

ACEC-NC Transportation Committee Meeting

Recorded By: Will Letchworth, PE
Meeting Date: February 19, 2024 at 3:00 PM
Meeting Location: NC Rural Center

1. Welcome and Opening Remarks, Allen Pope, PE
2. Meeting Sponsor Remarks, Will Letchworth, McAdams
3. Guest Speaker, Matt Clarke, PE, Direct of NCDOT Technical services
 - i. Slides available on BOT website
 - ii. Financial Position
 - 91 days of cash on hand, good healthy place
 - 24% of current commitments cash on hand
 - Cash balance dips to 1.5B in Dec 24 , all still above Statutory Target Range
 - Revenues are right on target
 - Expenditures are also on target
 - Don't project to be below \$1B next 24 months which balance has to be below to sell build NC bonds
 - NCDOT trying to get language changed to increase cap in short session, if can't sell will need to adjust \$300M out of budget
 - Revenues are \$1B more than in 2020 but even with that extra Billion the money is buying less than it did in 2020
 - iii. SPSF contracts were issued to 24 primes, may be utilized by all DOH Divisions and Business Units, goal that 50% of services be provided by an SPSF on each team, initial contracts were establish at 500k.
 - iv. Upcoming Advertisements
 - Western Division will advertise March 15th, will remain regional, discussion ongoing on including required disciplines in the advertisements, identifying the number of teams needed, proactively evaluating upcoming assignments
 - PS-1 form - will be expected along with RS-2 forms as part of Western Division on-call, hope to in the future be at a place where both will not be required at the contract level for LSCs
 - Want to see teams that are right sized for the types of assignments.
 - If more than 2 firms are shown for a code, they want explanation of how each sub is to be used, example survey and geotech, since they are expensive to mobilize, might have different firms for different geographic areas
 - Eastern advertisement a year from now
 - If using a sub as "support" for a service, list them and show them at a small percentage
 - The intent of the PS-1 is to show how the team is going to function

- Matt does not anticipate that NCDOT is going to scrutinize the form retroactively to see how team actually performed
 - 2 options with form - all signatures on 1 page, or that 1 page can be duplicated and separate signatures
 - Use of SPSFs will be encouraged for Western Division
 - Matt anticipates that not everyone that submits will be selected, Western Division are identifying the number that they will need, SPSFs will help swing the selection
- v. Grants Discussion
- Have received \$540M in Division of Highways grants since 2009, these grants aren't typically 80%-20% split there is a higher expectation of state funding
- vi. Digital Delivery
- ORD 2024 new Version
 - NCDOT PMs will know how project should be delivered
 - DOT has developed Knowledge Base Website - CADD Support Forum
 - Updated Roadway Design Website
 - Roadway Design is starting development of three training modules, interchange, resurfacing grades, quantities, and cost estimation
 - DOT has established a New CADD Integration Team
 - Group within Technical services to support all DOH
 - Objective to act as collaborative liaison between NCDIT, NCDOT Units and Divisions related to Project CADD workflow
 - Team will support NCDOT staff and consultant partners
 - Standardized work products and processes
 - CADD solutions
 - Collective team to develop, implement and maintain the model centric digital delivery
 - Focusing on collaboration of NCDOT , Contractors, and CADD users
 - Efforts will focus on 3d model generation by ORD and delivered to construction
- vii. Alternative Delivery
- PDB Legislations pending legislative approval agency bill will allow up to 5 projects
 - Bill will increase number of CM/GC from 5 to 8
 - Seeking more opportunities for smaller firms and contracts to participate in Alt Dev
 - Looking to add smaller projects to ADU future project list
 - Looking to restart the Express DB program
 - Department currently making updates to ADU procurement
- viii. Quality
- Requiring QA/QC checklists for all deliverables with signatures to ensure accountability - is a requirement
 - Reviewing comments from the plan checking as they log comments to identify patterns and raise awareness as trends are identified and inform training needs
 - Creating training lunch n learn on items such as site distance to raise awareness of consistent problems
 - Review and updating current QA/QC guidelines
 - Evaluating current processes and schedules

- Quality reviews need to have NC plan development experience (know what an NCDOT set of plans looks like)
 - PS&E Turn In
 - Plan checking is no longer accepting incomplete packages, all deliverables must be 100% reviewed, revised, and approved prior to turn in
 - If you are assisting NCDOT in plan review as GESG and you have not been asked to look beyond the plans, consider what that needs to look like, you need to be reviewing quantities, talk to NCDOT PM and make sure you are scoped for that
- ix. Call Derrick Weaver with questions on PDN, NCDOT looking at refinements - see slides for details
- x. Quantity Development and Cost Estimating
- If you are doing GESG work review the quantities
 - Be thorough and detailed with quantities
- xi. Bridges
- Bridge condition is significantly better than 10 years ago, not quite at goal for interstate system
 - Considerable money being put toward bridge replacements, greater need in the Western Divisions
- xii. Rail info - S Line
- May be additional S-line needs in the latter part of this year, maybe project specific advertisements
- xiii. NCDOT preconstruction workshop will be September October 1, will be back in late winter / early spring in 2025
- xiv. Expect cost increases to continue to limit new STIP project assignments
- xv. Do expect PE spend to stay strong, but not a lot of new assignments
- xvi. Matt would like to see 4 or more project specific advertisements a year for the right type of projects
- xvii. The Department might look at doing work up through the environmental document and then changing firms

