



Job Guide Schedule (JGS) & Materials Certification (MC) Review Construction Academy 2025





#### **Materials Acceptance and Certification**

# Job Guide Schedule (JGS)



Generated: 9/13/2024 11:13:06 AM

#### Job Guide Schedule

FDOT State Materials Office, 5007 N.E. 39th Avenue, Gainesville, FL 32609 (352) 955-6600

NOTE: The requirements of the contract and/or Florida Specifications take precedence over this guide schedule.





- JGS is a report
- MOA is in the contract documents
- JGS is a guide of the contract requirements
- When there is a contradiction, contract rules





- JGS
  - PA reviews to ensure all assignments are being made





- Items on JGS you don't need
- Items you need not on JGS





- How are you going to know which materials on the JGS can be ignored?
- How will you know when one is missing?





- MAC has two types
  - —Standard
  - –Nonstandard (NSJGS)





- Standard JGS
  - -Conventional Pay Item PrC contracts
    - Pay item to material association
    - Let date logic to assign Supplemental MAC Specs ONLY





### **Materials Acceptance and Certification**

|   |      |   |   | _           |  |  |
|---|------|---|---|-------------|--|--|
| • | Stan | 0715 19 11 - HIGH MAST LIGHT POLE, FURNISH AND INSTALL, 80' |   |             |  |  |
|   |      | 1   | 346 - Portland Cement Concrete  |             |  |  |
|   |      | 2   | 415 - Reinforcing Steel   |             |  |  |
|   | -Co  | 3   | 925 - Curing Materials for Concrete   | octc        |  |  |
|   |      | 4   | 931 - Metal Accessory Materials for Concrete Pavement and Concrete Structures | <b>3CTS</b> |  |  |
|   |      | 5   | 962 - Structural Steel and Miscellaneous Metal Items (Other than Aluminum)    |             |  |  |
|   | • D  | 6   | 415 - Reinforcing for Concrete  |             |  |  |
|   | - Г  | 7   | 105 - Incidental Precast Concrete Product Certification                       |             |  |  |
|   |      | 8   | 346 - Structural Portland Cement Concrete                                     |             |  |  |

Let date logic to assign supplemental MAC Specs ONLY





- Standard JGS
  - Project Specific requirements are manually assigned by the SMO
    - Special Provision
    - Technical Special Provision
    - Developmental Specification
    - Change Order
    - Plan Note

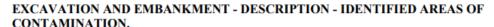




#### **Materials Acceptance and Certification**

 Only for project specific requirements that change the standard Method of Acceptance





(REV 11-10-16) (FA 1-26-17) (7-22)

ARTICLE 120-1 is expanded by the following new Subarticle:

120-1.3 Identified Areas of Contamination: Certain area(s) within the limits of this project have been identified as contaminated and are delineated in the Plans. The contamination type and levels, when known, are in the specifications or in a contamination assessment report posted on the Department's website at the following URL address: <a href="https://ftp.fdot.gov/public/folder/HkSWIK59G0qRNsAJUh3xXg/permitsandorutilityworkschedules">https://ftp.fdot.gov/public/folder/HkSWIK59G0qRNsAJUh3xXg/permitsandorutilityworkschedules</a>.

The Department will have a Contractor qualified to perform contamination assessment and remediation working in the designated contamination areas under separate Contract (Contamination Assessment/Remediation Contractor - CAR Contractor) whose activities may include but not be limited to the following types of work:

- Soil sampling.
- Earth work.
- 3. Operating scientific field testing equipment.
- 4. Installation and operation of equipment for dewatering.
- 5. Installing sheet pile for cofferdams.
- Treatment of water to remove any contaminates.

A staging area may be required to facilitate the CAR Contractor's operations and will be designated.

Where contamination assessment or remediation work is done simultaneously with the highway construction Contract, the assessment/remediation work period may or may not begin on the day highway construction begins and may or may not be consecutive working days. A schedule to accomplish the assessment/remediation work expeditiously will be established at the preconstruction conference. The Prime and the CAR Contractor will use this schedule as a basis for planning both work efforts. The Engineer must approve any deviation from this schedule before it occurs. Coordinate schedule changes with the CAR Contractor before approval by the Engineer. The Engineer may grant Contract Time extensions according to the provisions of 8-7.3.2.

Schedule operations to avoid intrusion into the areas designated in the Plans or in specified contaminated areas or staging areas reserved for the CAR Contractor until the established schedule dictate, unless agreed to by the CAR Contractor beforehand. Provide access to the aforementioned sites at all times during the assessment/remediation work phase. Resume normal operations in the designated area once the contamination is removed and notice to proceed is issued by the Engineer.

Pay particular attention to the provisions of 8-4.4 dealing with Coordination with other Contractors.







#### **Materials Acceptance and Certification**

#### INTEGRAL PILE JACKETS. (REV 11-16-11) (FA 12-8-11) (1-16)

The following new Section is added after Section 455:

#### SECTION 457 INTEGRAL PILE JACKETS

#### 457-1 Description.

Furnish, fabricate and install an integral pile jacket in accordance with the Contract Documents.

#### 457-2 Materials.

457-2.1 Stay-In-Place Forms: Use forms composed of a durable, inert, corrosion resistant material with an interlocking joint along one or two sides that permits the form to be assembled and sealed in place around the pile. Fabricate the forms from fiberglass and polyester resins, having a minimum thickness of 1/8 inches with a minimum thickness at the corners of 3/16 inches. Ensure the form is capable of maintaining its original shape without additional support or damage when placed around a pile. Ensure the inside face of the form has no bond inhibiting agents in contact with the filler material. Provide the forms with bonded or bolted-on, non-metallic standoffs to maintain the forms in the required positions. Sandblast or score the inside surface of the forms with an abrasive material to provide a rough surface texture. Equip





### **Materials Acceptance and Certification**

457-2.3.1 Portland Cement Grout: Use a mix design of portland cement, fine aggregate, water and an admixture containing a minimum of 940 pounds of cementitious material per cubic yard. Up to 30%, by weight of cement, may be replaced by fly ash for standard pile jackets. Do not use fly ash, slag, or silica fume for cathodic protection jackets.

Use silica sand fine aggregate meeting the requirements of Section 902.

Use portland cement meeting the requirements of Section 921.

Use admixtures meeting the requirements of Section 924, ASHTO M194,

Types A and D.

Use air-entraining admixtures meeting the requirements of Section 924 and containing no chlorides or other salts corrosive to metals.

Use fly ash meeting the requirements of Section 929, ASTM C618, Type F, except that loss on ignition shall not exceed 4%.

Provide a grout filler mix with a minimum compressive strength of 5,000 psi at 28 days and a slump of 7 inches to 9 inches. Submit the design mix to the Engineer for approval by the Department before placing any grout filler.

457-2.3.2 Class IV Concrete: Use Class IV Concrete meeting the requirements of Section 346 with an adjusted slump of 7 inches to 9 inches. Reduced size coarse aggregate may be used as approved by the Engineer. Do not use fly ash, slag, or silica fume for cathodic protection jackets.

Submit the design mix to the Engineer for approval by the Department before placing any concrete filler.





