



# August 24, 2023

## Meeting Agenda – Concrete Technical Committee

---

**Location:** ASL Conference Room, Truax Office, Madison & TEAMS  
**Date:** August 24, 2023  
**Time:** 1:00 PM to 4:00 PM

---

### Attendance

#### Committee Members:

##### **WisDOT Members –**

##### *Bureau of Technical Services (BTS):*

- Barry Paye – Director
- Erik Lyngdal – Chief Materials Engineer
- Tirupan Mandal – Concrete Materials Supervisor
- Aleksandra Graff – Concrete Engineer
- Peter Kemp – Pavement Unit Supervisor
- Vacant* – Pavement Policy and Research Engineer
- Adam Johnson – Independent Assurance Program Coordinator
- Mark Finnell – Concrete Engineer Consultant (Behnke Materials)
- Signe Reichelt – Test Procedure Manual Consultant (Behnke Materials)

##### *Bureau of Project Development (BPD):*

- Mark Zander – Construction Standards Engineer
- Craig Pringle – Construction Oversight Engineer

##### *Bureau of Structures (BOS):*

- Aaron Bonk – Chief Structures Design Engineer

##### *Bureau of Aeronautics (BOA):*

- Lucas Ward – Chief Airport Construction Standards

##### *Regional Representatives:*

- Alan Rommel – NE Region TSS Chief – Management Liaison
- Travis Mikshowsky – SW TSS Supervisor – TSS Liaison
- Paulo Florio – SW Region Soils & Materials Engineer
- Matt Smith – SW Region Independent Assurance
- Kurt Flierl – SE Region Construction Project Manager
- Eric D Hanson – SE Freeways Project Manager
- Brent Ferguson – NC Region Independent Assurance
- Devin Harings – NW Region Pavement Engineer
- Matt Bertucci – NE Region Pavement Engineer

##### **FHWA Members –**

- James Pforr – Pavement & Materials/Asset Management Engineer



**Industry Members –**

- Sara Shoenmann – American Council of Engineering Companies Liaison
- Ed Anastas – A.W. Oakes
- Vacant* – BARD Materials
- Paul Mathe – Carew Concrete
- Barry Bohman – Chippewa Concrete Services
- David Meyer – Continental Cement Company
- Dave Stanke – Kraemer North America
- Brian Borowski – Lafarge/Holcim
- Mark LaLonde – LaLonde Contractors
- Brad Diener – Lunda Construction
- John McConahy – Mapei
- Scott Grams – Michels Road & Stone
- Tom Ptaschinski – Ptaschinski Construction Company
- James Palmer – St. Mary's Cement Company
- Benny Walker – Todds Redi-Mix Concrete
- Matt Trierweiler – Trierweiler Construction Company
- Heath Schopf – Vinton Construction Company
- Jackie Spoor – Wisconsin Concrete Pavement Association
- Kevin McMullen – Wisconsin Concrete Pavement Association
- Leslie Hidde – Wisconsin Concrete Pavement Association
- Cherish Schwenn – Wisconsin Ready Mixed Concrete Association
- Matt Grove – Wisconsin Transportation Builders Association
- David Burt – Zenith Tech
- Andrea Breen – Zignego Ready Mix
- Tony Zignego – Zignego Company

**Resource Members (as needed) –**

- Myungook (MK) Kang – Quality Assurance Supervisor – MUG Chair
- Brandon Lamers – BPD Construction Oversight, Standards, & Local Program Chief
- Chad Hayes – BPD Construction Oversight Engineer
- Adam Albers – BTS Concrete Materials Lab Coordinator
- Laura Shadewald – BOS Structures Development Chief
- Vacant* – BTS QMP Engineer
- Zach Dittberner – Michels Road & Stone
- Tom Sand – Vinton Concrete Construction

**Agenda Items**

1. Welcome and Introductions – Mandal (~5 min)
  - Aleksandra Graff – BTS
  - Matt Trierweiler – Trierweiler Construction Company
2. Review of Action Items – Mandal (~10 min)
  - Sawcut depth standard drawing (d/3) needs to be updated to accommodate for tolerances.