4. Legislative Update, Mike Holder

- i. State Update
 - ACEC NC Focusing on getting agency bill passed, need spring passage of bill to be able to sell Build NC Bonds in November.
- ii. Federal Update
 - R&D passed House, sitting in Senate, some senators are objecting to overall bill. Senator Tillis needs to hear how R&D tax credit helps our industry. Tillis

is not supportive of the bill. The bill includes a lot of other tax credit language, possible that it is not our portion of the bill that he objects to

- Reauthorization is about to start being discussed, if you talk to your reps make sure to thank them for IIJA and federal money, need to set baseline funding level at IIJA level

5. Subcommittees

i. Alternative Delivery, Mike Merritt

- Question and answering process - workgroup assembled first meeting a couple of weeks ago, building off of SCDOT's process, all non-confidential questions and responses will be published for all teams to see. Teams will be able to follow up on those in 1:1 meetings. How best to inform teams about what is missing at initial RFP release vs what is coming
- Anticipated list, desire to have more projects added to the list
- PDB, hoping to get that legislation passed, guidelines have been drafted and reviewed but sitting there until legislation advances
- How ORD applies to design build
- Should see new anticipated list in a couple of weeks

ii. Project Delivery, Steve Smallwood

- Recurring theme - shared inbox in Microsoft 365 for info, intent is to use a company type email
- GESC is expected to start checking quantities
- Jennifer Evans hoping to be able to distribute invoicing training soon
- DOT going to look at rates for projects that have been shelved, no scope change, just rate escalation
- Make sure to sign QAQC checklists

iii. Construction and Materials, Kevin O'Dell

- Have added an all-day training workshop for documentation, got the attention of many firms because there was no warning, and it took at whole day and it was possibly part of a series, we gave NCDOT other options that could help control our costs
- CEI evaluations, most of firms have not received them, Division engineers should be rectifying soon
- Did not receive CEI need projects for this quarter, still do not have, workload is projected to increase in the Western part of the state, and maybe slightly decrease in central and eastern

iv. Structures, Tom Koch

- Active committee setting up training opportunities
- Next one is all day prestressed girder design workshop
- Continuing lunch workshop series
- Most other things were covered by Matt Clarke

v. Joint Conference, Amy Faulkner

- Scheduled for October 11, 2024 at Raleigh Convention Center

- Call for presentations went out today
- vi. Junior Board, Ferrell Nicholson
 - Encourage developing professionals to participate in lunch n learns
 - March 21st, presentation by Dane Alt, everything you know about networking is wrong
 - Social on Feb 29th in Winston
 - Social on March 7th in Charlotte
 - Doing a social the evening before the fuel event (April 10th)
 - March 1st, nominations open for next round of Junior Board

6. Open Discussion – None

7. Next Meeting – May 20, 2024 at 3:00PM at NC Rural Center

ACEC / NCDOT JOINT SUBCOMMITTEE ON CONSTRUCTION & MATERIALS

April 24, 2024
Meeting Minutes

The meeting was held on April 24, 2024 at 1:00 PM; In attendance were:

NAME	REPRESENTING	EMAIL ADDRESS
Max Buchanan	STV	max.buchanan@stvinc.com
Phillip Johnson	KCI	phillip.johnson@kci.com
Tim Harper	Michael Baker	timothy.harper@mbakerintl.com
Kevin O'Dell	Summit	kevin.odell@summitde.com
Jack Cowsert	ECS Limited	jcowsert@ecslimited.com
Brian Hunter	NCDOT – Materials and Tests Unit	bhunter@ncdot.gov
Todd Whittington	NCDOT – Materials and Tests Unit	twhittington@ncdot.gov
Jim Sawyer	NCDOT – Materials and Tests Unit	jcsawyer@ncdot.gov
Matt Hilderbran	NCDOT – Materials and Tests Unit	mrhilderbran@ncdot.gov
Michelle Gaddy	NCDOT – Construction Unit	mhgaddy@ncdot.gov
Wiley Jones	NCDOT – Construction Unit	wwjones1@ncdot.gov
Brian Skeens	NCDOT – Construction Unit	bcskeens@ncdot.gov
Troy Brooks	NCDOT – Construction Unit	tbbrooks2@ncdot.gov
Leila Boulos	NCDOT – Construction Unit	lboulos@ncdot.gov
Tom Payne	NCDOT – Professional Services	tpayne@ncdot.gov

[ACEC Subcommittee Business](#)

Minutes from the January 17, 2024, meeting were approved.

[Training](#)

[M&T Training Updates](#)

- Jim Sawyer provided summary of 2024 classes. Jim's summary shows the number of classes, the number of personnel enrolled, and number who attended the class. Space has typically been available in each class. Class size is approximately 40 people. Almost 1400 attendees to date out of the 1681 registered for 58 classes. Please see attached summary.
- Matt Hildebran confirmed that a Spring/Summer Workshops will be hosted by M&T for Pavement Preservation. The Resident Engineers will be notified and should be registering CEI inspectors. The dates for these workshops will be sent out by M&T.

Discussion Items

On-Call Agreements

- The Construction Unit will be distributing a memorandum to the Divisions directing them to complete the transition to the 2023 CEI contracts and close out all the 2020 CEI contracts by June 15th.

CEI Evaluations

- The Department and industry representatives discussed that few CEI evaluations have been distributed to the firms. The Construction Unit has discussed the CEI evaluation process with Division Construction Engineers. The Construction Unit is preparing to have a training online seminar with Resident Engineer's staff and will highlight the need for completing evaluations.

Division Workload Forecast

- The Construction Unit has completed the Division Workload Forecast. The results of the forecast were based on projections completed in December 2023. The review of the forecasts shows a substantial increase in CEI needs in the western part of the state and less growth projected in the eastern and central part of the state starting December 2024. The graphs are attached.

