AASHTO
THE VOICE OF TRANSPORTATION
SUBCOMMITTEE ON MATERIALS

COMMITTEE ON MATERIALS AND PAVEMENTS

2018 Mid-Year Webinar
Thursday, February 1st, 2018
Noon – 2:00 PM MST

TECHNICAL SUBCOMMITTEE 2d
Proportioning of Asphalt – Aggregate Mixtures

I. Call to Order and Opening Remarks North Dakota is no longer a member of this Technical Subcommittee

II. Roll Call (Voting Members – Page 7.) AZ, AR, CA, CO, CT, ID, KS, KY, MO, MT, NV, OH, OK, RI, TN, UT, WA, WI, WY – Greg Milburn/Vice Chair

III. Approval of Technical Section Minutes from 2017 SOM Annual Meeting in Phoenix, AZ Motion: WI, second: MO

IV. Old Business

A. 2017 Concurrent Ballot Items

Item Number:	**28**
Description:	Concurrent ballot item to revise TP 124, Determining the Fracture Potential of Asphalt Mixtures Using the Flexibility Index Test (FIT). Substantial revisions. See Pages 3-7 and 11-14 of the minutes and pages 35-57.
Decisions:	Affirmative: 30 of 34 Negative: 0 of 34 No Vote: 4 of 34

Agency (Individual Name)	Comments	Decision	Response Attachment
Florida Department of Transportation (Timothy J. Ruelke) (timothy.ruelke@dot.state.fl.us)	We still feel samples from cores with one cut face and one compacted face should be identified as such in the test report. Chair Action: This was addressed in section **13. REPORT** of the balloted method. Section 13.1.3 states "The number of cut faces for each specimen tested, if pavement cores were used." Move to publication.	Affirmative	

Item Number:	**29**
Description:	Concurrent ballot item to adopt a new provisional standard, Mix Design of Cold Recycled Mixtures Using Foamed Asphalt. See Pages 8 and 20-30 of the minutes and pages 58-61.
Decisions:	Affirmative: 30 of 34 Negative: 0 of 34 No Vote: 4 of 34

Item Number:	**30**
Description:	Concurrent ballot item to adopt a new provisional standard, Optimum Asphalt Content of Cold Recycled Mixtures Using Foamed Asphalt. See Pages 8 and 20-30 of the minutes and pages 62-69.
Decisions:	Affirmative: 30 of 34

	Negative: 0 of 34 No Vote: 4 of 34

Agency (Individual Name)	Comments	Decision	Response Attachment
Missouri Department of Transportation (Brett Steven Trautman) (brett.trautman@modot.mo.gov)	Affirmative vote with an editorial comment: 1) In Sections 3.2 and 3.3, believe the word "planning" is misspelled. Both sections currently show, "cold planning machine". Recommend changing to "cold planing machine". Chair Action: Make editorial changes. Missouri had the same comment on both item #29 and #30. Changes will be made.	Affirmative	

B. 2017 COMP Ballot Items

Item Number:	**31**
Description:	COMP ballot item to revise TP 107, Determining the Damage Characteristic Curve and Failure Criterion Using the Asphalt Mixture Performance Tester (AMPT) Cyclic Fatigue Tests. See Pages 2,3 and 10 of the minutes and pages 70-128.
Decisions:	Affirmative: 48 of 52 Negative: 0 of 52 No Vote: 4 of 52

