

# **AASHTO Subcommittee on Construction**

## **2017 Annual Meeting**

### **STATE DISCUSSION TOPICS**



# 3D ENGINEERED MODELS & AUTOMATED CONSTRUCTION

- **(Marc Mastronardi – Georgia DOT)**
  - Are any States practicing 3D design? Any of them doing so wholesale?
- **(piggy back question from Amy Tootle – Florida DOT)**
  - Are any states tying construction acceptance to the 3D model?
    - If so, can you share your Specs with us?

# ASPHALT

- **(Mike Vosburg – Louisiana DOT)**
  - Just a show of hands: How many states test asphalt concrete using non-destruction density testing using a Nuclear or other type of machine?
- **(Jeff Benefield – Alabama DOT)**
  - The Alabama Asphalt Paving Association has asked ALDOT to consider allowing a contractor to grind transverse joints in asphalt pavement if the smoothness criteria of the specifications is not achieved. The AAPA's argument is that grinding would be preferable over a patch, which produces two transverse joints. For those States that allow grinding of this nature, has it resulted in less attention to detail when constructing the joint? Or has it proven to be a successful practice?

# CONCRETE

- (David Henning – Arkansas DOT)
  - Ways that other states are addressing issues with some Fly Ash and effects on Air Entraining Agents – attached is a special provision that we are using as an interim measure.
  - Reducing Cement Content in Portland cement concrete pavement-we recently had a visit from FHWA's mobile concrete lab. Although we have not had our close out meeting, they state that we have similar issues with a high cement content and its potential detrimental effects. Have other states adopted a reduced cement content as a result of these recommendations? If so, any issues?
- (Gary Angles – Ohio DOT)
  - Have you experienced full depth cracking in new concrete bridge decks with the Contractor designed and well graded concrete mixes? If you have experienced cracking in your new concrete bridge decks, how has your state repaired or remedied this cracking?
- (Ryan Griffith – Kentucky TC)
  - Concrete haunch — On reinforced concrete bridge slabs, does your agency adjust pay quantities for excess concrete over beam haunches? This can become a significant issue on hybrid beams that have wide flanges and the beam camber is less than assumed by the bridge designer when setting up quantities.

# CONSTRUCTION INSPECTION

- **(Rob Wight – Utah DOT)**

- Are any states using risk to determine testing or inspection frequencies? If the contractor has had all passing tests in one area, could you concentrate testing inspection in another area? This was discussed a couple of years ago, but wanted an update?
- What are other states using for applications for mobile devices for inspectors? To get a completely mobile construction platform for field personnel, we need to have specifications, manuals, etc. in a mobile format that can be accessed easily, possibly without internet connection.

- **(Joe Squire – Oregon DOT)**

- Relative to Outsourcing CE&I work to consultants:
  - Are DOT's seeing a Field Overhead rate and a different Office Overhead rate for CE&I consultants construction engineering work? If so, what is the range?
  - What does your DOT do or use to determine profit or fee?
  - Does your DOT cap max hourly rate for consultants?
  - Does your DOT cap annual salary increases to CPI or other factor for consultants?

# CONSTRUCTION/MATERIALS ISSUES

- **(Marc Mastronardi – Georgia DOT)**
  - How does your State approve thermoplastic striping work? (retroreflective readings? Are there any performance stipulations, i.e, retroreflectometer readings 6 months later must be “X” ?)
- **(Mike Vosburg – Louisiana DOT)**
  - How does your state handle adverse weather?
- **(Amy Tootle – Florida DOT)**
  - Are other States using the Jack and Bore process for drainage applications (carrier pipe with no additional casing)? If so, what are the testing and/or inspection requirements for the completed pipe?
- **(Ryan Griffith – Kentucky TC)**
  - Pipe—What type of testing does your agency perform or require the contractor perform for pipe? This would be related to deflection (in flexible pipe), cracking, interior damages, joint separation, etc?
  - Are any states requiring trackless tack on certain projects? Are any contractors requesting its use? Any additional payment if requested by Contractor? Pros and Cons of using?
  - KY recently eliminated the Standard Drawing that allowed post splices for construction signs. The contractor is required to submit documentation validating this compliance for all sign posts and splices. Do any other states allow splices for temporary signs as long as the splice meets Specs or Standard Drawings?
  - How do you handle significant underruns of piles (either H or pipe)? KY has made price adjustments, based on negotiations, if the pile is a major item. If not a major item then we don't entertain. Does any state treat them differently?

