

**Meeting Minutes**  
**SCDOT/ACEC/AGC Alternative Delivery Sub-Committee Meeting**  
**3/20/2024 @ 9:30 AM**

**I. Welcome/Introductions**

**Meeting Attendees**

SCDOT	ACEC	AGC
<ul style="list-style-type: none"> <li>• Jae Mattox</li> <li>• Maddy Barbian</li> <li>• Carolyn Fisher</li> <li>• Ben McKinney</li> <li>• John Caver</li> <li>• Michael Pitts</li> </ul>	<ul style="list-style-type: none"> <li>• Andrew Smith (HDR)</li> <li>• Hisham Abdelaziz (CTEA)</li> </ul>	<ul style="list-style-type: none"> <li>• Chris Boyd (Crowder)</li> <li>• Rob Loar (Reeves)</li> <li>• Michael Grey (United)</li> </ul>

**II. Program and Project Updates**

General

- Kit Scott has been named Low Country Corridor Project Director
- OAD Vacancies: Design Manager, Construction Alternative Delivery Engineer, CCR Design Manager

In Construction

- Carolina Crossroads Phases 1 & 2 – Under Construction (United Archer Western JV)
- Closed and Load Restricted Bridges 2021-1 – District 4 with eight bridges. Project in construction (Reeves)
- US 301 over Four-Hole Swamp – Under Construction (Crowder)
- Bridge Package 14 – Project in construction (Lee)
- Bridge Package 15 – Project in construction (ES Wagner)
- I-20 over Wateree River and Overflow Bridges – Project in construction (Lane)
- Bridge Package 16 – Project in construction (Palmetto)
- US 1 over I-20 - Project in construction (Superior)
- I-26/I-95 Interchange Improvements – Project in construction (Archer Western)
- US 17A/21 over CSX Emergency Bridge Replacement – Project in construction (Crowder)
- Bridge Package 20 – Awarded to ES Wagner 2/23/24

In Procurement

- Bridge Package 17 – Technical Proposals due April 9, 2024
- I-77 Exit 26 Interchange & Connecting Roads (Associated with the proposed Scout Motors plant). Final RFP to be released March 28<sup>th</sup>, August 2024 Award. <http://i77exit26.com/>
  - NS Railroad Bridge will be a separate bid-build project to meet RR schedule. Anticipated June 2024 letting. Needs to be in place by end of June 2025 in order for railroad to build their yard on the Scout site.
- I-85 at I-385 Wall Improvements RFP released March 15<sup>th</sup>.

## 2024

- Carolina Crossroads Phase 3 –DB Procurement canceled in October 2023. New Phase 3C (I-20 Phase that ends before Bush River Road) will be the next project to be released, anticipate RFQ in April/May.
  - Goals: Minimize our exposure to utility risk, minimize our exposure to geotechnical conditions (hard rock & utilities), and maintain momentum.
  - Phase 3A Design-Bid-Build (Clearing and grubbing contract for approximately 270 acres of previous Phase 3) scheduled for letting in fall 2024.
  - Original completion for all phases late 2030, pushing out a few years (2034).
- Bridge Package 18 (2 bridges in Horry County) – RFQ Advertisement May 2024
- Bridge Package 19 (8 bridges District 3) – RFQ Advertisement October 2024
- Anticipate Q4 (pending receipt of grant funding) - I-95 over Santee (Lake Marion) bridge replacement. DB prep work is underway.

## 2025 and beyond

- Long Point Road/Wando Port Interchange, Procurement is anticipated to begin in 2025 (TBD), no firm RFQ date has been decided; details forthcoming.
- Bridge Package 21 (6 bridges District 3) – RFQ Advertisement May 2025
- Mark Clark Extension – Pursuing Final EIS and related documentation/permits. RFQ anticipated in 2025+.
- Low Country Corridor East – Currently in project development and NEPA. Procurement timeframe TBD. Public involvement meetings held in October 2021.
  - EJ mitigation for the next five years until procurement in 2028.
- I-95 Over Great Pee Dee River bridge replacement. Received planning grant (~\$700k). Professional Services contract awarded to CDM Smith to execute PEL study.
  - Potential for overflow bridge replacement, as well.
  - Decision on scope of work is dependent on results of the PEL study.
- Low Country Corridor West and I-26/I-526 Interchange – EJ mitigation in 2023, first phase RFQ in 2028.
  - Five phases are currently being evaluated for project delivery type.
- I-85 @ US 178 (Buc-ee's)
  - Funding by Anderson County, construction not currently funded. Earmarked money has not been officially announced.
- Note: Additional project information has been posted to the website: [SCDOT Design-Build Overview](#).