Agency (Individual Name)	Comments	Decision	Response Attachment
Pennsylvania Department of Transportation (Timothy L Ramirez) (tramirez@pa.gov)	Editorial comments: 1) In Section 11.2, 2nd line, suggest revising from "of materials' " to "a material's ". 2) In Section 11.18, 2nd line, text is "at least 50 samples per second", but in the 8th line, text is "at least 50 specimens per second". Shouldn't similar text be used in both locations? 3) In Section 11.19, 4th line, suggest revising from "damage characteristic (C versus S curve) curve" to "damage characteristic (C versus S) curve" or "damage characteristic curve (C versus S curve)". 4) In Section 11.20, 2nd line, revise from "(in microstrain)for" to "(in microstrain) for" [i.e. add space between ")" and "for"]. Chair Action: Make editorial changes. Changes will be made.		
Oregon Department of Transportation (Greg Frank Stellmach) (greg.f.stellmach@odot.state.or.us)	In spite of the following comments, I vote yes on the proposed standard as written. The following comments are only for consideration in further development of the standard - I would recommend that in Section 1.2 the dimension be given as 1.0" rather than 0.98". Section 2.1 - PP 60 should be changed to say R 83. PP 61 should be changed to say R 84. TP 79 should be changed to say T378. Note 2 in Section 6.4 and Note 3 in Section 9.1 need to be renumbered. Section 9.1 - Change reference PP 60 to R 83. Note 4 in Section 11.8 and Note 5 in Section 11.13 need to be renumbered. Section 11.13 and Section 11.15 - Change reference TP 79 to T 378. Note 7 has a reference to Table 3, but I think the reference is supposed to be Table 2 Section 11.18 - Is the change of the last sentence to "...50 specimens per second..." appropriate? At the beginning of Section 11.18 it refers to "...at least 50 samples per second." I think that these two phrases are supposed to read the same, whichever way (samples/specimens) is more appropriate. Section 12.2 - Change reference PP 61 to R 84. Section 12.4 - Equation 3 - Should refer to "max E' " Section 12.4 - Equation 6 and Equation 12 are the same equation. Note 6 in Section 12.18, Note 7 in Section 12.19, Note 8 in Section 12.20, and Note 9 in Section 12.24 need to be renumbered. Section 12.33 - There seems to be a grammatical problem "... pseudo secant modulus from for each step..." Section X1.6 - Change reference TP 79 to T 378. Chair Action: Make editorial changes Changes will be made.	Affirmative	

Illinois Department of Transportation (Brian Pfeifer) (brian.pfeifer@illinois.gov)	Section 1.2, how is success defined? It may be more appropriate to state that NMAS greater than or equal to 25.0 mm may experience repeatability issues. Section 3, recommend defining steady state Table 1 load range, shouldn't the range specify a maximum value only?. Currently the seating load in 11.7 is less than the minimum load range in Table 1. Section 10, consider stating a required steel putty strength to better define where the point of full cure occurs. Section 12.4, do VMA and VFA percentages come from mix design or actual test specimens? Section X2, references NCHRP IDEA research. Consider include recommendations from Project 181 final report Chair Action: Refer these comments to author even though this was submitted by ILDOT. Proceed with publishing. Editorial changes will be made, Oak will contact Illinois about their questions.	Affirmative	
Missouri Department of Transportation (Brett Steven Trautman) (brett.trautman@modot.mo.gov)	Affirmative vote with a comment: 1) Section 11.18, the second sentence, it refers to loading at a rate of "at least 50 samples per second". The last sentence in Section 11.18 refers to "50 specimens per second". The wording should be consistent throughout the specification. Recommend using the word "specimen". Chair Action: Agreed. The terminology used elsewhere “asphalt mixtures” will be used. Editorial changes will be made, Oak will contact Illinois about their questions.	Affirmative	

Item Number:	**32**
Description:	COMP Ballot item to adopt a new provisional standard, Determining the Dynamic Modulus for Asphalt Concrete Using the Indirect Tension Test. See Pages 8-9, 18-20, and 31-34 of the minutes and pages 129-148.
Decisions:	Affirmative: 48 of 52 Negative: 0 of 52 No Vote: 4 of 52

Agency (Individual Name)	Comments	Decision	Response Attachment
Oregon Department of Transportation (Greg Frank Stellmach) (greg.f.stellmach@odot.state.or.us)	Section 1.1, and Section 4.1 - Consider using the same language as the title "indirect tension test" to be more consistent. Figure 3 - Dimension of the steel rod on the bottom plate may be inaccurate. Seems like the dimensions of the steel rod in the top left corner should be the same as the steel rod in the bottom right. Section 9.2.1 - Misspelling "gage points" in the third sentence. Table 5 â€“ Misspelling "Loose gage point" after "Standard Error > 10%". Misspelling "Move gage points" after "Uniformity > 30%". Chair Action: Make editorial changes. Gage is not necessarily misspelled. Oak will look to Publications to see if there is a standard spelling.	Affirmative	
Illinois Department of Transportation (Brian Pfeifer) (brian.pfeifer@illinois.gov)	Section 1.1, consider adding the word "up" between "sizes" and "to" Note 3, consider adding year of publication to Kim, et al Chair Action: Make editorial changes. Changes will be made.	Affirmative	
Missouri Department of Transportation (Brett Steven Trautman) (brett.trautman@modot.mo.gov)	Affirmative vote with a comment: 1) Is it necessary to insert the word "concrete" after the word "asphalt" in the title and the scope? Most specifications that have switched from "HMA" to be inclusive of warm mix asphalt have just used the word "asphalt". 2) Section 4.2 has a reference to "HMA" instead of "asphalt". Chair Action: See action for same comment above. “Asphalt Mixtures” is the term being used now.	Affirmative	

