Florida Department of
TRANSPORTATION

Project Administrators and MAC

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Project Administrators and MAC

- What is the PA role in MAC?
- How is it different from LIMS?
- Who can be assigned the PA Role in MAC?
- Why does it matter?

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Project Administrators and MAC

- The Materials Acceptance and **Certification** system is designed around the requirements for Final Project Materials Certification Review

Project Administrators and MAC

- The PA is responsible for
  - Assuring that the contract requirements for material acceptance are met
  - The Project Materials Certification Letter (PMCL) is correct and complete

Project Administrators and MAC

- In LIMS, the person approving samples could be different, depending on the district and/or material
- Known CPR Issue
  - Who is the PA's delegate

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- In response to the CPR Issue, the State Construction Office set the definition of the PA's delegate
- Still allowed in LIMS, but MAC will bring CPR

Project Administrators and MAC

- PA role can be delegated to:
  - Contract Specialist
  - Head Inspector

Project Administrators and MAC

- NOT
  - VT Technician at the concrete lab
  - VT Technician at the soils lab
  - Earthwork Inspection Technician

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- Later added for asphalt samples:
  - –Verification Technician
  - –Resident Asphalt Specialist

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Project Administrators and MAC

- Lots of new work in unfamiliar materials areas for the PA
- Ultimately Asphalt will also be the responsibility of PA

Project Administrators and MAC

- Contract Concepts
  - Method of Measurement
  - Basis of Payment
  - Method of Acceptance

Project Administrators and MAC

- Contract Concepts
  - –Method of Measurement
- How do we determine how much of something is on a contract
  - – Plan Quantity
  - – Final Measure
  - – Lump Sum

- Contract Concepts
  - Method of Measurement (715-16)

(k) High Mast Lighting Pole Complete: The Contract unit price will include the pole, luminaires with lamps, lowering system, breakers and anchor bolts with lock nuts and washers, and foundation as indicated in the Plans and the Design Standards.

715-6.1 Concrete Foundations: Provide foundations for light poles of the sizes and shapes shown in the Plans. Construct precast or cast-in-place concrete foundations in accordance with the Design Standards. Obtain precast foundations from a plant that is currently on the Department's list of Producers with Accepted Quality Control Programs. Producers seeking inclusion on the list shall meet the requirements of 105-3.

Project Administrators and MAC

- Contract Concepts
  - –Basis of Payment
- How we pay for something on the contract

Project Administrators and MAC

- Contract Concepts
  - –Method of Acceptance
  - –Specifications Section 6
    - Sampling and Testing
    - Certification

Project Administrators and MAC

- Certification
  - –APL
    - May also require manufacturer certification or labeling
  - –Contractor/Producer/
  - –Manufacturer Certifications

Project Administrators and MAC

- Method of Acceptance can get tricky
  - A concrete delivery ticket is a certification

Project Administrators and MAC

- Method of Acceptance can get tricky
  - Sometimes the requirements are by reference
    - The acceptance requirements are found elsewhere
    - Can be connected to Basis of Payment
      - CPF
      - Reduced Payment for failing material

Project Administrators and MAC

- Method of Acceptance by Reference
  - Section 400 has no Method of Acceptance (MOA) details
  - Article 400-2 references Sections 346 and 347 for concrete
    - Section 346 MOA is Sampling and Testing
    - Section 347 MOA is certification

Project Administrators and MAC

- Sometimes the references are not so direct
  - Article 400-2 References Section 415 for reinforcing steel
  - Section 415 has no MOA requirements
  - Article 415-2 references Section 931 for reinforcing steel
    - Section 931 has MOA requirements

Project Administrators and MAC

- Method of Acceptance can get tricky
  - Sometimes a single pay item can have many references

Materials Acceptance and Certification (MAC)

- Contract Concepts
  - Method of M[illegible]ment (715-16)

Chemistry Lab

Physical

(k) High Ma[illegible] Lighting Pole Complete: The Contract unit price will include the pole, luminaires with lamps, lowering system, breakers and anchor bolts with lock nuts and washers, and foundation as indicated in the Plans and the Design Standards.

715-6.1 Concrete Foundations: Provide foundations for light poles of the sizes and sh[illegible] Plans. Construct precast or cast-in-place concrete foundations in accordance [illegible] in precast foundations from a plant that is currently on the Depa[illegible] with Accepted Quality Control Progr[illegible] seeking inclusion on the list shall meet the requirements of 105-3.

Certification

Sampling and Testing

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- The Job Guide Schedule is designed to assist with Method of Acceptance
- PA needs to review JGS to ensure it's complete
- PA needs to know which materials belong with which pay items to confirm JGS is complete

Project Administrators and MAC

- Two kinds of JGS in MAC
- Standard
  - Conventional Pay Item jobs
- Non-Standard
  - LS
  - DB
  - On System LAP
  - Everything else*

Project Administrators and MAC

- What is a material?
  In MAC a material is the top of the pyramid and is based on the FDOT Specification Sections

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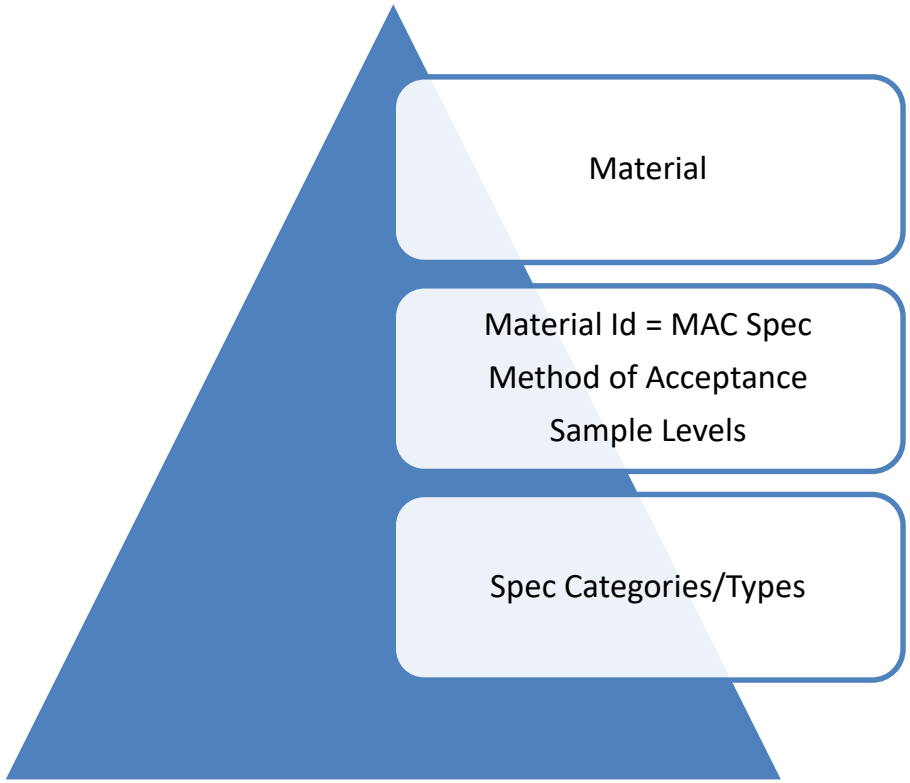

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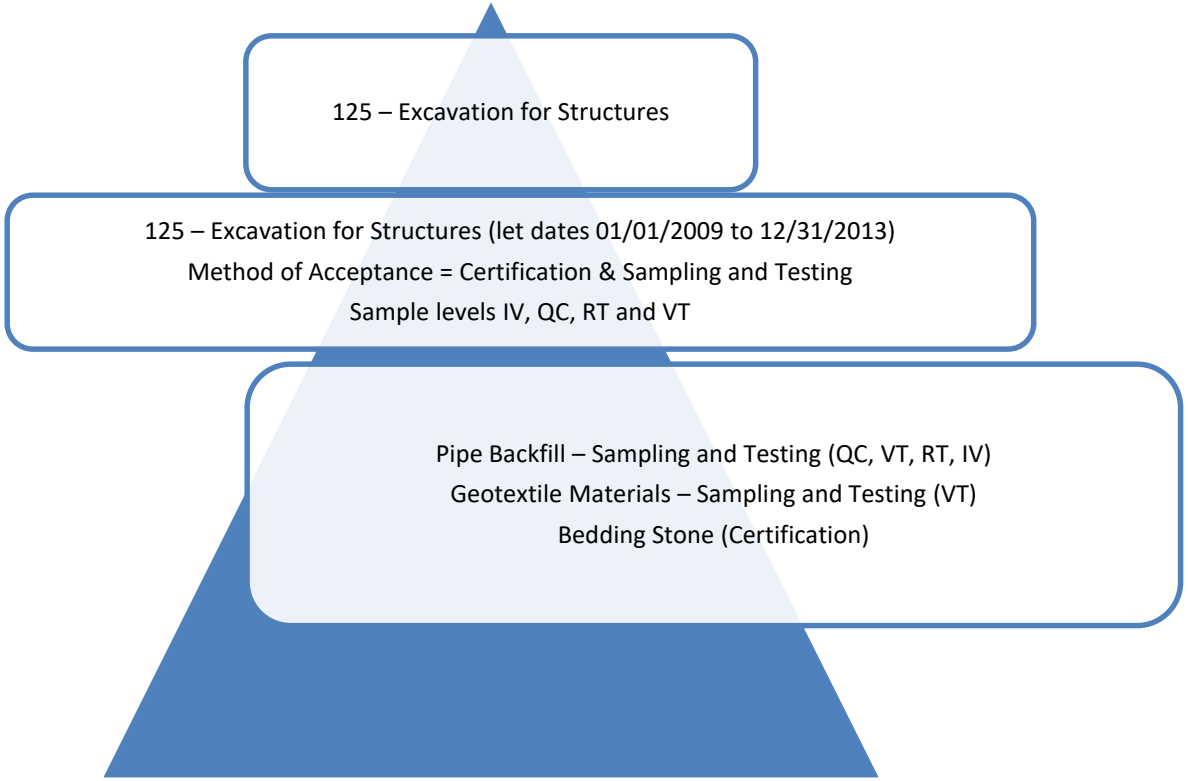