**Action Items:**

- **BTS to follow-up on this**



### 3. Charter Update – Mandal (~10 min)

- Meeting Minutes
  - Tech Team Charter has been updated with recent member updates.
  - Meeting minutes will be posted on the WisDOT website link:  
<https://wisconsindot.gov/Pages/doing-bus/contractors/tech-teams/materials.aspx>
  - Going forward, meeting minutes will be sent out after the meeting for members to review, if the members have any comments, they can submit them via email.

#### **Action Items:**

- WCPA to send member information for BARD Materials
- Mandal to update the website with CTC QTR#2 meeting minutes (done)

### 4. ASP6 – Mandal (~5 min)

- Fine and Coarse (Size No. 1 and No. 2 stone) aggregates in Table 501-4 which are listed in 2023 Standard Specifications (SS) have been removed from 2024 SS. This change will affect SS 503 and a few other SS (aggregates and slope-related). An ASP-6 will be issued for November 2023 letting that will reference the AASHTO MP43 standard to allow for fine and coarse aggregates from Table 501-4.

#### **Action Item:**

- Mandal to send draft ASP-6 for review to CTC members (done)

### 5. MOTP – Lyngdal/Albers (~15 min)

- Review AASHTO Standards
  - WisDOT Manual of Test Procedures (MOTP) will be published this year. Adam Albers is the primary author of this manual.
  - At this point, WisDOT will be continuing to edit the MOTP over the winter for one more iteration and will intend for it made final by Spring 2024.
  - Moving forward, when AASHTO and/or ASTM standards are updated, the MOTP will be updated annually coinciding with the SS. Changes will be made in red and updates will be sent via listserv. Older versions will be kept on the WisDOT website where the MOTP will be published.
- CMM Update
  - Test procedures that are in the MOTP will be removed from CMM. WisDOT will send a revised CMM for the industry to review before publishing it.
- Training
  - The use of MOTP will be included in the annual materials training. The Highway Technician Certification Program (HTCP) will also include a brief introduction to HTCP so testing personnel can be more familiar to use the MOTP.



**Action Item:**

- WisDOT to send an updated version of MOTP and CMM to CTC members for review (done)
- WisDOT to follow up on the MOTP location

6. Cement and Fly Ash Supply – WCPA (~15 min)

- WCPA has been monitoring the supply of cement and fly ash in Wisconsin. Currently, there are no cement/fly ash supply issues in Wisconsin. Ready mix sales in Wisconsin were reported 4.2% higher than at the same time last year.
- Cement production capacity increased as Lehigh Cement opened a new plant in Northern Indiana. This alleviated other suppliers and improved cement availability in Wisconsin.
- Columbia Portage and Weston power plants shut down at the same time shortly after the Memorial Day. This caused some issues in a few projects in June. They have been up since then and the issue is now resolved.
- Portage and Edgewater plants will be decommissioned in 2025 and 2026, respectively.
- St. Mary's and Holcim have started to bring slag into the market and alternative sources are also being evaluated.
- WCPA will be looking into the 2024 project data to estimate the projected cement quantities.

7. WHRP Research Updates – Mandal/ Kemp/ Finnell/ McMullen (~15 min)

- 0092-21-03: Evaluating the Impact of Anti-Icing Solutions on Concrete Durability
  - The closeout presentation was last week. The study discussed anti-icing vs. de-icing procedures, their effectiveness, and their impact on concrete pavements.
  - The study found that anti-icing is more efficient and has less chloride ion penetration than de-icing. Brine reduces the amount of chloride used by up to 50%. They also showed that there was less penetration into the concrete.
  - The final report will be available once published. No spec changes in Wisconsin because of the study.
- 0092-22-02: Field Investigation of Dowel and Tie Bar Placement
  - This project was extended for 1 year due to software upgrade issues. The new MIT Scan software (MagnoProof 6) is now available that will account for dowel baskets. Researchers will collect data later in the year.
- 0092-22-03: Timely and Uniform Application of Curing Materials
  - Researchers have monitored and measured three concrete projects. Data collection is almost complete, final report is expected next year.
- 0092-23-03: Chemistry and Performance of SCMs for Wisconsin Concrete Pavement



