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
<td>2018-218Q</td>
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<td></td>
<td>Grinding Operation</td>
<td>2018-218Q</td>
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<tr>
<td></td>
<td>Bending Operation</td>
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<td>Cutting Operation</td>
<td>2016-204Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
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<th>Product</th>
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<tbody>
<tr>
<td>PRESS 15</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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<tr>
<td></td>
<td>Cutting Operation</td>
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<tr>
<td>PRETC 15</td>
<td>Premium Tool Company, Inc., 1082 Penn Avenue, Jersey Shore, PA 17740</td>
<td></td>
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<tr>
<td></td>
<td>Cutting Operation</td>
<td>2002-043Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
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<tr>
<td>PROMA 15</td>
<td>Professional Machine, 518 Maple Street, Holyoke, MA 01040</td>
<td><a href="http://www.promach.biz/">http://www.promach.biz/</a></td>
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<td></td>
<td>Drilling or Punching Operation</td>
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<td></td>
<td>Grinding Operation</td>
<td>2013-015Q</td>
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<tr>
<td>PRSNY 15</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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<tr>
<td>(Formerly: Private Systems of WNY, Inc.)</td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2010-177Q</td>
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<td></td>
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<tr>
<td>PSFAB 15</td>
<td>Penn Steel Fabrication, Inc., 805 N. Wilson Ave, Unit 206, Bristol, PA 19007</td>
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<td>Bending Operation</td>
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<td>Drilling or Punching Operation</td>
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<td></td>
<td>Grinding Operation</td>
<td>2016-281</td>
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<tr>
<td>QUABF 15</td>
<td>Quality Bridge and Fab, Inc., 3608 Sharon Road, West Middlesex, PA 16159</td>
<td><a href="http://www.qualitybridgeandfab.com/">http://www.qualitybridgeandfab.com/</a></td>
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<tr>
<td></td>
<td>Bending Operation</td>
<td>2013-049Q</td>
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<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
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<tbody>
<tr>
<td></td>
<td>Cutting Operation</td>
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<td>Grinding Operation</td>
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<td>Bending Operation</td>
<td>2001-151Q</td>
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<td>Cutting Operation</td>
<td>2001-151Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
<td>2001-151Q</td>
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<td></td>
<td>Grinding Operation</td>
<td>2001-151Q</td>
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<tr>
<td></td>
<td>Bending Operation</td>
<td>2013-084Q</td>
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<td></td>
<td>Cutting Operation</td>
<td>2013-084Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
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<td>Grinding Operation</td>
<td>2013-084Q</td>
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<td>Bending Operation</td>
<td>2008-002Q</td>
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<td>Cutting Operation</td>
<td>2008-002Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
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<td>2008-002Q</td>
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<td>2000-312Q</td>
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<td>Cutting Operation</td>
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<td>Grinding Operation</td>
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<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>
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</tr>
<tr>
<td></td>
<td>Bending Operation</td>
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<tr>
<td></td>
<td>Grinding Operation</td>
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</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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<td></td>
<td>Cutting Operation</td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</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>
<td>2000-233Q</td>
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<tr>
<td>Facility</td>
<td>3915 Walden Avenue Lancaster, NY 14086</td>
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<td></td>
<td>Cutting Operation</td>
<td>2000-233Q</td>
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<td>Drilling or Punching Operation</td>
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<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>
<td>2015-052</td>
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<tr>
<td>Facility</td>
<td>555 North Yearling Road Columbus, OH 43213</td>
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<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>Cutting Operation</td>
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<tr>
<td>RYER5 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>920 Old Brunerstown Road Shelbyville, KY 40065-9132</td>
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<td>Cutting Operation</td>
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<td>2016-133Q</td>
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<tr>
<td>Grinding Operation</td>
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<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>Grinding Operation</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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<td>SAMPS 15</td>
<td>Samuel Plate Sales, 250 Lake Ave., Blasdell, NY 14219</td>
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<td>Drilling or Punching Operation</td>
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<td>2000-154Q</td>
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<td>Cutting Operation</td>
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<td>Drilling or Punching Operation</td>
<td>2000-154Q</td>
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<td>Grinding Operation</td>
<td>2000-154Q</td>
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<tr>
<td>Plant 518 Progress Way Athens, TX 75751</td>
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<td>Bending Operation</td>
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<tbody>
<tr>
<td>Facility 130A Satterlee Road DuBois, PA 15801</td>
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</tr>
<tr>
<td></td>
<td>DuBois, PA and Reynoldsville, PA</td>
<td>2016-119Q</td>
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<tr>
<td></td>
<td>Cutting Operation</td>
<td>2016-119Q</td>
</tr>
<tr>