Project Administrators and MAC

- How MAC creates a JGS:
- 1. Standard JGS
  - State Materials Office Technical Unit
    - Maintains a table assigning materials to pay items
    - Maintains another table assigning APL materials to pay items
    - Creates MAC Spec entries for Supplemental Specification Material ids

Project Administrators and MAC

- 1. Standard JGS
- Based on Material Assignment, MAC does the following:
  - Looks at the contract let date
  - Looks at the pay items on the contract
  - Assigns the appropriate MAC Spec Material Id or APL Spec to the JGS based on the contract pay items and the let date

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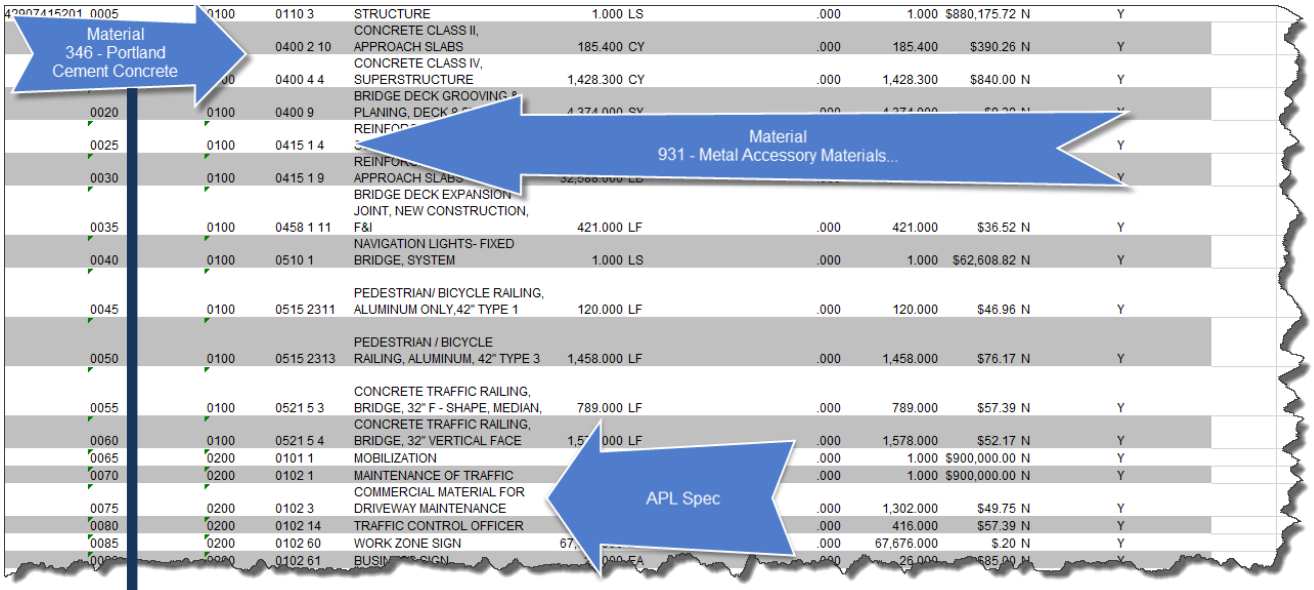
FDOT Contract T7348 Let Date 6/18/2014



4	346	Portland Cement Concrete	Project	Supplemental Specification	01/2009	1.3
5	346	Portland Cement Concrete	Project	Supplemental Specification	01/2013	2.0

Project Administrators and MAC

- 1. Standard JGS
- What about requirements other than Supplemental Specifications?
- Must be added manually

Project Administrators and MAC

- 1. Standard JGS
- Special Provisions
  - Modified Special Provisions
- Technical Special Provisions
- Developmental Specifications
- Change Orders
- Plan Notes

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MILLING OF EXISTING ASPHALT PAVEMENT.
(REV 8-31-99) (FA 2-14-00) (1-16)

ARTICLE 327-1. The third paragraph is deleted and the following substituted:

For this Contract the Department will retain ownership of the milled material. Haul and stockpile the material to remain the property of the Department at the location shown on the plans. The Contractor will take ownership of any milled material not to be retained by the Department.

ARTICLE 327-7. Method of measurement is deleted and the following substituted:

Price and payment will be full compensation for all work specified in this Section, including hauling and stockpiling the material at the location shown on the plans, and hauling off or otherwise disposing of any milled material not to be retained by the Department.

Payment will be made under:

Item No. 327- 70- Milling Existing Asphalt Pavement - per square yard.

NOT RELATED TO

Method of Acceptance

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

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.

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Final Project Materials Certification

457 - Integral Pile Jackets, Special Provision [457], 01/2009, v1.1

Go to

Update Projects | Create New Version | Create New Spec from this Version | Delete Material Spec Version | Disable

Material/Spec Id	Material Title	Specification Category	Spec Type	Number/ID	Workbook Id	Version	Version Reason	Status
457	Integral Pile Jackets	Project	Special Provision	457	01/2009	1.1	Air Content of Grout is optional	Official

Method of Acceptances
Certification, Certified Test Report, Sampling And Testing

Sample Levels
IV, QC, QR, VT, VR

Owner (Technical Unit)	Contact Email	Last Updated By	Last Updated On
Corrosion	SM-MACCorrosion	Patrick Carlton	7/1/2016 10:38:30 AM

Project List

230406-9-52-01: DISTRICTWIDE "ON-CALL" BRIDGE REPAIR CONTRACT [Full Replacement]
421314-1-52-01: SR-A1A BRIDGE #940085 OVER FPL DISCHARGE CANAL [Full Replacement]
424422-1-52-01: I-295 (SR 9A)BUCKMAN & ST. JOHNS RIVER BRIDGE #720249 SB & #720343 NB [Full Replacement]
426169-1-52-01: SR 5 (US 17/PHILIPS) OVER TROUT RIVER & ROAD BRIDGE #720011 [Full Replacement]
428267-1-52-01: SR 5/US-1 OVERSEAS HWY OVER BOCA CHICA CHNL BRGS# 900003 & 900074 [Full Replacement]
428400-1-52-01: SR-5/US-1 FED HWY FR N OF CR-A1A(MP 10.68) TO S OF BEACH RD(MP 10.84) [Full Replacement]
430009-1-52-01: INDEFINITE QUANTITY CONTRACT FOR BRIDGE REPAIR [Full Replacement]
430706-1-52-01: LONG BRIDGE REPAIR HILLSBOROUGH COUNTY VARIOUS LOCATIONS [Full Replacement]
430707-1-52-01: SR 666 WELCH CAUSEWAY BR# 150028 INTRACOASTAL WATERWAY [Full Replacement]
431750-2-52-01: SUNSHINE SKYWAY PIER REPAIR BR# 159008 [Full Replacement]
431750-3-52-01: SUNSHINE SKYWAY PIER REPAIR BR# 139003 [Full Replacement]
432194-1-52-01: SR 24 AT #3 CHANNEL BR. NO. 340003 & 340001 [Full Replacement]
432432-2-52-01: SUBSTRUCTURE REPAIR HILLSBOROUGH COUNTY VARIOUS PROJECTS [Full Replacement]
435282-1-52-01: SR 9 (I-95) OVER TOMOKA RIVER BRIDGES # 790078 & 790077 [Full Replacement]
435403-1-52-01: SR15 (US441) & SR600 (US 17/92)OVER BLUE CYPRESS/SHINGLE CREEK BRIDGE [Full Replacement]

STRG Instructions

Will appear on JGS for these projects

Project Administrators and MAC

- 1. Standard JGS
- The PA must work with the State Materials Office Technical Unit to ensure:
  - A MAC Spec Material Id has been created
  - The Project has been assigned to the Material Id

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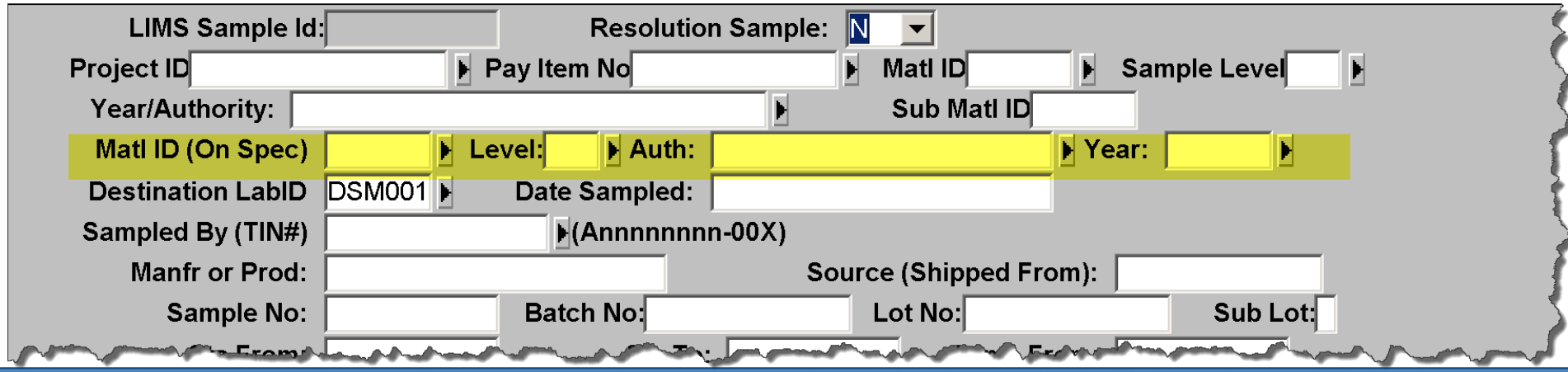
Project Administrators and MAC