- "For Project" pay items:
  - -SIGN PANEL, FURNISH & INSTALL
    OVERHEAD MOUNT, 51-100 SF WITH,
    LIGHTING, PROJECT 428358-4-52-01
  - -OPTIONAL BASE- GRADED AGGREGATE, 18" FOR PROJECT 442749-1-52-01





- Nonstandard JGS
  - —Created by QC data entry for LS/DB/LAP Onsystem





### **Materials Acceptance and Certification**

#### 105-2 Additional Requirements for Lump Sum Projects.

Prepare and submit to the Engineer a project-specific list of material items and quantities to be used on the project as a Job Guide Schedule in the same format as the current Sampling, Testing, and Reporting Guide 21 calendar days prior to commencement of construction. Submit up-to-date quantities for the items on the Job Guide Schedule to the Engineer with each monthly progress estimate. The Department may not authorize payment of any progress estimate not accompanied by updated Job Guide Schedule quantities. Maintain the Job Guide Schedule throughout the project including the quantity placed since the previous submittal, and total to date quantity and any additional materials placed. Do not commence work activities that require testing until the Job Guide Schedule has been reviewed and accepted by the Engineer. At final acceptance, submit a final Job Guide Schedule that includes all materials used on the project in the same format as the monthly reports.

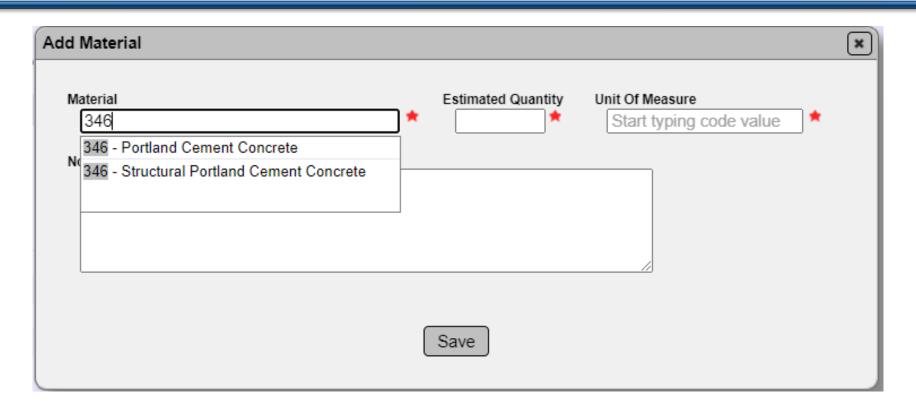




- Nonstandard JGS
  - –Materials come from a user
    - Users can pick the wrong material











| dd | Material  |         |                    |  | × |
|----|---|---------|--------------------|--|---|
|    | 530 - Riprap 530 - Riprap and Articulating Concrete Block Revetment Systems 530 - Revetment Systems | <u></u> | Estimated Quantity | Unit Of Measure  Start typing code value ★ |   |
|    |   | (       | Save               |  |   |





| Add Material                            |                    |  | × |
|---|--------------------|--|---|
| Material 285 285 - Optional Base Course | Estimated Quantity | Unit Of Measure  Start typing code value |   |
|   | Save               |  |   |





- Nonstandard JGS
  - Let Date Logic for Supplemental MAC Specs ONLY





### **Materials Acceptance and Certification**

Project Company

201214-3-52-01: I-4 (SR 400) AT SR 559 INTERCHANGE

Materials [14]

| Material  | Estimated Quantity | Current To Date Quantity | Unit of Measure | Last Updated<br>On | Notes |
|---|--------------------|--------------------------|-----------------|--------------------|-------|
| 1 120 - Excavation and Embankment   | 128,719.2          | 128,719.2                | Cubic Yard(s)   | 9/30/2016          |       |
| 2 160 - Stabilizing   | 93,525             | 93,525                   | Square Yards    | 9/30/2016          |       |
| 3 200 - Rock Base   | 80,836             | 80,836                   | Square Yards    | 9/30/2016          |       |
| 4 285 - Optional Base Course  | 80,836             | 80,836                   | Square Yards    | 2/23/2017          |       |
| 5 330 - Hot Mix Asphalt – General Construction Requirements                   | 0                  | 0                        | Ton(s)          | 10/14/2016         |       |
| 6 334 - Superpave Asphalt Concrete  | 15,876             | 16,540.3                 | Ton(s)          | 9/30/2016          |       |
| 7 337 - Asphalt Concrete Friction Courses                                     | 5,500              | 5,585.3                  | Ton(s)          | 11/21/2016         |       |
| 8 346 - Portland Cement Concrete  | 1,921              | 2,441.5                  | Cubic Yard(s)   | 9/30/2016          |       |
| 9 415 - Reinforcing for Concrete  | 241.57             | 241.57                   | Ton(s)          | 9/30/2016          |       |
| 10 548 - Retaining Wall Systems   | 4,388              | 4,388                    | Cubic Yard(s)   | 9/30/2016          |       |
| 11 550 - Fencing  | 875                | 875                      | Linear Feet     | 2/24/2017          |       |
| 12 962 - Structural Steel and Miscellaneous Metal Items (Other than Aluminum) | 68                 | 68                       | Each            | 2/27/2017          |       |
| 13 971 - Pavement Marking Materials   | 11                 | 11                       | Mile(s)         | 2/23/2017          |       |
| 14 975 - Structural Coating Materials   | 690                | 690                      | Gallon(s)       | 2/24/2017          |       |





- Nonstandard JGS
  - Project SpecificRequirements





#### **Materials Acceptance and Certification**

# Non-PrC jobs don't have a let date







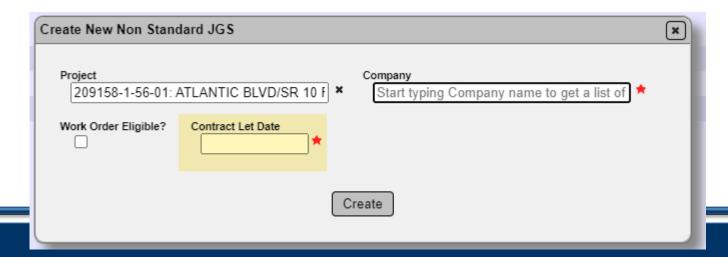
- On older NSJGS need to coordinate with SMO
  - Need to add project specific
     entries for all the materials so the
     MAC Specs don't "jump"





#### **Materials Acceptance and Certification**

 On a new NSJGS for non PrC contract, need to coordinate with a DAC







#### **Materials Acceptance and Certification**

### Speaking of Work Order

- NSJGS can be created per work order
- Work Order NSJGS can have different "let dates" on the same project
- Coordinate with DMRO Earthwork personnel on Work Order jobs
  - WO NSJGS needs to be created before the ERS Project





### **Materials Acceptance and Certification**

### MC Review







#### **Materials Acceptance and Certification**

 The Materials Acceptance and Certification system, MAC, is designed around the requirements for Final Project Materials Certification.





Effective: July 1, 2002

Revised: October 3, 2019

#### **Materials Acceptance and Certification**

 Certification is simply an audit of the material acceptance decisions made on the contract

Topic No. 700-000-000 Construction Project Administration Manual Project Documentation

#### 5.8.6 Method of Acceptance

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







#### Florida Department of Transportation

RON DESANTIS GOVERNOR

Michael Kim, P.E.

