

## Construction Inspection & Contract Administration

Brian Catus, P.E. Local Systems Field Engineer – Central Region

- This applies to the following types of projects:
  - -Federal Aid,
  - -SWAP, and
  - -FM.



#### **ADMINISTERING BUREAU**

#### Systems Planning Bureau

- Revitalize Iowa's Sound Economy (RISE)
- Transportation Alternatives
- Federal & State Rec Trails
- Iowa Clean Air Attainment Program (ICAAP)

#### Local Systems Bureau

- Most projects on a highway or bridge (except as noted to the left)
- Federal-aid
- Swap
- Farm-to-Market

- Preconstruction Meeting
- Construction Inspection
- Materials Sampling and Testing
- Materials Specs and IM
- Change orders
- Project Finalization



#### Preconstruction Meeting

- Make sure contract is signed
- Pre-con meeting topics are found in IM 6.000
   Construction Inspection Attachment D
   Chapter 2.11
- Construction Schedule
- Progress Payment
- Communication
- Site Condition



#### Construction Inspection

- Technical Training and Certification Program (TTCP)
- IM 6.000 Construction Inspection Attachment D (110 pages)
- Tools for documenting work are found in Local Systems Post Letting resource web page (approx. 128 spreadsheet files)
- Doc Express/Naming Convention
- Appia



## Materials Sampling and Testing

- Materials Acceptance Report (MAR) is found in Doc Express under the Items and Materials Documentation drawer.
- For SWAP and FM funded project, if the LPA wants assistance from District materials staff, submit the Request for Materials Inspection, and copy Local Systems Region Staff



#### Materials Specs

- Length of Division 41 portion of the General Supplemental Specifications
  - -GS-15007 October 2018: 29 ½ pages
  - -GS-15008 April 2019: 33 ½ pages
  - -GS-15009 October 2019: 45 pages
  - -GS-15010 April 2020: 45 ½ pages



#### **Materials Specs**

- 4109.04 Stockpiling of Aggregate
  - ➤ PCC Stone: driving on stockpile may be grounds for rejection of stockpile
  - All Other Aggregate: if a ramp is used to build the stockpile, ramp cannot be used as certified material; incorporating ramp into stockpile may be grounds for rejection of stockpile



#### **Materials Specs**

- 4188.06 Speed Feedback Sign
  - ➤ Not a bid item, incidental to Traffic Control; see TC standards for when its use is required
  - ➤ See Specs 2528.03M and 4188.06 for characteristics/requirements
  - See Materials IM 488.09 & MAPLE (Materials Approved Product List Enterprise) for approved brand and model



- The October 15, 2019 and April 21, 2020
   Materials IM updates together contain:
  - Revisions to 68 existing IMs or appendices
  - -Addition of 2 new IMs



- IM 204 Appendix X, Acceptance of Small Quantities of Materials
  - ➤ Max quantity allowed is per Bid Item, not type of work
  - Simplified acceptance requirements for aggregate in PCC paving and structures



- IM 204 Appendix Z, Supplemental Guide
  - >Added utility access adjustment rings

- IM 205 Appendix A, Securing Samples
  - ➤ Binder sample tin goes in cold feed bag



- IM 328 Concrete Beams
  - Scribed marks: avoid center of beam, etch into beam as small as possible
- IM 383 Concrete Strength by Maturity
  - Curves can be transferred among ready mix plants of the same company when identical materials are used



- IM 445 Precast Concrete
  - Products must be at least 3 days old and have 28 day strength to ship
- IM 449.05 Manhole Adjustment
  - IM rewrite to include precast concrete rings in addition to metal, plastic, etc.



- IM 451.03B Appendix A Epoxy Coated Bar
  - Handling requirements for epoxy coated steel
  - ➤ Mimics CM 11.42 Epoxy Coated Reinforcement, Care and Handling
  - Prevent abrasion, use multiple lift points, store on cribbing



- IM 483.05 Preformed Thermoplastic Pavement Markings (NEW)
  - See MAPLE for approved manufacturers and brands
- IM 488.09 Speed Feedback Sign (NEW)
  - See MAPLE for approved manufacturers and brands



- IM 528 Ready Mix Plant Inspection
  - Adjusted report frequency for Contractor quality control tests
  - Weekly reporting for all (non-deck) production: Structural, Non-Structural, and Miscellaneous



#### **Communication Shorts**

- Continue using paper version of Form 193
   Identification of Sample Test (CM 3.21)
- Notify District Materials when epoxy coated steel is delivered (CM 11.42)
- Please remind the Contractor that they are required to notify Project Engineer and District Materials prior to smoothness (profilometer) testing (IM 341)



#### **Communication Shorts**

- Monitor the contractor's sampling of uncompacted HMA mix to ensure Materials lab gets a 40 lb box (IM 204 App F)
- Sample tack early on small projects (CM 8.45 & IM 323)
- Recommend enrolling in TTCP Contract
   Administration Courses (1, 2, and 3),
   especially those involved in project audits



#### Change orders

- Prior to sending out change orders, have Local Systems Regional staff review
- Make sure the approvals are done in proper order through Doc Express
- There are a lot of issues with submitted change orders, there is another presentation on how to draft change orders.



