

# **MATERIALS SOURCE GUIDE**

**March 2019**



**CONSTRUCTION FIELD SERVICES  
DIVISION**

## FOREWORD

This manual has been prepared to give information and guidance to personnel associated with sampling, testing and inspection of materials used in Michigan Department of Transportation and Federal Aid Secondary projects. Its purpose is to supplement the Materials Quality Assurance Procedures (MQAP) Manual, Hot Mix Asphalt (HMA) Production Manual, Procedures for Aggregate Inspection, Density Control Handbook, and the Michigan Construction Manual to standardize procedures and assure adequate, uniform quality control.

Buy America step certification is required for pay items and materials as listed in the document located at the following web link: [http://www.michigan.gov/documents/mdot/MDOT\\_BuyAmericaStepCertPayItems\\_401954\\_7.pdf](http://www.michigan.gov/documents/mdot/MDOT_BuyAmericaStepCertPayItems_401954_7.pdf) Please also review the Special Provision for Source of Steel and Iron (Buy America), 12SP105(A) at the following web link: [http://mdotcf.state.mi.us/public/dessssp/spss\\_source/12SP105\(A\)v7.pdf](http://mdotcf.state.mi.us/public/dessssp/spss_source/12SP105(A)v7.pdf) To reference The Buy America - Compliance Listing of Approved Manufacturers, Qualified Products List and Tested Stock Suppliers navigate to the following web link: [http://www.michigan.gov/mdot/0,4616,7-151-9622\\_11044\\_11367-291113--,00.html](http://www.michigan.gov/mdot/0,4616,7-151-9622_11044_11367-291113--,00.html)

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This manual is in accordance with [the 2012 Standard Specifications for Construction](#).

## DEFINITIONS

(References to the Materials Quality Assurance Procedures Manual-MQAP)

**BASIS OF ACCEPTANCE:** Refers to the method by which materials incorporated into MDOT projects are accepted. Below is a list of all the current Basis of Acceptance methods used by MDOT for acceptance of materials.

- **Visual Inspection (VI):** (See MQAP Section 1.06) Materials which may be visually inspected by MDOT personnel for acceptance or rejection. When a maximum VI limit is given for materials with another specified basis of acceptance, materials may be accepted by VI up to maximum VI quantities as indicated for that material, per item, per contract. (NOTE: All materials should be visually inspected prior to incorporation into the job without quantity limit, and may be rejected on that basis even though material may be acceptable on another basis.)
- **Tested Stock (Tested Stock):** (See MQAP Section 2.01) Tested stock samples represent a defined quantity (batch, heat, lot, tank, etc.) of the manufacturer's or supplier's inventory that is sampled and tested by MDOT and has been set aside for use on state and federally funded projects. Approved material(s) may then be shipped to any MDOT project until the approved quantity is depleted. Distribution of form 1922 "Shipment of Tested Stock Report" as detailed in the MQAP is required upon shipment of approved Tested Stock material(s) to MDOT projects.
- **General Certification (Gen Cert):** (See MQAP Section 3.01) When this certification is specified as the basis of acceptance in the contract documents, it must be provided in accordance with Section 3.01 of the MQAP. A general certification must include a general description of the material(s), a list of the applicable specifications (ASTM, AASHTO, MDOT or other designations as appropriate), and a statement that the material(s) conforms to these specifications.
- **Test Data Certification (Test Data Cert):** (See MQAP Section 3.01) When this certification is specified as the basis of acceptance in the Materials Acceptance Requirements Table, in addition to the requirements of a General Certification, the certification must also include laboratory test report(s) for samples obtained from the same lot(s), batch, heat, etc. of material represented by the certification and tested according to applicable specifications (ASTM, AASHTO, MDOT).
- **Approved Manufacturer (Appr Mfr):** (See MQAP Section 3.02) A manufacturer who has submitted quality control documentation and/or material samples, and has been given approval status to certify specific material(s). General Certification per the requirements of Section 3.01 of the MQAP must accompany all Approved Manufacturer shipments to either an Approved Supplier location or the MDOT project site. Strict adherence to the requirements for Certification Documentation and Distribution is required of all Approved Manufacturers.
  - **Approved Supplier:** (See MQAP Section 3.02) When Approved Manufacturer is specified as the basis of acceptance in the contract documents, the material must be supplied by the manufacturer or, **without modification** to the material, by an Approved Supplier. An Approved Supplier must recertify Approved Manufacturer material(s). Strict adherence to the requirements for Certification Documentation and Distribution is required of all Approved Suppliers for the recertification of material(s). All original Approved Manufacturer General Certification(s) must accompany the material(s) shipment to the MDOT project site. When Approved Manufacturer is specified, a supplier may not distribute or recertify material(s) unless they have been granted Approved Supplier status.
- **Special Provision:** Revisions and additions to the Standard and Supplemental Specifications applicable to an individual project. Special Provisions have been reviewed

and approved for use by MDOT. Materials acceptance may be defined by these documents included in the project proposals.

