

 Florida Department of  
**TRANSPORTATION**

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**Construction Academy  
2022**

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**Materials Acceptance and Certification**

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- PA or **delegate** in responsible charge
- **System user** in the PA role
  - Not necessarily the actual PA



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**Materials Acceptance and Certification**

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- What do you need to know to do what you need to do?



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**Materials Acceptance and Certification**

- Method of Acceptance (MOA)
- Specifications Section 6
- FDOT has 2
  - Somebody samples and tests or 
  - Somebody certifies
    - APL is a subset of Certification MOA

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**Materials Acceptance and Certification**

- The clay liner shall be of plastic soils consisting of A-5, A-6, A-7 or A-2-7 AASHTO M145) material with more than 25% passing the No. 200 U.S. standard sieve. The clay soils shall be free of organic content and shall provide a minimum saturated unit weight of 115 pounds per cubic foot.

MOA = Sampling and Testing or Certification?

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**Project Administrators and MAC**

- Sampling and Testing
  - What Test(s)?
  - Who tests?
  - How often?
  - Does it need a qualified sampler, tester, lab?
  - Does it have to be produced at a facility under the Aggregate Control Program or QC Program?

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**Project Administrators and MAC**

- Sampling and Testing
  - What is passing criteria?
  - What happens when there is a failure?
    - How bad is bad enough to remove & replace?
  - If contractor QC,
    - What is VT frequency?
    - What is the comparison criteria?
    - What is resolution process?

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**Project Administrators and MAC**

- Certification
  - Who certifies?
    - Contractor, Producer, Manufacturer
  - What does it have to say?
  - Does it have test results?
    - If yes, does SMO need to review?
  - How often?

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**Project Administrators and MAC**

**931-1.1.5 Acceptance of Steel Bars:** Acceptance of reinforcing steel shall be based on the manufacturer being on the National Transportation Product Evaluation Program (NTPPEP) list of compliant producers, samples taken by the Department, and manufacturer's certified mill analysis. The test results shall meet the specification limits of the ASTM or AASHTO designation for the size, grade and any additional requirements. The manufacturer's certified mill analysis for each bar size, and grade per shipment of reinforcing steel shall be submitted to the Engineer upon use.

The Engineer will select samples representing each LOT of reinforcing steel. A sample is defined as the reinforcing steel and the certified mill analysis corresponding to the sample. A LOT is defined as the weight of all bars, regardless of size, grade or pay item in consecutive shipments of 100 tons or less. Samples shall be cut from bundled steel that is shipped to the jobsite.

Projects with less than two tons of bars do not require Department sampling.

**CMA not submitted to SMO**

**S&T MOA that includes a CMA**

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**Project Administrators and MAC**

- MOA is not a one-to-one relationship to anything

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**Project Administrators and MAC**

- Pay items have multiple MOAs & APL assignments

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**Project Administrators and MAC**

- **0715 19 13 - HIGH MAST LIGHT POLE, FURNISH AND INSTALL, 120'**

1	346 - Portland Cement Concrete		
2	415 - Reinforcing Steel		
3	925 - Curing Materials for Concrete		
4	931 - Metal Accessory Materials for Concrete Pavement and Concrete Structures		
5	415 - Reinforcing for Concrete		
6	105 - Incidental Precast Concrete Product Certification		
7	346 - Structural Portland Cement Concrete		

APL	Last Updated By	On
<b>0715 19 13 - HIGH MAST LIGHT POLE, FURNISH AND INSTALL, 120'</b>		
1	415 - Reinforcing for Concrete	Susan Musselman 10/2/2017
2	715 - Highway Lighting System	Susan Musselman 9/4/2018
3	925 - Curing Materials for Concrete	Susan Musselman 10/2/2017

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**Project Administrators and MAC**

- Materials are assigned to many pay items

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Pay Item  Material  Last Updated By

Material	Last Updated By	On	
<b>00400 5 16 - HANDRAIL CONC (MISCELLANEOUS)</b>			
1	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019 <a href="#">Dissociate</a>
<b>0400 1 1 - CONCRETE CLASS I, CULVERTS</b>			
2	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019 <a href="#">Dissociate</a>
<b>0400 1 2 - CONCRETE CLASS I, ENDWALLS</b>			
3	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019 <a href="#">Dissociate</a>
<b>0400 1 5 - CONCRETE CLASS I, SUBSTRUCTURE</b>			
4	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019 <a href="#">Dissociate</a>
<b>0400 1 6 - CONC CLASS I(COUNTERWEIGHT)</b>			
5	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019 <a href="#">Dissociate</a>
<b>0400 1 8 - CONC CLASS I(BULKHEAD)</b>			
6	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019 <a href="#">Dissociate</a>
<b>0400 1 11 - CONCRETE CLASS I, RETAINING WALLS</b>			
7	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019 <a href="#">Dissociate</a>
<b>0400 1 12 - CONC CLASS I(TRENCH SLABS)</b>			
8	346 - Structural Portland Cement Concrete	Susan Musselman	12/17/2019 <a href="#">Dissociate</a>

Showing 1 to 50 of 2756 [Show Next 50](#) [Export Results](#)

14

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**Project Administrators and MAC**

- Some products have more than one MOA
- Section 415 – Plastic Spacers
  - Certified test report from independent lab
  - From APL

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**Project Administrators and MAC**

Do not use metal bar supports to support FRP reinforcing bars.

**415-5.13.3 Plastic Bar Supports and Spacers:** Use non-stackable plastic bar supports and spacers. Bar supports shall be able to meet the concentrated load requirements of 415-5.13 within a working temperature range of 20 to 150°F. Spacers shall be able to provide sufficient strength to support reinforcing steel in the required position without deformation and relaxation under job conditions. For drilled shafts, use wheel spacers with a smooth perimeter surface.