14200 West SR-84 Davie, FLORIDA 33325 JARED W. PERDUE, P.E. SECRETARY

| <ul> <li>Appendix A to Subpart B of Part 637—Guide Letter of Certification by State Engineer</li> </ul>   |  |
|---|--|
| Date  |  |
| Project No  |  |
| This is to certify that:  |  |
| The results of the tests used in the acceptance program indicate that the materials incorporated in the construction work, and the construction operations controlled by sampling and testing, were in conformity with the approved plans and specifications. (The following sentence should be added if the IA testing frequencies are based on project quantities. All independent assurance samples and tests are within tolerance limits of the samples and tests that are used in the acceptance program.) |  |
| Exceptions to the plans and specifications are explained on the back hereof (or on attached sheet).   |  |
| Director of STD Laboratory or other appropriate STD Official.   |  |

Rudy Powell Jr., P.E.







#### Florida Department of Transportation

RON DESANTIS GOVERNOR 14200 West SR-84 Davie, FLORIDA 33325 JARED W. PERDUE, P.E. SECRETARY

Mr. Matt Carlock, P.E. District Four Construction Engineer 3400 West Commercial Boulevard Fort Lauderdale, FLORIDA 33309

Dear Mr. Carlock:

Subject:

Contract No:

E4U76

Financial Project ID:

446141-1-52-01

Federal Project ID:

D420085B

County:

BROWARD

Road No:

SAFETY DB PUSH BUTTON FOR WWD DEVICES

AT INTERSTATE RAMPS

This is to certify that:

The results of the tests on required acceptance samples indicate the materials incorporated in the construction work and operations controlled by sampling and testing were in conformity with the approved plans and specifications.

There are no known exceptions to this certificate.

Very truly yours,

Michael Kim, P.E.

Rudy Powell Jr., P.E.





Effective: July 1, 2002

Revised: October 3, 2019

### Materials Acceptance and Certification

Topic No.: 675-000-000 Materials Manual Quality Assurance

Effective: March 1, 2000 Revised: February 1, 2018

#### Section 5.4

#### FINAL PROJECT MATERIAL CERTIFICATION

#### 5.4.1 PURPOSE

To describe the Material Certification process requirements.

#### 5.4.2 AUTHORITY

Sections 334.044(2), 334.044(10) (a) and 334.048 Florida Statutes

#### 5.4.3 SCOPE

Offices affected by this procedure include the State Materials Office (SMO), State Construction Office (SCO) District Construction Offices (DCOs) and District Materials and Research Offices (DMROs).

#### 5.4.4 REFERENCES

FEDERAL-AID POLICY GUIDE (FAPG), 23CFR, Subchapter G - Engineering and Traffic Operations, Part 637 - Construction Inspection and Approval, Subpart B - Quality Assurance Procedures for Construction

#### 5.4.5 GENERAL INFORMATION

Sampling, testing and reporting requirements are applicable for both Federal-

Topic No. 700-000-000 Construction Project Administration Manual Project Documentation

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 the Materials Acceptance and Certification system (MAC), indicates who samples and tests each of these materials and at what frequency. The Final Project





Effective: July 1, 2002

Revised: January 31, 2023

#### **Materials Acceptance and Certification**

Topic No. 700-000-000
Construction Project Administration Manual
Project Documentation

#### (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 assignments, 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**, **Plan Notes** and **Change Orders** that designate a method of acceptance. If any exist, the PA is responsible to ensure that the JGS includes these entries.





- MC Reviewer needs to initiate review when project begins
- MAC sends findings to the MC Review process

#### Material Certification/MAR 415782-9-52-01

Project

415782-9-52-01: SR 263 CAPITAL CIRCLE FROM CR 2203 SPRINGHILL RD TO SR 371 ORANGE AVE

Managing District District 3

Status Checked In

Contract

T3671: CRS CONTRACTS [M OF TALLAHASSEE, INC.]

Other Projects on this Contract

- 415782-9-52-02: SR 263 CAPITAL CIRCLE FROM CR 2203 SPRINGHILL RD TO SR 371 ORANGE AVE
- 415782-9-56-02: SR 263 CAPITAL CIRCLE FROM CR 2203 SPRINGHILL RD TO SR 371 ORANGE AVE

In Final Review

No

#### Findings [102]

| Excluded [ | 56] MC Resolved [26]                                   | Promoted to MAR [4]            | MAR Resolved [9] | Open [0]    | Responded [3]  | Return for Res | sponse Clarification [0]                                     | d [4]              |             |  |            |
|------------|--|--------------------------------|------------------|-------------|----------------|----------------|--|--------------------|-------------|--|------------|
| Finding *  |  | Description                    | Created<br>By    | Compar      | rison Package  | Sample         | Sample Test  | Statue             | Status Date | Recommendation                         | Resolution |
| 1180390    | Sample 2401404588 nas tall                             | eo straignteoge test           | System           |             |                | 2401404088 QC  | FM 0-009 Smoothness by 10°<br>Rolling or Manual Straightedge | Promoted to<br>MAR | 112412024   |  |            |
| 1180389    | Sample 2401391619 has fail                             | ed straightedge test           | System           |             |                | 2401391619 QC  | FM 5-509 Smoothness by 15'<br>Rolling or Manual Straightedge | Promoted to<br>MAR | 7/24/2024   |  |            |
|            | Sample 2301273584 has a fa<br>Compressive Strength     | ailing result on required Test | ASTM C39 System  |             |                | 2301273584 QC  | ASTM C39 Compressive Strength                                | MC Resolved        | 7/23/2024   |  |            |
| 1180353    | 183583 [2301228332 QC-VT                               | ] does not compare             | System           | 183583 [230 | 1228332 QC-VT] | 2301228332 QC  |  | Responded          | 7/24/2024   |  |            |
| 1154014    | Sample 2401379614 has fail                             | ed straightedge test           | System           |             |                | 2401379614 QC  | FM 5-509 Smoothness by 15'<br>Rolling or Manual Straightedge | Promoted to<br>MAR | 4/22/2024   |  |            |
| 1154011    | Sample 2401335031 has fail                             | ed straightedge test           | System           |             |                | 2401335031 QC  | FM 5-509 Smoothness by 15'<br>Rolling or Manual Straightedge | MAR<br>Resolved    | 5/2/2024    | Remove and Replace<br>[Final]          |            |
| 1154010    | Sample 2401317025 has fail                             | ed straightedge test           | System           |             |                | 2401317025 QC  | FM 5-509 Smoothness by 15'<br>Rolling or Manual Straightedge | MAR<br>Resolved    | 5/2/2024    | Remove and Replace<br>[Final]          |            |
| 1117434    | Sample 2301215605 has fail                             | ed straightedge test           | System           |             |                | 2301215605 QC  | FM 5-509 Smoothness by 15'<br>Rolling or Manual Straightedge | MAR<br>Resolved    | 5/2/2024    | Leave in Place Full<br>Payment [Final] |            |
| 1117432    | Sample 2301197870 has faile                            | ed straightedge test           | System           |             |                | 2301197870 QC  | FM 5-509 Smoothness by 15'<br>Rolling or Manual Straightedge | MAR<br>Resolved    | 5/2/2024    | Leave in Place Full<br>Payment [Final] |            |
|            | Comparison is required by th<br>but was not performed  | e MAC Spec for Sample 230      | 01234404 System  |             |                | 2301234404 VT  |  | MC Resolved        | 11/30/2023  |  |            |
|            | Comparison is required by th<br>but was not performed  | e MAC Spec for Sample 230      | 01228327 System  |             |                | 2301228327 QC  |  | MC Resolved        | 11/17/2023  |  |            |
|            | Comparison is required by the<br>but was not performed | e MAC Spec for Sample 230      | 01227419 System  |             |                | 2301227419 QC  |  | MC Resolved        | 11/17/2023  |  |            |
| 1110400    | Comparison is required by the                          | e MAC Spec for Sample 230      | 01227413 System  |             |                | 2301227413 QC  |  | MC Resolved        | 11/17/2023  |  |            |
|            |  |                                |                  |             |                |                |  |                    |             |  |            |