## Other Design-Build Projects (Not SCDOT)

- Charleston County – Main Road (in procurement)
  - Moving target, June 4<sup>th</sup> for cost proposal
- Laurens County – Bridge Package (in procurement)
- Dorchester County – Bridge Package (in procurement)
  - Awarded 3 of the 4, executed contract
- City of Charleston – Pedestrian Bridge (in construction)
  - Contract executed (Superior/JMT)

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III. **Action Items from 1/17/2024 Meeting**

SCDOT

- **SCDOT/ACEC/AGC** to continue ongoing discussion for potential new RFQ language suggestions and/or scoring techniques for SOQ evaluations with stakeholders.
- **ACEC/AGC** to poll and involve members in order to look for examples across industry in order to establish positive potential adoption of PDB, CM/GC, and other methods.
- **SCDOT** will review any internal changes to be made to help assist in the ongoing issues of whose responsibility the oversight of the utility relocation is (DOT vs. Contractor).
  - Robert Riggs meeting with upper levels with all major utility companies to work on a path forward.
  - Is there anything we can do to help communication utilities (smaller) relocate? Communications are the majority of the utility issues, not the power/wet utilities.
  - Delays are still ongoing during construction due to these utilities.
  - Schedule on a level playing field for all contractors in regards to utilities. US 17A was successful in this.
  - Suggestion to set a R/W or Easement for utilities that is not to exceed.
  - Georgia utility bid-build process is an example of a successful process for utility coordination execution.
- **SCDOT/AGC** to set up a working group to come up with a solution/ideas for Erosion Control Unit Pricing.
  - The next major linear project by OAD will take this into consideration. The current project load for OAD does not necessitate the use of EC Unit Pricing.
  - CCR Phase 3 would be the next opportunity (loop in David Rogers). Pre-RFP would be the goal.
- **AGC/ACEC** to provide more feedback on contract insurance cost & **SCDOT** to continue research & path forward.
  - SCDOT has brought in outside consultant to review current requirements. Meeting next week to go over his findings. Adjustments will be made based on that recommendation.
  - Indemnification clause for R/W litigation to be included in next week's conversations with outside consultant.
- **ACEC** Transportation committee will review letter for design-build prep teams being utilized for ATC reviews.
- **AGC** to send SCDOT VDOT's language on their RFQ process with a Q&A session.

IV. **OAD Technical Proposal Commitments**

SCDOT

- Quality Credit Matrix formalization after bid opening.
- Updating contract language requiring a signed document with any commitments made within the technical proposal & commitments made during the TP presentations.
- Not an opportunity for limited negotiations, just what has been committed to during the technical proposal & presentations. Plan & approach are not considered commitments.

V. **Second Round of ATCs/ATC Phasing**

AGC/SCDOT

- The request for a discussion regarding adding new ATCs after the initial PATCs/first round of ATCs during the OAD procurement process was made.
- OAD will look to review RFP language that would need to be adjusted to allow for additional ATCs after the first review. Timing will need to be a conversation with each procurement. How much time do the teams need to come up with those additional ATCs?

- AGC stated that filling the “not favorable” slot after OAD makes its first round of determinations is the goal, not more ATCs total.
- **SCDOT to review for future projects (ACTION ITEM)**

**VI. Spray-Applied Bridge Deck Waterproofing SCDOT**

- Systems to be incorporated in future special provisions requirements.
- Looking for feedback from industry while this is being reviewed by support.
- **Draft will be provided with meeting minutes for review & will ask for feedback at next meeting. (ACTION ITEM)**

**VII. Federal Contract Provisions Cost SCDOT**

- Looking for feedback on the increase in cost of construction that are directly related to federal contract provisions.
- DBE increase adds to scope, example 7-10% cost increase trying to manufacture DBE tasks for City of Charlotte
- Variable by scope (none on some projects for Davis-Bacon)
- Higher DBE goals end up working against the purpose of DBE goals.
- Federal Provisions don’t seem to have a major impact on costs.