CEI Invoicing

- The NCDOT Professional Services Management Unit (PSMU) has taken over the role of reviewing invoices. PSMU conveyed some issues they were finding during their review of invoices. Invoices with errors will be sent back to the Division. Invoices must be submitted monthly and if you are behind with invoicing do not combine months, submit a separate invoice for each month. For technicians, include classification. CEI technicians should not be in CRS and for the Engineers in the CRS please ensure the invoiced rates match the CRS rate. The Construction Unit conveyed to the ACEC Committee previous memos from the Department for review to ensure proper invoicing. The memorandums are attached for review. The CEI Webinar planned for June 2024 will include proper invoicing. The online seminar is targeted for NCDOT personnel but will be shared with CEI Managers.

CEI Training

- Industry representatives again conveyed the industry concern to NCDOT about costs for upcoming training that the Department is conducting. The documentation training is approximately ninety percent complete. The Department plans additional inspector training modules in the future. Industry representatives asked would there be any consideration for virtual or a train the trainer option to reduce travel and costs in the future. NCDOT will record these training modules and provide for use in the future.

CCU is committed to getting dates/information to CEI Industry in fall 2024 ahead of next year's training. The training schedules will be conveyed to CEI Managers when it is conveyed to Division staff.

Project Letting

- NCDOT stated that the financial stability at NCDOT remains in good shape. The goal of the Department is once a project makes the 12-month let list the project will be let on the scheduled date. The 15-month internal project let review process discussed at our last meeting is going well and serving the purpose to identify utility conflicts and right-of-way issues that could delay projects.

Upcoming Projects

- **I-2513 BD** Division 13 I-240 / I-26 from north of SR 3548 (Haywood Road) to SR 1781 (Broadway Street); and from SR 1517 (Hill Street) to SR 1781 (Broadway Street), Anticipated Construction Let March 2024, Anticipated CEI Advertisement August 2024
- **U-4758** Division 7 SR 1818 (JOHNSON STREET) / SR 1850 (SANDY RIDGE ROAD) FROM SR 1820 (SKEET CLUB ROAD) TO SOUTH OF I-40 IN HIGH POINT, Anticipated Construction Let December 2024, Anticipated CEI Advertisement August 2024
- **I-5719** Division 12 I-85 from US 321 to NC273; Widen to eight lanes Combined with U-5800, Anticipated Construction_Let November 2024, Anticipated CEI Advertisement January 2025
- **U-5747A&B** Division 5 SR 1635 - FROM WEST OF SR 1613 (DAVIS DRIVE) TO NORTH OF SR1637 (CHURCH STREET) IN MORRISVILLE. WIDEN TO 4-LANE DIVIDED Anticipated CEI Advertisement Date January 2025

The Anticipated Advertisement page has been updated.

<https://connect.ncdot.gov/letting/ProfessionalServices/Pages/anticipatedadverts.aspx>

Next NCDOT/ACEC Meeting: July 17, 2024, at 1:00 pm

ACEC / NCDOT Project Delivery Subcommittee Notes

February 1, 2024

- The meeting minutes from the last meeting (November 2, 2023) were approved.

Legislative Update:

- Legislative - NCDOT's Agency Bill is expected to move forward in the Short Session this spring/early summer. Three key items in the Bill are:
 - Accepting payment for certain types of encroachments.
 - Authority for NCDOT to award Progressive Design Build contracts.
 - Increasing the cap of CMGC projects allowed.

Staff Changes:

- Kristin Barnes replaces Kevin Lacy as the Director of Strategic Planning & Programming (Kevin retired effective 1/1/24)

Technical Services Update:

New RS-2 Form:

- NCDOT has established a Professional Services Contracts Workgroup. This workgroup is comprised of division and central representatives and is tasked with addressing many topics related to the major limited services contracts (Eastern, Western and Central PMU) and how we can have consistent contracts.
- You may see some contract updates with the Western advertisement in March. One area that the workgroup addressed was to update the current RS-2 form for submittal at LOI and with each task order. The form is intended to make it easier to determine what firm will be doing the work based on the discipline codes, explain if there are more than 2 firms on a discipline, and have values for each code that are listed in percentage values for the entire project.
- It is important to identify primes and subs at the contract level.
- Derrick Weaver sent the updated RS-2 form to Steve Smallwood on 1.26.24 to be distributed to the ACEC Project Delivery Subcommittee.
- The background behind this new RS-2 form: There were many recent situations with subs approaching NCDOT because they were not being given work by their primes on contracts.
 - What's not always known by the prime is the level of commitment by that prime to the sub.
 - The new RS-2 form setup will allow you to determine the general utilization of the different firms (25%, 75%, etc.) of the work broken up by prequalification discipline.
 - Signatures at bottom of form where subs can all sign off on it.
 - It will help DOT with making selections by better understanding who will be doing what work (improved transparency).
 - Must explain yourself at bottom if using more than 2 subs per code.
 - You can add additional codes as needed at the bottom. You can add subs as well.
- Question: Will it change how these are entered into the system?
 - Answer: It will. It will make it so that it's 100% utilization per line item as opposed to contract.
- Question: What does RS-2 stand for? Should we change the name?
 - [No one in the meeting immediately knew what RS-2 stood for]

- It has not yet been determined how the numbers out of this new setup/system will be reported to the Board of Transportation's meeting agenda.
 - It's not tracking individual contractor payments. It's about tracking overall consultant utilization.
 - It is now actual utilization vs anticipated utilization.
- NCDOT wants to see a consultant's "A" team.
 - Want to see who you propose to get the work done and provide for successful delivery.
- The timeline is in the next couple of weeks. Will be in place prior to Western On-call.
- Other items under discussion are what major work codes may need to be added to the Western Contracts, how many teams should be selected based on the size of our program over the next 2-3 years, and when to do project specific advertisements so we get the right team for the right job. We will also be tying in, strongly, team evaluations when doing team selection and in project assignments. More to come.