Submit protection from sunlight until placed in the form and mold in a configuration which does not restrict concrete flow and consolidation.

All plastic bar supports and spacers shall have a maximum water absorption of 0.5% at 7 days as per ASTM D570. Plastic bar supports and spacers made of recycled plastic products must meet the additional requirements of Section 972.

Submit to the Engineer independent lab test data and certification verifying that the plastic spacers meet the requirements specified herein.

Use plastic bar supports listed on the Department's APL. Provide each individual bar support with an identification number unique to the particular model permanently

Certification MOA

APL

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**Project Administrators and MAC**

- Multiple scenarios and we don't know what the Contractor is going to use
- PA is responsible for identifying the MOA and noting when one isn't used

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**Project Administrators and MAC**

- Light Pole Base
- Can be precast
  - IPC plant on the Contractor QC Plan
  - Producer's certification (MAC Material 105)



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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Project Administrators and MAC**

- Cast in place
  - Structural Concrete
    - Production Facility and Drilled Shaft Mix Design on Contractor QC Plan
  - Reinforcing Steel
  - Spacers
  - Curing Compound



19

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**Materials Acceptance and Certification**



- 334 Structural
- 337 Friction
- 330 Smoothness

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**Materials Acceptance and Certification**

Pay Item: 0334 22 12 - SUPERPAVE ASPHALTIC CI \*  
 Material: [Type Material Id or Name]  
 Last Updated By: [Start typing user name to get list]

Pay Item	Last Updated By	On
<b>330 - Hot Mix Asphalt – General Construction Requirements</b>		
1 0334 22 12 - SUPERPAVE ASPHALTIC CONC (TRAFFIC 2) (1 1/4")	Marcus Madison	5/20/2016
<b>334 - Superpave Asphalt Concrete</b>		
2 0334 22 12 - SUPERPAVE ASPHALTIC CONC (TRAFFIC 2) (1 1/4")	Marcus Madison	4/28/2016
<b>916 - Bituminous Materials</b>		
3 0334 22 12 - SUPERPAVE ASPHALTIC CONC (TRAFFIC 2) (1 1/4")	Susan Musselman	9/29/2016

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**Project Administrators and MAC**

- What does this have to do with the PA role in MAC? 
  - It’s not just failing material
  - You gotta know your contract!!

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**Materials Acceptance and Certification**

## Contractor QC Plan



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**Materials Acceptance and Certification**

- Review and accept or reject Contractor QC Plan Materials
  - Are all materials included?
    - They don’t all have to be there at the beginning
  - Flagged entries
    - Technicians
    - Labs  
    - Production Facilities

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**Materials Acceptance and Certification**

- Lab Status is not an indicator if the lab has the test methods for the material

Does lab have structural concrete test methods in a valid status?

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**Materials Acceptance and Certification**

- MAC has a report
  - Lab Tab
  - Contractor QCP Lab Check
- Enter the lab id(s) from the Contractor QC Plan for each material

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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

Lab ID	Lab Status	Suitable for Earthwork	Test status
AASHTO267	Qualified	YES	Valid
AASHTO727	Qualified	YES	Valid
AASHTO78	Qualified	YES	Valid
AASHTO78B	Qualified	YES	Valid
AASHTO79	Qualified	YES	Valid
AASHTO79B	Qualified	YES	Valid
FM1-1011	Qualified	YES	Valid
FM1-1180	Qualified	YES	Valid
FM5-515	Qualified	YES	Valid

Lab ID	Lab Status	Suitable for Concrete	Test status
ASTM1021	Qualified	YES	Valid
ASTM39	Qualified	YES	Valid
ASTM617	Qualified	YES	Valid

Lab ID	Lab Status	Suitable for Asphalt	Test status
AASHTO312	Qualified	YES	Valid
FM1-1030	Qualified	YES	Valid
FM1-1166	Qualified	YES	Valid
FM1-1709	Qualified	YES	Valid
FM5-563	Qualified	YES	Valid

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Materials Acceptance and Certification

Lab ID	Lab Status/Qualified	Suitable for Earthwork	Test status
AASHTO267-Determination of Organic Content in Soils by Loss on Ignition		NO	Not Assigned
AASHTO727-Sieve Analysis of Fine and Coarse Aggregates			Suspended
AASHTO86-Particle Size Analysis of Soils			Suspended
AASHTO89-Determining the Liquid Limit of Soils			Valid
AASHTO90-Plastic Limit and Plasticity Index of Soils			Valid
AASHTO99-Moisture Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop			Valid
FM1-T111-Total Amount of Material Finer Than 0.075 mm (No. 200) Sieve in Aggregate			Valid
FM1-T189-Moisture Density Relations of Soils Using a 10-lb. (4.54kg) Rammer and an 18-in. (457mm) Drop			Valid
FM5-615-Limerock Bearing Ratio			Valid

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Materials Acceptance and Certification

Mix Design	Category	Environment Code	Intended Use	Material Availability	Program Maintenance Due	Reviewed
07-1244-04 <span style="background-color: yellow;">Approved</span>	Class II (3400 PSI) / Conventional	Extremely Aggressive		Is Available	Yes	
07-1245-05 <span style="background-color: yellow;">Approved</span>	Class I (3000 PSI) / Conventional	Extremely Aggressive		Is Available	Yes	
07-1245-05 <span style="background-color: yellow;">Approved</span>	Class II (3400 PSI) / Slip Form	Extremely Aggressive		Is Available	Yes	
07-1250-05 <span style="background-color: yellow;">Approved</span>	Class II Bridge Deck (4500 PSI) / Conventional	Extremely Aggressive		Is Available	Yes	
07-1261-05 <span style="background-color: yellow;">Approved</span>	Class IV (5000 PSI) / Conventional	Extremely Aggressive		Is Available	Yes	

<b>Mix Design Number</b>	<b>Request Number</b>	<b>Mix Design Type</b>	<b>Spec Version</b>
07-1244-04	00021833	Concrete	346 - Portland Cement (
<b>Current Status</b>	<b>Status Date</b>		
Approved	1/29/2019		

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Materials Acceptance and Certification



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**Materials Acceptance and Certification**

**Notification of Placing Order – Section 105**


Commercial Inspection

Order materials sufficiently in advance of their incorporation in the work to allow time for sampling, testing and [commercial] **inspection**. Notify the Engineer prior to placing orders for materials.