**VIII. Open Discussion ALL**

- Provision on US 17A, polymer slurry (drilling) manufacturer overview requirements was a hindrance especially on an emergency project. **SCDOT will review (ACTION ITEM)**. Could we change the requirement to a resume or references?
- Value Engineering process after award, OAD wants to encourage the innovation after award. Designer should have clear communication with SCDOT & documentation of the design ideas being explored before investing any unnecessary time/cost. Technical Proposal is still a commitment.
- SCDOT is exploring receiving conceptual drawings/ideas to review prior to conceptual ATC meetings. This was done on an on-going procurement with positive results.
- Request for a utility discussion/update regarding the ongoing action item about internal DOT changes to be made to help assist in the ongoing issues of whose responsibility the oversight of the utility relocation is.
- Potential for an additional \$100M for bridge packages. Bridge list coming soon. The procurement on a new package would begin Summer 2025 & potentially overlap with Package 21.

**IX. Action Items**

- **SCDOT/ACEC/AGC** to continue ongoing discussion for potential new RFQ language suggestions and/or scoring techniques for SOQ evaluations with stakeholders.
- **ACEC/AGC** to poll and involve members in order to look for examples across industry in order to establish positive potential adoption of PDB, CM/GC, and other methods.
- **SCDOT** will review any internal changes to be made to help assist in the ongoing issues of whose responsibility the oversight of the utility relocation is (DOT vs. Contractor).
- **SCDOT** to continue research & path forward on contract insurance.
- **ACEC** Transportation committee will review letter for design-build prep teams being utilized for ATC reviews.
- **SCDOT** to review VDOT’s language on their RFQ process with a Q&A session.

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- **SCDOT** to review/evaluate the potential for revising ATC process to allow for substitute ATCs when an original ATC is deemed unfavorable.
  - **SCDOT** to provide spray-applied bridge deck waterproofing spec draft for review & will ask for feedback at next meeting from **AGC/ACEC**.
  - **SCDOT** will review polymer slurry manufacturer overview requirements & provide feedback.

**X. Next Meeting Date: 5/15/2024 @ 9:30 AM**

**SOUTH CAROLINA  
DEPARTMENT OF TRANSPORTATION**

**QUALIFIED PRODUCT POLICY FOR  
SPRAY-APPLIED BRIDGE DECK WATERPROOFING SYSTEMS  
FOR PRECAST DECKS WITH ASPHALT OVERLAY**

The following systems apply to waterproofing the top of cored slab and box beam units prior to placement of a hot mix asphalt overlay.

Waterproofing membrane system shall consist of:

- Primer
- One or two coats rapid curing cold liquid spray applied seamless methyl methacrylate, polyurea, or polyurethane methyl methacrylate membrane
- Aggregate keycoat
- Polymer modified tack coat

The total minimum base thickness for the membrane shall be 80 mils measured over peaks. The membrane shall easily accommodate the need for day joints and patch repairs. The membrane shall be able to bridge live cracks up to 1/8 in. in width and meet the criteria specified in Table 2 below.

The membrane water proofing system shall be asbestos-free. The chemical composition of the primer, membrane, aggregate keycoat and tack coat that make up the membrane waterproofing system shall conform to the manufacturer’s specifications for the material. All components shall be approved by the manufacturer as being compatible for use with the specified membrane. Cleaning solvents shall also be approved by the manufacturer for use with the membrane.

The primer shall promote adhesion of the membrane to the concrete surface. Also the primer shall meet the requirements in Table 1.

**Table 1: Primer Material Properties**

Property	Test	Requirements
Gel Time		> 5 minutes
Tack Free Time		< 2.5 hours, max at 77 °F
Adhesion to Concrete	ASTM D7234	≥100 psi minimum and failure in concrete

The membrane shall meet the requirements in Table 2.

