



# September 16, 2021

## Meeting Minutes – Concrete Pavement Technical Committee

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**Location:** Zoom Meeting  
**Date:** September 16, 2021  
**Time:** 9:00 am to 12:00 pm

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### Attendance

#### Committee Members:

##### **WisDOT Members –**

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

- Scott Lawry – BTS Director
- Barry Paye – Chief Materials Engineer
- Jim Parry – Quality Assurance Supervisor
- Leslie Ashauer – Concrete Quality Assurance Engineer
- Debra Bischoff – QMP 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):*

- Michael Hall – Construction Standards Engineer
- Craig Pringle – Construction Oversight Engineer
- Chad Hayes – Construction Oversight Engineer

##### *Regional Representatives:*

- Alan Rommel – NE Region TSS Chief – Management Liaison
- Travis Mikshowsky – SW TSS Supervisor – TSS Liaison
- Vacant* – SW Region Soils & Materials Engineer
- Matt Smith – SW Region Independent Assurance
- Kurt Flierl – SE Region Construction Project Manager
- Vacant* – SE Freeways Design/Construction Interface Engineer
- Brent Ferguson – NC Region Independent Assurance
- Devin Harings – NW Region Pavement Engineer
- Matt Bertucci – NE Region Materials Engineer

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

- Tom DeWinter – Airport Construction Standards Chief

##### **FHWA Members –**

- James Pforr – Pavement & Materials/Asset Management Engineer



**Industry Members –**

- Vacant* – American Council of Engineering Companies Liaison
- Ed Anastas – A.W. Oakes
- Barry Bohman – Chippewa Concrete Services
- David Meyer - Continental Cement Company
- Brian Borowski – Lafarge/Holcim
- Mark LaLonde – LaLonde Contractors
- John McConahy – Mapei
- Scott Grams – Michels Paving
- Tom Ptaschinski – Ptaschinski Construction Company
- David McKewin – Sommers Construction Company
- James Palmer – St. Mary’s Cement Company
- Mark Pichler – Stark Paving
- Mike Hammitt – Trierweiler Construction Company
- Heath Schopf – Vinton Construction Company
- Jackie Spoor – Wisconsin Concrete Pavement Association
- Kevin McMullen – Wisconsin Concrete Pavement Association
- Matt Grove – Wisconsin Transportation Builders Association
- Andrea Breen – Zignego Ready Mix

**Resource Members (as needed) –**

- Erik Lyngdal – BTS Concrete Lab Supervisor - Aggregate Tech Committee Chair
- Adam Albers – Concrete Materials Lab Coordinator
- Ryan Ramthun – Michels Paving
- Tony Zignego – Zignego Company

**Guest(s) –**

- Tom Romenesko – CMM Engineer
- Melissa Markquart – SW Region Soils and Materials Engineer

**Agenda Items**

1. Welcome and Introductions – L. Ashauer (~5 min)
  - Review etiquette during virtual meeting
    - No comments
  - Recording of Meeting
    - No objections.
2. Review & Approval of July 15, 2021 Minutes – L. Ashauer (~10 min)
3. 2022 Specification Webinar – L. Ashauer / K. McMullen (~10 min)
  - Plans are in motion to present the specification updates. WCPA will formally host but supported by WisDOT. The webinar will be hosted before the November letting. Date not formalized yet but are working on it. The presentation being made is framed but needs some updates. The WCPA Conference next year will have some workshops related to these updates with a strong emphasis on PEM Updates. The Concrete Pavement



Inspection Training will incorporate these updates as well. HTCP has been brought up to speed and the training coming this year will reflect changes.

4. Proposed ASP 6 Updates – L. Ashauer / M. Finnell (~90 min)

- **Mixing Water**
  - AAHTO T26 is discontinued and ASTM for chlorides was dropped this year. Needed to update with a WisDOT test procedure. The tests performed have not changed but are now fully written out and have not deviated from what has been done in the past. This will be in the CMM and eventually moved to the Manual of Test Procedures. 501 now clarifies that municipal sources are not required to be tested but can be tested if a known issue presents itself.
- **Superplasticizer Slump**
  - Added clarification language about increasing the slump requirements to 9" when a superplasticizer. This will eliminate the need for change orders.
  - Concrete mixtures using aggregate gradations with a max. nominal aggregate size of 1.5" could segregate the mix with superplasticizer. Further discussion needed.
  - Just a reminder, superplasticizers still need to be approved by BTS prior to usage.
- **Air Content Measurement**
  - SAM can now be used in place of a standard Type B air meter. Updates to 501 and Part 7 have been made to accommodate the change.
- **MITScan Reference Plate**
  - Main goal was to incorporate a reference plate, but revisions to the pavement thickness section needed to be made to clarify the language. The goal of the reference plate is to verify the MIT T2/T3 scanner is working properly and diagnose issues. The department's scanner is still being used for acceptance. CMM guidance and Spec Updates will be updated to talk about the reference plate. In addition to the reference plate, the department has adopted ASTM E3209. The ASTM is modified from the test method so it lines up with how WisDOT has been using the MIT scanner. Details will be covered in the CMM. Other modifications to the pavement thickness section included: defining timeframe for measuring, when both plates need to be measured, determining limits for unacceptable pavement and what method to use for Special Units (MIT T2/T3, Probing or Preplacement measurements). The last update within this section concerns unacceptable pavement thickness. Two options: Remove and replace. If less than 100 LF, remain in place but the department will not pay for



that segment of pavement. Unacceptable pavement thickness with lengths greater than 100 LF may be allowed to remain in place but BTS must be involved in that discussion before any agreement is made. CMM will cover this scenario.

