

## Section 5.8 CONTROL OF MATERIALS

### 5.8.1 Purpose

To establish a uniform standard for the control of materials on construction projects.

### 5.8.2 Authority

Sections 20.23(3)(a) and 334.048(3), [Florida Statutes](#)

### 5.8.3 References

[Standard Specifications for Road and Bridge Construction](#)

[Federal-Aid Policy Guide, 23 Code of Federal Regulations \(CFR\) 637](#)

[Procedure No. 675-000-000, Materials Manual](#)

### 5.8.4 General

The **Contract Documents** contain **Specifications** and guidance relevant to the acceptance of all materials incorporated into a project. The **Job Guide Schedule (JGS)**, included in **Materials Acceptance and Certification (MAC)** system, indicates who samples and tests each of these materials and at what frequency. The Final Project Materials Certification Letter (PMCL) for materials used on a project will be accomplished according to instructions from the State Materials Office (SMO) **Materials Manual Section 5.4, Final Project Material Certification**.

The **JGS** lists materials and designates the methods of acceptance normally required under each material. For all contract types, the **JGS** includes project specific **MAC Specifications** created for **Special Provisions, Technical Special Provisions, Developmental Specifications**, and **Change Orders** with requirements for material method of acceptance. The **JGS** is generated for contracts with conventional pay items from **MAC** based on the pay items on the contract and project specific assignments. For Lump Sum and Design-Build contracts, the Contractor will create a project specific **JGS** in **MAC**, in accordance with **Specifications Section 105**.

## (A) Resident Level Responsibilities

The Project Administrator (PA) is responsible for reviewing the **Contract Documents** to ensure the **JGS** is correct and complete. If there are missing material-to-pay-item associations or project specific requirements, the PA must contact the SMO technical unit to ensure the **JGS** is complete. Project specific materials are included in the **Special Provisions, Technical Special Provisions, Developmental Specifications**, and **Change Orders** that designate a method of acceptance. If any exist, the PA is responsible to ensure that the **JGS** includes these entries.

### 5.8.5 Buy America

**Buy America Requirements, (Part 23, Section 635.410, CFR, as amended) and Specifications Section 6-5.2**, require the Contractor to use structural steel and iron manufactured in the United States. These requirements pertain to all steel and iron materials incorporated into the finished work and do not pertain to items the Contractor uses, but does not incorporate into the finished work. Miscellaneous components are also included under the Buy America provisions including subcomponents and hardware necessary to encase, assemble, and construct the finished work. The **Specifications** require a **Certification of Compliance** from the manufacturer that states the steel or iron, and the products containing steel or iron were manufactured in the United States. Certifications attesting to this must be submitted to the PA prior to incorporating the material into the project.

For assistance, see the **Buy America Tracking Report** via the [SiteManager Quick Help website](#).

#### (1) Change of Source

If there is any indication or reason to believe that the manufacturer may have switched sources of steel or iron during the life of the project, the PA will require an updated **Certification of Compliance** from the manufacturer.

### 5.8.6 Method of Acceptance

There are three methods of material acceptance: 1) certification; 2) visual inspection; and 3) sampling and testing.

## (1) Certification

A contractor, manufacturer, or supplier provides a written certification stating the material supplied meets **Specifications** requirements at the time of delivery or prior to placement. The Department Inspector shall verify that the certification is complete, correct, and meets **Specifications** requirements. The Department Inspector shall visually inspect or verify that these products or materials meet all the **Specifications** and any other contract requirements, and that the delivered products or materials match the certification document descriptions in expected appearance and size, and are free from defects and contamination.

Product certification from an approved aggregate source should include the bill of lading/shipping ticket with the phrase “Certified for FDOT” or “Cert. for FDOT”, FDOT Source number, date, FDOT material code, aggregate description, and quantity in tons.

In some instances, the Department requires that manufacturers submit samples of certified materials for independent verification purposes. The Department Inspector shall collect the sample or verify that the sample has been submitted for testing.

### (a) Product Certification

Certification per product, per project is required in the **Specifications** and as shown in **Section 5, Materials Manual, Topic No. 675-000-000**. The PA shall be responsible for obtaining the certification prior to allowing the incorporation of any products into the project.