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**Materials Acceptance and Certification**


Bridge Mounted Sign

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**Materials Acceptance and Certification**

- Review the tab to ensure the Contractor designated items that require commercial inspection
- Make sure the fabricator(s) are listed

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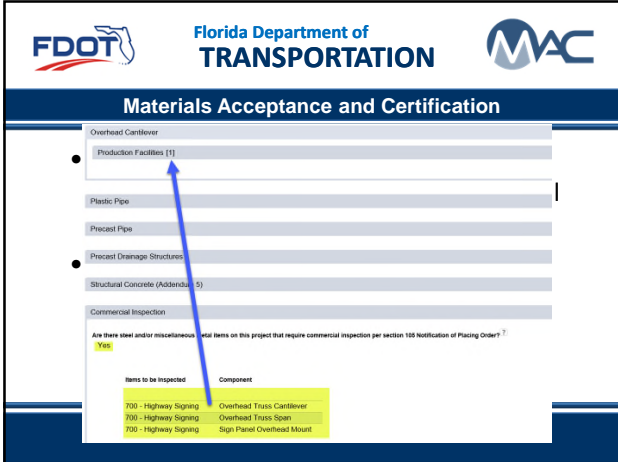
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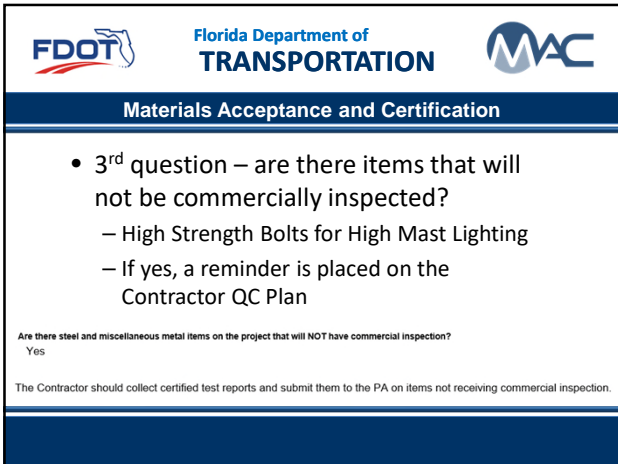
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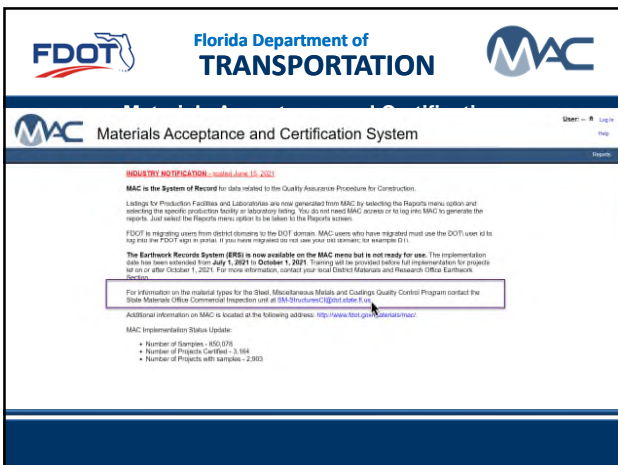
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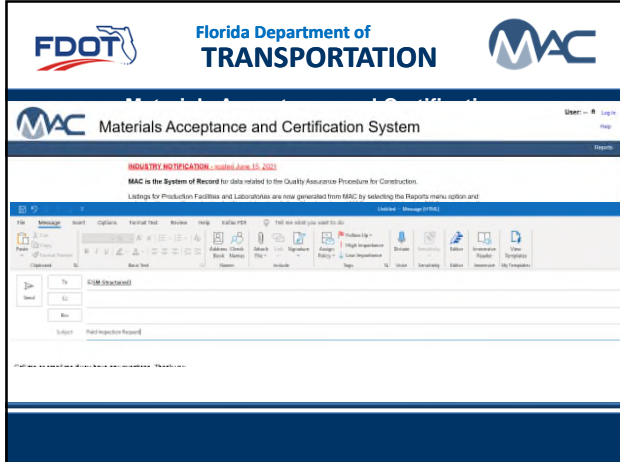
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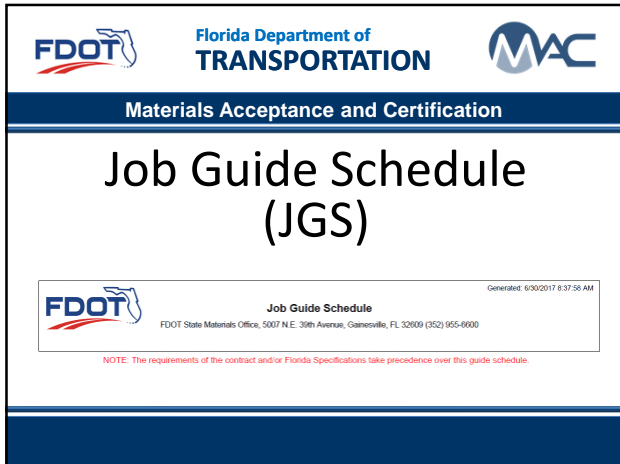
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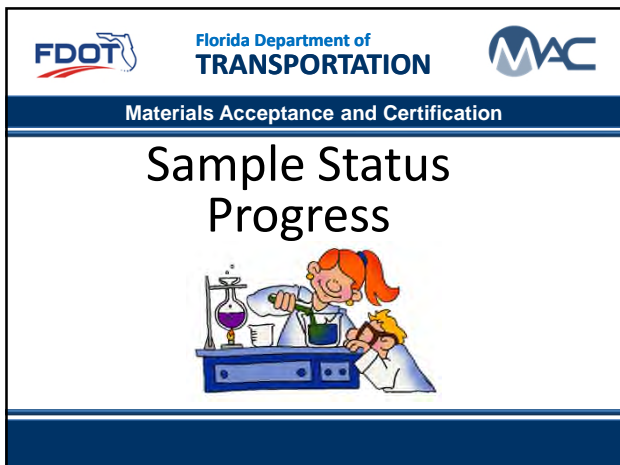
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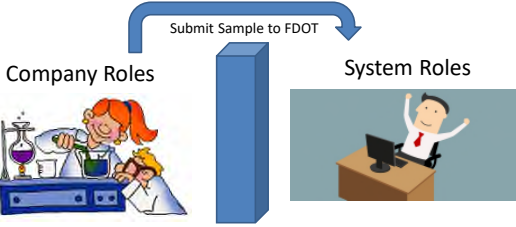
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**Materials Acceptance and Certification**