- **Lot Sizes**
  - Want to standardize lot and subplot sizes for ease of use and familiarity. It will be 5 sublots per lot for pavements, structures and cast-in-place barrier. Maximum subplot sizes did not change but the lot sizes were adjusted. The goal is to set lots up for F and t testing and make it easier to track.
  - The PCCTEC I manual still references the 'approximately equal' and will need to be updated for the future.
- **Concrete Aggregate Testing**
  - Small Quantities of Class II changed from less than 400 CY placed under the contract to less 50 CY per bid item. This is to account for contractors that could force other contractors to do a full QMP despite some of them having quantities smaller than 50 CY. It also clarifies which acceptance method they would like to use.
  - Did reorg and changed frequency with Class I concrete. Removed cumulative 250 CY from table, makes it difficult to track and the Small Quantity for Class I will cover those quantities. Class II frequency changed. Contractor tests are non-random samples but is not used for acceptance. Department testing will be doing the acceptance testing. A gradation test can span multiple mixture designs when coming from the same plant and same source. There will be training sessions for people to help them understand.
  - Set up a delivery time and testing time frame. Change in conditions will be put into CMM. Class I Structure: the min test for sub/superstructure is to capture differences in timeframes.
  - Added temperature test to Class II testing.
- **Pay Equations**
  - Ran statistical analysis to generate new equations for strength PWL. Aligns more with HMA PWL with the exception that a plateau exists. It will be based on a pay factor rather than a dollar amount. Pay factors will be applied to a standard unit cost. The standard unit costs will be reviewed and finalized before final ASP 6 submittal.

## 5. Fast Track Concrete Task Force – M. Finnell (~10 min)



- Had First meeting the day before to introduce the problem and provide direction for fast track concrete. Had discussion with task force about what the goals will be and how to move forward with the task force.
6. 4 x 4 Concrete Beam Task Force – M. Finnell / J. Parry (~10 min)
- The goal of the task force is to look into using smaller beam sizes when a smaller max nom. aggregate size is present. It will also deal with the logistics of using smaller beams and impact on DOT, contractor and consultant labs. The task force has been postponed until WHRP PEM Phase II study is complete. Will be picked up after the WHRP report is finalized and discussed.
7. Sidewalk Staking – K. McMullen (~10 min)
- This item was brought back to CPTC from BPD. This is bit of an odd issue and it crosses various realms. It's a relatively simple fix and can happen quickly. The issue is more of a guidance and FDM issue. It also could be turned into a special provision if need be. A task force will be set up to further discuss this topic and refine it.
8. Curb Head Details –M. Bertucci/K. McMullen (~10 min)
- NE Region did a region wide inspection of curb heads in medians. Seeing issue on both sides of the median. Cracking occurring all the way to the flowline. Of the 96 curbs observed in the NE Region, 15 of the curbs are shearing off. Potential issues: larger rigid medians break and not enough relief. Built a project with modified expansion materials and detail.
  - Similar observations documented not only in the NE Region but in SE Region as well. Updates to SDD drawings may be the mechanism to enact the change.
  - May need to base expansion detail on island size. Thickened curb edges is a potential solution and economical.
    - Maybe find a project and put the thickened edge in and see how it performs.
    - Need to isolate why mountable curbs are performing well.
    - Check previous research and maybe run some modeling on this issue.
  - Task force to be developed to discuss this issue
9. Driveway Tie Bar Locations – K. McMullen (~15 min)
- Recent revision includes a tie bar that causes constructability issues. Suggested revision is to remove the tie bar. Pete Kemp with Rodney Taylor to review the drawings and suggest edits.
10. Potential Revision to Type A Curb & Gutter SDD – K. McMullen (~10 min)
- The location of the tie bar is placed too close to the surface ( $\leq 3"$ ). This creates a chance for the tie bar to be exposed to the surface. It would be preferable to provide a minimum



of 4” of cover from the surface. The minimum cover underneath the bar needs to larger than the maximum nominal aggregate size of the concrete mixture being placed.

- Contractors already making thicker flanges (pans) to place this dowel bar deeper.

## Action Items

Updates:

1. SAM Task Force / M. Finnell / August 2021 – Determining Core Group
2. Fast Track Concrete Task Force / L. Ashauer / August 2021 – Created & Meeting
3. Curb Head Details / P. Kemp / September 2021 - Discussing
4. MIT T2/T3 Comparison CMM Guidance / L. Ashauer / October 2021 – In Progress
5. 4 x 4 Concrete Beam Task Force / M. Finnell / August 2021 – ON HOLD

New Items:

6. Sidewalk Staking Task Force / L. Ashauer / October 2021
7. Curb Head Task Force / L. Ashauer & M. Finnell / October 2021
8. Driveway Tie Bar Locations & Type A Curb & Gutter / P. Kemp / November 2021
9. Concrete Pavement Approach Detail / P. Kemp / December 2021 Update

## Other Notes

- Pay attention to automated machine grading models with stringless paving. Vertical curvature has provided some ride quality issues.



## Upcoming Meetings

<b>2021</b>		
October 15, 2021	8:00 am to 10:00 am	Fast Track Concrete TF
October 2021		MUG User Group
October 2021		Sidewalk Staking TF
November 12, 2021	8:00 am to 10:00 am	Fast Track Concrete TF
November 2021		2022 Specification Webinar
November 2021		Curb Head Shearing TF
November 2021		SAM Meter TF
December 16, 2021	9:00 am to 12:00 pm	CPTC
December 17, 2021	8:00 am to 10:00 am	Fast Track Concrete TF
<b>2022</b>		
January 9-13, 2022		TRB
January 20-21, 2022		WTBA Contractor-Engineer Conference
March 2022		ACEC
February 3-4, 2022		WRMCA
February 9-11, 2022		WCPA