Showing 1 to 46 of 46 Export Results

#### ERS Findings [62] Excluded [26] MC Resolved [1] Promoted to MAR [0] MAR Resolved [0] Promoted to MAR [0] MAR Resolved [0] Responded [0] Responded [0] Resum for Response Clarification [1] Submitted [33] Finding \* Description Created By Comparison Sample Sample Test Statue Status Date Recommendation Package 2401413303 QC 1273811 Sample 2401413303 has a failing result on required Test ERS: FM 1-T 238 Nuclear Density System ERS: FM 1-T 238 Submitted 8/13/2024

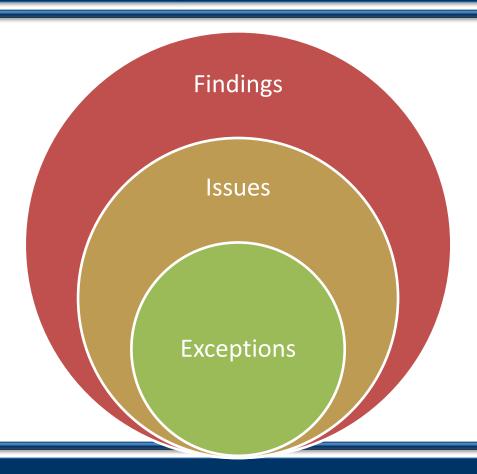




- What is a finding?
  - Automatic findings
  - -Manual Findings
- What is an issue?
- What is an Exception?











- Exception 1 = Non-Standard Material
  - Failing Test Results
  - –Missing Reports





| 39594          | Sample 2301111295 h<br>required Test FM 1-T 2 | _               |                    |                          | 2301111                         | Orga                | 1-T 267<br>anic Content | MAR<br>Resolved       |                      | Material Rejected<br>for Use [Final] |
|----------------|---|-----------------|--------------------|--------------------------|---------------------------------|---------------------|-------------------------|-----------------------|----------------------|--------------------------------------|
| ew             | ,   |                 |                    |                          |                                 |                     |                         |                       |                      | ×                                    |
| Test<br>FM 1-T | 267 Organic Content                           |                 |                    |                          |                                 |                     |                         |                       |                      |                                      |
| Tes (          | 207 Organic Content                           |                 | Date Tes<br>4/19/2 | t Performed<br>2023      |                                 |                     |                         |                       |                      |                                      |
|                |   | Crucible Number | Specimen Name      | Mass of Crucible (g)     | Mass of Soil + Crucible (g)     | Mass After Ignition | (g) Organic             | Content (%)           |                      |                                      |
|                |   |                 |                    | Α                        | В                               | С                   |                         |                       |                      |                                      |
|                |   | SX              | L                  | 25.27                    | 45.35                           | 44.73               | 3.1                     |                       |                      |                                      |
|                |   | 7               | bugos              | 22.23                    | 42.07                           | 41.47               | 3.0                     |                       |                      |                                      |
|                |   | 8               | SAM                | 24.18                    | 44.25                           | 43.68               | 2.8                     |                       |                      |                                      |
|                |   |                 |                    |                          |                                 |                     | Does not                | meet target/limit [Or | rganic Content <= 3] |                                      |
| Avera          | age Organic Content (%)                       | 3.0             |                    | Does not meet target/lir | nit [Average Organic Content <= | 2]                  |                         |                       |                      |                                      |
| Test Notes     | <b>S</b>                                      |                 |                    |                          |                                 |                     |                         |                       |                      |                                      |
|                |   |                 |                    |                          |                                 |                     |                         |                       |                      |                                      |
|                |   |                 |                    |                          |                                 |                     |                         |                       |                      |                                      |
| FM 1-T 2       | 67 Organic Content                            |                 |                    |                          |                                 |                     |                         |                       |                      |                                      |
|                | Initial Test                                  | Lab             | 101004             | O16110161                | Fail *                          | est Complete        | Required                |                       |                      | View                                 |





- Exception 2 = Minimum Frequency
  - Required tests not performed
  - Required comparison not performed
  - Required resolution not performed
  - Not enough samples





### **Materials Acceptance and Certification**

Comparison Package ID 218849

Comparison Definition Compressive Strength Comparison Type

Includes Original Sample

Comparison Status

Incomplete Package

Incomplete Comparison Package Reason Missing or Damaged VT Sample

Spec

346 - Structural Portland Cement Concrete, Supplemental Specification, 01/2020, v1.14

Last Updated By

Last Updated On Jacoah Jackson 7/10/2024

**Original Sample** 2301300516 Sample Level QC

**FDOT Sample Number** CC44125Q

LOT# 125 Project(s)

201032-5-52-01

1243641

Comparison Package 218849 is required but was marked Incomplete

System

218849

2301300516 QC

MAR Resolved 7/16/2024

No EAR [Final]

Leave in Place [Final]