Cost Estimating Process:

- As STIP costs continue to increase, as many estimates were completed 2 years ago before the heavy cost inflation, Matt Clarke was asked by Chris Peoples to do a thorough investigation of our cost estimates. Currently, the Contract Standards & Development Unit (CS&D) is looking at projects in the past 12 months where there is a significant difference between the last verified cost and the construction estimate. The Roadway Design Unit is acting as a 3rd party review/QA for projects over \$25M.
- CS&D is also developing a database that is similar to bid averages online, but more refined. The data is being used to compare similar projects that are coming through express designs to see how accurate the estimates are. Remember that we are still using today's dollars, which may be more or less when the project lets. The goal is to ensure that the express design estimates are in the ballpark. This will assist us with being able to have more confidence in the STIP, so it is not over or under programmed.
- In February, as CS&D reviews the Express Design estimates, a handful of projects will be selected to look at the estimate and see if it is a viable estimate with the divisions knowing the region/area and Traffic Control. This will help test the confidence of the estimates.
- An important item is looking into example projects. The charge: It is important to ensure that design quantities are accurate.

Temporary Hydro Design on Traffic Control Plans:

- In some instances, temporary drainage is not being addressed. We are talking about the hard structure drainage. If adding pavement on low side of super, and we are maintaining traffic, somehow that water has to get out of there. Stay tuned as we work to develop guidance on this. In the meantime, please be looking to ensure this is considered in your active ongoing projects.
 - Question: Will we likely have another set of plans come from this?
 - Answer: Likely won't need another set of plans. We could show them on the MOT plans, but a lot of times we would show them on roadway plans and then show them as pipe and note to remove the pipe. Do foresee it on MOT plans or the roadway plans.
 - Question: Are contractors not realizing this on the plans and are they not implementing it?
 - Answer: The issue is that there are a lot of designers who are not addressing this. This is about raising awareness to all designers to do this.

- Question: Will this show up in the design manual? Will there be something that helps dictate and guide this decision point?
 - Answer: Don't think so. If the contractor makes changes, then that's on him. But if we don't address it as designers, then that's on us. A manual won't tell us how that gets done. It'll be on a project-by-project basis.
- Question: Could we add this as a checklist to the CFI plans to show there is some measure of this being addressed?
 - Answer: Good idea. NCDOT will dig into it more. Is it traffic's issue of responsibility or construction's responsibility?
 - You will have the opportunity to weigh-in in the future.

Feedback/NCDOT Forum:

- Question: Did you talk about the email we will be sending to ACEC/NC Member Firms to seek feedback (next week) and that NCDOT will host a forum in the next 1-2 weeks to have some more dialogue?
 - Answer 1: Mike Holder and Radha Swayampakala talked to Matt Clarke and Glenda Gibson yesterday. There will be more opportunities to provide feedback.
 - Answer 2: As we receive input from firms, we want to be ready to share this and fully explain this new way of gathering information on subs before advertisements (esp. the for the western one). Want people to know how this will be helpful for NCDOT. We will be getting something out to people next week.
 - NCDOT would like the feedback on the form. It is not up for debate about whether we are going to change the form because we need better transparency to make better selections.

Project Management Updates:

- Invoice Tips for PEF Firms: PMU has done training for PMs to understand what helps and to ask for suggestions. This is based on an 8/10/23 memo from Toddy Honeycutt, the Accounts Payable Manager.
- The slides from Jennifer Evans' presentation will be provided with the meeting minutes.

Roadway Design Update:

- The NCDOT Roadway Design Manual has had updates most recently published in November 2023.
- One of the things changing soon is a small blurb on design exceptions. It's about where it gets signed, especially for signatures of bridge projects that go to SMU. We need to ensure that it matches the form letter.
- ORD training modules are about to start or are already under development.
- **Non-CA** Lighting: Group with TMSD, but also Greg Hall and VHB, who have been developing research and development on what non-CA lighting looks like. Tool to determine where we go from there. Next step will be to figure out how we apply that.
- Submittal Guidelines: We are hoping to get that out in the next month or so.
- Staffing Changes: Vasim Barodawala has transitioned from the Roadway Design Unit to a new role as the supervisor of the newly formed Integration CADD Team.
- The Roadway Design Unit would like to use service accounts to send out updates.

Professional Services Management Update:

- The Western LSC will be advertised on March 15.

- For each firm, it's up to them as to how they want to sign off on contracts.

Workforce Open Discussion:

- The NC State University Engineering Career Fair is next Tuesday, 2/6/24.
- NCDOT internship opportunities will be available for both high school students and college students.
 - Key difference this year is that the students will have to pick one discipline/unit to apply for.
 - It would be good if consultants could help by passing this information along.
 - Some high schools have programs where students can complete work as an internship.