- 1. Standard JGS
- In LIMS there is a way to add a material to a sample “on the fly”



Project Administrators and MAC

- 1. Standard JGS
- There is no MAC equivalent to the LIMS Material Id on Spec functionality
- By design
- The Material MUST be on the JGS or the sample cannot be logged in

Project Administrators and MAC

- 1. Standard JGS
- Do not wait until a material with project specific requirements is being placed and sampled
- TOO LATE

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Project Administrators and MAC

- 1. Standard JGS
- We may need time to:
- Review the contract
- Possibly discuss with EOR
- Build the MAC Spec Material Id if it doesn’t already exist

Project Administrators and MAC

- 1. Standard JGS
- The right time to notify SMO Technical Unit(s) is during preconstruction
- Review project specific material requirements at the preconstruction conference
- Make QC and VT personnel aware of the material and efforts being made to ensure it's on the JGS before sampling begins

Project Administrators and MAC

- How MAC creates a JGS:
- 2. Non-Standard JGS
- What about Non-Standard JGS?
  - LS
  - DB
  - On System LAP
  - Everything else*

Project Administrators and MAC

- 2. Non-Standard JGS
- What about Non-Standard JGS?
  - LS
  - DB
  - On System LAP
    - QC Data Entry Creates a Non-standard JGS

Project Administrators and MAC

- 2. Non-Standard JGS
- What about requirements other than Supplemental Specifications?
- Must be added manually
- Just like standard JGS, the PA and SMO technical unit need to communicate any project specific requirements before the material is placed and sampled

Project Administrators and MAC

- 2. Non-Standard JGS
- Everything else*
  - Non-standard JGS process will be used for all other FDOT contract types to determine if this process will work
    - Send feedback to MAC Application Coordinator if non-standard process is used
      - SCRAP, SCROP, CGIP, etc.

Project Administrators and MAC

- 2. Non-Standard JGS
- Everything else*
- Contracts that don't go in MAC
  - LAP Off system
  - Non-FDOT contract (DEP, DOA)
  - If we're not certifying it, we don't need it in MAC
    - Except for FDOT contracts that would be certified except for FDOT policy (less than 250K, etc.)
      - They still go in MAC

Project Administrators and MAC

- So you've reviewed the JGS and all the materials are there, but at login the MAC Spec Material Ids aren't showing up
- Why Not?

Project Administrators and MAC

- Supplemental Specifications
  - There is no MAC Spec Material Id
  - The SMO hasn't assigned the Material to the pay item
  - The MAC Spec Material Id has not been made Official

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Project Administrators and MAC

- Project Specific Requirements
  - There is no MAC Spec Material Id
  - The SMO hasn't assigned the project to the MAC Spec Material Id
  - The MAC Spec Material Id has not been made Official

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Project Administrators and MAC

- Now that we have all our materials on the JGS, we are ready to start sampling and testing and collecting certifications

Project Administrators and MAC

- Besides JGS, there is one other MAC entry that impacts Sample Life Cycle
- The Contractor Quality Control Plan

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Project Administrators and MAC

- There are two separate videos for Contractor QC Plans
- One details the creation and maintenance of the Contractor QC Plan by the QC Data Entry
- The other details the FDOT review of Contractor QC Plans

Project Administrators and MAC

- Here are some highlights for the PA's review:
- Are there entries on the QC Plan for all the materials being ordered or delivered?
- Are there enough entries for technicians, labs and production facilities to cover all the QC Operations?
- Are there a number of "off-list" flags?
  - Okay you won't see this one until the samples start getting entered but to avoid them, make sure there are enough entries on the QC Plan.

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Project Administrators and MAC

- Now you have:
- A JGS
- A Contractor QC Plan
- Work has started
- Materials are being sampled and tested
- Certifications are being collected and reviewed

Project Administrators and MAC

- PA should:
- Review Sample status
  - Are samples being entered and processed timely?
  - VT no longer has to wait for QC to be done
- Finalize project samples – ALL Project Samples, even ones tested by SMO

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Project Administrators and MAC

- Sample Life Cycle training covers finalization in detail
- Here are some highlights

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Project Administrators and MAC

- Most project samples cannot be multi-finalized:

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- Why not?
- Because sample and test data are used in the comparison logic
- Before you put the samples in a comparison package, you need to verify that the sample and test data is correct and complete

Project Administrators and MAC

- MAC Sample Finalization Guidelists for
  - Asphalt
    - PA role may be assigned to Asphalt VT or Resident Asphalt Specialists
    - Check with Local DAC
  - Earthwork
  - Concrete

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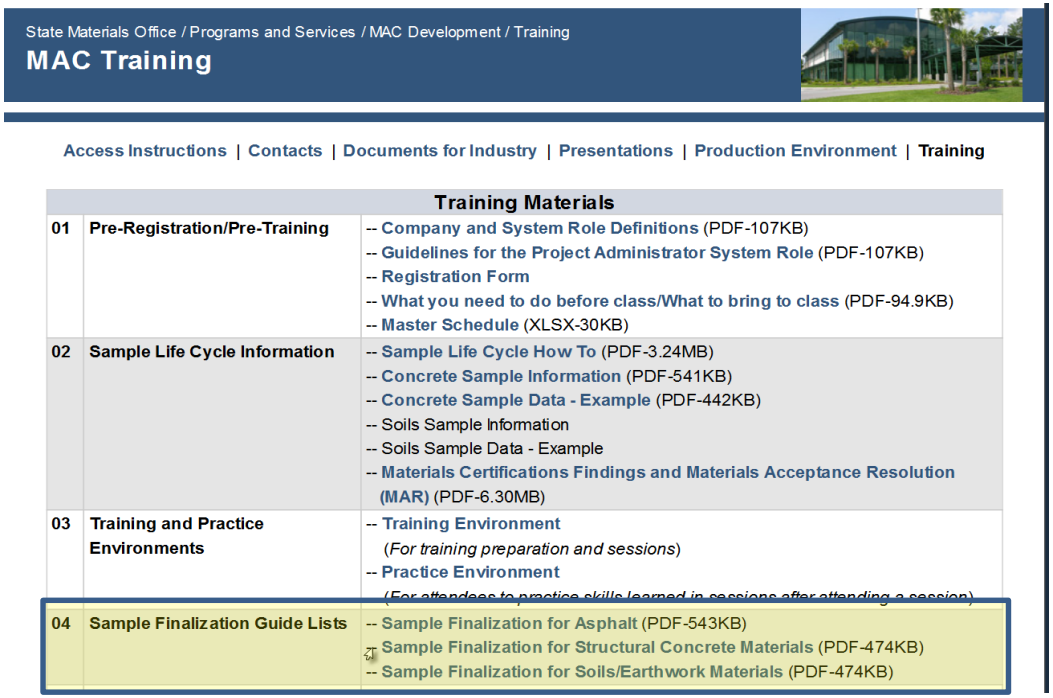
- Checklists are available on the MAC training website



State Materials Office / Programs and Services / MAC Development / Training

MAC Training

Access Instructions | Contacts | Documents for Industry | Presentations | Production Environment | **Training**

Training Materials		
01	**Pre-Registration/Pre-Training**	-- **Company and System Role Definitions** (PDF-107KB) -- **Guidelines for the Project Administrator System Role** (PDF-107KB) -- **Registration Form** -- **What you need to do before class/What to bring to class** (PDF-94.9KB) -- **Master Schedule** (XLSX-30KB)
02	**Sample Life Cycle Information**	-- **Sample Life Cycle How To** (PDF-3.24MB) -- **Concrete Sample Information** (PDF-541KB) -- **Concrete Sample Data - Example** (PDF-442KB) -- Soils Sample Information -- Soils Sample Data - Example -- **Materials Certifications Findings and Materials Acceptance Resolution (MAR)** (PDF-6.30MB)
03	**Training and Practice Environments**	-- **Training Environment** (*For training preparation and sessions*) -- **Practice Environment** (*For attendees to practice skills learned in sessions after attending a session*)
04	**Sample Finalization Guide Lists**	-- **Sample Finalization for Asphalt** (PDF-543KB) -- **Sample Finalization for Structural Concrete Materials** (PDF-474KB) -- **Sample Finalization for Soils/Earthwork Materials** (PDF-474KB)

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Project Administrators and MAC

- PA opens each sample
- PA reviews checklist information requirements on sample
- PA sends sample back for entries that don't align with checklist requirements
  - Sample Finalization video demos functionality

Project Administrators and MAC

- Sample Life Cycle end – Samples are considered closed – when
  - Samples that are not in a comparison package are finalized

Project Administrators and MAC

- Sample Life Cycle end – Samples are considered closed – when
  - Samples that are in a comparison package:
    - Compares Or Marked Comparison Not Performed
    - Does not Compare – Resolution is performed or Resolution is Marked not Performed

Project Administrators and MAC

- Sample Life Cycle – Comparison Package Tips and Tricks
  - You can create a comparison package at any time
  - You can add samples to the comparison package as they are finalized

Project Administrators and MAC

- Comparison Tips and Tricks
  - Random number for concrete = LOT 1
  - QC takes LOT 1 sample & enters CC40001Q
  - VT takes LOT 1 sample & enters CC40001V
  - Test results complete, samples are finalized

Project Administrators and MAC

- Comparison Tips and Tricks
  - Create the package with the Original Sample (QC) and the Verification Sample (VT)
  - MAC will determine if the two samples compare

Project Administrators and MAC

- Comparison Tips and Tricks
  - No comparison?
  - Start the resolution process by notifying QC and VT to send in the QR (QC Hold) and VR (VT hold) samples
  - Test results complete, samples are finalized
  - Add the QR and VR to the package