- **Fabrication Inspection (Fabrication Inspection):** Materials subjected to Fabrication Inspection are those that are typically manufactured offsite and shipped to the project. Refer to the proper subsection of Chapter 4 of the MQAP to find the requirements of the various Fabrication Inspections currently performed by MDOT.
- **Acceptance Testing (Test):** Sampling and testing of a material to determine compliance with specification requirements prior to incorporation into the project. Acceptance testing is the required basis of acceptance for some materials, as indicated in the contract documents, but may be applied to all materials regardless of the basis of acceptance.

#### OTHER DEFINITIONS

**Manufacturer:** A producer or fabricator of materials with control over the quality, workmanship and handling of material.

**Supplier:** A supplier has no control, other than through careful handling, over the quality and workmanship of material.

#### CERTIFICATION DOCUMENTATION (See MQAP Section 3.01)

Where more than one piece of paper is included in the certification document, all pages must be numbered ( \_\_\_ of \_\_\_ ) and include Contract I.D. in order to reunite them should they become separated.

Upon delivery to a supplier, all certified material, either bundled or palleted, shall be stenciled, stamped or otherwise identified as per ASTM, AASHTO, or MDOT specification to allow the manufacturer's material to be recognized and checked against the manufacturer's certification documentation.

**General Certification** – This documentation must consist of all of the following:

- Company name, address and contact information.
- Date the certification was produced.
- Contract number (Control Section/Job Number).
- Name of contractor.
- If material is certified by a supplier or Contractor, the manufacturer's name must be included on the certification.
- A list of all applicable specifications (ASTM, AASHTO, MDOT or other designations as appropriate) which the material is certified to meet.
- Any applicable specification modifier such as class, grade, type, etc.
- Name of material (MDOT designation and Spec Number).
- Identification markings on shipment as required by the General Materials Certification Procedures, in the Quality Assurance Procedures Manual, Section 3.01.03.B.
- A statement, signed by a responsible representative of the manufacturer, supplier, or Contractor that the material represented by the certification meets all MDOT listed specification requirements.

**Test Data Certification** - When this certification is specified as the basis of acceptance in the Materials Acceptance Requirements Table, in addition to the requirements of a General Certification, the following information must also be included:

- Laboratory test report(s) for samples obtained from the lot(s) of material represented by the certification and tested according to applicable specifications (ASTM, AASHTO, MDOT).

### CERTIFICATION DISTRIBUTION

All certification documents except those issued by Approved Manufacturers/Approved Suppliers must be distributed as follows: Submit to the Construction/Project Engineer. The Contractor is ultimately responsible for all materials documentation distribution to the Project Engineer's office.

Approved Manufacturer/Approved Supplier Certifications must follow the above distribution requirements with the addition of one a copy being mailed, emailed, or faxed on the date of shipment to:

Michigan Department of Transportation  
Construction Field Services Division  
Materials Control  
P.O. Box 30049  
Lansing, Michigan 48909  
Facsimile: (517) 322-5664  
Email: [MDOT-MaterialsControl@michigan.gov](mailto:MDOT-MaterialsControl@michigan.gov)

### CERTIFICATIONS AND RECERTIFICATIONS

Information required on certifications may vary from one material to the next. The following examples of certification documents are ONLY provided for reference.

### MATERIALS SOURCE LIST (See MQAP Section 1.04)

A completed and signed Materials Source List (Form 501) is required project documentation, and required for payment of associated items of work. The Materials Source List is not a substitute for other required material quality control and quality assurance documentation. Prime contractors are responsible for accurate submission of the Materials Source Lists for all materials including their subcontractors.