Division Comments and Open Discussion:

- No Updates

Industry Comments and Open Discussion:

- Question: There is an issue with DDRL let projects in certain situations that had been relayed to NCDOT. Had anything come out of NCDOT looking into it?
 - Answer: Refer to the new PS&E checklist. It is applicable for DDRL and anything that is centrally let.
 - Follow-up Question: At what point in the project will we know that its centrally let?
 - Answer: If it's over \$5 million, then it's an easy one. Have this conversation with your Div PMs, because if its borderline with the \$5 million cap, then they will go ahead and make it a centrally let project.
- Question: There are examples of projects that have gotten shelved for several years, but when the projects were reactivated, the contract/scope was not updated to reflect the higher rates of the staff doing the work. Are rates allowed to be updated as part of a supplemental request? Can we request an updated contract just for the rates?
 - Answer: NCDOT will take this back, have some discussion, and get back to you.
- Question: What should be done about bridge repair projects and determining when it should be SS2 vs ORD?
 - Answer: This is not a typical bridge project situation and should be discussed afterwards in the context of the project.
- Question: What should we do on a project that is 2- to 4-lane widening proposal where the P&N is not capacity driven but complete streets driven. At what point does complete streets drive the project?
 - Answer: This question is very project-specific and should be discussed afterwards in a manner that is context-sensitive to the project.
- Question: Are there DOT financial constraints coming in the future?
 - Answer: Budget authority is the constraint to always be aware of. It is how much funds we can actually authorize. It's about how we can stay underneath our budget authority. This is separate from revenue and expenditures. This is typical with the end of the fiscal year coming up.
 - Follow-up Discussion: It's about putting proper milestone schedules so that we can ensure we are scheduling projects appropriately. It's about knowing, realistically, what schedules are unrealistic and changing those now rather than later. This ties into having good cost estimates.

- Consultants can help NCDOT with the quality of the program by getting the cost estimates right.

ACEC/NCDOT
STRUCTURES SUBCOMMITTEE



Structures Conference Room C
May 6, 2024, 10:30 AM

MEETING NOTES

1) **Attendance**

- | | |
|--------------------|--------------------|
| a) Brian Hanks | g) Tom Koch |
| b) Trey Carroll | h) Domenic Coletti |
| c) David Stutts | i) Liz Lawes |
| d) Gichuru Muchane | j) Greg Cols |
| e) Tierre Peterson | k) Emily Murray |
| f) Hoang Dieu | l) Jeff Loftus |

2) **Meeting Kick-off**

- a) Reviewed previously approved and published minutes from 2-5-2023 meeting.
- b) Welcomed new PEF member Greg Cols.
- c) Discussed subcommittee member rotations:
 - i) Domenic Coletti and Tom Koch are rotating off.
 - ii) Recommendations for new PEF members due to ACEC May 10, 2024.

3) **Bridge Design Workshop Series**

- a) Reviewed Bridge Design Workshop tracking spreadsheet:
 - i) Topic T-056, Harkers Island: Trey Carroll and others will present on the Harkers Island project during a lunch workshop on May 7, 2024, at McKimmon Center.
 - ii) Topic T-064, Perquimanns Movable Bridge: The subcommittee was still interested in the possibility of having this presentation as a lunchtime workshop in early fall (September +/-) 2024. Domenic Coletti will follow up with David Ragan of H&H to confirm his interest. Last contact (4-12-24) from David indicated he was interested but he had not yet been able to secure a co-presenter from the contractor.
 - iii) Topic T-057, CMGC Project Delivery: The subcommittee was still interested in the possibility of having this presentation as a lunchtime workshop in January or February of 2025. Liz Lawes will follow up with Nicole Brown to discuss details, including NCDOT and contractor co-presenters.
 - iv) Topic T-061, Corrosion Policy Refresher/Updates: The subcommittee was still interested in the possibility of having this presentation as a lunchtime workshop after the NSBA Steel Bridge Forum (i.e., late March, or April or May of 2025). Brian Hanks encouraged continued coordination about this with Prof. Tara

Cavalline at UNCC (who conducted related recent research for NCDOT). Liz Lawes will follow up with Prof. Cavalline.

- v) No other new topics or changes to previously proposed topics were discussed.

4) **Training Opportunities**

- a) Feedback from recent PCI Bridge Design Workshop:
 - i) Feedback was generally positive.
 - ii) The workshop provided a lot of good guidance and information for younger designers.
 - iii) The Harkers Island presentation was well-received.
 - iv) The industry panel discussion was very good but was too short; a longer discussion would be good in the future.
 - v) Emily Murray asked if ACEC shares the feedback they get when they survey participants for PDH credit; Domenic Coletti said he would contact ACEC to request that feedback for this and other recent ACEC/NCDOT Structures workshops.
- b) Discuss topics for NSBA Raleigh Steel Bridge Forum spring of 2025:
 - i) The tentative potential topic list was reviewed.
 - ii) Adding an industry panel discussion with designers, detailers, fabricators, and erectors would be good.
 - iii) A presentation by Mike Grubb reviewing the upcoming AASHTO LRFD BDS 10th Edition changes would be good.
 - iv) The topic “What the Detailer Uses from the Design Plans” by Randy Harrison, Brad Fillman, Bill Lally, or others, would be good.
 - v) Any presentation by Dr. Rob Connor would be good (either “Steel Bridge Fatigue and Fracture – A Refresher for the Practicing Bridge Engineer” or other topic).
 - vi) A local NCDOT project of interest would be good. At the last NSBA Steel Bridge Forum, John Sloan presented on the Green River Bridge rehabilitation and the presentation was very well received.
 - vii) Domenic said that NSBA was on board with having the Forum in March of 2025 +/-, and that Chris Garrell at NSBA had passed the coordination for this NSBA Forum to Jeff Carlson of NSBA.
 - viii) Domenic Coletti will update the topic list and discuss with Liz Lawes who will carry forward the coordination with NSBA. The subcommittee should try to firm up their list of preferred topics within the next few months so that NSBA has sufficient time to secure commitments from presenters.
- c) Other training opportunities.
 - i) NCDOT/NC GO!/NC Chamber Fifth Annual N.C. Transportation Summit, May 21-22, 2024, Koury Convention Center in Greensboro, NC
 - ii) WTS:
 - WTS Annual Conference is May 6-10, 2024
 - WTS Go Gala May 16, 2024