Project Administrators and MAC

- Comparison Tips and Tricks
  - Await DMRO recommendation for Resolution Investigation
  - Set the Resolution Status
  - When associated samples for QC LOTs 2, 3 and 4 are finalized, add them to the Comparison package

Project Administrators and MAC

- Comparison Tips and Tricks
  - Most materials will automatically determine resolution status based on logic
  - Concrete Resolution Investigation can't be programmed into logic
  - PA sets a manual resolution

Project Administrators and MAC

- Comparison Tips and Tricks
  - Same would be true for Random Number in LOT 4
  - Enter QC 1, QC 2, QC 3 associated samples, but don't run comparison
  - When QC 4 and VT 4 are finalized, add to the comparison package and run comparison

Project Administrators and MAC

- What happens when things “go bad”?
- Material not meeting method of acceptance requirements
  - PAs should be tracking samples to ensure any issues are addressed as soon as they occur

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Project Administrators and MAC

- PAs don't have to wait for samples to be closed/finalized to begin work on issues/findings
- Automatic findings will be generated as soon as they exist in the system

Project Administrators and MAC

- Automatic findings are generated based on conditions
- If the condition goes away, the finding can be excluded

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Project Administrators and MAC

- Materials Office Materials Certification personnel will generate the MC Review in MAC as soon as the contract begins
- This triggers the automatic findings

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- Findings are things that could be issues, but may not be
- PA and MC Reviewer will determine if a finding warrants further action

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	1600013629/Test ASTM C143 Slump of Hydraulic Cement Concrete is not Qualified			Slump of Hydraulic Cement Concrete			
158	Tester [F12345678] on Sample 1600013629/Test ASTM C173/ASTM C231 Air Content of Freshly Mixed Concrete is not Qualified	System	1600013629 QC	ASTM	Submitted	7/7/2016	View Details
159	Tester [M12345678] on Sample 1600013629/Test ASTM C39 Compressive Strength is not Qualified	System	1600013629 QC	ASTM C39 Compressive Strength	Submitted	7/7/2016	View Details
160	Tester [F12345678] on Sample 1600013629/Test FM 5-501 - Early Sampling for W/C Ratio is not Qualified	System	1600013629 QC	FM 5-501 - Early Sampling for W/C Ratio	Submitted	7/7/2016	View Details
161	Sampler [T40052179] on Sample 1600013630 is not Qualified	System	1600013630 QC		Submitted	7/7/2016	View Details
162	Tester [F12345678] on Sample 1600013630/Test ASTM C1064 Temperature of Freshly Mixed Portland Cement Concrete is not Qualified	System	1600013630 QC	ASTM C1064 Temperature of Freshly Mixed Portland Cement Concrete	Submitted	7/7/2016	View Details
163	Tester [F12345678] on Sample	System	1600013630 QC	ASTM C143	Submitted	7/7/2016	View Details

Automatic Findings

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- If the PA and MC Reviewer determine if a finding warrants further action
  - Promoted to MAR
- What is MAR?

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- MAR stands for Materials Acceptance Resolution
- Something is wrong with material method of acceptance
- **Defective** Material

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- Defective Material is defined as any material not meeting the Specification requirements
  - Not just failing test results
  - That is not the only thing that makes a material defective

Project Administrators and MAC

- Defective Material is defined as any material not meeting the Specification requirements
  - There are a lot of things that could “not meet the specifications” that has nothing to do with method of acceptance

Project Administrators and MAC

- NOT A MAR
  - Inspection Items
    - Rebar Placement
    - Cross Slope
  - MOT Items
    - Not enough devices
    - Striping not sufficient

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- Materials Acceptance Resolution (MAR)
- Is restricted to issues that would result in an Exception on the Project Materials Certification Letter
- What are Exceptions?

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- There are 3 categories of PMCL Exceptions (MM 5.4)
- Material Acceptance
  - Failing Test Results
  - Issues promoted to MAR
  - Missing Reports

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- Minimum Frequency
  - Not enough sampling and testing
  - Required tests not performed
  - Required comparisons not performed
  - Required Resolution not performed

Project Administrators and MAC

- Qualifications
  - Unqualified Technicians
  - Unqualified Labs
  - Producers with QC Plans in any status other than Accepted*
    - Not always picked up by an automatic finding
    - Need a manual finding for some producers

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Project Administrators and MAC

- MAC has system programming to find and designate issues with some of these exceptions
- These are the automatic findings
- MAC can’t find everything so MC Reviewers and PAs can add manual findings

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- Speaking of Manual Findings
- The PA can create a manual finding at any time
- Manual findings created by the PA go right to MAR
- Manual findings can be connected to a system finding later

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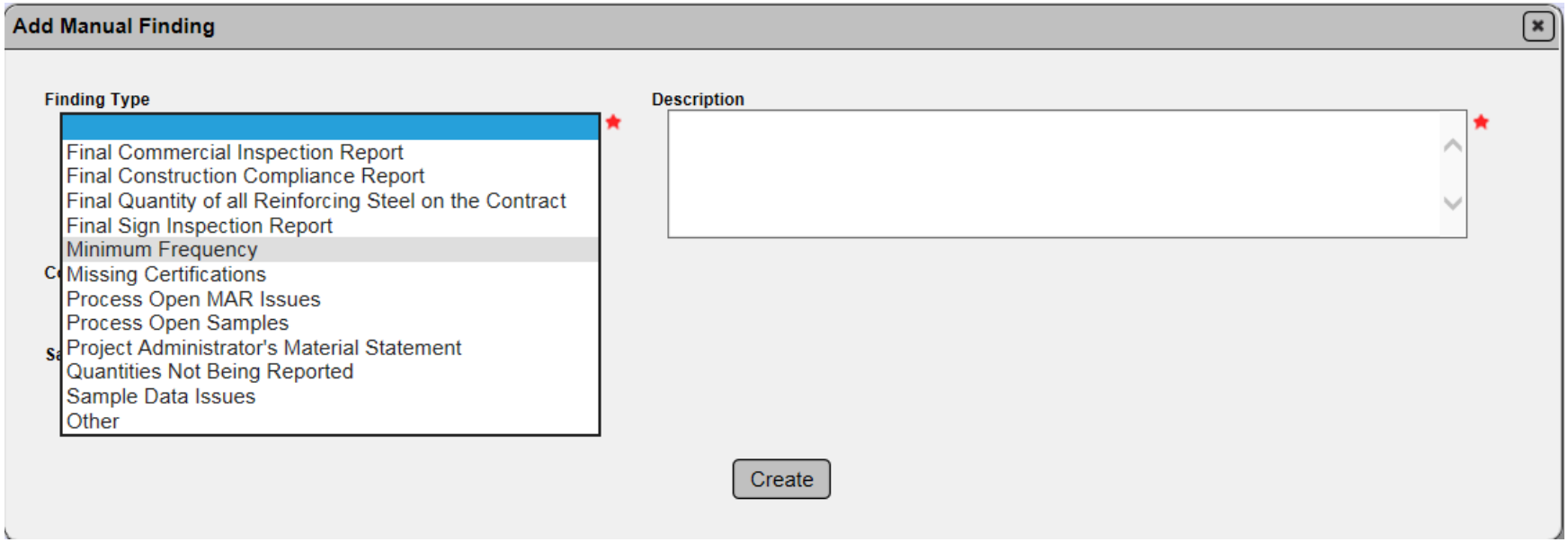

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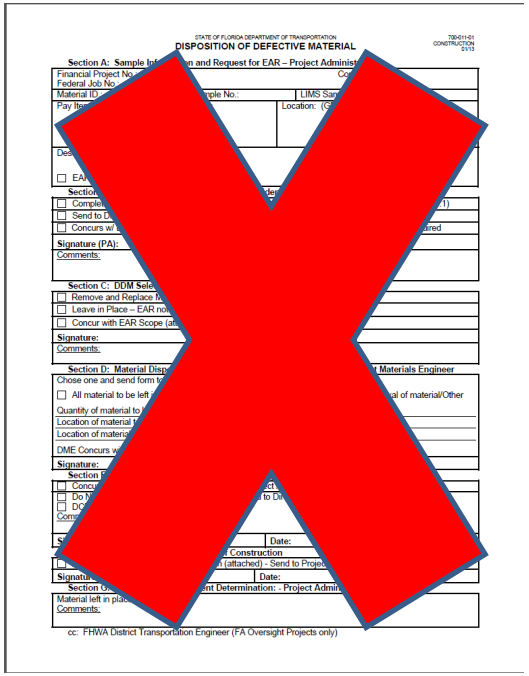
- So how is a MAR issue processed?
- What about DDM/EAR?