|       |             |               |        |                           | Concrete Samp       | le Number –    | Lot Number Repor   | t                        |                    |                      |
|-------|-------------|---------------|--------|---------------------------|---------------------|----------------|--------------------|--------------------------|--------------------|----------------------|
|       | Lot#        | FDOT Sample # | l evel | Production<br>Facility ID | Sample ID           | Date Sample    | Sample Status      | Comparison<br>Package Id | Comparison Status  | Quantity Represented |
| Mix D |             | I-1188-03     | I PVPI |                           |                     |                | SI) / Conventional | PACKADE III              | Companson status   | CHAINING REDIECEMEN  |
|       | ancial Pro  |               |        | Cutogo                    | ny. class ii briage | , Dook (4000 I | oi, r conventional |                          |                    |                      |
|       | aterial ID: |               |        |                           |                     |                |                    |                          |                    |                      |
| - "   | 29          | CC20029Q      | QC     | 13-489                    | 1600017858          | 10/19/2016     | Finalized          | 4429                     | Compares           | 40 Cubic Yard(s)     |
|       | 30          | CC20030Q      | QC     | 13-489                    | 1600017860          | 10/19/2016     | Finalized          | 4429                     | Compares           | 30 Cubic Yard(s)     |
|       | 31          | CC20031Q      | QC     | 13-489                    | 1600020470          | 10/27/2016     | Finalized          | 4429                     | Compares           | 50 Cubic Yard(s)     |
|       | 29-32       | CC20031v      | VT     | 13-489                    | 1600020508          | 10/27/2016     | Finalized          | 4429                     | Compares           | 50 Cubic Yard(s)     |
|       | 32          | CC20032Q      | QC     | 13-489                    | 1600020472          | 10/27/2016     | Finalized          | 4429                     | Compares           | 20 Cubic Yard(s)     |
|       | 33          | CC20033Q      | QC     | 13-489                    | 1600023564          | 11/3/2016      | Finalized          | 8478                     | Compares           | 26 Cubic Yard(s)     |
|       | 34          | 00200010      | OC     | 13-489                    | 1600024225          | 11/4/2016      | Finalized          | 8478                     | Compares           | 26 Cubic Yard(s)     |
|       | 35          | CC20035Q      | QC     | 3-489                     | 1700072239          | 3/11/2017      | Finalized          | 8478                     | Compares           | 50 Cubic Yard(s)     |
|       | 33-36       | CC20035v      | VT     | 13-489                    | 1700072251          | 3/11/2017      | Finalized          | 8478                     | Compares           | 50 Cubic Yard(s)     |
|       | 36          | CC20036Q      | QC     | 13-489                    | 1700072240          | 3/11/2017      | Finalized          | 8478                     | Compares           | 50 Cubic Yard(s)     |
|       | 37          | CC20037Q      | QC     | 13-489                    | 1700072241          | 3/11/2017      | Finalized          | 8479                     | Compares           | 50 Cubic Yard(s)     |
|       | 38          | CC20038Q      | QC     | 13-489                    | 1700072242          | 3/11/2017      | Finalized          | 8479                     | Compares           | 50 Cubic Yard(s)     |
|       | 37-40       | CC20038v      | VT     | 13-489                    | 1700072260          | 3/11/2017      | Finalized          | 8479                     | Compares           | 50 Cubic Yard(s)     |
|       | 39          | CC20039Q      | QC     | 13-489                    | 1700072243          | 3/11/2017      | Finalized          | 8479                     | Compares           | 50 Cubic Yard(s)     |
|       | 40          | CC20040Q      | QC     | 13-489                    | 1700072245          | 3/11/2017      | Finalized          | 8479                     | Compares           | 41 Cubic Yard(s)     |
| 1     | 41          | CC20041Q      | QC     | 13-489                    | 1700074639          | 3/16/2017      | Finalized          | 8480                     | Compares           | 50 Cubic Yard(s)     |
|       | 42          | CC20042Q      | QC     | 13-489                    | 1700074642          | 3/17/2017      | Finalized          | 8480                     | Compares           | 50 Cubic Yard(s)     |
|       | 41-44       | CC20042v      | VT     | 13-489                    | 1700074359          | 3/17/2017      | Finalized          | 8480                     | Compares           | 50 Cubic Yard(s)     |
|       | 43          | CC20043Q      | QC     | 13-489                    | 1700074644          | 3/17/2017      | Finalized          | 8480                     | Compares           | 50 Cubic Yard(s)     |
|       | 44          | CC20044Q      | QC     | 13-489                    | 1700074646          | 3/17/2017      | Finalized          | 8480                     | Compares           | 50 Cubic Yard(s)     |
|       | 45          | CC20045Q      | QC     | 13-489                    | 1700074649          | 3/17/2017      | Finalized          |                          |                    | 50 Cubic Yard(s)     |
|       | 46          | CC20046Q      | QC     | 13-489                    | 1700074651          | 3/17/2017      | Finalized          | 9766                     | Incomplete Package | 40 Cubic Yard(s)     |





| 1 | 9      | CC40009Q | QC |
|---|--------|----------|----|
|   | 10     | CC40010Q | QC |
| 1 | 11     | CC40011Q | QC |
|   | 12     | CC40012Q | QC |
|   | 13     | CC40013Q | QC |
|   | 9 - 12 | CC40013V | VT |
|   | 14     | CC40014Q | QC |
|   | 15     | CC40015Q | QC |
|   | 16     | CC40016Q | QC |
|   | 13 -16 | CC40016V | VT |
|   | 17     | CC40017Q | QC |
|   | 17-20  | CC40017V | VT |
|   | 18     | CC40018Q | QC |
|   | 19     | CC40019Q | QC |
|   | 20     | CC40020Q | QC |





**Project:** 211365\_6\_5\_8\_01

Managing District: 02

| Material    | Category   | Material Spec Type         | Method of Acceptance    | MAC<br>Sample ID | Sample Status | Date Sample<br>Finalized |
|-------------|--|----------------------------|-------------------------|------------------|---------------|--------------------------|
| 932 - Beari | ng Pads/Structural Bridge Pads (Lot size Greater than 10), Certified Test Report, 07/2 | 2017, v6.7                 |                         |                  |               |                          |
|             | Nonmetallic Accessory Materials for Concrete Pavement and Concrete Structures          | Supplemental Specification | Certified Test Report   | 1134496          | Finalized     | 2023-06-08               |
| 932 - Beari | ng Pads/Structural Bridge Pads (Lot size Greater than 10), Certified Test Report, [1], | v1.2                       |                         |                  |               |                          |
|             | Nonmetallic Accessory Materials for Concrete Pavement and Concrete Structures          | Plan Note                  | Certified Test Report   |                  |               |                          |
| 932 - Beari | ng Pads/Structural Bridge Pads (Lot size 10 or Less), Certification, [1], v1.2         |                            |                         |                  |               |                          |
|             | Nonmetallic Accessory Materials for Concrete Pavement and Concrete Structures          | Plan Note                  | Certification           |                  |               |                          |
| 932 - Beari | ng Pads/Ancillary Structural Pads, Certification, [1], v1.2                            |                            |                         |                  |               |                          |
|             | Nonmetallic Accessory Materials for Concrete Pavement and Concrete Structures          | Plan Note                  | Certification           |                  |               |                          |
| 932 - Beari | ng Pads/Ancillary Railing Pads, Certification, [1], v1.2                               |                            |                         |                  |               |                          |
|             | Nonmetallic Accessory Materials for Concrete Pavement and Concrete Structures          | Plan Note                  | Certification           |                  |               |                          |
| 962 - Misco | ellaneous Metal Items, Certified Mill Analysis, 01/2009, v1.3                          |                            |                         |                  |               |                          |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1089043          | Finalized     | 2023-03-13               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1089053          | Finalized     | 2023-03-13               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1120884          | Finalized     | 2023-05-02               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1129682          | Finalized     | 2023-05-09               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1129800          | Finalized     | 2023-05-09               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1129801          | Finalized     | 2023-05-09               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1129802          | Finalized     | 2023-05-09               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1129803          | Finalized     | 2023-05-09               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1141126          | Finalized     | 2023-05-25               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1156026          | Finalized     | 2023-06-13               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1192337          | Finalized     | 2023-08-08               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1192339          | Finalized     | 2023-08-08               |
|             | Structural Steel and Miscellaneous Metal Items (Other than Aluminum)                   | Supplemental Specification | Certified Mill Analysis | 1192340          | Finalized     | 2023-08-08               |





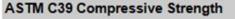
- Exception Category 3 = Qualifications
  - —Technicians
  - Laboratories
  - Production Facilities
    - Manual Findings