- WTS Luncheon June 26, 2024
 - iii) NCDOT CLEAR Lunch and Learn, “NCDOT Revenue and Funding for Projects,” June 24, 2024
 - iv) Paul Zia Distinguished Lecture Series
 - Fall of 2024: “Frederick Douglass Memorial Bridge in Washington, DC,” October 7, 2024.
 - Fall of 2025: Harkers Island project.
 - v) ACEC/NCDOT Joint Transportation Conference October 10-11, 2024.
- 5) **Anticipated Current and Future PEF Opportunities**
- a) Updates on management of current and future bridge replacement projects:
 - i) Management of bridge replacement projects is being moved from SMU to PMU (approximately 50 projects). By end of May, all transferred projects will have PMU project managers. A few ongoing projects that are very close to letting will continue to be managed by SMU.
 - ii) Upcoming bridge replacement project assignments (under the current Structures LSC contracts) will be managed by PMU. SMU will identify projects for assignment to PEFs, and will send those projects to PMU. PMU has requested that they have some say in selection of PEF firm for each project assignment (with input from SMU).
 - iii) The next round of Structures LSC contracts (potentially two years from now) will not include the “Bridge Replacement Planning & Design” category. Planning & Design will be managed by PMU. Assignments for Bridge Program projects will have input from SMU.”.
 - iv) The overall intent of these changes is to allow SMU’s PEF/Program Management group (David Stutt’s group) to focus on reviewing project scopes and estimates and serving as the bridge subject matter experts (SMEs) for PMU and the Divisions.
 - b) SMU will continue to be involved in bridge preservation projects. Most of the notes above apply primarily to bridge replacement projects.
 - c) PEF Performance Evaluation Forms: David Stutt encouraged PEFs to communicate proactively about these evaluations; don’t just turn in work, wait for your score, and not discuss the evaluation.
 - d) QC and QA Checklists: SMU is continuing to work on formatting of the template document to facilitate including signatures. The QC and QA checklist form templates will be provided in MS Word for the time being. Always download the latest version of the QC and QA forms from the NCDOT website (current versions are dated December 19, 2023). It is OK for PEFs to submit their QC forms in either MS Word or PDF format, as long as a signature is included.
 - e) “Policy interpretation” between SMU and Divisions – SMU understands that the SMU Manual does not (and cannot) cover every possible scenario. PEFs are encouraged to engage both SMU and the Division to discuss situations on specific projects that are not directly covered in the SMU Manual; early communication by the PEF to facilitate discussion is key.

6) **Technical Topics**

- a) Recent revisions to manuals, standards, etc.
 - i) No major changes at this time.
- b) Upcoming revisions to manuals, standards, etc.
 - i) SMU's Policy Development group is currently focused on developing design manual guidance and standards for timber bridges. The intent is that the timber bridge standards would be similar in format and scope to the current cored slab bridge standards. The timber bridge standards are intended to be used in Divisions 11, 13, and 14, where many of the deficient bridges are small bridges with timber elements on small, mountainous, low traffic volume, often dead-end roads. The anticipated timber bridge details will feature rolled steel beam stringers, timber decks and railings, and concrete spread footing substructures; the intent is to facilitate easy construction using small equipment and small, lightweight elements due to access challenges to many of the bridge sites. The manual and standards are currently in draft form but have not been reviewed yet. The standards will include load rating info. NCDOT will need multiple PEFs to help assemble contract plans packages for these projects. Until the manual and standards are published, PEFs who are assigned a project like this can contact Nick Pierce to request access to the unchecked design guidance and standards. Most of the projects will include bridge replacement but will involve all disciplines, with a heavy focus on bridge hydraulics. The projects will not include improvements to the overall facility, i.e., no addition of shoulders or increasing of shoulder width, no provision for approach guardrail when current conditions do not include guardrail, etc. The design of these projects is expected to conform to the design of the existing road facility, most of which are small, low traffic volume, dirt, dead end roads.
- c) Digital Delivery, OBD/Open X, and ProjectWise implementation: No updates.
- d) Research project updates.
 - i) Deck Crack Sealant Selection research project: This project was recently completed, and included the development of a spreadsheet that helps select an appropriate crack sealant for the given conditions. The research report will be published on the NCDOT website.
 - ii) Strut and Tie research project: This research project is still ongoing.
 - iii) Concrete Girder Impact research project: This research project is still ongoing.

7) **Open Discussion/Other Topics**

- a) Standard P-joint (Strip Seal Joint): The mill that produces the steel joint shape has closed, but DS Brown has the ability to produce the steel joint. Price has gone up since there is only one supplier. NCDOT has been working with PennDOT to resolve this issue. For now, it is OK to keep