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

DISPOSITION OF DEFECTIVE MATERIAL

700-011-01
CONSTRUCTION
01/13

Section A: Sample Information and Request for EAR – Project Administrator

Financial Project No.: Contract No.:
Federal Job No.:

Material ID.:	Sample No.:	LIMS Sample ID.:
Pay Item No.:	Quantity:	Location: (GPS, Lane, Station)

Description of Defective Material:

☐ EAR Scope attached

Section B: Proposal - Project Administrator/Resident Engineer

☐ Complete Removal and Replace Material ☐ Follow
☐ Send to DME for Concurrence with follo ng Proposal, (EAR Scope atta
☐ Concurs w/ EAR ☐ Rejects (Se

Signature (PA):

Comments:

Section C: DDM Selection – District Materials Engineer

☐ Remove and Replace Material – EAR is not required, Send to PA
☐ Leave in Place – EAR not required, Send to DCE for Concurrence
☐ Concur with EAR Scope (attached) – Send to PA

Signature: **Date:**

Comments:

Section D: Material Disposition Recommendation (EAR Performed) – District Materials Engineer

Chose one and send form to District Construction Engineer

☐ All material to be left in place. ☐ All material to be removed. ☐ Partial removal of material/Other

Quantity of material to be removed:
Location of material to be removed:
Location of material to be left in place:

DME Concurs with EAR Recommendations - Yes ☐ No ☐

Signature: **Date:**

Section E: Concurrence - District Construction Engineer

☐ Concur with DME Recommendation – Send to Project Administrator
☐ Do Not Concur with DME recommendation – Send to Director, Office of Const tion
☐ DCE recommendation attached
Comments:

Signature: **Date:**

Section F: Decision - Director, Office of Construction

☐ Director, Office of Construction Decision (attached) - Send to Project Administrator

Signature: **Date:**

Section G: Record of Final Payment Determination: - Project Administrator

Material left in place at _____ % pay
Comments:

cc: FHWA District Transportation Engineer (FA Oversight Projects only)

PA Completes when MAR issue is resolved

EAR / No EAR (or No EAR Delineation) is decided & documented first

Regardless of EAR/No EAR/Delineation – Final Resolution is documented after EAR or Delineation or when final resolution is known

PA Completes when MAR issue is resolved

Project Administrators and MAC

- Step 1 – Resolution by PA
- Some items can be resolved at the PA level and need no further action
  - No concurrence is needed

Florida Department of TRANSPORTATION

Project Administrators and MAC

- DO NOT ADD A MANUAL FINDING FOR:
- Straightedge Deficiencies
- Materials that allow Delineation

Project Administrators and MAC

- Straightedge Deficiencies
- Materials that allow Delineation
  - These two automatic findings trigger specific functionality with the MAR process that you will not get when creating a manual finding

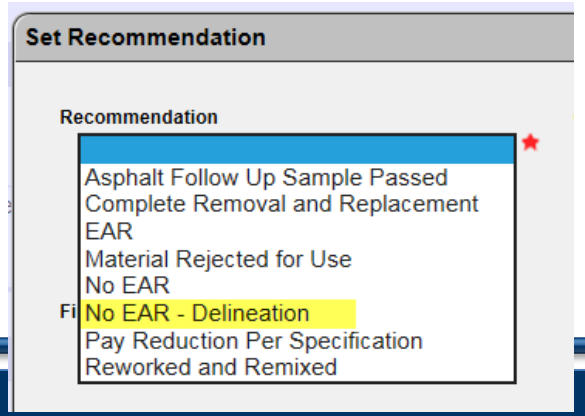
Project Administrators and MAC

- Straightedge Deficiencies
  - Has a different flow with different roles based on CPAM Chapter 11
  - Resident Engineer instead of PA
  - District Bituminous Engineer instead District Materials and Research Engineer
  - Recommendation is Final Resolution

Florida Department of TRANSPORTATION

Project Administrators and MAC

- Materials that allow Delineation
  - Has the same flow with the same roles as other MARs except for Straightedge
  - The difference is the option for No EAR – Delineation will not show up for a manual finding



Project Administrators and MAC

- Step 2 – EAR, No EAR, or No EAR – Delineation
  - PA makes recommendation on whether or not to allow an EAR or Delineation
  - DMRE makes recommendation
  - DCE makes recommendation

Project Administrators and MAC

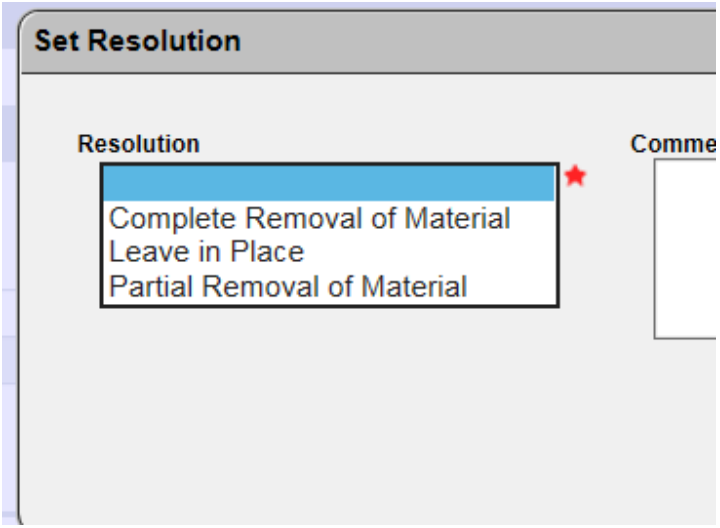
- Step 2 - EAR, No EAR, or No EAR – Delineation
  - If DMRE and DCE do not concur and PA and DCE say NO EAR
  - Director, Office of Construction makes final recommendation
    - Case where Construction requests lesser requirement, DOC breaks the tie
    - If Construction requires higher requirement and no concurrence, Contract Administration rules (EAR)
  - DCE's recommendation is final recommendation

Project Administrators and MAC

- Step 3 – Resolution when EAR or No EAR or No EAR – Delineation
  - PA
  - DMRE
  - DCE
  - Director, Office of Construction
    - Always if no concurrence by DMRE and DCE

Project Administrators and MAC

- Step 3 – Resolution when EAR or No EAR or No EAR – Delineation
  - What is being resolved?
  - Disposition of Material
  - 3 choices

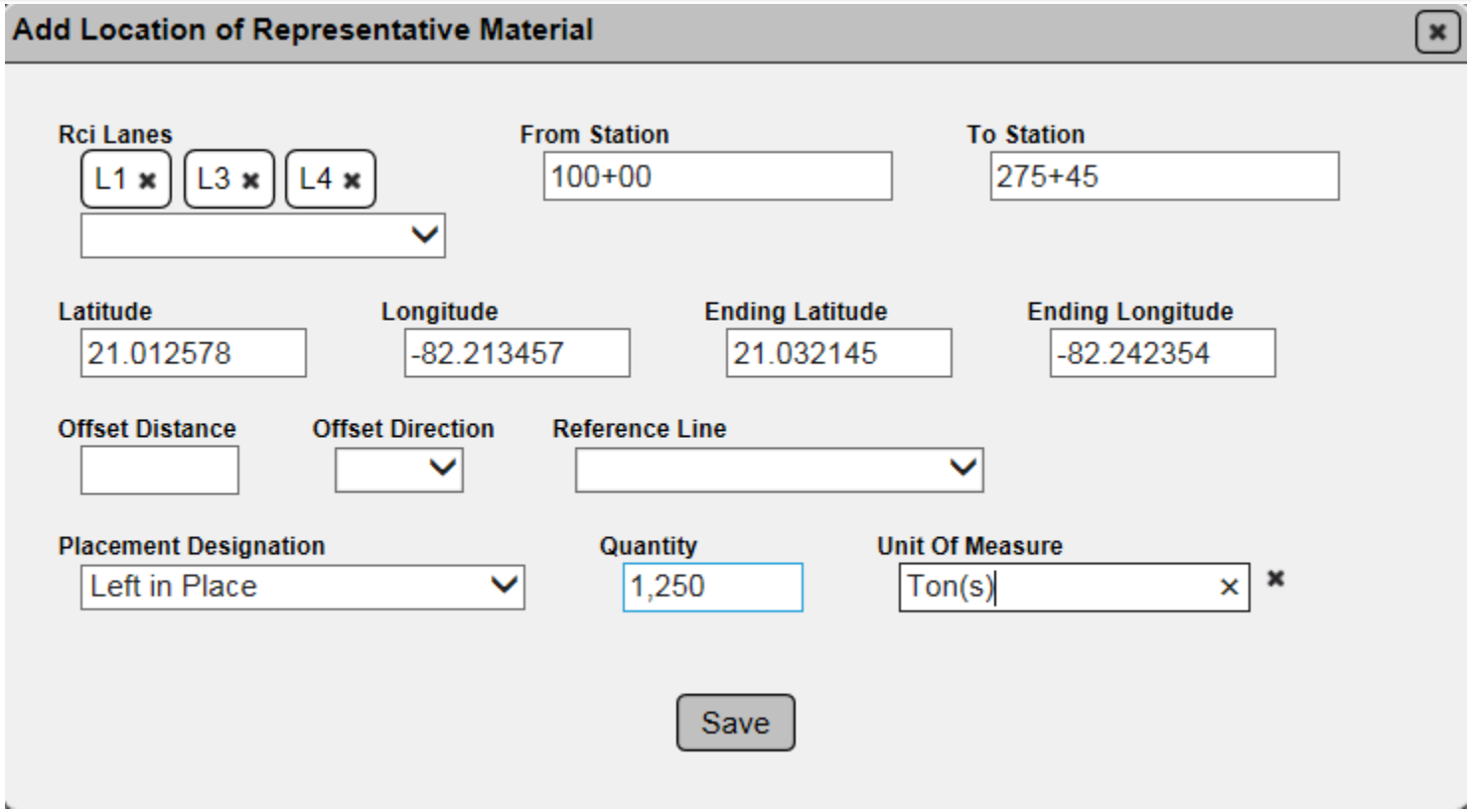


Project Administrators and MAC

- Step 4 – Location Information
- PA needs to ensure the location information is correct and complete
- For Complete Removal and Replacement & Leave in Place – one set of entries

Florida Department of TRANSPORTATION

Project Administrators and MAC



Project Administrators and MAC

- Step 4 – Location Information
- PA needs to ensure the location information is correct and complete
- For Partial Removal and Replacement, enter sub-locations for material that was removed and material that was replaced

Florida Department of TRANSPORTATION

Project Administrators and MAC

- Step 4 – Location Information
- MC Reviewer will notify PA if additional information is needed for location information
- This gets used on the PMCL so it needs to be right

Exceptions for Project FIN: 429074-1-52-01

Non Standard Materials

This is an example of the location information on the PMCL Letter that is derived from MAC.