 Schedule Walk Through: When project is 90-95 % complete, contact Local Systems Field staff to schedule final walk through with Prime contractor.





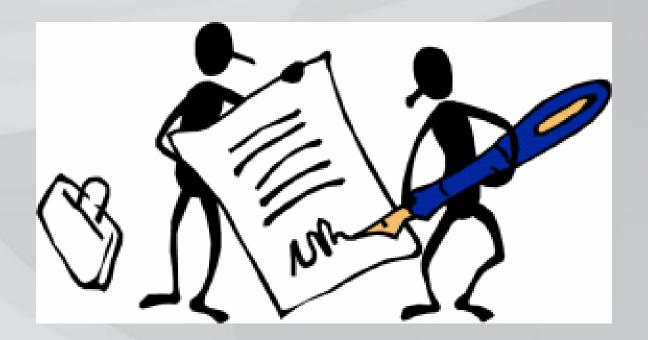


- During Walk Through: Compile punch list
- Complete Punchlist: When items in punch list completed by prime contractor, sign final working day report and complete the 435
  - Note: two signatures are needed (project engineer and LPA rep).



- Complete Forms: Go through IM 6.110 Attachment E checklist (being updated follow Doc Express folders), Materials Audit 101 form and prepare semi-final voucher.
- Complete Files: When going through project files, download needed documents/certs in Doc Express in the appropriate folder

 Semi-Final Voucher: Sign and have the prime contractor sign it





- Project Review/Audit: Contact Regional Field Staff to schedule
- Field staff will either
  - -Schedule when to do the review/audit
  - Or waive the review/audit and notify LPA to submit final documents from IM 6.110
     Attach. F checklist



- Upload all final documents into Doc Express under 'Project Closeout' folder.
- Notify Regional field staff documents have been uploaded.
- Do NOT send ANY final vouchers or final documents directly to Finance! Will cause delay.



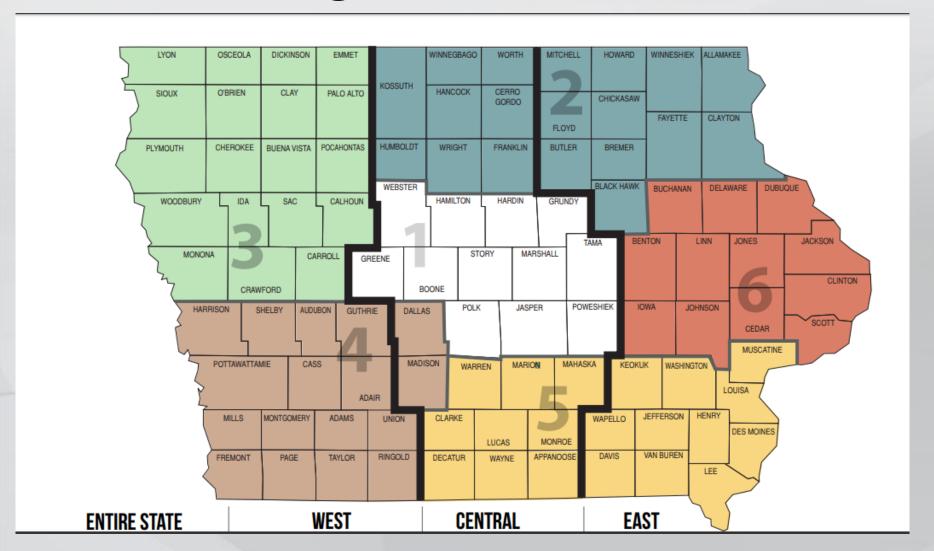
- Regional staff will sign final docs for:
  - -All Federal Aid projects and
  - -All SWAP project that are reviewed.
- Regional staff will not sign final docs for:
  - -SWAP project that are not reviewed and
  - -All FM Projects.
- Again ALL Final Vouchers and Final Documents should be submitted to Finance through the Local Systems Bureau.

- Regional Staff will forward all properly completed final documents to the Finance Bureau for final payment/reimbursement.
- For federal aid projects, a FHWA Final Closure document will be sent to LPA around six months after final document submittal.



- For Federal Aid projects, retain project files for three years after receipt of final closure documents.
- For SWAP or FM projects retain project files for three years after Final Payment or receipt of Final Reimbursement.

## **Regional Contacts**







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# Stay healthy and Stay Safe!