**Enter Your Company Letterhead/Logo Here  
(Name, Address, Contact Info)**

**GENERAL CERTIFICATION**

Date: \_\_\_\_\_ Name of Contractor: \_\_\_\_\_

Control Section/Project #: \_\_\_\_\_ Project/Job Location: \_\_\_\_\_

We certify that the following described materials/products meet the specification requirements of the MICHIGAN DEPARTMENT OF TRANSPORTATION, ASTM, or AASHTO.

**MDOT MATERIAL NAME:** *As described in the MDOT Materials Source Guide*

**MDOT SPEC #:** *As described in the MDOT Materials Source Guide*

**LOT #, HEAT OR IDENTIFICATION:**

**CLASS, GRADE OR TYPE:**

**SIZE OR WEIGHT:**

**Signature of Company Representative**

**Printed Name of Company Representative**

**Title of Company Representative**

**DISTRIBUTION:** Submit to the Construction/Project Engineer

**Enter Your Company Letterhead/Logo Here  
(Name, Address, Contact Info)**

**APPROVED SUPPLIER RECERTIFICATION**

Contract ID: \_\_\_\_\_  
Control Section/Job #: \_\_\_\_\_ DATE: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

We certify that the following described material meets the specification requirements of the MICHIGAN DEPARTMENT OF TRANSPORTATION for the above project and this material is certified by the manufacturers indicated below.

<b>MDOT MATERIAL NAME:</b> <i>As described in the MDOT Materials Source Guide</i>
<b>MDOT SPEC #:</b> <i>As described in the MDOT Materials Source Guide</i>
<b>MANUFACTURER:</b>
<b>LOT, HEAT OR IDENTIFICATION:</b>
<b>QUANTITY:</b>
<b>MDOT MATERIAL NAME:</b> <i>As described in the MDOT Materials Source Guide</i>
<b>MDOT SPEC #:</b> <i>As described in the MDOT Materials Source Guide</i>
<b>MANUFACTURER:</b>
<b>LOT, HEAT OR IDENTIFICATION:</b>
<b>QUANTITY:</b>
<b>MDOT MATERIAL NAME:</b> <i>As described in the MDOT Materials Source Guide</i>
<b>MDOT SPEC #:</b> <i>As described in the MDOT Materials Source Guide</i>
<b>MANUFACTURER:</b>
<b>LOT, HEAT OR IDENTIFICATION:</b>
<b>QUANTITY:</b>

All steel furnished on this certification is of domestic origin and is in compliance with the project "Buy America" provision.

**Signature of Company Representative**

**Printed Name of Company Representative**

**Title of Company Representative**

**DISTRIBUTION:** Submit to the Construction/Project Engineer. Submit one additional Copy MAILED or FAXED to Construction Field Services Division, MDOT, P.O. BOX 30049, LANSING, MI 48909. FAX # (517)322-5664 or via email to [MDOT-MaterialsControl@michigan.gov](mailto:MDOT-MaterialsControl@michigan.gov) , COMPLETE ON DATE OF MATERIAL SHIPMENT.

MATERIALS ACCEPTANCE REQUIREMENTS TABLE  
DEFINITIONS

Sampling Frequency: **(If Required)** Amount of material or number of items, as defined in the Materials Acceptance Requirements Table or other contract documents, which require a sample when submitting material to the Construction Field Services Division for testing.

Size of Sample: **Minimum** size of sample required for testing as defined in the Materials Acceptance Requirements Table or other contract documents.

Maximum VI Quantity: Maximum amount of material which can be accepted by visual inspection for each material, per item, per project.

Remarks: Special notes pertaining to individual materials.

Special Instructions: More detailed information pertaining to particular types of materials, and referenced in "Remarks" or listed in the Materials Source Guide.

**NOTE:** When the Basis of Acceptance is not "Test", the sampling criteria provided may be used as guidance if the Project/Construction Engineer determines there may be a problem with the material and requests sampling and testing.

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# MATERIALS ACCEPTANCE REQUIREMENTS

See Miscellaneous area at the end of table for materials deleted from the 2012 Standard Specifications for Construction.