- **Other: For Location Information on PMCL**

Ref Material ID: -

Sample Level: -

Total Quantity: 2,000 Ton(s) **Accumulative Quantity:** 2,000

RCI Options (Lanes):	L1	**From Station:**	100+00	**To Station:**	250+00
Beginning Latitude:	21.000000	**Longitude:**	-82.000000		
Ending Latitude:	21.500000	**Longitude:**	-82.500000		
Placement Designation:	Partial Remove and Replace	**Quantity:**	2,000 Ton(s)		

RCI Options (Lanes):	L1	**From Station:**	100+00	**To Station:**	175+00
Beginning Latitude:	21.000000	**Longitude:**	-82.000000		
Ending Latitude:	21.520000	**Longitude:**	-82.600000		
Placement Designation:	Removed	**Quantity:**	500 Ton(s)		

RCI Options (Lanes):	L1	**From Station:**	175+00	**To Station:**	200+00
Beginning Latitude:	21.520000	**Longitude:**	-82.600000		
Ending Latitude:	21.250100	**Longitude:**	-82.412000		
Placement Designation:	Left in Place	**Quantity:**	750 Ton(s)		

RCI Options (Lanes):	L1	**From Station:**	200+00	**To Station:**	250+00
Beginning Latitude:	21.250100	**Longitude:**	-82.412000		
Ending Latitude:	21.500000	**Longitude:**	-82.500000		
Placement Designation:	Removed	**Quantity:**	750 Ton(s)		

The PA and MC Reviewer have agreed this location information is correct and complete.

Project Administrators and MAC

- Reports the PA can use for project sampling and testing requirements and tracking

Florida Department of TRANSPORTATION

Project Administrators and MAC

- Sample Transmittal Information
- On the sample record

Florida Department of Transportation

Material Acceptance and Certification (MAC)

Sample Transmittal Information [7/15/2016]

Sample 1600013465 [Finalized]

Sample ID	Sample Status	Sample was Auto-Finalized
1600013465	Finalized	No

Comparison Required

No

Sample Initiated By	Sample Initiated Date	Last Updated By	Last Updated On
Susan Musselman	6/17/2016	Susan Musselman	6/17/2016

For Approval of Mix Design

00008750

Material Information

Sample Category	Contract/Project
Mix Design	

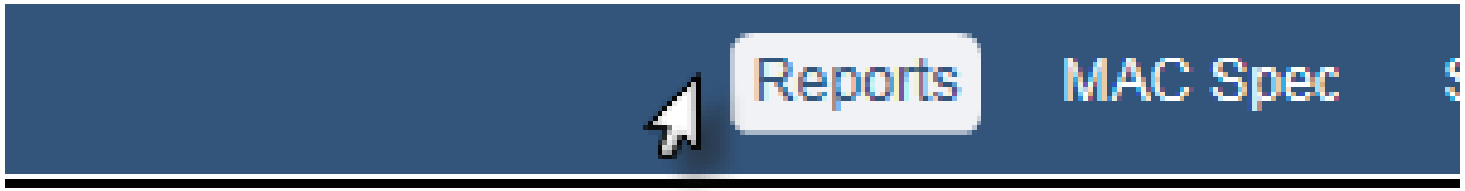
Material	MAC Spec
346 - Portland Cement Concrete	346 - Portland Cement Concrete, Mix Design [Standard Spec], v1.9

Sample Information

Florida Department of TRANSPORTATION

Project Administrators and MAC

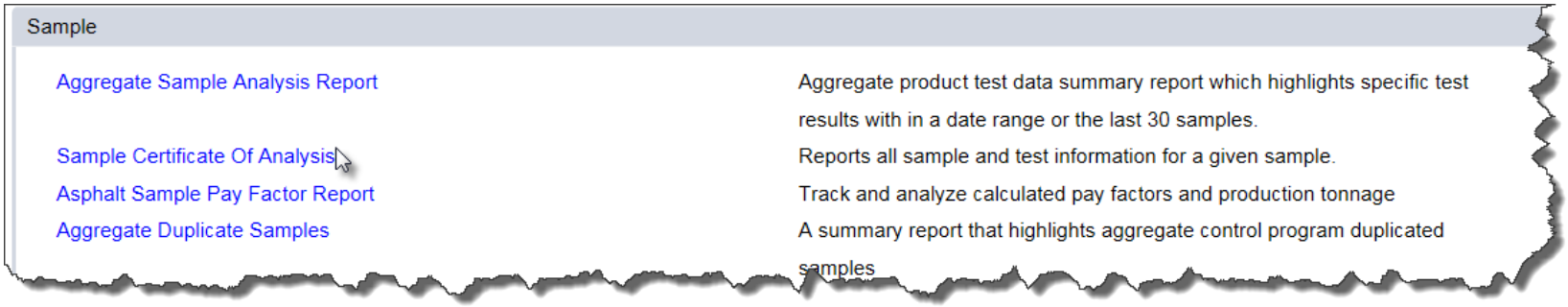
- Sample Certificate of Analysis
- MAC Standard Reports



Florida Department of TRANSPORTATION

Project Administrators and MAC

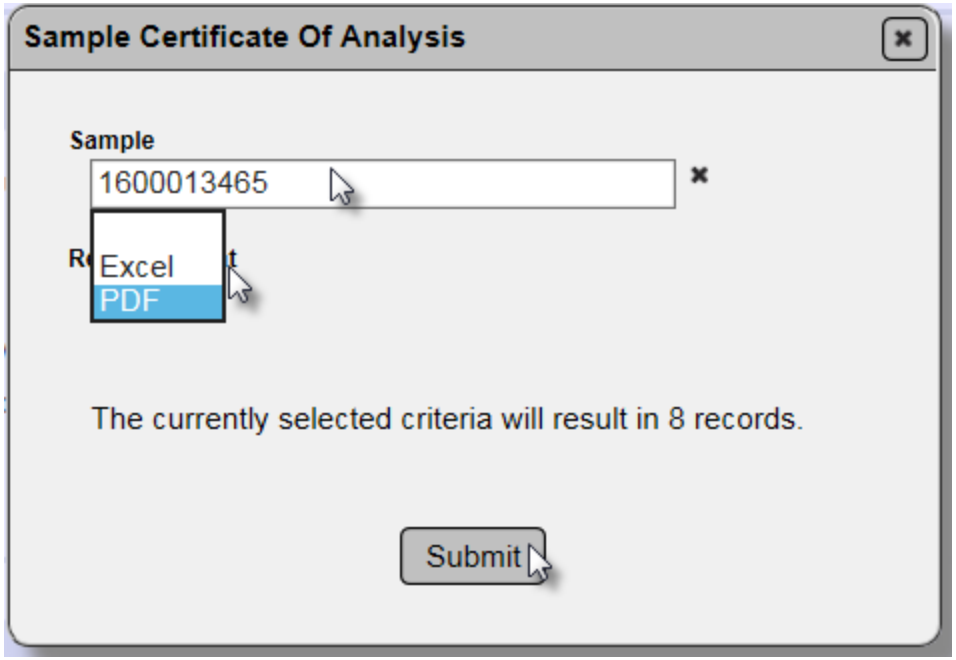
- Sample Certificate of Analysis
- MAC Standard Reports



Florida Department of TRANSPORTATION

Project Administrators and MAC

- Sample Certificate of Analysis
- MAC



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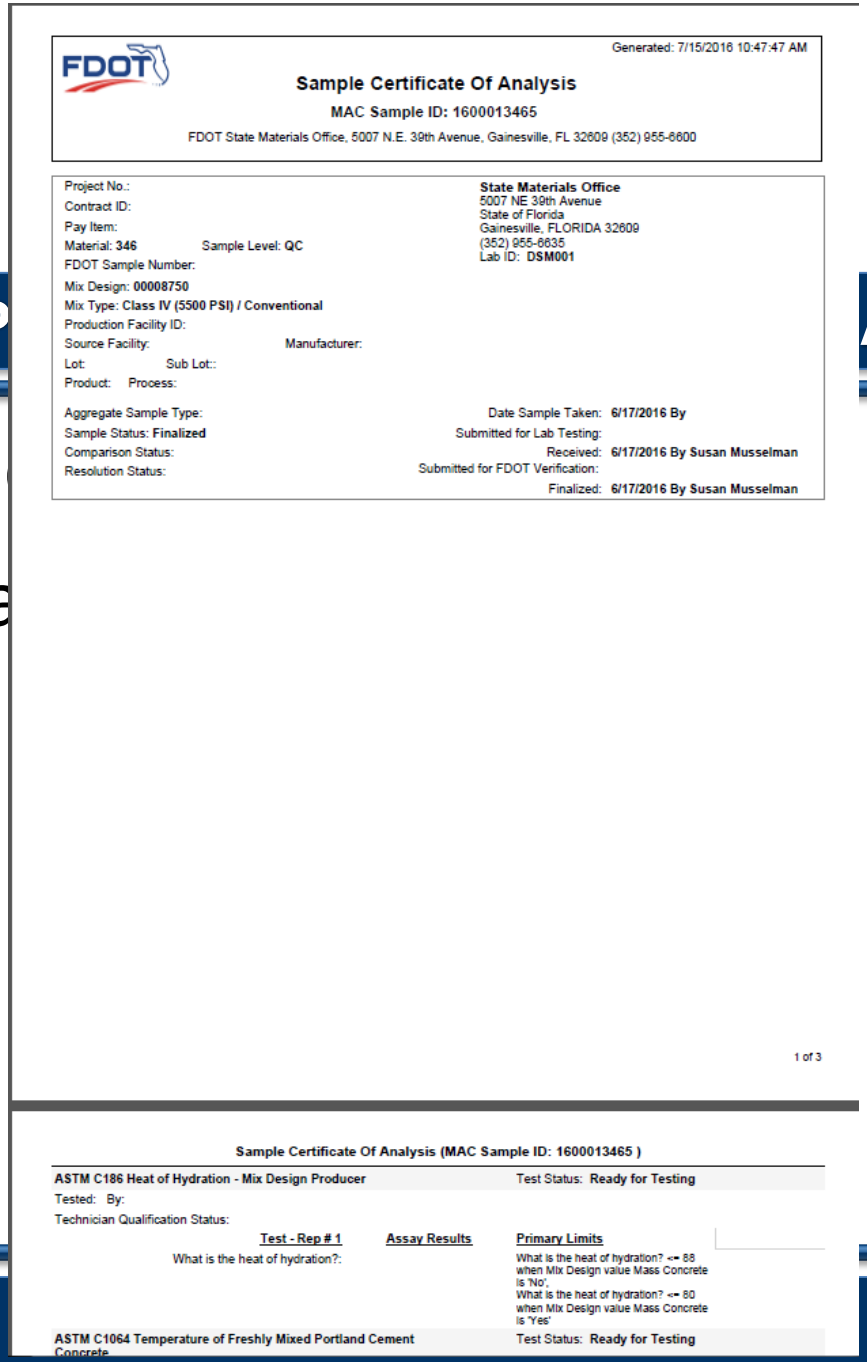
- Sample
- MAC Sta