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**Materials Acceptance and Certification**

- Track sample status of open samples
- All project samples, not just VT
- A Finalized sample = or ≠ “Closed”

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**Materials Acceptance and Certification**

**Finalized = Closed**

- Logged
- Received
- Tested
- Submitted
- Finalized
  - Nothing else - DONE



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**Materials Acceptance and Certification**

## Finalized ≠ Closed

- Logged
- Received
- Tested
- Submitted
- Finalized
- **Compares**

Some place else to go after sample screen

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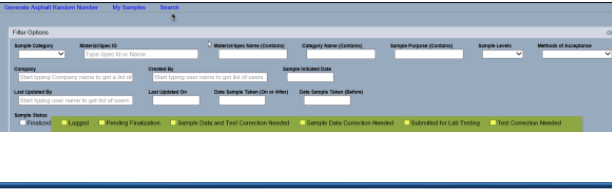
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**Materials Acceptance and Certification**

- Sample search screen **by sample status**



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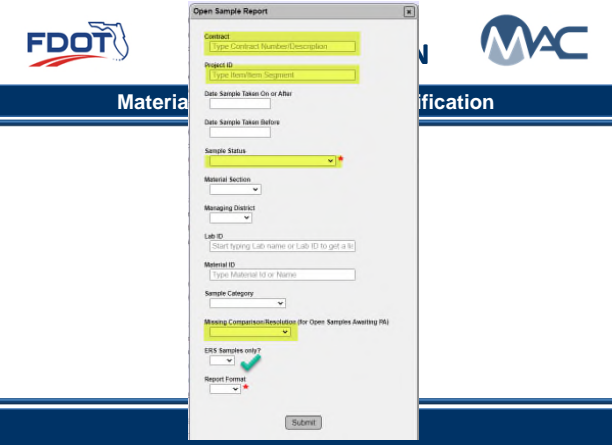
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**Materials Acceptance and Certification**



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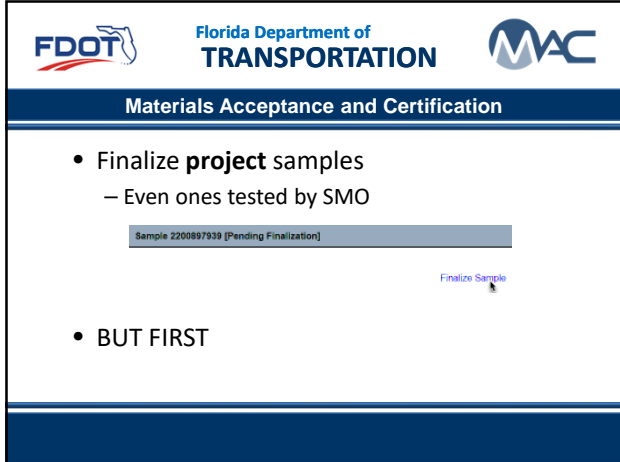
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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

- Finalize **project** samples
  - Even ones tested by SMO

Sample 2200897939 [Pending Finalization]

Finalize Sample

- BUT FIRST

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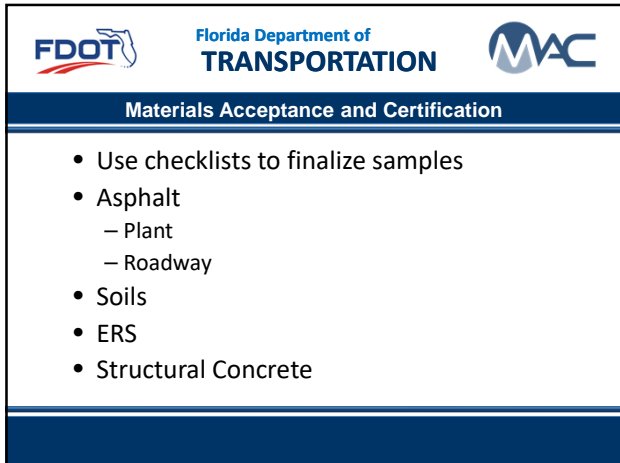
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**Materials Acceptance and Certification**

- Use checklists to finalize samples
- Asphalt
  - Plant
  - Roadway
- Soils
- ERS
- Structural Concrete

