

**Florida Department of Transportation/Concrete Coalition of Florida
FC & PA Headquarters, Orlando, Florida
March 25, 2015 Minutes**

31 March 2015
Revised: 4 May 2015

COLOR CODE:

Black	-- Agenda Item
Red	-- Agenda Item Author/Presenter
Blue	-- Agenda Item Discussion
Green	-- Action Items

Welcome

- Opening comments (**Bergin**) – Introduction of attendees.

Materials Acceptance and Certification (MAC)

- MAC Update (**Musselman**) – Looking at June 26, for company profiles to be implemented. Design mix and laboratory profiles to be complete on the second implementation. Everyone must have at least one input person but can use that person anywhere. Sometime after June sample life cycle will go into MAC, target is October 2016, but may occur earlier or later. Link to MAC schedule on the State Materials Office website. Some folks only have access to eight digits on the mix design, may need to address this with the MAC design folks.
Jeff – Typical ready mix will input chloride data into MAC. More people than the manager can pull data from MAC, must have access.
Tom – issue with remote entry, no problem. One person must have access, more than one person can have access, does not have to be the manager.
There is no electronic submission of the Quality Control Plan currently but it is coming as an enhancement, possibly 2 – 3 years out.
Jeff – what about mix numbers in MAC – on hold.
John – new users must go thru current requirements but once obtained may do any task.
Dale – what about training – it will be available.

Miscellaneous Projects

- RAP in Concrete (**Schmitt**) – GA, CAL, MN, and Iowa are all using RAP in their concrete. Mike – the 301 test road will be using RAP as its main material. They will be looking at performance, lots of truck traffic. **Action Item #1 – Look at using RAP in 347 concrete.**
- Roller Compacted Concrete (**Schmitt**) – good process, SC has used. Specification is being developed for shoulders only. Type S admixture used for roller compacted concrete. **Action Item #2 – To be used on I-4 Ultimate, send details to the lab. Mike to call Rich Hewett.**
- Full Depth Reclamation using cement (**Schmitt**) – Mixing all material in place. GA has a specification, obtain specification from them. Get mixed reviews when using soil cement. Used by Volusia County. FIU did study number BDK 81-977-02, study was completed in 2012.
- Update of Concrete Specifications for LAP (**Schmitt**) – Rigid Pavement Committee meeting to discuss. Information from Tim on the Rigid Pavement Committee meeting. Roger to update this.

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Macro Fibers

- Full Depth Pavement Replacement (**Shelby**) – Would like for the Department to go back and look at macro fibers on grade – US 92. Nour with the State Materials Office Pavement section has been deeply involved with the research project on US 92. The TSP using fiber has been recently updated. Discussed the testing of the beams. Brian indicated the mix is hard to get approved. Westcott suggested making the beams at the plant not at the project site. Shelby suggested 5 pounds per cubic yard for slab replacement to reduce the potential for cracking. Maintenance survey for decks as to the performance, no follow up communications between the Districts and the State Materials Office as it pertains to status of the elements after inspections. Last meeting – ARS greater than 250 cubic yards for bridge decks require ARS testing, for less than this no test required. Full depth replacement – use the fiber and can realized extended joints, ACI 318. Continue to look closely at this to use fibers in more locations. Mortar mixer may be needed for fibers in the lab for high shear.

Batch Plant Operations

- Aggregate Substitution (**Westcott**) – Discussed in the substitution of materials topic. Aggregate substitution does not require chloride testing, except when a verification batch is required.
- Mixing Revolutions (**Westcott**) – check mixing revolutions in training. Send a paragraph that helps clarify this (130+30 water) – agitation and mixing mode for training. Action Item #3 – Leigh to provide information for training to Donnie.
- Delivery Tickets (**Westcott**) – Much discussion on the differences in the delivery ticket and the batch ticket. David will talk with Manager of Quality to help clarify the issue. The systems at the production facilities are different. Richard will check with his people on this issue. Are the copies going back to the plant needed, this is not required.
- Mitigation of concrete with elevated chloride contents (**O'Leary**) – chloride evaluation of the element and the standard method. Richard has used a specialty engineer to do work. Look at some allowable range than could affect pay. Action Item #4 – Some additional detail is needed on what is needed from the specialty engineer who addresses high chlorides (346-4.2.2)
- Use of aluminum chutes without lining, coating, etc. (**O'Leary**) – Jeff ok with getting a certificate from the drum manufacturer. Chute will have an alloy to maintain durability. Acceptable with manufacturer recommendation. Action Item #5 – Look at updating 400-7.5
- Reduction of aggregate gradation testing (**O'Leary/Westcott**) – Do we really need the Quality Control data? Can we reduce the Quality Control testing? Much discussion on deleting the QC gradation requirement. Feeling that there is no useful information resulting from aggregate testing at the plant. ACI published

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performance specifications for Quality Control at the plant. Committee to look at performance – Tom. Respond to industry within the next three months. Action Item # 6 – Mike to discuss reduce frequency aggregate testing at the plant.

Research Issues

- Research slated for concrete statewide (Bergin/DeFord/O'Leary) – see appendix B for the power point presentation by DeFord.
 - Ternary Mixes/Surface Resistivity (Bergin) – Jeff – where are we going with SR used as tool for performance based concrete.
 - Surface Resistivity sub-committee (O'Leary) – Corrosion is working the SR for specification. Dale is looking at work with the durability and accelerated curing. Attach new FM for SR to meeting minutes.
 - Mass Concrete Update (Lawrence) – Discussed new 346-3.3. OK to allow 0% to 6%. Action Item #7 – Reduce % air in mass concrete to 0%.

Chloride Testing and Reporting

- Update on where we are (Bergin) – Where is the chlorides coming from, individual component material chloride may be high. Are chloride results being received by the Districts from the production facilities – yes. Aggregate substitution does not need chloride testing! In performing a series of mix designs for different classes of concrete, chloride tests are only required for the highest cement factor. Action Item #8 – No chloride requirement with fly ash or aggregate substitution may require verification.

BPO Exam/Study Guide Update

- Status of update of Guide and Exams (Bergin) – Study exams and guide have been updated. Tom has sent the guide to industry for comments, due back by 3rd week of April.

Fly Ash and Alternative Sources of Materials

- Concern over the shortage of fly ash (Bergin) – Materials Bulletin 07-15. No cost change order can be in place when project starts. Reasons for fly ash shortage: natural gas usage, environmental (EPA), short notice of shortage. Taking out old plants from production, new production facility material may or may not meeting ASTM C 618.

Summary of Meeting

- Accomplishments and where do we want to go (Bergin) –
 - Tom and Mike meet monthly to discuss concrete issues.
 - Reduce % air in mass concrete to 0% to 6%
 - Looking at no chloride requirement for fly ash substitution
 - Concrete (HES) – curing compound not applied in time after the placement – look at this. Maybe use the double plastic sheet to line the area where slab will be placed.

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- Accelerated testing to Tom.
- Next meeting schedule for September-October time frame

Adjourn!!!!

Appendix: A – FDOT-CCF MAC Update (**Musselman**)
B – FDOT-CCF Research Statewide (**DeFord**)