**Table 2: Spray Applied Waterproofing Membrane Material Properties**

Solids Content		100%
Stability	ASTM C836	≥ 6 months
Crack Bridging		
(Neat Material + Aggregated Keycoat)	ASTM C1305 (see Note 1)	Pass, no cracking
Extensibility after Heat Aging	ASTM C1522	For information only

Percent Elongation at Break	ASTM D638	≥ 130%
Tensile Strength	ASTM D638	≥ 1,100 psi
Shore Hardness	ASTM D2240 (see Note 2)	≥ 50 Type 00
Minimum Thickness (Membrane only)	ASTM D6132 or other approved method	≥ 80 mils minimum measured over peaks; or ≥ thickness used to pass ASTM C1305 (Whichever thickness is greater)
Membrane Waterproofing System Adhesion to Concrete	ASTM D7234	≥ 100 psi minimum and failure in concrete
Permeance	ASTM E96	≤ 1.0 perms
Note 1: ASTM C1305 shall be modified to 25 cycles at -15°F no failure at 1/8 in. per hour.		
Note 2: ASTM D2240 shall be modified per ASTM C836 section 6.5.		

The broadcast aggregate shall be durable and provide shear resistance to prevent the hot mix asphalt from shoving. Aggregate shall have a minimum Mohs hardness rating of 7 and be approved by the manufacturer.

The tack coat shall consist of either a polymer modified asphalt emulsion, or a polymer modified asphalt binder approved for use by the membrane waterproofing manufacturer and the Engineer. The tack coat shall be either supplied by the membrane waterproofing manufacturer or by a SCDOT approved asphalt emulsion supplier.

A manufacturer requesting approval of a spray applied membrane System shall furnish to the Office of Materials & Research the following:

1. The membrane system material specifications including product performance data.
2. Certified independent test reports demonstrating conformance to Table 2.
  - a. The independent lab shall be recognized by the National Cooperation for Laboratory Accreditation (NACLA) in Construction Materials Engineering and Testing (CMET) or an equal program approved by Research and Materials.
  - b. All testing shall be performed by one independent lab unless approved by the Engineer. Independent test reports must be dated within 2 years from the initial submission.
  - c. Samples for all required testing shall be fabricated at the same time. Test reports shall denote the lot of material as well as the sample fabrication and testing dates.
3. SCDOT shall perform prequalification testing on the membrane.
  - a. Two 10 in. by 10-in. square samples of the proposed membrane with smooth surfaces (no primer or aggregate in the keycoat). The samples shall be a minimum of 80 mils thick or the thickness used to pass the crack bridging requirement found in Table 2.

All submittals shall be certified to be in conformance with the manufacturer’s instructions. Systems qualified by SCDOT per the performance criteria shall be considered for placement on the qualified products list. Membrane waterproofing systems shall remain on the qualified products list for a period of 5 years at which time the manufacturer will be required to submit certified test reports demonstrating conformance to this specification.

Requests to qualify a product should be submitted to:

Caleb Gunter, P.E.  
Structural Materials Engineer  
Office of Materials & Research  
SCDOT  
PO Box 191  
Columbia, SC 29202  
(803) 737-6694  
Email: [guntercb@scdot.org](mailto:guntercb@scdot.org)

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## SPRAY-APPLIED BRIDGE DECK WATERPROOFING SYSTEMS

The following systems apply to waterproofing the top of cored slab and box beam units prior to placement of an asphalt overlay. These requirements replace those in Section 814 of the SCDOT Standard Specifications.

Provide a waterproofing membrane system that consists of:

- Primer
- One or two coat rapid curing cold liquid spray applied seamless methy methacrylate, polyuria, or polyurethane methyl methacrylate membrane
- Aggregate keycoat
- Polymer modified tack coat

Provide one of the following systems:

<b>MANUFACTURER</b>	<b>PRODUCT NAME</b>
<i>Bridge Preservation LLC</i>	Bridge Deck Membrane
<i>FPT Infrastructure (USL Group)</i>	Matacryn Machine
<i>GCP Applied Technologies</i>	Eliminator
<i>Magnolia Advanced Materials, Inc.</i>	MagnoMembrane
<i>Prime Resins Inc (USL Group)</i>	Pitchmastic PMB
<i>The Wasser Corporation</i>	Polyflex

Install the membrane waterproofing system in accordance with the manufacturer's instructions and recommendations. Protect adjacent areas from overspray or other contamination.

The contractor applying the waterproofing system shall be certified by the membrane waterproofing system manufacturer and have at least 2 years of experience in membrane installation. Provide the RCE with written approval of the waterproofing contractor's qualifications at least 30 days prior to application of any system component.

Bridge longitudinal joints between units and transverse joints between spans with reinforcing tape approved by the manufacturer.