47

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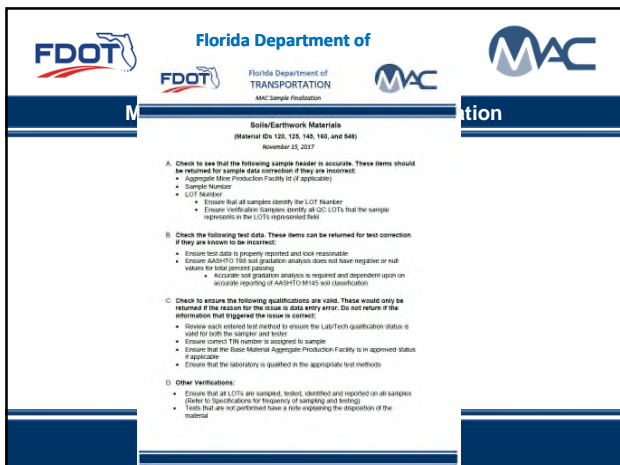
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**Materials Acceptance and Certification**

**Soils/Earthwork Materials**  
(Material IDs 126, 128, 140, 146, and 546)  
November 15, 2017

**A. Check to see that the following sample reader is accurate. These items should be returned for sample data correction if they are incorrect:**

- Aggregate Mfg. Production Facility (if applicable)
- Sample Number
  - Ensure that all samples identify the LOT Number
  - Ensure Verbi-Data Samples identify all QC LOTs that the sample represents in the LCR's approved field
- LOI Number

**B. Check the following test data. These items can be returned for test correction if they are known to be incorrect:**

- Ensure test data is properly reported and not reasonable
- Ensure AASHTO T-99 test gradation analysis does not have negative or null values for finer sieve passing
  - Accurate soil gradation analysis is required and dependent upon on accurate reporting of AASHTO M-20 soil classification

**C. Check to ensure the following qualifications are met. These would only be returned if the reason for the issue is data entry error. Do not return if the identification that triggered the issue is correct:**

- Review each entered test method to ensure the LabTech qualification status is valid for both the sample and test
- Ensure correct TM number is assigned to sample
- Ensure that the base Material Aggregate Production Facility is in approved status (if applicable)
- Ensure that the laboratory is qualified in the appropriate test methods

**D. Other Verifications:**

- Ensure that all LCRs are sampled, tested, identified and reported on all batches
- Refer to Specifications for frequency of sampling and testing
- Tests that are not performed have a note explaining the disposition of the material

48

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Materials Acceptance and Certification

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**B. Check the following test data:**

- Test data is properly reported and look reasonable
- Dates Tests Performed are correct
- AASHTO T88 soil gradation analysis does not have negative values for total percent passing
  - Accurate soil gradation analysis is required and dependent upon on accurate reporting of AASHTO M145 soil classification

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49



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Materials Acceptance and Certification

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**sieve Analysis**

Sieve Size	Retained (g)	% Retained	% Passing	1.18mm (No. 150)
2"				
2"				
1 1/2"				
1"				
3/4"	50.19	14.18	85.84	85.8
1/2"				
20"	62.40	17.61	82.39	82.4
#4	84.44	23.83	76.17	76.2
#8				
#10	128.90	36.37	63.63	63.6
#16				
#30				
#40	4.88	3.63	96.37	91.5
#60	36.32	12.82	87.18	55.5
#80				
#100	146.75	113.86	-13.86	-6.4
#200	82.58	64.08	35.92	22.9

Negative value check status? F24

Data on highlighted digits was Auto-Enter? False

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Materials Acceptance and Certification

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**Specimen Info**

Type of Specimen: 4" x 8" Cylinder  
 Is Hardened Density Needed?: No  
 Age: 28 Days

	Specimen 1	Specimen 2	Specimen 3
Length 1 (in)	8.00	8.00	8.00
Diameter 1 (in)	4.01	4.00	3.99
Diameter 2 (in)	3.98	3.98	3.98
Average Diameter (in)	4.00	3.99	3.99
Area (in <sup>2</sup> )	12.56637	12.50262	12.50262
Max Load (lbs)	70,300	72,545	7,915
Fracture Type	5	5	5
End Treatment Used	Unbonded Pads	Unbonded Pads	Unbonded Pads
Compressive Strength (psi)	5,594	5,802	633

Potential Error. Review Max Load Inputs

Average Compressive Strength (psi) 4,010 Does not meet target! (Average Compressive Strength >= 5,500)

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The screenshot displays the MAC (Materials Acceptance and Certification) system interface. At the top, the FDOT and MAC logos are visible. Below the title "Materials Acceptance and Certification", there is a search bar with "Search" and "Clear Search" buttons. The main area shows a table of records with columns for Item #, Item Name, Method, Sample Name, Test Results, Comments, Item Name, Mix Design, LTP #, and Date. Several rows are visible, each corresponding to a specific material sample and its associated test results and location information.

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**Florida Department of Transportation**  
**MAC**

### Materials Acceptance and Certification

- If the FDOT sample number is wrong, can you send the sample back for corrections?
- What kind of data correction?

CC403v  
cc4003v

Correction Type

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**Florida Department of Transportation**  
**MAC**

### Materials Acceptance and Certification

- If the Sampled By TIN is flagged, do you send it back?
- What kind of data correction?

Sample Information  
 Company: ABC Roads and Bridges, Inc.  
 Method of Acceptance: Sampling And Testing  
 Sampling And Testing: QC  
 Sampled By Tech: M2457004\*  
 Date Sample Taken: 12/9/2021

Correction Type

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**Materials Acceptance and Certification**

- If the AASHTO T 88 test has null or negative results, do you send it back?
- What kind of data correction?

Correction Type

- Sample Data Correction
- Test Correction**
- Sample Data and Test Correction

58

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**Materials Acceptance and Certification**

- If the MAC Spec category is incorrect, **do** you send the sample back?
- What do you do?