### (b) Approved Products and Producers

The Department maintains a list of products and producers acceptable for use on construction projects. Products and producers will be included on Department lists when documentation (certification and periodic test results) is received assuring the material conforms to **Specifications** requirements. The Department Inspector shall verify that such approved products and producers meet **Specifications** requirements. These lists are available at: [Approved Product List](#) and [Production Facility Listing](#).

## (2) Visual Examination

The **Specifications** provide guidelines concerning material that may be accepted by visual examination, for example non-structural concrete sidewalk or certain materials incorporated into Witness-and-Hold projects. The Inspector should visually inspect or verify that the delivered products or materials match the expected appearance and size specified in the **Contract Documents**, and are free from defects and contamination.

## (3) Sampling and Testing

### (A) Resident Level Responsibilities

It is the PA's responsibility to ensure that only materials meeting the **Specifications**, or properly documented and approved exceptions, are incorporated into the project. **MAC** contains several reports and search screens that can be used to track the status of samples for each project. The PA will make sure the samples are current **at all times** by ensuring prompt entry of sample data and field test results into **MAC**. The PA will finalize all project samples and create comparison packages for materials that require comparison. When the samples do not meet the comparison criteria (i.e., "Does Not Compare" in **MAC**), the PA will ensure that Resolution sampling and testing is performed, that the Resolution samples and test results are entered in a timely manner, and are included in the comparison packages. When it is not possible to perform a required comparison and/or Resolution, the PA will denote it was not possible on the comparison package and include the reason for not performing the required testing.

## 5.8.7 Materials Acceptance Resolution

If a material is designated by the Materials Certification Review personnel to require resolution of the material acceptance, it will be promoted to the **Materials Acceptance Resolution (MAR)** process in **MAC**. All materials with acceptance issues will be promoted to **MAR** and final resolution determined. The life cycle of the issue will depend on the original issue and the nature of the material acceptance needing resolution. Some issues can be resolved directly by the PA without additional input. Some issues will require input from the District Materials and Research Engineer (DMRE), the District Construction Engineer (DCE), and/or the Director, Office of Construction (DOC). This procedure is outlined in the **Material Acceptance Resolution Flow Chart (Attachment 5.8-1)**. Regardless of the final resolution, the PA must provide detailed descriptions of the issue including location information.

## (1) Materials Acceptance Resolution by Specifications

For straightedge deficiencies, the procedures shall follow the requirements of [CPAM Section 11.5, Testing and Correcting Asphalt Pavement Surface Deficiencies](#).

For other material acceptance within **Specifications**, the PA will document the final resolution on the **MAR** issue in **MAC**. These determinations are designated by selecting one of the following options:

- a) Asphalt Follow-up Sample Passed – The material is resampled and the results are acceptable in accordance with **Materials Manual Section 3.1 District Materials Activities for Asphalt Pavement Construction**.
- b) Complete Removal and Replacement – The Contractor chooses to remove the material and replace it without requesting an [Engineering Analysis Report \(EAR\)](#).
- c) Material Rejected for Use – The material was sampled from a stockpile and the material is removed from use on the project before it is placed.
- d) Pay Reduction per Specifications – The **Specifications** allow a pay reduction to be assessed if a material falls within the pay reduction criteria.
- e) Reworked and Remixed – The material allows for rework, and sample is taken for the rework that designates that the reworked material is acceptable.

### (A) Resident Level Responsibilities

If the material is accepted based on the **Contract Documents** (i.e., Leave in Place at No Pay or Pay Reduction per **Specifications**), the PA will document the final resolution on the **MAR** issue in **MAC**. Once the PA has recorded the final recommendation, the issue is considered resolved. The PA will enter additional payment information in **MAC** if the final resolution includes reduced payment. The payment information is not relevant to the final resolution, but is recorded to assist Construction personnel with tracking the payment requirement.

