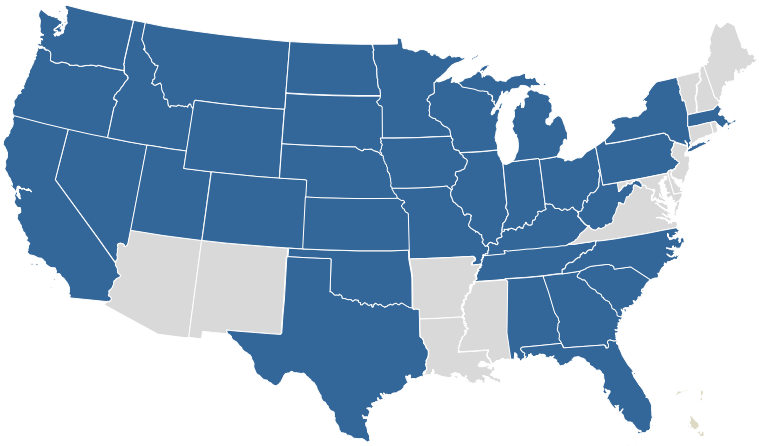
Spring 2022 National Concrete Consortium Highlights

Nashville, Tennessee – April 5-7, 2022



TTCC TPF 5(437)

34 Member States + Illinois Tollway

The 2½-day spring meeting of the National Concrete Consortium (NC^2), hosted by the Tennessee DOT, brought together the expertise and experience of 197 in-person and 75 virtual attendees from 39 states, the District of Columbia, Puerto Rico and Canada; representing DOTs, the Illinois Tollway, FHWA, academia, and industry in an event focused on improving concrete performance and structural concrete applications. Dan Miller, Administrator of the Ohio DOT Office of Materials Management, is the current chairperson. The meeting agenda and technical presentation slides are available on the NC² website (link).

The agenda listed 29 presenters: 8 from state agencies, 5 from FHWA, 9 from academia, 1 from John C. Thune Airport, and 6 from the industry sector.

Meeting presentation highlights include:

- **General Session:**
  - FHWA Program Update
  - MCTC Test Data Analysis
  - PEM Update
  - State Reports - Sustainability Questions (coal ash, carbon sequestration, natural pozzolans, PLC status
  - Election of NCC executive committee
    - Brett Trautman moved that the existing committee have their existing terms extended for a year since there were no meetings the past two years. Andy Naranjo seconded the motion. In favor: unanimous
    - Neal Fannin, District 1/2 rep retired. Eric Prieve nominated Nick Davis, New York DOT, to fill the remaining term of Neal Fannin's position. Darin Hodges seconded. In favor: unanimous.

- **Sustainability Initiatives:**

    - FHWA Environmental Sustainability Initiative
    - LCA Pave Tool
    - Use Phase Impacts in Life Cycle Assessment
- **Sustainable Materials:**
    - A Cement Company Perspective on Environmental Sustainability "Net Zero"
    - Use of Construction Byproducts in Concrete Paving Mixtures
    - Evaluation of Sustainable Materials: NRRA and MnROAD Research
- **Coal Combustion Ash and Other Pozzolanic Materials:**
    - Developments in Specifications and Tests for Fly Ash and Other SCMs
    - Update on NCHRP Project 10-104: Recommendations for Revision of AASHTO M296 Standard Specification to Include Marginal and Unconventional Source Coal Fly Ashes
    - MnDOT Approach to Accepting Coal Combustion Ash
- **State Initiative Spotlights:**
    - REBEL Sensor – Real-Time Concrete Strength Monitoring Without Using Maturity Curve
    - INDOT's Use of Colloidal Silicas
    - Early Loading to Deploy Overlay Joints: Doe it Work?
- **Structural Concrete:**
    - Bridge Deck Cracking Initiatives
    - Research on Evaluation of the Expected Life and Recoating of Silane Water Repellant Treatments on Bridge Decks
    - TPF-5 Construction of Low-Cracking High-Performance Bridge Decks Incorporating New Technology
- **Synthesis Studies:**
    - Updates to AASHTOWare Pavement ME Design Software Affecting Concrete Pavements
    - Shrinkage & Crack Free Bridge Decks
    - Rapid Setting Materials
    - Maintaining Smoothness
    - Development of an Improved Protocol for Structural Evaluation of Dowel Load Transfer Systems for Concrete Pavements
    - In Situ Cyclic Loading of Concrete Pavement Overlays Supported on Geotextile and Asphalt Interlayers
- Field Trip Overview for John C. Tune Airport's Engineered Materials Arrestor System (EMAS)

Future meetings:

- The fall 2022 NC² meeting is planned to be held in Detroit, Michigan – September 27-29.
- The spring 2023 NC^2 meeting is planned to be held in Georgia.