[Finalize Sample](#)
[Return Sample](#)
[Delete Sample](#)
[View Sample](#)

59

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**Materials Acceptance and Certification**

Sample Information

Company	Sample Level	Category	Structural Concrete Production Facility	Mix Design	Allow any Approved Mix Design	Mix Design Category
	QC	Class I (3000 PSI) / Conventional		05-1643	No	Class II (3400 PSI) / Conventional*

Method of Acceptance: Sampling And Testing

Sampled By Tech: Date Sample Taken: 01/17/2021

Higher Class in Line of Lower Class: No

FDOT Sample #: CC408902  
 CC20001Q

Quantity Represented: 4.00  
 Unit of Measure: Cubic Yard(s)

Batch/Delivery Ticket #: 550588

Lot #: 1

Intended Use: Barrier Wall

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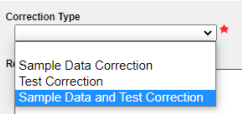
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**Materials Acceptance and Certification**

- If the FDOT sample number and the AASHTO T 88 test results need to be updated, you need to select the Sample Data & Test Correction option



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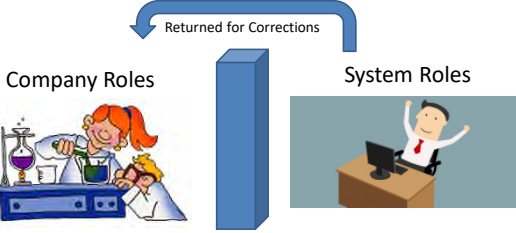
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**Materials Acceptance and Certification**



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**Materials Acceptance and Certification**

Sample Data and Test Correction Needed
  Sample Data Correction Needed
  Submitted for Lab Testing
  Test Correction Needed

- Need to be back in Pending Finalization status
  - User didn't make change
  - User made change and didn't resubmit

[Correction Made - Submit for FDOT Verification](#)

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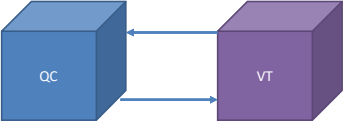
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Materials Acceptance and Certification

## Project Comparison Packages



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Materials Acceptance and Certification

- Structural concrete comparison packages
- How long does the lab have to perform resolution?

*The Engineer will ensure that the QR and VR cylinders are tested within 14 calendar days of the acceptance strength tests.*



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Materials Acceptance and Certification

- **Don't wait** for all the samples in the package to be finalized to create the package
- As **soon** as you finalize the original and verification samples, create the comparison package and **run the comparison**
- Add associated samples later

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 Florida Department of **TRANSPORTATION** 

**Materials Acceptance and Certification**

- Are samples in a comparison package with a comparison status of **Compares** open or closed?

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 Florida Department of **TRANSPORTATION** 

**Materials Acceptance and Certification**

- Are samples in a comparison package with a comparison status of **Does Not Compare** open or closed?

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 Florida Department of **TRANSPORTATION** 

**Materials Acceptance and Certification**

- How do you get them closed?
- 2 ways
  - Perform (Run) Resolution and get **any** resolution status or
  - If resolution is required and not performed, designate it as Resolution Not Performed

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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

- Get orphan samples into incomplete packages
- Incomplete packages don't always end up as an Exception

**Incomplete Comparison Package Reason Code**

- Comparison Test(s) Not Performed
- Missing or Damaged IV Sample
- Missing or Damaged QC Sample
- Missing or Damaged VT Sample
- Random Number Did not Come Up
- Sample(s) in LIMS
- Small Quantities

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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

- Finalize samples in groups
- Then create comparison packages

Finalize Multiple Samples    Create Comparison Package

**Comparison Package 85845 (3000572542 QC-VT)**

- When you select this option...

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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

- These filters come from the last sample you finalized

**Create Comparison Package**

1) Select MAC Test/Comparison Logic

2) Filter Sample List

3) Additional Optional Data

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 Florida Department of **TRANSPORTATION** 

Materials Acceptance and Certification

# MC Review



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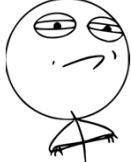
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 Florida Department of **TRANSPORTATION** 

Materials Acceptance and Certification

# MAC Issues for PA



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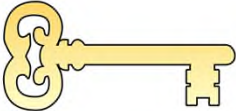
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 Florida Department of **TRANSPORTATION** 

Materials Acceptance and Certification

# Changing Key Fields on a Sample



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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

- User selected wrong MAC Spec, category, sample level, etc. on sample 
- Don't change key fields
  - The system will **let** you, but it won't **work**
- New Sample Created with correct key fields & processed through life cycle
- Then incorrect sample must be deleted

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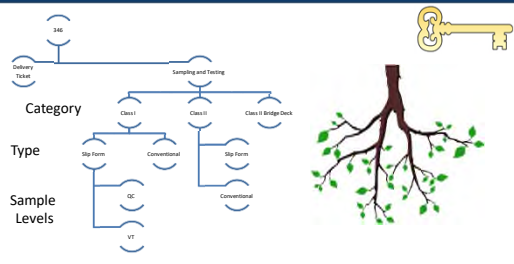
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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**



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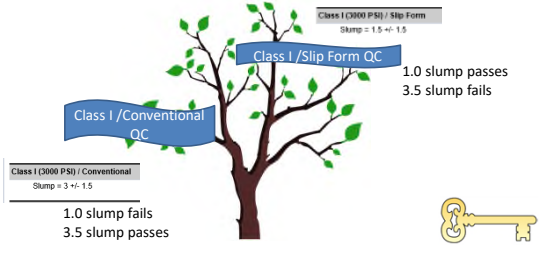
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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**