- specifying this joint, in accordance with the published SMU Manual policy.
- b) PS Girder Camber: NCDOT and other owners have noticed a trend where more prestressed girders are under-cambered (flat or sagging); the suspected cause is the use of concrete with higher than specified strength. GDOT has reached out to NCDOT to discuss this issue. NCDOT is considering specifying a minimum acceptable as-fabricated camber dimension on the plans; if the as-fabricated girder does not meet that value, girder may be rejected. In the meantime, designers are encouraged to design girders that are predicted to have at least a minimum 1/2" camber after deck placement (as predicted using NCDOT's refined analysis method/spreadsheets).
 - c) Wisconsin Deck Pour Sequence: During the recent Spring Tour, SMU staff observed a four span continuous steel girder bridge with short interior spans and long end spans (with a span balance that resulted in upward deflection of the girders in the interior spans during deck placement). The plans specified that the short interior span be placed first; this resulted in the interior span deck being subject to negative moment (tension in the deck) during subsequent pours in the deck pour sequence, which led to cracking of the interior span deck. The message to communicate to designers is this: Reiterate that the theory behind the Wisconsin deck pour sequence is to avoid negative moment in a previously poured section of the deck; consider each bridge and its span arrangement and specify a logical deck placement sequence that will avoid subjecting previously poured segments of the deck to negative moment when later segments are poured.
 - d) Edge of Deck (Expansion Joint) Diaphragms for FIB Girder Bridges with Heavy Skews: NCDOT recently noted the case of a single span bridge with 36" FIBs and heavy skew where a significant portion of the edge beam (diaphragm) under the wide top flange was completely unreinforced and was falling off. One potential design policy solution may be to omit the portion of the diaphragm under the wide top flange.

8) **Next Meeting: August 5, 2024**

NOTES

NCDOT / ACEC-NC / CAGC ALTERNATIVE DELIVERY SUBCOMMITTEE

Date: March 5, 2024 at 9:30 a.m.

Location: **In Person:** Century Center Bld. B – Conference Room 301B (Cap. 25)

Virtual: [Click here to join the meeting](#)

Meeting ID: 256 046 761 743

Passcode: Cqzg5v

Audio Only: [+1 984-204-1487,,239892304#](#)

Phone Conference ID: 239 892 304#

-
- I. Welcome and Introductions (Tim)
- II. NCDOT / NCTA Items (Tim)
1. Announcements
 - a. DOT Organization – Wiley Jones is now the Director of Field Support
 - b. ADU Project Engineer Positions – Ewin Fenner and Tamara Njegovan are new project engineers in ADU
 2. NCDOT Updates
 - a. ORD implementation in design-build
 - i. David Clodgo presented data summary charts showing state-wide adoption of ORD. Of the 1,800 active projects, 687 are still in V8i. This is across all 14 Divisions, PMU, SMU and Rail. Most projects still in V8i are bridges. Over 700 projects are being actively designed in ORD. The rest are being migrated.
 - ii. Only 25% of projects in terms of construction cost are being delivered in V8i.
 - iii. V8i projects will still be around for a while, but are fewer and fewer until let year 2027 when it is very few, and completely migrated/transitioned to ORD in 2029. Big transition year is 2025 to 2026.
 - iv. NCDOT hopes that industry will see the value in ORD and migrate additional projects sooner.
 - v. Model development integrating all disciplines will take baby steps.
 - vi. Big benefits of ORD is shifting alignments without having to redraw everything, and for conflict resolution.
 - vii. Geotech is lagging. Bentley just announced that OpenGround integration is pushed out 12 months.
 - viii. For ADU, if a project is started in V8i it will remain in V8i. If it is started in ORD, then it will continue in ORD.
 - ix. Digital Delivery – Data Workflow
 - i. NCDOT is looking to establish a common data environment (e.g., ProjectWise) so that contractors can still work with their favored construction (e.g., Synchro) and field software (e.g., LANDxml, AMG, ArcGIS).
 - x. End goal – have a digital model as an as-built record.
 - b. Update to NCDOT Submittal Guidelines
 - i. Still working through comments from industry. Shooting to have this ready for the next DB project. NCDOT is still planning to use the standard folder structure.

- c. PDB Workgroup
 - i. Cancelled meeting because only 3 comments were received on the PDB guidelines. Once those comments are resolved, they will release the next iteration of the PDB guidelines.
 - ii. ADU is shooting to have a list of potential PDB and CMGC projects by the next meeting.
- d. Haul Roads (John)
 - i. John presented the Haul Roads language, and said they are trying to be more proactive so that haul road impacts don't negatively impact the project schedule. For example, if public road used for haul road degrades rapidly upon use as a haul road, then NCDOT might post the road for load restrictions which may impact construction use and sequencing. NCDOT has added a 60-day notice requirement prior to hauling use.
 - ii. NCDOT asks industry to review language and propose revisions if needed. Tim will send out the language for review by the subcommittee.
- e. Revised Q&A Process – changes coming out of workgroup are being considered
- f. I-5719/U-5800/U-6044 Pre-Advertisement Meeting
 - i. NCDOT sees the meeting as a benefit. This may not be done on every procurement, but ADU will be doing it more in the future.
 - ii. The four one-on-one meetings were productive
 - iii. ADU didn't open it up to Q&A this time, but may do that in the future
 - iv. Gaston procurement may be extended due to I-26. Subcommittee asked that NCDOT gives industry 4 weeks after I-26 procurement selection/resolution.
 - v. I-26 update: Meeting yesterday with secretary Hopkins and Chris Peoples. Another meeting Thursday. After that, they will let teams know (late this week or early next week).
- g. Electronic Bidding
 - i. Keeping on agenda to see if industry has any more thoughts or comments. General comment from group is that digital submission is preferred. NCDOT said they would move forward with the digital approach and will put the plans out to the committee for review.

3. NCTA Updates (Patrick Norman, virtual)

- a. Patrick transitioned from D8 to take on chief engineer position.
- b. Allen Shapiro will move into deputy chief engineer position.