Item Number:	**33**
Description:	COMP Ballot item to adopt a new provisional standard, Preparation of Indirect Tension Performance Test Specimens. See Pages 8-9, 18-20, and 31-34 of the minutes and pages 149-160.
Decisions:	Affirmative: 48 of 52 Negative: 0 of 52

	No Vote: 4 of 52

Agency (Individual Name)	Comments	Decision	Response Attachment
Oregon Department of Transportation (Greg Frank Stellmach) (greg.f.stellmach@odot.state.or.us)	Section 2.1 and Note 2 - PP 60 should be changed to say R 83. Section 2.2, Section 3.2, and Section 9.2 - Was there any discussion about using AASHTO R 67 instead of ASTM D 5361 as the procedure for taking asphalt cores? Oak believes we should be referencing the appropriate AASHTO standards, if they exist. Section 6.1, Note 2, Section 9.1, and Section 10.5.1 - I think that there is some confusion between these four references. Section 6.1 indicates the SGC should be able to make specimens a minimum of 150 mm. Section 10.5.1 says that the specimen should be cut into 2 pieces with thickness 38 to 50 mm. Note 2 says that the specimen height should be based on AASHTO PP60-14 (R 83). R 83 describes cutting the test specimen into 3 pieces. Section 9.1 says to prepare 2 gyratory specimens to produce 4 test specimens. It seems unclear whether or not the specimen is supposed to be cut into 2 pieces or 3. Specimens should be cut into two pieces as directed in section 6.1. Reference to R83 has to do with the uniformity of the specimen and how a lab can evaluate their chosen height to ensure it provides a uniform specimen. Section 10.1.2 - PP 60 should be changed to say R 83. It doesn't look like there was an "Appendix A" in either PP 60 or R 83. Note 2 and Note 4 - It doesn't look like there was an "Appendix B" in either PP 60 or R 83. Appendices are lettered X1 & X2, as opposed to A & B. Table 1 - Is the Thickness Specification appropriate? It is hard to read with the edits left on, but I thought that it was supposed to say " 38 to 50 mm". Should this table look more like Table 1 from R 83? It seems like the term used should be "height" rather than "thickness". Should the standard deviation of the diameter be listed as < 0.5 mm like it does in R 83? Is the standard deviation of the diameter necessary since 10.5.3.1 doesn't list it as a requirement for rejection? Section 2.2 - ASTM D3549 could be deleted since the references to it have been deleted. Section 10.5.3.1 â€“ Should check this again to make sure it says what it needs to say. As edited it seems to say that only one diameter measurement is supposed to be taken since the requirements of D 3549 were deleted. If only one measurement is taken, there is no reason to refer to the "average diameter" since there wouldnâ€™t be an average. Do they want to reject specimens that exceed the standard deviation of diameter. If they want to reject this should be stated. Section 10.5.3.2 â€“ Should check this again to make sure it says what it needs to say. The height is measured to the nearest 0.25 mm, but the standard deviation is supposed to be less than 0.25 mm. Iâ€™m not sure how easy it is to achieve a standard deviation that is the unit that you are measuring with. Not sure that the sentence "Reject specimens not meeting average and standard deviationâ€¦" is clear enough. In Table 1 average diameter is the only average listed, but I think in this section it is actually referring to "average thickness/height". The last sentence in this section about reporting average diameter and thickness doesnâ€™t completely make sense since this section is only about measuring the thickness. This section should probably have a "Record the average thickness" statement comparable to Section 10.5.3.1. Chair Action: Make editorial comments, refer dimensional questions to author for clarification. Changes will be made.	Affirmative	
Illinois Department of Transportation (Brian Pfeifer) (brian.pfeifer@illinois.gov)	Section 3.1, consider changing "minimal" to "minimum" Chair Action: I will consider it.	Affirmative	

Item Number:	**34**
Description:	COMP Ballot item to adopt a new provisional standard, Developing Dynamic Modulus Master Curves for Asphalt Concrete Using the Indirect Tension Test. See Pages 8-9, 18-20, and 31-34 of the minutes and pages 161-169.
Decisions:	Affirmative: 48 of 52

