MEETING MINUTES

NDDOT/CONCRETE PRECAST INDUSTRY MEETING

Date: October 29, 2025

IN ATTENDANCE

See Sign in Sheet for In-Person Attendees

Virtual: None

AGENDA

A. Introductions/Welcome – Jon Ketterling

B. Purpose of meeting

Disseminate information to all fabricators. Provide open dialog between NDDOT and precast industry.

C. NDDOT Presentation

a. Bridge Program updates – Jason Thorenson
    i. Question: Can you confirm funding numbers from the slides for 2025
    Answer Jason Thorenson: 2025 funding was similar, but he can provide that information.
b. State System – Lindsay Bossert
    i. Q: None
c. Local System – Brandon Biese
    i. Q: None
d. Precast Box Culvert updates – Jeff Rensch
    i. Jeff Rensch: Looking for feedback on plain vs deformed Welded Wire Reinforcement.
    Discussion: increasing demand on one product can create supply issues. Try to prevent backing into a corner
    Q: Have we looked at steel alternatives? Micro/Macro Fiber?
    Discussion: Minimum reinforcement – can always provide more
    Member thickness – larger – need to look at reinforcement requirement.
    Any deviation will be handled with shop drawing review

No design flared wings in plans.

Lift Anchors – ND preference is embedded lift anchors instead of casting holes in the box. Some situations where lift holes may be required – (weight). General types of anchor systems. ND will not be designing a lift anchor system in the plans. Need to be checked by the fabricator.

ii. Q: Is there a reason why we are doing staggered end sections rather than skewed ends
A: ND, we have heard that there is a fabrication concern for skewed ends
A: Fabricators: we have some forms for skewed end sections (3 identified) available 15, 30, 45 degree.
Q Thorenson – Are there any fabricators that would have difficulty if we would move in that direction
A: None
A Fabricators:– It is common in Minnesota
Q: Would we still be required to provide a ND stamp on details
A (ND) We will need to discuss that internally
Comment: Bridge Rating software is very expensive so that would be a big savings on a box
Q: Concerns with being locked into design because of freight costs. Would they still have the option to redesign the bridge?
A (ND): We don't want the minimum slab thickness to change, similar to how our surrounding states require
A Thorenson, we may need some additional internal discussion.
A Lay lengths (ND only specifying 4ft minimum – design is based off of that 4ft).
Q Would it be possible to share the Erickson ET file? 5,000 psi is low for the pre-caster.
A (ND) One of our goals is not to change member sizes, we would like to get the same box from fabricators no matter who is making it.
Q Large boxes may be difficult to transport without going to 7,000 psi. (up to $100,000 in shipping costs)
Q Is everything based on 1.5" cover? Would larger sizes go to 2"
A (ND) Everything has been designed for 1.5" cover
Q Why do we constrain ourselves to 65ksi Steel? A lot of steel comes in higher?
A (ND)We are trying to standardize but if it is available we can modify.

e. Prestressed Beam Updates – Jeff Rensch
Q: For Box beams, designs we have seen coming in don't have the top 2 strands, has caused issues with having something to tie reinforcement bars

A; (ND), agreed that makes sense, that detail has been seen in other states.

f. Precast Pipe Updates – Monte Deis
   Q: None
g. ACPA Suggested Revisions – Jason Thorenson
   Q.– IF you remove the length of pipe dimension how will the designer determine the pay quantities?
   A. DOT (Various) This would allow more flexibility, would a minimum C dimension satisfy all parties?
   A Perhaps for short lengths of pipe
   Q Is every state highway going to a 6:1 slope?
   A There is some variability with the depth of fill and the slope.
   Discussion Generally agreed that a minimum C dimension would work
   Q What if we re-use the end section?
   A We will look into it…see action item
   Q Nobody will build the 714.04 A.5 detail calling out no compaction on the material under the pipe.
   A (ND) we will need to discuss internally
   A Some fabricators require installers to construct a "cradle"
   Q Why is recycled material not allowed for Plastic Pipe
   A ACPA research on recycle material is theoretical. So ACPA stands by the statement to only allow virgin material.

h. Standard Specification Rewrite – Justin Ramsey
   Q: None

i. Build America Compliance – Justin Ramsey
   Q: None

j. Load Rating – Matthew Luger
   Q: What about Local bridges
   A IT will be the counties responsibility to provide a load rating

k. Work Drawing Review Process – Jeff Jirava
   Q:What will CARS be replaced with?
   A 3rd Party Vendor software – RFP being worked on now

l. QCQA Program & Fabrication inspection – Scott Wutzke & Brandon Beise
   Comment: Coordination with Consultants can be difficult. Hard to know what consultant to reach out to for what job. Schedules can change daily. Request from Fabricators to have more coordination and points of contact with the Districts to stay up to date on information.