### Materials Acceptance and Certification

### **Associated Test Tab MAC Sample 1533391**



Initial Test

104029

Lab

Susan Musselman [21494] \*

**Pass** 

Test Complete

Showing 1 to 5 of 5

### Findings List — 423 251-5-52-01

1647203 Tester [Susan Musselman [21494]] on Sample 2401533931/Test ASTM C39

Compressive Strength is not Qualified

System

2401533931 QC

ASTM C39 Compressive Submitted

compress

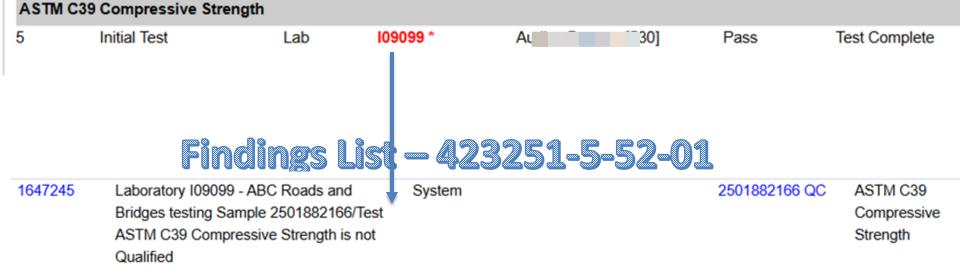
Strength





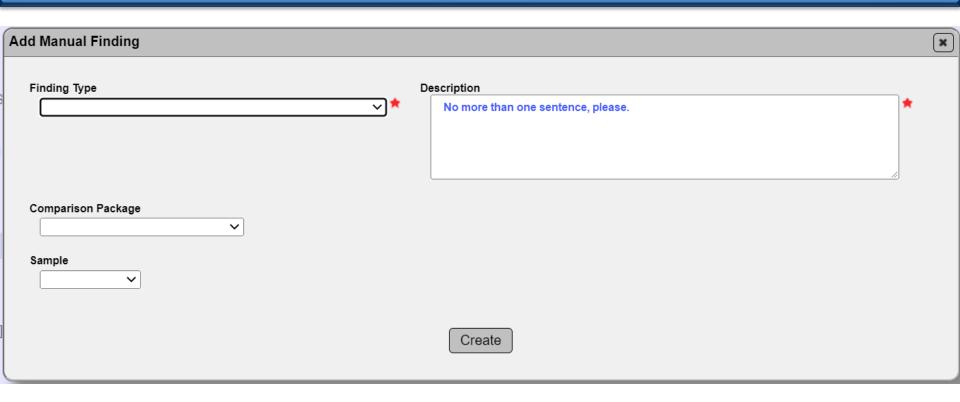
### Materials Acceptance and Certification

### Associated Test Tab MAC Sample 1882166



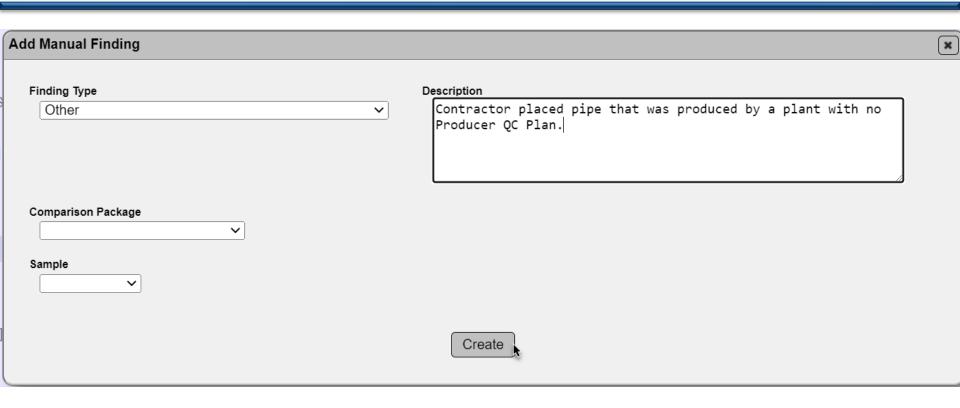
















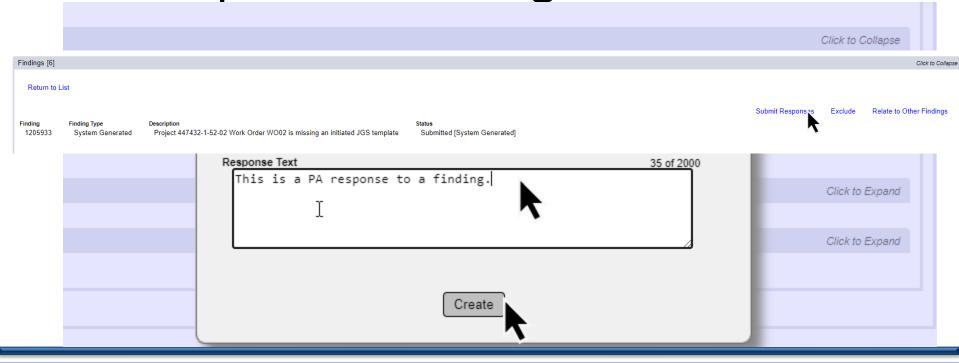
- Respond to Findings
- Process MARs





#### **Materials Acceptance and Certification**

Respond to Findings







| 936756 | Comparison is required by the MAC Spec | System |        | 2100806578 QC |             | Submitted |
|--------|--|--------|--------|---------------|-------------|-----------|
|        | for Sample 2100806578 but was not      |        |        |               |             |           |
|        | performed                              |        |        |               |             |           |
| 936755 | Sample 2100804368 is not Finalized     | System |        | 2100804368 QC |             | Submitted |
| 936754 | Sample 2100795829 is not Finalized     | System |        | 2100795829 QC |             | Submitted |
| 936753 | Sample 2100789940 has a failing result | System |        | 2100789940 QC | ASTM C39    | Submitted |
|        | on required Test ASTM C39 Compressive  |        |        |               | Compressive |           |
|        | Strength                               |        |        |               | Strength    |           |
| 936752 | Sample 2100789940 is not Finalized     | System |        | 2100789940 QC |             | Submitted |
| 936751 | Sampler [M24578064] on Sample          | System |        | 2100789939 QC |             | Submitted |
|        | 2100789939 is not Qualified            |        |        |               |             |           |
| 936750 | Sample 2100789939 is not Finalized     | System |        | 2100789939 QC |             | Submitted |
| 936749 | Sample 2100788790 is not Finalized     | System |        | 2100788790 VT |             | Submitted |
| 936748 | Comparison Package 126848 is required  | System | 126848 | 2200904696 QC |             | Submitted |
|        | but was marked Incomplete              |        |        |               |             |           |
| 4      |  |        |        |               |             |           |





#### **Materials Acceptance and Certification**

#### 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 the Director, Office of Construction (DOC). This procedure is outlined in the *Material Acceptance Resolution Flow Chart (Attachment 5.8-1)*.

Control of Materials 5.8-4





#### **Materials Acceptance and Certification**

### Overview of the MAR Process

Is material so bad it MC Review and PA PA determines the determine the issue severity of the issue needs engineering affects acceptance decision? • If yes, promoted to • Can it be solved by • First – determine if standard methods, EAR or No EAR\* MAR like per Specs (listed • If no - DONE • Second – enter final in MAC)? resolution • If yes - DONE





| Findings [70]   |   |                      |                                |   |                           | Click to Collapse |
|---|---|----------------------|--------------------------------|---|---------------------------|-------------------|
| Return to List  |   |                      |                                |   |                           |                   |
| Finding Type System Generated Current Recommendation Recommendation has | Description Tester [F12345678] on Sample 1600013594/Test ASTM C39 Compressive Strength is not Qualified s not yet been made by District Materials Research Engineer | Sample 1600013594 QC | FDOT Sample Number<br>CC40001Q | Sample Package Test ASTM C39 Compressive Strength | Status<br>Promoted to MAR | Update            |
| Pay Items   |   |                      |                                |   |                           |                   |
| Sample Info   |   |                      |                                |   |                           | Click to Expand   |
| Responses [1]   |   |                      |                                |   |                           | Click to Expand   |
| Recommendations [2]   |   |                      |                                |   |                           | Click to Expand   |
| Resolutions [0]   |   |                      |                                |   |                           | Click to Expand   |
| Locations [0]   |   |                      |                                |   |                           | Click to Expand   |
| Documents [0]   |   |                      |                                |   |                           | Click to Expand   |
| Comments [0]  |   |                      |                                |   |                           | Click to Expand   |
|   |   |                      |                                |   |                           |                   |





#### **Materials Acceptance and Certification**

 What is the difference between a recommendation & a resolution?