# CONSTRUCTION SCHEDULING

- **(Mike Vosburg – Louisiana DOT)**
  - How does your state handle CPM submittals, review, and reporting on project schedules?
- **(Ryan Griffith – Kentucky TC)**
  - Project completion time—Does your agency use working days, complete date, or a combination for project completion times?

# CONTRACT ADMINISTRATION

- **(Susan Sillick – MT DOT; Keith Platte – AASHTO; David Hoyne – VT AOT; Jerry Yakowenko – FHWA; Gary Angles – OH DOT)**
  - What are states doing with regard to Risk-Based Construction Contract Administration? (Survey to come)
- **(Rob Wight – Utah DOT)**
  - How are other states tracking prompt payment to subcontractors on projects? Is it a complaint based system, or do you have a tracking process described in your specification? How does the Subcontractor know when the Prime has been paid?
- **(Greg Pawlowski – Delaware River & Bay Authority)**
  - How have other states dealt with proving errors & omissions on plans and have you been successful with claims against their insurance carrier? Have you found other consultants who are willing to challenge a design flaw by their fellow consultants? Should costs associated with seeking outside professionals be included in your E&O claim or strictly additional construction and delay costs? At what point during the construction phase should you begin the process with your designer knowing they have an obligation to be a part of the team until closeout?
- **(Marc Mastronardi – Georgia DOT)**
  - How many States establish the DBE Goal after contract award? How do you address the second bidder who achieves the targeted goal when the low bidder does not? Do you have a lot of bid protests?
- **(Mike Vosburg – Louisiana DOT)**
  - How does your state handle compensation of Project Overhead costs on large changes to a project?
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# CONTRACT ADMINISTRATION

- **(Jim Knott – Nebraska DOR)**

- What are the states experiencing as far as USACE approval of borrow, waste excavation, construction debris, stockpile and plant sites?
  - Recently the USACE – Omaha Division has decided that they must (under their regulations and terms of permits) grant specific site approval for every site requested by the contractor on projects where there is currently a USACE permit issued. They believe that there is a federal nexus to every contractor site that may be associated with a project that currently has a 404 permit. This approval entails approval for wetland resources, Section 106 (historical) and Endangered Species Act. This requires that NDOT review all the submissions and then forward our findings to USACE who then will review in detail our findings and then submit them to USFW (ESA) and SHPO (106) this had caused project delays up to 60 days so far and we are still waiting on many site approvals.
  - On projects where there is currently no 404 permit, NDOT only submits site approval requests to USACE when NDOT has determined that wetland resources exist and NDOT has recommended that the contractor work directly with the USACE to obtain any necessary permits.
  - NDOT has programmatic agreements with the Nebraska Game and Parks for ESA and with the State Highway Archeologist (Nebraska Historical Society and University of Nebraska) to accomplish ESA and 196 reviews on all projects wherein a contractor requests site approvals.
- Do the states require that all contractors that work on a project that are not the prime be approved subcontractors or are there activities that are exempt from the subcontract provisions?

- **(Joe Graff – Texas DOT)**

- What states have implemented a “User Cost” component in their Liquidated Damages? Is it used on all construction projects and if not, what criteria is used to determine which projects to utilize the User Cost LD?