D. NPCA Update - Ross Oak Metcalfe

   Four Pillars – certification body is independent, auditors are independent of the cert body, Standards, Accreditation, Auditors,
   Continuous Improvement

Q: None

E. Round Table & Open Discussion
   a. Certifications & Acceptance
      Q: It can be painful to submit the same certification for every project
      A Hopefully new systems (RIMS, CARS, APL) can streamline but CoC's for each bridge won't be going away.
      Q Can the NPCA audit provide any traceability to help DOT with compliance
      A Yes and no, NPCA cannot restrict manufacturers to single stream material acquisition. Also, each regulatory agency has their own requirements, FHWA, OMB, USACE, DOD
   b. Work Drawings Process
      Skipped
   c. Best Practices for both Fabrication
      Skipped
   d. Pain Points
      Comment: Project sites…If there is an issue in the field at the time of installation, sometimes the fabricator will have to go out and fix it but they won't be notified until a month later. Is there a way to get notified sooner.?
      Comment: Need Uniformity of inspection quality and experience; consultant vs consultant, office vs office, individual inspector to inspector. Sometimes issues get elevated to DOT and beyond and sometimes not. Suggested inspector training for DOT inspectors and consultants.
      Comment: Different level of construction inspection based on the consultant hired. Depends on where staff comes from. Sometimes issues get migrated up to DOT staff, but sometimes it doesn't. Should we have yearly training between DOT inspectors and consultant inspectors? (How do we maintain consistency with inspections?)
      ACPA – Providing this type of training is exactly what ACPA does for precast items. Each manufacturer in the state goes to the training. Put on by the manufacturers. Help educate everyone – how it's made, how it's installed, what's big issues. Preform/Post form inspection/
      Oldcastle also sends precasters to a 2 day training, would appreciate the space to that in North Dakota as well.
      Q Is there a certification?
      A No, a certification of attendance is recorded but the inspectors are not "Certified"
      Comment: We have had inspectors come to our plant and not know what they should be looking at/for. So that is concerning from a training standpoint.
      Comment: There is varying quality of contractors as well. Could there be a required preinstallation meeting with the Engineer, Contractor, and precaster?

Comment: Specify screed rail on sites for box culvert installation? Joints fit better, less separation, etc. Much better fit. Inspectors come out with no idea of how to look at it.
Comment: send field survey out on every job. See significant difference in contractor acceptance. More training would be good (start at ground zero). Go through some issues with internal inspectors as well.

Comment: Preinstallation meeting on box culverts (engineer, contractor, fabricator). Week prior to installation (sometimes they don't know what crane they will get).

Q Is there a known state DOT that has these types of meetings?
A No responses

e. Supply Chain Stability
Q Has anybody done the math for the 50% concrete (constituent items) buy America clause
A No
Comment: We can talk about it about producers and manufactures cannot do much about it, up and down years will happen.
Discussion: Standard box sizes, preorder material, even stockpiling prebuilt standard sizes
Owner supplied projects – DOT or county buys the culvert. Making product in the winter.
One fabricator would not want to stockpile boxes.

Comment: we Prefer boxes getting bid earlier.

f. New Tech
   i. Modeling
      Skipped
   ii. Self Consolidated Concrete –
      Intro: We don't currently use but Jason Thorenson suggested it should be considered
      Discussion: Better quality, less honeycombing, higher strength, less entrapped error, design strength achieved earlier.
      Discussion: MNDOT used to have an engineer that was against SCC and that has spread. Other states do use SCC (South Dakota specifically)
      Discussion: Certain form manufacturers require SCC concrete to buy their forms.
   iii. 3D Printed Pipes and Boxes
      Intro: 3D printing – robotic arm. Printed pipes, trying to print boxes.

ACTION ITEMS

- Was 2025 funding similar to 2026?
- Review and make appropriate revisions based on ACPA's suggested revisions