<td></td>
<td>DuBois, PA and Reynoldsville, PA</td>
<td>2016-119Q</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
<td>2016-119Q</td>
</tr>
<tr>
<td></td>
<td>DuBois, PA and Reynoldsville, PA</td>
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<td></td>
<td>Grinding Operation</td>
<td>2016-119Q</td>
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<td></td>
<td>DuBois, PA and Reynoldsville, PA</td>
<td>2016-119Q</td>
</tr>
<tr>
<td></td>
<td>Press Brake (Tubular)</td>
<td>2016-119Q</td>
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<tr>
<td></td>
<td>DuBois, PA and Reynoldsville, PA</td>
<td>2016-119Q</td>
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<tr>
<td></td>
<td>Bending Operation</td>
<td>2011-126Q</td>
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<td>Cutting Operation</td>
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<td>2011-126Q</td>
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<td>Cutting Operation</td>
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<tr>
<td>STESH 15</td>
<td>Steel Shearing, Inc., 5300 Lakeside Ave East Suite 2, Cleveland, OH 44114</td>
<td>2003-104Q</td>
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<td>Cutting Operation</td>
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<tr>
<td></td>
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<tr>
<td>STEWK 15</td>
<td>Steelworks, Inc., P.O. Box 390, 2335 Toledo Ave., Trenton, MI 48183</td>
<td>Bending Operation 2001-071Q, Cutting Operation 2001-071Q, Drilling or Punching Operation 2001-071Q, Grinding Operation 2001-071Q</td>
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<tr>
<td>SUTR 15</td>
<td>Summit Utility Structures, 2027 South 12th Street, Bldg 5, Allentown, PA 18103</td>
<td>Bending Operation 2015-123Q, Cutting Operation 2015-123Q, Drilling or Punching Operation 2015-123Q, Grinding Operation 2015-123Q, Press Brake (Tubular) 2015-123Q</td>
</tr>
<tr>
<td>SVPRO 15</td>
<td>Steel Valley Processing, LLC, 3710 Hendricks Road, Youngstown, OH 44515</td>
<td>Bending Operation 2016-032Q, Cutting Operation 2016-032Q, Drilling or Punching Operation 2016-032Q, Grinding Operation 2016-032Q</td>
</tr>
<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>
<td>Bending Operation -----, Cutting Operation -----</td>
</tr>
</tbody>
</table>

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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>Facility</th>
<th>Ref. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEKT15</td>
<td>Tektons Design Group, LLC, 702 East 4th Street, Richmond, VA 23224</td>
<td>702 East 4th Street  Richmond, VA 23224</td>
<td>2015-114Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
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<td></td>
<td>Drilling or Punching Operation</td>
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<td></td>
<td>Grinding Operation</td>
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<td></td>
</tr>
<tr>
<td>THOMC15</td>
<td>Thompson Machine Company, 1128 N. Fourth Ave., Altoona, PA 16601</td>
<td></td>
<td>2015-114Q</td>
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<td></td>
<td>Bending Operation</td>
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<tr>
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<td>Cutting Operation</td>
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<td></td>
<td>Grinding Operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOLSS15</td>
<td>Toledo Steel Supply, Inc., 222 LaVoy Road, Erie, MI 48133</td>
<td><a href="http://toledosteel.net/">http://toledosteel.net/</a></td>
<td>2014-131Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
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<td>Grinding Operation</td>
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<tbody>
<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>
<td>2012-249Q</td>
</tr>
<tr>
<td>UMC1 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>
<td>2018-245Q</td>
</tr>
</tbody>
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<th>Product Name Ref. No.</th>
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</tr>
</thead>
<tbody>
<tr>
<td>VERIN 15</td>
<td>Bending Operation</td>
<td>Vertech International, Inc., 420 Station Road, Quakertown, PA 18951</td>
<td>2011-248Q</td>
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<tr>
<td></td>
<td>Drilling or Punching Operation</td>
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<td>2011-248Q</td>
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<td>Grinding Operation</td>
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<td>2011-248Q</td>
</tr>
<tr>
<td>VICFC 15</td>
<td>Bending Operation</td>
<td>Vicon Fabricating Company, 7200 Justin Way, Mentor, OH 44060</td>
<td>2009-008Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td><a href="http://viconfab.com/">http://viconfab.com/</a></td>
<td>2009-008Q</td>
</tr>
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<td></td>
<td>Drilling or Punching Operation</td>
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<td>2009-008Q</td>
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<td>Grinding Operation</td>
<td></td>
<td>2009-008Q</td>
</tr>
<tr>
<td>VOSMA 15</td>
<td>Bending Operation</td>
<td>Voss Manufacturing, Inc., 2345 Lockport Road, Sanborn, NY 14132</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td><a href="http://vossmfg.com/">http://vossmfg.com/</a></td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
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<tr>
<td></td>
<td>Grinding Operation</td>
<td></td>
<td>----</td>
</tr>
<tr>
<td>WALLO 15</td>
<td>Bending Operation</td>
<td>Walter Long Manufacturing Company, Inc., 86 Walter Long Road, Finleyville, PA 15332</td>
<td>2003-010Q</td>
</tr>
<tr>
<td></td>
<td>Cutting Operation</td>
<td><a href="http://www.walterlongmanufacturing.com/index.html">http://www.walterlongmanufacturing.com/index.html</a></td>
<td>2003-010Q</td>
</tr>
<tr>
<td></td>
<td>Drilling or Punching Operation</td>
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<td>2003-010Q</td>
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<td>Grinding Operation</td>
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<td>2003-010Q</td>
</tr>
<tr>
<td>WATSP 15</td>
<td>Cutting Operation</td>
<td>Watson Steel Products, Inc., 264 Mystic Ave., Buffalo, NY 14206</td>
<td>2006-004Q</td>
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<td></td>
<td>Drilling or Punching Operation</td>
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<td>2006-004Q</td>
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<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>Cutting Operation 2017-120Q&lt;br&gt;Drilling or Punching Operation 2017-120Q&lt;br&gt;Grinding Operation 2017-120Q</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>Cutting Operation 2002-114Q&lt;br&gt;Drilling or Punching Operation 2002-114Q</td>
</tr>
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<tr>
<td>YOU-2 15</td>
<td>Youngstown Pipe &amp; Steel, LLC, 45 S Mongomery Ave., P.O. Box 3467, Youngstown, OH 44506 <a href="http://yopipe.com/">http://yopipe.com/</a></td>
<td>2012-111Q</td>
</tr>
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<td>Cutting Operation</td>
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