	Negative: 0 of 52 No Vote: 4 of 52		
Agency (Individual Name)	**Comments**	**Decision**	**Response Attachment**
Oregon Department of Transportation (Greg Frank Stellmach) (greg.f.stellmach@odot.state.or.us)	Section 3.2 - Do they need to add the definition of Poisson's effect that was added to the Preparation of IDT Specimens procedure? Section 10.2.1 - Should say "Select the Reference Temperature" Chair Action: Make editorial changes and add Poisson's effect to Terminology section. Changes will be made.	Affirmative	
Illinois Department of Transportation (Brian Pfeifer) (brian.pfeifer@illinois.gov)	Section 9.1.2, are VMA and VFA from mix design or from actual test specimens? Section 10.1.1, references MEPDG, but other areas reference Pavement ME Chair Action: Make editorial changes. Refer questions to author. Oak will ask the author about this.	Affirmative	
Missouri Department of Transportation (Brett Steven Trautman) (brett.trautman@modot.mo.gov)	Affirmative vote with a comment: 1) Recommend removing the word "concrete" from behind the word "asphalt" where the words "hot mix" were removed. Need to be consistent throughout the specification and to be consistent with other AASHTO asphalt specification. Chair Action: See action for same comment above. "Asphalt Mixtures" will be used.	Affirmative	

C. Reconfirmation Ballot (All reconfirmed) All affirmative votes, no negatives, no comments. All will be reconfirmed.
   i. T 283
   ii. MP 23
   iii. PP 77
   iv. TP 108
   v. TP 125
D. Task Force Reports?
   i. No current task forces.

V. New Business

A. Research Proposals
B. ~~AMRL~~ AASHTO re:source/CCRL - Observations from Assessments?
   i. T 312 – "if required" language regarding top plates in SGC's. Email from Sonya Puterbaugh indicates this is still an issue so I will work on some clarifying language. "If required" appears in sections 9.1 and 9.2; language was the result of the original manufacturing of gyratory compactors; when different models came out, with ram on the bottom, the "if required" language came into play because the first devices had the ram on the top; Oak will try to develop some short and sweet language to clarify the requirement, such as "Heat the compaction surfaces of molds and base plates in accordance with manufacturer's recommendations"; need to be mindful that manufacturer's recommendations may not be available in all cases; this should be an editorial change since it's just for clarification purposes; Oak will be in touch with proposed language in the next couple of weeks
C. NCHRP Issues None mentioned.
D. Correspondence, calls, meetings None.
E. Proposed Revisions to Standards None.
F. Proposed New Task Forces None.
G. ETG Update Matt Corrigan was unable to make the meeting today. The work on M323 is still ongoing.

VI. Open Discussion

Randy West spoke on the NAPA mix design initiative. Many in the group chimed in on the topic.

VII. Adjourn Motion:

OH, second: WA. Meeting adjourned at 2:00 p.m.EST

From: Metcalfe, Ross (Oak) [mailto:rmetcalfe@mt.gov]
Sent: Thursday, September 22, 2016 3:19 PM
To: SOM_TS2d@aashto.org; Georgene
Cc: Evan Rothblatt; Katheryn Malusky @ Work
Subject: AASHTO T 312

All,

Apologies for the earlier mail, I hit send to fast. I'm writing to you all today to seek assistance on a question about the subject test method. I received a query asking for clarification on sections 9.1 and 9.2 of T 312. Specifically the reference to "(if required)" :

9.1. When the compaction temperature is achieved, remove the heated mold, base plate, and upper plate (if required) from the oven. Place the base plate and a paper disk in the bottom of the mold.

9.2. Place the mixture into the mold in one lift. Care should be taken to avoid segregation in the mold. After all the mix is in the mold, level the mix, and place another paper disk and upper plate (if required) on top of the leveled material.

There appears to be some confusion about what the "if required" is in reference too. The question comes from the interpretation that this is at the agency's request, i.e. if the Agency requires the upper plate or not.

My thought is this is referring to the fact that not all Superpave Gyratory Compactor manufacturers use a "top plate". As an example, Pine Instrument Company's AFG2 model uses what they refer to as a "mold top" which isn't a plate at all that is rotated into position and is secured by a tab/slot mechanism. Another example would be the Troxler Model 4140 which uses a mold and a "puck."

I haven't been able to trace the history of T 312 back past a few years and this is in all the versions. I see that Bob Lutz from AASHTO RE:source has already replied stating that my interpretation is correct. Is everyone else in agreement?

Thank you for your time and attention,

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