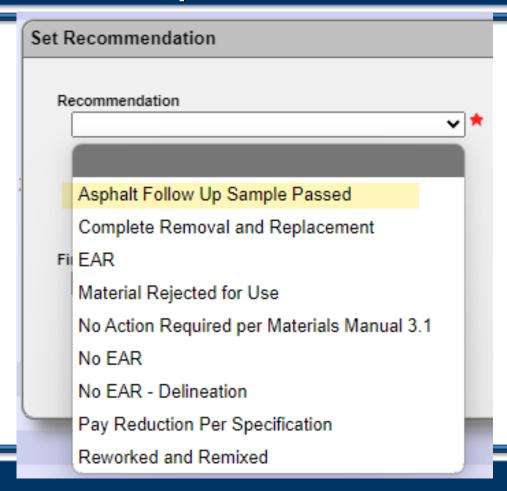




- There are nine (9) recommendations
- Six (6) are also final resolutions that can be made by the PA











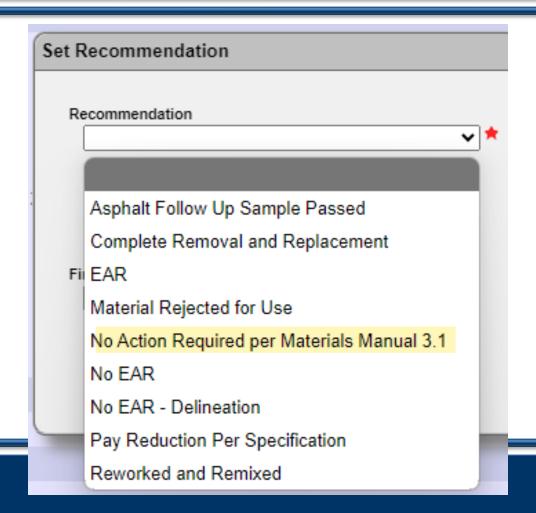
#### **Materials Acceptance and Certification**

#### 3.1.5.1.1.4 Failing Test Results

In the event the material fails to meet the **Specifications** then a comparison of the IV test results and the Contractor's (PC) test results, if available, will be made. If the comparison of the IV and PC results of the property in question meets the precision values as specified in **Specifications Section 334**, or the Contractor's test results are not available, the IV test results are determined to be valid. If the comparison of the results of the property in question does not meet the precision values for the material property in question, then the IV Check Sample is tested for that material property by a different IV technician than the IV technician who tested the first sample.











#### **Materials Acceptance and Certification**

#### 3.1.5.4.1 Assessment of Defective Materials

#### Delineation:

The following guidelines should be used when reviewing a proposed delineation scope based on the particular failure, to determine if any areas require removal and replacement:

#### A) High Air Voids (Fig. 2):

 If air voids > 6.0% and <= 7.5% and all sublot cores (includes QC and IV cores if applicable) are >= 89.5 % Gmm, no further action is required.





#### **Materials Acceptance and Certification**

If EAR, No EAR, or No EAR
 Delineation (if the
 Specification allows resolution
 by delineation) is selected, 2<sup>nd</sup>
 process is needed to
 determine final resolution





- PA
- DMRE
- DCE
  - -DOC





#### **Materials Acceptance and Certification**

### Resolution options:

| Re | esolution                    |   |
|----|------------------------------|---|
|    | <u> </u>                     | * |
|    |                              |   |
|    | Complete Removal of Material | 1 |
|    | Leave in Place               |   |
|    | Partial Removal of Material  |   |





#### **Materials Acceptance and Certification**

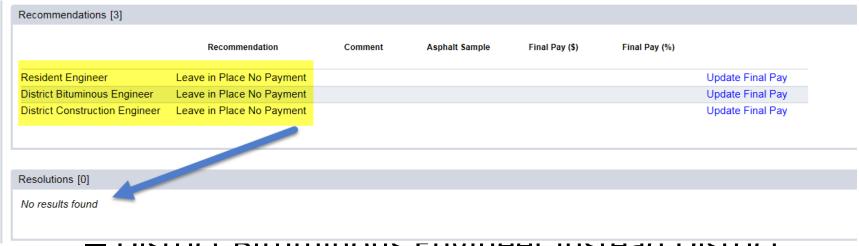
### Resolution options:



| Update Final Pay            |                      | × |
|-----------------------------|----------------------|---|
| Final Pay Type Percentage ✓ | Final Pay Percentage |   |
|                             | Save                 |   |







- Materials and Research Engineer
- Recommendation is Final Resolution





- Location Information
  - —PA fills it out
  - —After the resolution





#### **Materials Acceptance and Certification**

The Table below is a list of MAR Recommendations that needs GPS locations entered in MAC.

| GPS Location Required? |
|------------------------|
| Yes, if left in place  |
| Yes                    |
| Yes, if left in place  |
| Yes, if left in place  |
| Yes                    |
|                        |





| Add Location of Repr      | esentative Material    |                              |                                |  |
|---------------------------|------------------------|------------------------------|--------------------------------|--|
| Rci Lanes                 | From Sta               |                              | <b>To Station</b> 275+45       |  |
| <b>Latitude</b> 21.012578 | -82.213457             | Ending Latitude<br>21.032145 | Ending Longitude<br>-82.242354 |  |
| Offset Distance O         | ffset Direction Refere | nce Line                     | ~                              |  |
| Placement Designation     | Qı                     | uantity Unit                 | Of Measure                     |  |
| Left in Place             | ~                      | 1,250 To                     | on(s) × ×                      |  |
|                           |                        | Save                         |                                |  |



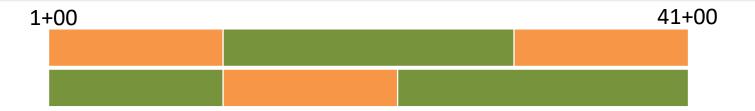


- For Partial Removal and Replacement
  - Enter overall area
  - Enter sub-locations for material that was removed and material that was replaced