**Class I (3000 PSI) / Conventional**  
Slump = 3 +/- 1.5  
1.0 slump fails  
3.5 slump passes

**Class I / Slip Form QC**  
1.0 slump passes  
3.5 slump fails

**Class I (3000 PSI) / Slip Form**  
Slump = 1.5 +/- 1.5

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**Florida Department of TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

### MAC workbook doesn't match contract let date

Contract	Type	Status
EN04	DISTRICT CONSTRUCTION CONTRACT	EXECUTED CONTRACTS
Vendor Number	Vendor Name	Meragly Date
62280AUC028	DOBALA CONCRETE CONSTRUCTORS	DISTRICT 7 - 1686

Date	Advised	Accepted	Begin	End	Executed	Letting
12/16/2021	12/16/2021	12/16/2021	02/01/2022	02/01/2022	02/01/2022	02/01/2022
Time Begin	Work Begin	Estimate Completion	Work Completed	Conditional Acceptance	Final Acceptance	
8/16/2021		10/20/2022				

**Material Information**

Sample Category	Contract	Project
Propose	EN04 DISTRICT CONSTRUCTION CONTRACT [DOBALA CONCRETE CONSTRUCTORS]	Project 49407-3-E
Pay Item	MAC Item	
120 - Excavation and Embankment	120 - Excavation and Embankment, Supplemental Specification, 012006 v1.15	

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**Florida Department of TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

- When a new FDOT workbook with method of acceptance changes is published, we create a new MAC Spec workbook version with the effective workbook
  - 2.0 [01/2013]
  - 2.1 [01/2013]

**MAC Spec**  
346 - Portland Cement Concrete, Supplemental Specification, 01/2013, v2.12

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**Florida Department of TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

- Impacts PA at comparison package creation:

ID	Contract	Description	QC	Status
1	180026768	334 - Superpave Asphalt Concrete, Supplemental Specification, 01/2016, v4.7	QC	Pending Finalization
2	1800268439	334 - Superpave Asphalt Concrete, Supplemental Specification, 01/2016, v4.7	QC	Pending Finalization
3	1800283286	346 - Portland Cement Concrete, Supplemental Specification, 01/2013, v2.14	QC	Pending Finalization
4	1800283286	346 - Portland Cement Concrete, Supplemental Specification, 01/2013, v2.14	VT	Pending Finalization
5	1800293246	103 - Graveling, Supplemental Specification, 01/2016, v4.13	VT	Pending Finalization
6	1800293248	160 - Stabilizing, Supplemental Specification, 01/2016, v4.13	VT	Pending Finalization
7	1800294985	162 - Prepared Soil Layer, Supplemental Specification, 01/2014, v2.5	QC	Pending Finalization

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**TRANSPORTATION**



Materials Acceptance and Certification

- If you pick the wrong one = No Results found

1) Select MAC Spec/Comparison Logo

**Material Spec:**  
[MAC - Portland Cement Concrete]  
Comparison Package Definition  
Compressive Strength

**Spec Category:**  
[MAC - Portland Cement Concrete, Project, Supplemental Specification, 03/2009, v1]

**Open Categories:** [v]

3) Select Samples for Comparison Package

No results found

- There are finalized concrete samples, just not under this MAC Spec

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**TRANSPORTATION**




Materials Acceptance and Certification

- Workbook Crosswalk



MAC Spec Workbook for FDOT Contract Let Dates Comparison

Revision Date: 03/24/2022



This workbook will assist project personnel for the 10th Amendment to the Standard Specifications for Highway Construction. The MAC Spec Workbooks are only for use based on the let dates. The MAC Spec Workbooks are not to be used for the contract workbooks.

MAC Material	MAC Spec Workbooks Usage	Standard Contract
101 - Reinforcing Concrete and Embedded Post-tensioning Members	101.0000 1.0 101.0000 2.0 101.0000 3.0	101.0000 1.0 101.0000 2.0 101.0000 3.0
102 - Reinforcing and Prestressing Members	102.0000 1.0 102.0000 2.0 102.0000 3.0	102.0000 1.0 102.0000 2.0 102.0000 3.0
103 - Concrete Pave	103.0000 1.0 103.0000 2.0 103.0000 3.0	103.0000 1.0 103.0000 2.0 103.0000 3.0
104 - Concrete for Structures and Pave	104.0000 1.0 104.0000 2.0 104.0000 3.0	104.0000 1.0 104.0000 2.0 104.0000 3.0
105 - Structures Reinforcement	105.0000 1.0 105.0000 2.0 105.0000 3.0	105.0000 1.0 105.0000 2.0 105.0000 3.0
106 - Earthwork	106.0000 1.0 106.0000 2.0 106.0000 3.0	106.0000 1.0 106.0000 2.0 106.0000 3.0
107 - Soilwork	107.0000 1.0 107.0000 2.0 107.0000 3.0	107.0000 1.0 107.0000 2.0 107.0000 3.0
108 - Gravel	108.0000 1.0 108.0000 2.0 108.0000 3.0	108.0000 1.0 108.0000 2.0 108.0000 3.0
109 - Asphalt Mill Layer	109.0000 1.0 109.0000 2.0 109.0000 3.0	109.0000 1.0 109.0000 2.0 109.0000 3.0

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Florida Department of  
**TRANSPORTATION**



Materials Acceptance and Certification

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



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**Materials Acceptance and Certification**

- Nonstandard JGS
  - Need to coordinate with SMO
    - When the initial Materials are added
    - When any new materials are added

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**Materials Acceptance and Certification**

Improvement on the FDOT system shall be ran through the FDOT permitting process. The Recipient shall commence the project's activities subsequent to the execution of this accordance with the following schedule:

- a) Construction to be completed by - 12/31/2022
- b) Construction contract to be let by - 06/01/2021

The Recipient shall commence the project's activities subsequent to the execution of this Agreement and shall perform in accordance with the following schedule:

- a) Right-of-Way to be certified by 12/31/2019
- b) Construction contract to be let by 08/05/2020
- c) Construction to be completed by 02/05/2023

If this schedule cannot be met, the Recipient will notify the Department in writing with a revised schedule or the project is subject to the withdrawal of funding.