III. Upcoming Design-Build Projects (Anticipated DB List)

(Tim)

- a. List has been stagnant. However, NCDOT has identified some more projects and hope to have them on the list for the next meeting. They were trying to get new projects for 2025 and 2026, but no success in identifying some for next year because designs are too far along for DB.
- b. I-2513C - \$262m cost updated
- c. I-5718 – NCTA is updating cost estimate. Likely will approach \$2 billion. ADU has discussed possibility of splitting the project, but there has been no discussion yet with upper management. There was discussion around the table about benefits of breaking it up due to additional cost escalation and the potential for going PDB and/or P3.
- d. I-5719 – let date move to Feb 2025 and cost estimate raised to \$938m. NCDOT is checking to confirm funding availability.
- e. R-2576 – NCTA is looking at estimate and likely will complete. Unsuccessful so far at getting federal grant money.
- f. U-5307A – study going on for tolling, should be done in November.
- g. U-5518 – cost estimate updated to \$230m.

IV. Carolina AGC Items

(Victor)

1. Progressive Design-Build Update
 - a. Victor raised issue of \$500m cap considering that CMGC and PDB are routinely used by other states for mega projects. General agreement that larger projects would benefit most from CMGC and PDB procurement methods.
2. Electronic Submittal of Technical & Price Proposals – already covered
3. Railroad Flaggers
 - a. Not getting any better. Third company is involved, but no net gain in number of flaggers so far.
4. Potential Projects to be added to the Anticipated Projects List
 - a. Request to include CMGC projects and express DB projects. Reinforced the need to identify more projects. Express DBs may be a way to add smaller DB projects. ADU has talked to Districts to try to identify more projects, big and small.
5. Setup joint confidential Risk Register and allocate risk to the correct owner.
 - a. Should this be a requirement to facilitate conversation and decisions to allocate and share risk more appropriately?
6. Prepare and submit Technical Proposal questions before the interview / Q&A
 - a. This would allow teams to get the right players in the room, and to prepare well thought out answers in advance. For example, if a third-party review generates questions in advance, request to send those to the teams in advance. Maybe teams could be told in advance what subject matter experts need to be represented in the interview. Questions wouldn't be limited.
7. Cost escalation
 - a. This is a bigger risk issue now than ever. Other states are using CPI or thinking about using CPI for pricing. Suggested setting up a small group.

V. ACEC Items

(Brian)

1. Questions and Answer Process – ADU will post non-confidential questions. Contractors are okay with this.
2. Standard Folder Structure – ADU will try to have it set up for the next procurement.
3. Traffic Modeling
 - a. Level 3 traffic analysis requirement. Challenge is there are few firms that can do this, and difficult to obtain a quote during bid phase. Can NCDOT increase the number of firms prequalified?
 - b. Joe Hummer – NCDOT intends Level 3 prequal to be very elite, and for Level 3 projects to be very rare. Sometimes level 3 is requested by project teams but this may not be required. Only for project with dynamic traffic assignment (big complex network with multiple routes between destination). Only about one project each year that should need Level 3. Prequal for Level 3 requires apprenticing for someone that already has Level 3 or work in another state doing Level 3 work. Also can take a Level 3 course (if it exists) and submit the course certificate. If a project comes through w/ a Level 3 requirement that doesn't make sense, bring it back to Joe for redetermination.
 - c. I-5719 – Not sure if it will have a Level 3 requirement. Joe's opinion right now off the cuff is that it will not need Level 3. Probably needs Level 2 analysis. Will need input from others for final determination.
 - d. Even when it occurs rarely, there will still be a problem for obtaining quotes. For example, one of the firms on the Level 3 list are unavailable for I-5719.
4. Timing of Cost Submittal vs. Technical Presentation
 - a. Turn in on Thursday/Friday, then have presentations Tues/Wed the following week.



- VI. Next Meeting
 - a. Tuesday, May 14, 9:30am.
- VII. Meeting Adjourn

(Brian)



ATTENDEE LIST
NCDOT / ACEC-NC / CAGC ALTERNATIVE DELIVERY SUBCOMMITTEE

Date: March 5, 2024 at 9:30 a.m.

Location: **In Person:** Century Center Bld. B – Conference Room 301B (Cap. 25)
Virtual: MS Teams

NAME	AFFILIATION	IN PERSON / VIRTUAL
Brian Banks	Schnabel Engineering	In Person
Kevin Bailey	STV	In Person
Rob DeCola	KCI	In Person
Andy Barry	ST Wooten	In Person
Kevin Ott	Archer Western	In Person
Mike Merritt	RK&K	In Person
Lewis Cuthrell	Branch Civil	In Person
Victor Barbour	Carolinas AGC	In Person
Thomas Wells	Terracon	In Person
Tim McFadden	NCDOT-ADU	In Person
Malcolm Watson	NCDOT-ADU	In Person
Dave Pupkewicz	Flatiron	In Person
Michael Taylor	Barnhill Contracting Company	In Person
Keith Nixon	Balfour Beatty	In Person
Troy Brooks	NCDOT-Construction	In Person
Wiley Jones	NCDOT-Chief's Office	In Person
Walt Viele	Fred Smith Company	In Person
Jess Earley	NCDOT-ADU	In Person
Echiril Fenher	NCDOT-ADU	In Person
Brandon Banner	NCDOT-ADU	In Person
Tamara Njegavan	NCDOT-ADU	In Person
Brian Skeens		Virtual
Drew Baucom		Virtual
DeWayne Brown	JMT	Virtual
Rob Bullock		Virtual
C Capehart		Virtual
Chris Boyd		Virtual
Ethan Brown		Virtual
Jason Gorrie	WSP	Virtual
Hope Grumbles		Virtual
Mike Grey	United	Virtual
Patrick Norman		Virtual
Matthew Payne	Archer Western	Virtual
J Seybert		Virtual
David Stark		Virtual
H Strickland		Virtual
Mike Zicko	Flatiron	Virtual