#### **Materials Acceptance and Certification**



Overall Area = L1, L2 1+00 - 41+00 Lift  $1(1 \frac{1}{2})$ 

Orange Areas were removed

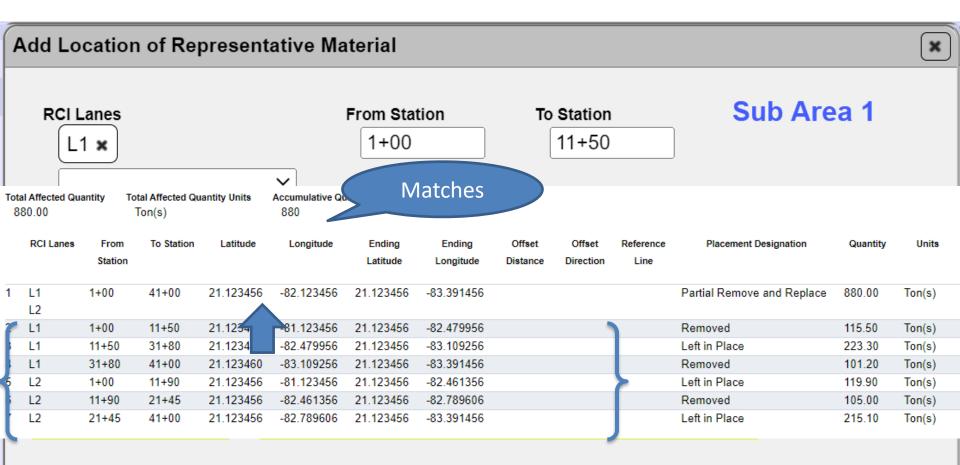
Green Areas left in place

Total tonnage = 880 tons

7 entries – 1 for overall area & 6 for sub areas







Save

#### Non Standard Materials

Placement Designation:

ın

ın

The QC-Sample, 5F007Q, failed to meet the minimum required AC Content. Total affected quantity was 880 tons.



Ref Material ID: 337 - Asphalt Concrete Friction Courses

QC Sample Level:

Total Quantity: 880 Ton(s) Accumulative Quantity:

From Station: 1+00 RCI Options (Lanes): L1; L2 To Station: 41+00 Beginning Latitude: 21.123456 Longitude: -82.123456 Ending Latitude: 21.123456 Longitude: -83.391456

Placement Designation: Partial Remove and Quantity: 880 Ton(s)

Replace

RCI Options (Lanes): L1 From Station: 1+00 Beginning Latitude: 21.123456 -81.123456 Longitude:

Ending Latitude: 21.123456 Longitude: -82.479956

Placement Designation: Removed Quantity: 115.5 Ton(s)

RCI Options (Lanes): L1 From Station: 11+50 To Station: 31+80

Beginning Latitude: 21.123456 Longitude: -82.479956

Ending Latitude: 21.123456 Longitude: -83.109256

Placement Designation: Left in Place Quantity: 223.3 Ton(s)

RCI Options (Lanes): L1 From Station: 31+80 To Station: 41+00 Beginning Latitude: 21.123460 Longitude: -83.109256

Ending Latitude: 21.123456 Longitude: -83.391456

Placement Designation: Removed Quantity: 101.2 Ton(s)

RCI Options (Lanes): L2 From Station: 1+00 To Station: 11+90

21.123456 -81.123456 Beginning Latitude: Longitude:

Ending Latitude: 21.123456 Longitude: -82.461356

Placement Designation: Left in Place Quantity: 119.9 Ton(s)

RCI Options (Lanes): L2 From Station: 11+90 To Station: 21+45

21.123456 -82.461356 Beginning Latitude: Longitude:

21.123456 Ending Latitude: Longitude: -82.789606

Placement Designation: Removed Quantity: 105 Ton(s) RCI Options (Lanes): L2 From Station: 21+45 To Station: 41+00

Beginning Latitude: 21.123456 Longitude: -82.789606

Ending Latitude: Longitude: -83.391456 21.123456

Left in Place

Delineation testing was performed. The project personnel recommended that the material be accepted through partial removal and replacement, as shown. The District Materials and Research Engineer and District Construction Engineer concurred.

215.1 Ton(s)

Quantity:



















To Station: 11+50



















### Materials Acceptance and Certification

Notification for PAs as a reminder to fill it out

| _ |  | Notification Event Type  Location Information for Final Recommendation ▼ |                |                              |        |                 |                            |
|---|--|--|----------------|------------------------------|--------|-----------------|----------------------------|
|   | Subject  |  | Opt In/Opt Out | Will Receive<br>Notification | Filter | Method          |                            |
| 1 | MC Review Finding {Display} Resolved. Document Location Information. Can |  | Can Opt In     | •                            |        | Email/Dashboard | Upda Create Another Filter |





### **Materials Acceptance and Certification**

### **List of MCs per District**

- D1/7 Mark Conley
   863-519-4233
- D1/7 James (Randee) Stricklin
  - 863-519-4257
- D2 Curtis Becker
  - 386-961-7724
- D2 Mystery Easter
  - 386-961-7808

- D3 Anthony Mosier
  - 850-330-1373
- D4/6 Wismith Voltaire
  - 954-677-7047
- D5 Jeanie Kozak
  - 386-740-3489
- D5 Jodi Johnson
  - 386-740-3502
- TP Brad Biery
  - 954-934-1147





- End of project cleanup
- MAC locks down 3 areas when the PMCL is generated
  - Samples
    - Project Samples & Program Samples with your contract/project on them





- End of project cleanup
- Nonstandard JGS
  - Is the final report complete?
  - Is it correct?





- End of project cleanup
- Contractor QC Plan
  - Asphalt, Earthwork and Structural Concrete entry or addendums are Accepted
  - All Other Material Types are Submitted
  - No documents with proprietary information or PII on the Documents tab
  - No documents that belong in EDMS on the Documents tab





#### **Materials Acceptance and Certification**

- End of project cleanup
- Work Order Contract?
  - Each work order can be closed
    - Locks down Samples and NSJGS
    - Leaves Contractor QC Plan open until PMCL is generated

Click to Collapse

Close Work Order

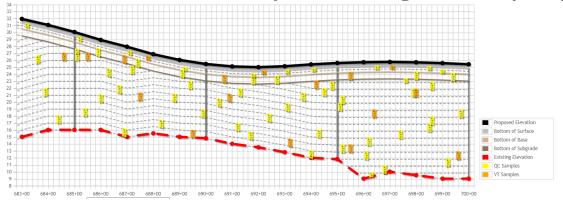
Click to Collapse





#### **Materials Acceptance and Certification**

- Earthwork Records System
- Construction Academy winning team project



#### MAC Implementation Status Update:

- Number of Samples 1,253,843
- Number of Projects Certified 4,316
- Number of Projects with samples 3,908
- Number of Projects with ERS Projects 531





#### **Materials Acceptance and Certification**

### List of primary DACs per District

- D1/7 Mark Conley
  - 863-519-4276
- D2 Mystery Easter
   386-961-7808
- D3 Glenn Cook
  - 850-330-1747

- D4/6 Jean Moline
  - **-** 954-677-7033
- D5 Jodi Johnson
  - **—** 386-740-3502
- TP Caleb Castillo
  - **–** 817-726-1407





#### **Materials Acceptance and Certification**

### List of MC Reviewers per District

- D1/7 Mark Conley - 863-519-4223
- D2 Curtis Becker - 386-961-7724
- D3 Anthony Mosier
  - **–** 850-330-1632

- D4/6 Wismith Voltaire
  - 954-677-7001
- D5 Jodi Johnson
  - **–** 386-740-3502
- TP Caleb Castillo
  - 817-726-1407





- MAC Resources
  - One website for all things MAC
  - https://www.fdot.gov/materials/mac/default.shtm





### **Materials Acceptance and Certification**



Susan Musselman, FDOT State Materials Office Office 352.955.6669 Cell 352.663.4461

Susan.Musselman@dot. state.fl.us