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**Materials Acceptance and Certification**

## Rolling Straightedge Comparison Packages



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 **Florida Department of TRANSPORTATION** 

**Materials Acceptance and Certification**

- On older projects, VT company had to create an RSE VT sample with Witnessed By TIN
- PA had to create a comparison package to connect QC to VT
- Manual Comparison Status to avoid a false MC Review finding

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 **Florida Department of TRANSPORTATION** 

**Materials Acceptance and Certification**

- Witnessed By
  - QC identifies the VT’s company
  - Data Reviewer in the VT company enters the VT’s TIN on the QC Sample
  - No VT Sample
  - No Comparison Package

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 **Florida Department of TRANSPORTATION** 

**Materials Acceptance and Certification**

- Witnessed By
  - QC says it’s more work
    - It is not
    - It can delay the sample
  - To avoid delays, Data Reviewers from QC and Witnessed By companies need to subscribe to notifications

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**Materials Acceptance and Certification**

MAC Material =  
 Section Number + Section Title  
 120 – Excavation and Embankment

ID                      Description

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**Materials Acceptance and Certification**

Portland Cement Concrete  
 12/31/2019



Structural Portland  
 Cement Concrete  
 01/01/2020



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**Materials Acceptance and Certification**

- New MAC Material
- On NSJGS , if the wrong one is selected, no MAC Spec is assigned

530 - Riprap	01/2006 1.x	01/01/2006 - 06/30/2015 Specification Section Title Name change for contracts let on or after 07/01/2015.
530 - Riprap and Articulating Concrete Block Revetment Systems	07/2015 1.x	07/01/2015 - 12/31/2015 Specification Section Title Name change for contracts let between 07/01/2015 and 12/31/2015 only.
530 - Revetment Systems	01/2016 1.x	01/01/2016 to present Specification Section Title Name change for contracts let on or after 07/01/2016.

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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

- New MAC Material
- On NSJGS , if the wrong one is selected, no MAC Spec is assigned to the JGS
- Use workbook crosswalk spreadsheet

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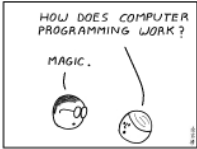
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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

# Enhancements



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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

# Notifications



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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

- Opt in options to narrow down possible notifications for a role
- Program Maintenance User might be:
  - Material Type
  - Managing District of the Facility
- For PAs = Contract Number or FPN
  - What happens if you don't opt in?

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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

My Notification Subscriptions

Email Notification Schedule:  Daily  Weekly  Monthly

Email Address: Susan.Musselman@dot.state.fl.us

Notification Event Type Group: Contractor Q.C. Plans Notification Event Type: Contractor Q.C. Plan's Mix Design No Longer Approved

**Update**

User: Susan Musselman

Opt in/Opt Out:  Opt In  Opt Out Send Type:  Both Email and Dashboard

Filters?  **PA**

Managing Districts:  Contracts:  Production Facility Material Types:  Companies:  **PMU**

User Who Created Record?  Is In  Is NOT In

Start typing user name to get list of users

Save

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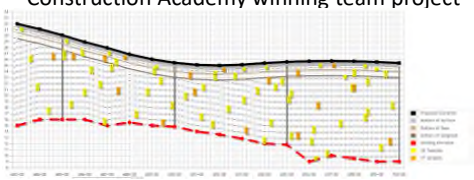
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**FDOT** Florida Department of **TRANSPORTATION** **MAC**

**Materials Acceptance and Certification**

- Earthwork Records System
  - Construction Academy winning team project



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Project Administrator Information	
MC Review and MAR for the Project Administrator	PDE (603KB)   Video (28:50)
PA Concepts for MAC	PDE (7.77MB)
PA Concepts for MAC Video	Video (56:47)
This optional training information provides detailed background information for users with the PA role. With the MAC implementation, responsibilities are being transferred to the PA. This video is designed to provide PAs who are unfamiliar with materials acceptance with the basic concepts.	
STRG/JGS for Project Administrator	
MAC Spec Workbook Version to FDOT Contract Let Dates Crosswalk Updated	PDE (1.95KB)
PA Review of JGS Entry (MAC requirements)	PDE (1.4M)
This document describes the MAC functions for the PA review of the standard JGS and non-standard JGS in MAC. Additional information for reviewing non-standard JGS entries for Lump Sum contracts to ensure contract compliance with Specifications Section can be found in the PA Instructions for LS JGS.	
PA Instructions for LS JGS (contract compliance requirements)	PDE (1.0MB)
This document details the PA review of the non-standard JGS to ensure entries for Lump Sum contracts are compliant with Specifications Section 105.	
Approved Products and the Pay Item Tracking System	PDE (532KB)
This document details the PA and MC Reviewer's roles for APL products.	
FDOT Contractor QC Plan Review	PDE (4MB)
Sample Finalization Guide Lists	
Asphalt Plant Samples	PDE (806KB)
Rolling Straightedge (Pre 07/2020)	PDE (207KB)
Rolling Straightedge (Post 07/2020)	PDE (210KB)
Solls/Earthwork Materials	PDE (791KB)
ERS Field Density	PDE (182KB)
Structural Concrete Materials	PDE (699KB)

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<b>Materials Acceptance and Certification</b>		
	Susan Musselman, FDOT State Materials Office Office 352.955.6669 Cell 352.663.4461 <a href="mailto:Susan.Musselman@dot.state.fl.us">Susan.Musselman@dot.state.fl.us</a>	

101

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