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Sample Certificate Of Analysis

MAC Sample ID: 1600013465

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

Project No.:
Contract ID:
Pay Item:
Material: **346** Sample Level: **QC**
FDOT Sample Number:
Mix Design: **00008750**
Mix Type: **Class IV (5500 PSI) / Conventional**
Production Facility ID:
Source Facility: Manufacturer:
Lot: Sub Lot::
Product: Process:

State Materials Office
5007 NE 39th Avenue
State of Florida
Gainesville, FLORIDA 32609
(352) 955-6635
Lab ID: **DSM001**

Aggregate Sample Type:
Sample Status: **Finalized**
Comparison Status:
Resolution Status:

Date Sample Taken: **6/17/2016 By**
Submitted for Lab Testing:
Received: **6/17/2016 By Susan Musselman**
Submitted for FDOT Verification:
Finalized: **6/17/2016 By Susan Musselman**

1 of 3

Sample Certificate Of Analysis (MAC Sample ID: 1600013465)

ASTM C186 Heat of Hydration - Mix Design Producer Test Status: **Ready for Testing**

Tested: By:
Technician Qualification Status:

Test - Rep # 1	Assay Results	Primary Limits
What is the heat of hydration?:		What is the heat of hydration? <= 88 when Mix Design value Mass Concrete is 'No', What is the heat of hydration? <= 80 when Mix Design value Mass Concrete is 'Yes'

ASTM C1064 Temperature of Freshly Mixed Portland Cement Concrete Test Status: **Ready for Testing**

Florida Department of TRANSPORTATION

Project Administrators and MAC

- Concrete Sample Number Lot Number Report
- Project Reports Tab

Florida Department of TRANSPORTATION

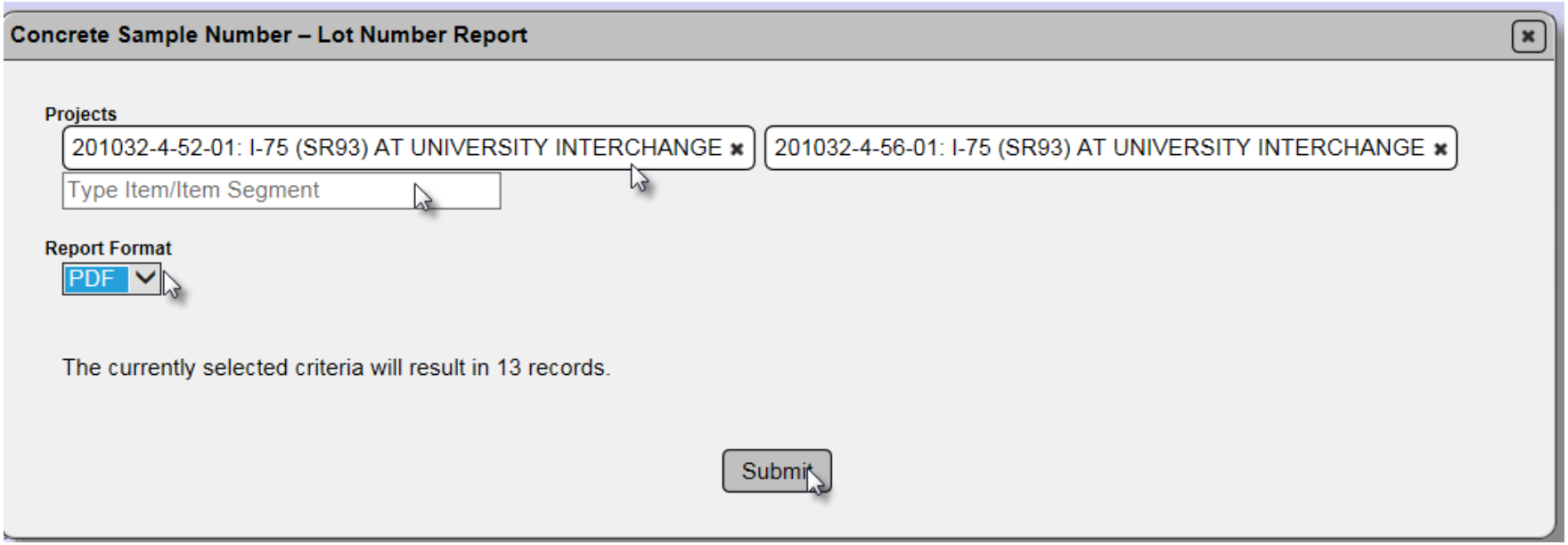
Project Administrators and MAC

- Concrete Sample Number Lot Number

Project	
Concrete Project Mix	Lists the results of approved concrete strength samples for a given Financial Project Id and Mix design between a given date range.
Concrete Sample Number – Lot Number Report	Lists all concrete mix design samples on a specific project(s).
Asphalt Sample Number – Lot Number Report	Lists all asphalt mix design samples on a specific project(s).
Reduced Lot Analysis	A statistical analysis of concrete results for a specific project that is used to help determine if the project QC can use reduced lots.
Structural Concrete Mix Designs used on a Project	Summary of all of the concrete mix designs used on a specific project.
Concrete Pavement Core-out Averages	Summary of the measurements of cores taken for concrete pavement on a given project.
Earthwork Maximum Density Report	Summary of the soils maximum density reports for a specific project.

Florida Department of TRANSPORTATION

Project Administrators and MAC



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Concrete Sample Number – Lot Number Report

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

Lot #	FDOT Sample #	Level	Production Facility ID	Sample ID	Date Sample Taken	Sample Status	Comparison Status	Quantity Represented
Mix Design: 02-9901			**Category: Class II (3400 PSI) / Conventional**					
Financial Project ID: 20103245201								
Material ID: 346								
1	CC40001V	VT	26-998	1600013539	6/13/2016	Finalized		50 Cubic Yard(s)
2	CC40002Q	QC	26-998	1600013513	6/13/2016	Finalized		50 Cubic Yard(s)
3	CC40003Q	QC	26-998	1600013514	6/13/2016	Finalized		50 Cubic Yard(s)
4	CC40004Q	QC	26-998	1600013515	6/13/2016	Finalized		50 Cubic Yard(s)
5	CC40005Q	QC	26-998	1600013516	6/13/2016	Finalized		50 Cubic Yard(s)
5	CC40005QR	QR	26-998	1600013522	6/13/2016	Finalized		50 Cubic Yard(s)
5	CC40005V	VT	26-998	1600013540	6/13/2016	Finalized		50 Cubic Yard(s)
5	CC40005VR	VR	26-998	1600013541	6/13/2016	Finalized		50 Cubic Yard(s)
6	CC40006Q	QC	26-998	1600013517	6/13/2016	Finalized		50 Cubic Yard(s)
7	CC40007Q	QC	26-998	1600013518	6/13/2016	Finalized		50 Cubic Yard(s)
8	CC40008Q	QC	26-998	1600013519	6/13/2016	Finalized		50 Cubic Yard(s)
9	CC40009Q	QC	26-998	1600013520	6/13/2016	Finalized		50 Cubic Yard(s)
10	CC40010Q	QC	26-998	1600013521	6/13/2016	Finalized		50 Cubic Yard(s)
Financial Project ID: 20103245601								
Material ID: 346								
1	CC40001V	VT	26-998	1600013539	6/13/2016	Finalized		50 Cubic Yard(s)
2	CC40002Q	QC	26-998	1600013513	6/13/2016	Finalized		50 Cubic Yard(s)
3	CC40003Q	QC	26-998	1600013514	6/13/2016	Finalized		50 Cubic Yard(s)
4	CC40004Q	QC	26-998	1600013515	6/13/2016	Finalized		50 Cubic Yard(s)
5	CC40005Q	QC	26-998	1600013516	6/13/2016	Finalized		50 Cubic Yard(s)
5	CC40005QR	QR	26-998	1600013522	6/13/2016	Finalized		50 Cubic Yard(s)
5	CC40005V	VT	26-998	1600013540	6/13/2016	Finalized		50 Cubic Yard(s)
5	CC40005VR	VR	26-998	1600013541	6/13/2016	Finalized		50 Cubic Yard(s)
6	CC40006Q	QC	26-998	1600013517	6/13/2016	Finalized		50 Cubic Yard(s)
7	CC40007Q	QC	26-998	1600013518	6/13/2016	Finalized		50 Cubic Yard(s)