- Researchers have started the experiments. There have been issues with aggregates. The researchers will be contacted to sort out this issue.
- New Projects Starting in October 2023:
  - Alternative Conditioning Method to Calculate Formation Factor for Wisconsin Concrete Pavement
  - Proactive Prevention of Pavement Buckling
    - More information on these projects will be provided in the next CTC meeting.
- 8. Task Force Updates – Graff/ Finnell (~15 min)
  - Spec Re-Org
    - Significant progress on spec re-org has been made. The updated spec will be sent soon to the task force for review.
  - AASHTO Product Evaluation and Audit Solutions (NTPEP)
    - This task force is on hold for now. The NTPEP cement testing program has changed – from testing quarterly to being more of an audit program with one annual test.
    - Two pilot projects are currently ongoing, WisDOT rep will be on the technical committee.
    - WisDOT will communicate with other (surrounding) state agencies regarding NTPEP audit program implementation and decide if the program will be implemented in Wisconsin.
  - Task Forces on Hold:
    - Fast Track
    - Curb Shear
    - Structure Aggregate
    - Buckling Research
    - PEM Research
      - All task forces are on hold until the spec re-org is complete.
- 9. Concrete Scaling Challenges – Harings (~20 min)
  - NW region had one project last year with scaling on the shoulder and curb & gutter. Another project in the NE region had scaling issues. NW region wanted to check if it was a Statewide issue or just localized to a few projects. Based on the discussion, it seemed not a Statewide issue. WCPA pointed out that the neighboring states have scaling issues. These occur in areas of high moisture and snow/salt accumulation.
- 10. Longitudinal Joint SPV – Flierl/WCPA (~20 min)
  - Longitudinal joint repair drawing needs to be developed to get uniformity across different projects. BTS will work internally with Kurt Flierl to develop the SPV.



11. ASR Testing – Mandal (~10 min)

- The cement lab specialist’s position has been backfilled by Josh Hammer. He is catching up on all the cement, curing compounds, fly ash, and water testing. Once caught up, he will be starting on ASR testing, which may be later this year or at the beginning of next year (testing may take 3 or more months to complete).
- Approximately, 25-29 aggregate samples have been obtained from quarries. BTS will start ASR testing late this year

**Action Item:**

- Mandal to send CTC members contact information for Josh Hammer (done)

12. Concrete Strength – WCPA (~15 min)

- The possibility of extending concrete testing/acceptance beyond 28 days was discussed. The recommendation is to start collecting data on 56-day breaks and if concrete reaches strength later the contractor gets paid.
- Optimized aggregate gradations and aggregate size should factor in the air percentage decision, which needs to look at the air void system. The use of larger and round aggregates can lead to a possible reduction of air by 1% as newer products have smaller bubbles and better air void distribution (ACI guidance).
- Slower strength gains impact construction duration, especially for structures where strength gain is a condition for project progression.

13. Super Air Meter – Finnell/WCPA (~10 min)

- Contractors/consultants need to keep SAM. It is still needed for trial batching.

14. Concrete Overlay Workshop – Mandal

- BTS and CP Tech Center will hold an in-person training on concrete overlays. Details of the workshop will be provided soon. The tentative date is October 18<sup>th</sup>.

**Action Item (for Industry Members):**

- If interested in attending the concrete overlay workshop, please [email Tirupan Mandal \(tirupan.mandal@dot.wi.gov\)](mailto:tirupan.mandal@dot.wi.gov) by September 30, 2023. Priority will be given to DOT personnel, and the remaining slots will be filled by industry members.

**Upcoming Meetings**

2023		
September 12-14, 2023		National Concrete Consortium
<b>November 16, 2023</b>	<b>9:00 am to 12:00 pm</b>	<b>CTC</b>
2024		
January 7-11, 2024		TRB Annual Meeting
January 18-19, 2024		WTBA Contractor-Engineer Conference



January 18-19, 2024		WMRCA Conference
<b>January 25, 2024</b>	<b>9:00 am to 12:00 pm</b>	<b>CTC – in person</b>
February 15-16, 2024		WCPA Annual Meeting
<b>May 16, 2024</b>	<b>9:00 am to 12:00 pm</b>	<b>CTC</b>
April 9-11, 2024		National Concrete Consortium
<b>August 15, 2024</b>	<b>9:00 am to 12:00 pm</b>	<b>CTC</b>
<b>November 14, 2024</b>	<b>9:00 am to 12:00 pm</b>	<b>CTC</b>