## (2) Determining the Use of an EAR

If the material is determined to be defective in accordance with **Specifications Section 6-4** and the Contractor requests the use of an **EAR** in accordance with the material specific **Specifications** to determine the materials acceptance resolution, the PA, DMRE, and DCE must determine if an **EAR** will be used. Material not meeting any of the method of acceptance requirements is considered to be defective. Defective material is limited to requirements related to material acceptance. For example, improper Maintenance of Traffic is not a valid reason for defective material. However, defective material is not exclusive of material failing acceptance limits. For example, material required to be tested by a qualified technician, but tested by someone not holding the appropriate qualification at the time of testing is considered defective, regardless of the whether or not the test results pass the acceptance limits. There must be an evaluation of the defective material to determine if the defect requires analysis by **EAR** or other means of addressing the defect to ascertain the final resolution. The decision will be made based on the nature, location, severity and/or frequency of the defect.

**Table 5.1**

**EAR Decision Table**

PA Recommends	EAR	EAR	No EAR	No EAR
DMRE Recommends	No EAR	EAR	EAR	No EAR
DCE Recommends	EAR	No EAR	No EAR	EAR
Final Decision	EAR Required	DOC makes final decision	DOC makes final decision	EAR Required

### (A) Resident Level Responsibilities

The PA will document their recommendation for the use of an **EAR** on the **MAR** issue by selecting the option “EAR” or “No EAR” in **MAC**.

Once the determination for the use of an **EAR** is made, the PA will coordinate with the DMRE regarding the scope of the **EAR**. The PA will

provide the **EAR** scope to the Contractor and the **EAR** will be performed. The PA will attach the **EAR** to the specific **MAR** issue under the documents tab in **MAC**.

### **(B) District Level Responsibilities**

The DMRE will determine if an **EAR** is needed and document their recommendation on the **MAR** issue by selecting “EAR” or “No EAR” in **MAC**. Once the determination for an **EAR** has been made, the DMRE will recommend the **EAR** scope including types of testing needed to ensure the **EAR** will yield the necessary information to determine the resolution of the defective material.

The DCE will determine if an **EAR** is needed and document their recommendation on the **MAR** issue by selecting “EAR” or “No EAR” in **MAC**.

If the DCE and DMRE concur, the DCE’s determination is final.

If the DCE and DMRE do not concur, follow the direction provided in the appropriate column of **Table 5.1** based on the recommendations provided by DCE, DMRE and PA.

**NOTE: This is not the final resolution of the material, but only addresses whether or not an EAR will be allowed to be used to determine the final material disposition.**

### **(C) Central Office Responsibilities**

If the DCE and DMRE do not concur, follow the direction provided in the appropriate column of **Table 5.1** based on the recommendations provided by the DCE, DMRE and PA. The DOC will make the final decision in applicable cases.

## **(3) Determining the Use of Delineation**

Some materials are allowed by **Specifications** to use delineation as the method to determine the material acceptance resolution. If the **MAC Spec Material Id** allows for delineation, additional information must be provided. The Contractor must request the use of delineation from the PA.

### **(A) Resident Level Responsibilities**

The PA will document their recommendation for the use of delineation on the **MAR** issue by selecting "No EAR – Delineation", "EAR", or "No EAR" in **MAC**. The "No EAR – Delineation" option is only available when the **MAC Spec Material Id** indicates delineation is allowed based on the **Specifications** requirements.

### **(B) District Level Responsibilities**

The DMRE will review the PA's recommendation. The DMRE will provide a recommendation of "No EAR – Delineation", "EAR" or "No EAR" in **MAC**.

The DCE will review the PA and DMRE recommendation for the material resolution. The DCE will provide a recommendation of "No EAR – Delineation", "EAR" or "No EAR" in **MAC**.

If the DCE concurs with the DMRE, the DCE's recommendation is used as the final resolution. If the DCE does not concur with the DMRE's recommendation, the issue is elevated to the DOC for final decision, only if DMRE designates "EAR" and DCE designates "No EAR- Delineation" or "No EAR".

## **5.8.8 Attachments**

[Attachment 5.8-1](#) .....Material Acceptance Resolution Flow Chart



## Attachment 5.8-1 Material Acceptance Resolution Flow Chart