Florida Department of TRANSPORTATION

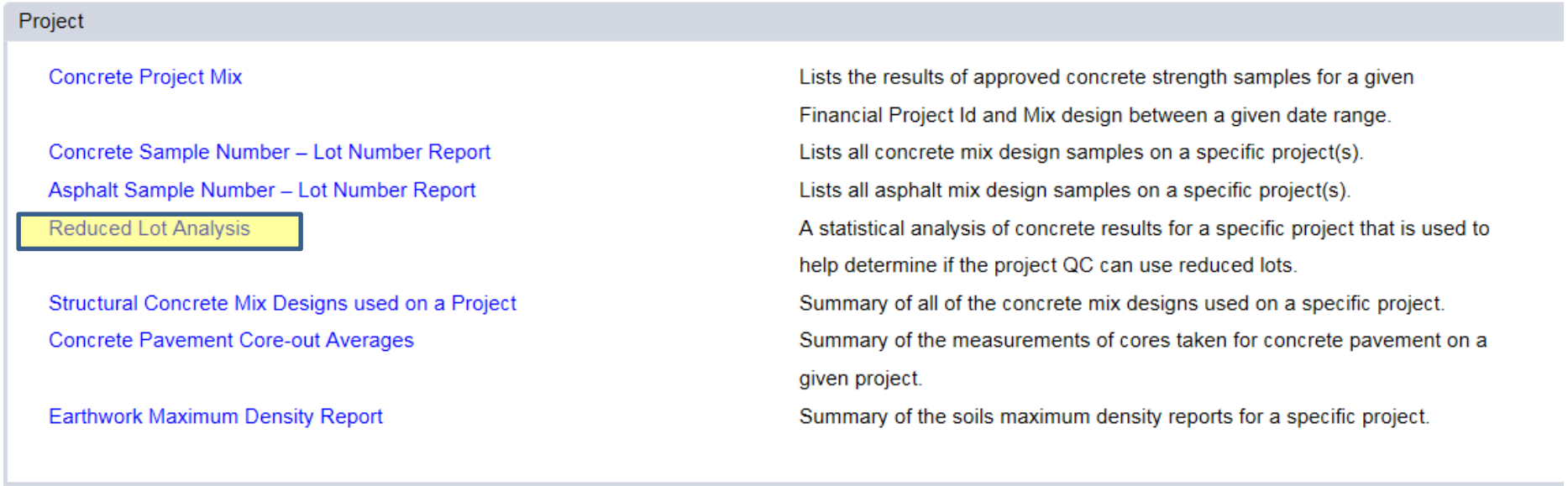
Project Administrators and MAC

- Concrete Reduced Lots Analysis Report
- Project Reports Tab

Florida Department of TRANSPORTATION

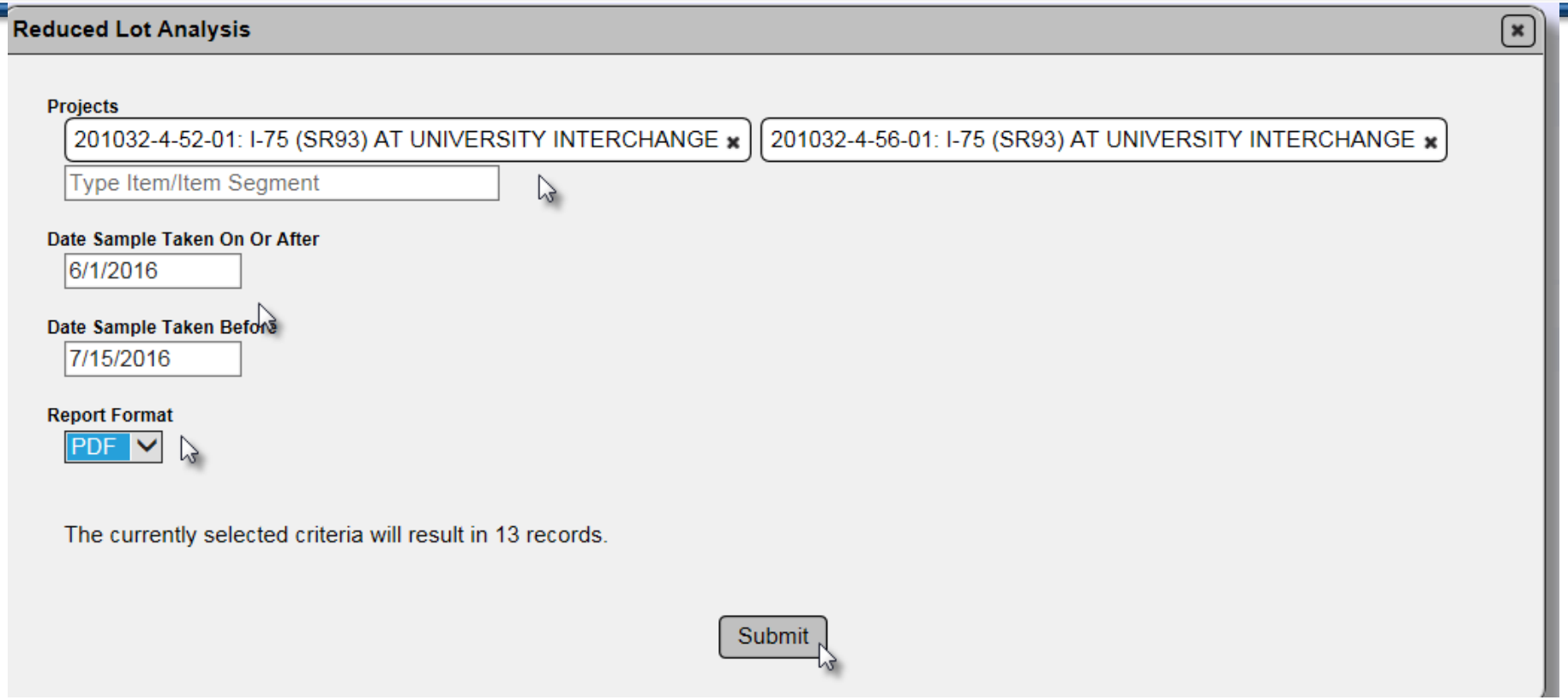
Project Administrators and MAC

- Concrete Reduced Lots Analysis Report



Florida Department of TRANSPORTATION

Project Administrators and MAC



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Reduced Lot Analysis

[6/1/2016 to 7/15/2016]

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

Production Facility ID	Sample ID	FDOT Sample #	Test	Average Compressive Strength Results (psi)
Financial Project ID: 20103245201				
Mix Design: 02-9901		**Category: Class II (3400 PSI) / Conventional**		
26-998	1600013513	CC40002Q	ASTM C39 Compressive Strength	5,780
26-998	1600013514	CC40003Q	ASTM C39 Compressive Strength	6,670
26-998	1600013515	CC40004Q	ASTM C39 Compressive Strength	7,170
26-998	1600013516	CC40005Q	ASTM C39 Compressive Strength	7,200
26-998	1600013517	CC40006Q	ASTM C39 Compressive Strength	6,310
26-998	1600013518	CC40007Q	ASTM C39 Compressive Strength	5,450
26-998	1600013519	CC40008Q	ASTM C39 Compressive Strength	5,890
26-998	1600013520	CC40009Q	ASTM C39 Compressive Strength	5,980
26-998	1600013521	CC40010Q	ASTM C39 Compressive Strength	6,500
26-998	1600013522	CC40005QR	ASTM C39 Compressive Strength	6,990
26-998	1600013539	CC40001V	ASTM C39 Compressive Strength	6,880
26-998	1600013540	CC40005V	ASTM C39 Compressive Strength	4,810
26-998	1600013541	CC40005VR	ASTM C39 Compressive Strength	7,120
# of Samples: 13	**Min:** 4,810	**Max:** 7,200	**Average:** 6,370	**2 X STD Dev:** 1,430
Financial Project ID: 20103245601				
Mix Design: 02-9901		**Category: Class II (3400 PSI) / Conventional**		
26-998	1600013513	CC40002Q	ASTM C39 Compressive Strength	5,780
26-998	1600013514	CC40003Q	ASTM C39 Compressive Strength	6,670
26-998	1600013515	CC40004Q	ASTM C39 Compressive Strength	7,170
26-998	1600013516	CC40005Q	ASTM C39 Compressive Strength	7,200
26-998	1600013517	CC40006Q	ASTM C39 Compressive Strength	6,310
26-998	1600013518	CC40007Q	ASTM C39 Compressive Strength	5,450
26-998	1600013519	CC40008Q	ASTM C39 Compressive Strength	5,890

# of Samples must be at least 5 samples for Class I, I Pavement, II, II (Bridge Deck) or III to start reduced frequency.
# of Samples must be at least 10 samples for Class IV, IV (Drilled Shaft), V, V (Special) or IV to start reduced fequency.
Min Strength + 2 X STD Dev must be greater than Minimum Strength to start and to maintain reduced frequency.

Florida Department of TRANSPORTATION

Project Administrators and MAC

- MAC Notifications
- MAC will not give notifications to PA
- SMO is working with SCO to make notification via Project Solve

Florida Department of TRANSPORTATION

Project Administrators and MAC

- MAC Notifications
- MAC will not give notifications to PA
- SMO is working with SCO to make notification via Project Solve

Florida Department of TRANSPORTATION

Project Administrators and MAC

- PAs should familiarize themselves with MAC
- Take notes of specific functions where notifications would be helpful
  - Be specific
- Send feedback to SMO MAC Application Coordinator

Project Administrators and MAC

- Future notification enhancements will be initiated
- Feedback is needed to ensure the right notifications are developed

Project Administrators and MAC

- This concludes the MAC video on concepts for the PA role in MAC.
- For additional training information, visit the MAC website.

Project Administrators and MAC

- If you have questions, there are a number of ways to get a response:
  - FAQs
  - Contact your Local DAC
  - Online form to submit a question to the MAC team

Florida Department of TRANSPORTATION

Project Administrators and MAC

- If you have project specific requirements and need to contact the appropriate SMO Technical Unit, use the list.

Thank You