- **(Ryan Griffith – Kentucky TC)**

- DBE payments—Who is responsible in your agency for verifying DBE’s have been paid timely, correctly, and the DBE goal, as approved, was met? What method, software, etc is used?
- Contractor Payrolls—On Federal projects on which the contractor is required to submit, who receives these and verifies they are correct? What is checked? Are all payrolls looked at for wage compliance for all employees on all contracts?
- The KY Spec reads that any slide or undercut will be measured and paid as Embankment or Excavation, as applicable, at the contract unit bid price. However, when this results in the Contractor having to change their method of operation (i.e, digging with an excavator instead of a pan) or having to bring in additional equipment the Contractor claims changed condition and requests a new price to complete this work. Have other states ran into this problem?

# CONSULTING/CONSULTANT USAGE

- **(Rachel Falsetti – California DOT)**
  - Consultant usage
    - What are your states best practices for usage of Consultants?
    - What's the best value for usage of consultants in construction?
    - How are they used to administer a contract and still comply with an agency employee being in responsible charge?
    - What degrees (BSCE, BSCM) do require/allow for inspection work?
    - Do you give them a contract to administer and ask them to just deliver?

# DATA COLLECTION

- **(Jason Gutting – Michigan DOT)**
  - Are states utilizing data as part of the contract? Michigan is pursuing elevation of data above the plan set for projects using line strings (centerline and edge of metal) and alignment data within the contract.
  - Are states collecting asset information during construction or post-construction? If so, what methods are being used?
  - Are states utilizing software that provides spatial pay item information for CE&I? If so, what software and methods are being used to accomplish this?

# e-CONSTRUCTION

- **(Marc Mastronardi – Georgia DOT)**
  - If your state is practicing e-Construction, how are you managing the materials side?
- **(Skip Powe – Alabama DOT)**
  - With e-CN being such a hot topic and many states transitioning into the paperless realm, what are states doing about traditional paper submittals such as working drawings, shop drawings, stamped calculations, etc.? Are you still doing these on paper or you allowing them to be done electronically whether by email or some other submittal system such as Sharepoint, Doc Express, Submittal Exchanges, etc
- **(John Bilderback – Idaho DOT)**
  - What type of e-construction inspection software is your DOT considering, if any? There are several systems to choose from Headlight (by Pavia Systems), Field Supervisor (by Bentley Systems), and MobileInspector (by InfoTech / AASHTOWare). If you have selected a e-construction inspection software, why was this software selected? Have you seen increased inspector efficiency (more inspection, less paper work)? Other pros and cons?

# EFFICIENCIES

- **(Rachel Falsetti – California DOT)**
  - What efficiencies has your state implemented?

# INNOVATION/INCENTIVIZATION

- **(Rob Wight – Utah DOT)**
  - How are other states incentivizing innovation from contractors on DB projects?
- **(Rachel Falsetti – California DOT)**
  - What do you do to encourage innovation? What innovations have you implemented?

# WORKZONE SAFETY

- **(Rob Wight – Utah DOT)**
  - Which states are using Mobile Barrier and how is it being used on construction projects? Is the state providing the barrier or do you spec it as contractor provided?
- **(Jason Gutting – Michigan DOT)**
  - Maintenance of traffic by others states when they place opposing directions of freeway traffic on one bound in rural areas: Do they allow this type of maintenance of traffic? What requirements do they have? What caveats do they have to implement this such as speeds, traffic volumes, etc.? What has been their experience?
- **(Dave Ahlvers – Missouri DOT)**
  - We recently had legislation which allowed contractors to utilize blue and red lights on construction vehicles within work zones. Previously these lights were limited to law enforcement and emergency vehicles.
  - The question we have is: do other states allow blue and red lights on contractor vehicles in work zones and if so do they have restrictions on the number or intensity of the lights?
- **(Gary Angles – Ohio DOT)**
  - Do any of the other states have signage requirements or specifications to protect overhead utilities in the work zone? If not, how do they handle contractors who take “unapproved” liberties to mark the utilities?
  - Based on FHWA’s open letter dated May 26, 2017 to all highway safety hardware and roadside design community concerning approvals for changes to existing approved safety hardware, How do states plan to handle approvals with regards to liability and expertise?
- **(Ryan Griffith – Kentucky TC)**
  - Are any states using the intelligent cones for detecting queues and updating VMB’s on their projects? Any pros/cons of using?