**\* Must be tested unless provided by an Approved Manufacturer.**

**\*\* When the Basis of Acceptance is not "Test", the sampling criteria below may be used when there are concerns with material quality.**

Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required by the Engineer**	Sample Size	Maximum VI Quantity	Remarks (QPL Reference)
<b>401.03E</b> End Section Grate for Culverts	VI	-	-	-	See Standard Plans for Sizes.
<b>401.03E</b> Precast Concrete Headwalls	Gen Cert	-	-	-	24" or less. For larger than 24" construct per Section 706 of Standard Specifications.
<b>404.02C</b> Underdrain Outlet Endings	VI	-	-	-	See Standard Plans.
<b>501.02</b> Asphalt, Release Agents	VI	-	-	-	
<b>NOTE:</b> Must be approved by the project engineer. No fuel or oil based agents.					
<b>502.02B</b> Overband Crackfill, Asphalt Rubber (Alt. 2)	VI See Remark	-	-	-	Must be a Qualified Product (502.02B).
<b>603.03B2</b> Adhesive Systems for Grouting Dowel Bars and Tie Bars for Full-Depth Concrete Pavement Repairs	VI See Remark	-	-	-	Must be a Qualified Product (603.03B2).
<b>NOTE:</b> Use for grouting to existing concrete in the same direction of traffic in the same lane as the repair. For grouting lane ties (deformed bars positioned transverse to the direction of traffic located between traffic lanes) select from Adhesive Anchor Systems for Structural Anchors and Lane Ties (712.03J).					
<b>603.03B11</b> Bond Breaker Tape	VI	-	-	-	
<b>702.02A</b> Standard Mortars and Grouts	VI	-	-	-	
<b>702.02B</b> Non-Shrinking Mortar and Grout, Type H-1(Non-Metallic) Pre-Mixed	VI See Remark	-	-	-	Must be a Qualified Product (702.02B).
<b>702.02C</b> Admixture for Expansive Grout, Type E-1	Test Data Cert	-	-	-	
<b>NOTE:</b> Certification to include manufacturers recommended dosage per sack of cement.					
<b>703</b> Prepackaged Hydraulic Fast Set Mortar	VI See Remark	-	-	-	Must be a Qualified Product (703).
<b>706.03K4</b> Expansion Joint Devices for Bridges	See Remark	-	-	-	See project plans for list of approved devices and details.
<b>706.03S</b> Penetrating Water Repellent (Protective Coating for Concrete)	VI See Remark	-	-	-	Must be a Qualified Product (706.03S).

# MATERIALS ACCEPTANCE REQUIREMENTS

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**\*\* When the Basis of Acceptance is not "Test", the sampling criteria below may be used when there are concerns with material quality.**

Spec. No. and Material Name	Basis of Acceptance	Sample Frequency If Required by the Engineer**	Sample Size	Maximum VI Quantity	Remarks (QPL Reference)
<b>707.02</b> Bushings for Pins and Link Plates	VI See Remark	-	-	-	Must be a Qualified Product (707.02).
<b>708.03A</b> Prestressed Concrete	Fabrication Inspection	-	-	-	MQAP Manual Section 4.04.
<b>710.03D</b> Waterproofing Shotcrete	VI	-	-	-	
<b>712.03A1c</b> Abrasive, Low Dusting	Gen Cert	-	-	-	See Section 715.02.
<b>712.03D</b> Epoxy Mastic	VI	-	-	-	
<b>712.03J</b> Adhesive Anchor Systems for Structural Anchors and Lane Ties	VI See Remark	-	-	-	Must be a Qualified Product (712.03J).
<b>712.03K</b> Structure Expansion Anchors (Mechanical Expansion Anchors)	VI See Remark	-	-	-	Must be a Qualified Product (712.03K). Pull-out testing is required see MQAP Manual Section 4.03.
<b>712.03L</b> Mechanical Reinforcement Splicing	VI See Remark	1 per project	2 splices	-	See <a href="#">Special Instructions</a> . Must be a Qualified Product (712.03L).
<b>712.03X</b> Grout Under Masonry Plates	VI	-	-	-	
<b>712.03Y</b> Embedded Galvanic Anodes	VI See Remark	-	-	-	Must be a Qualified Product (712.03Y).
<b>713.02B</b> Sealant for Perimeter of Beam Repairs	VI See Remark	-	-	-	Must be a Qualified Product (713.02B).
<b>715.02</b> Coating Systems for New Hanger Assemblies	VI See Remark	-	-	-	Must be a Qualified Product (915).
<b>715.02</b> Abrasive, Low Dusting	VI See Remark	-	-	-	Must be a Qualified Product (715.02).
<b>715.02</b> Abrasive, Steel Grit	VI	-	-	-	Verify uniform profile after blasting of 1 to 2.8 mils per SSPC.
<b>716.02</b> Abrasive, Low Dusting	VI See Remark	-	-	-	See Section 715.02.











































































































































