AASHTO Subcommittee on Materials

Technical Section 1c
Aggregate Materials

Mid-year meeting via webinar
2 PM EST, March 19, 2014

Meeting Agenda

I. Call to Order/Opening Remarks/ General Business:
   a. Call to order at 1:07 PM (CST)by Scott Seiter, Chair
   b. Brian Johnson reviewed ground rules and showed on webinar format

II. Roster:
   a. Attendance record will be based on e-mail submission.
   b. Attendees: send an e-mail to bjohnson@amrl.net

Attendee	Organization	Attendee	Organization
Scott Seiter	Oklahoma	David Horhata	Florida
Bryce Simons	New Mexico	Mark Gregory	Florida
Chris Strickland	Alabama	David Webb	Florida
Lyndi Blackburn	Alabama	Brian Hunter	North Carolina
Ron Horner	North Dakota	Chris Peoples	North Carolina
Peter Wu	Georgia	Mark Felag	Rhode Island
Georgene Geary	Georgia	Amir Hanna	NCHRP
Marilyn Bradley	New York	Jan Prowell	CCRL
Richard Bradbury	Maine	Haleh Azari	AASHTO
Oak Metcalfe	Montana	Maria Knake	AASHTO
Andy Babish	Virginia	Bob Lutz	AASHTO
Mike Santi	Idaho	Mario Paredes	AASHTO
Tim Ramirez	Pennsylvania	Russell Dabbs	AASHTO
Michael Polodna	Washington	Evan Rothblatt	AASHTO
Stephen Senior	Ontario	Brian Johnson	AASHTO
Amanda Dees	Kentucky		

III. Approve August 2013 TS meeting minutes.
Motion Rhode Island (Felag), Second New Mexico (Simons). Motion passed, minutes approved.

IV. Old Business
Had 6 items on the last ballot; last 2 items were accidentally combined into one (minor mix up) however it appeared from the comments and votes that this was not an issue and everyone voted accordingly. Chair approached call to focus on discussing negatives and specific comments. Notes were added ("Action by Chair:") if ballot items were affirmatives w/ editorial, to explain how the comment was address and what action was taken.

Item 9 – SOM Ballot to revise T21

2 negatives, 3-4 editorial comments. Chair thought best not to publish the changes this year, and instead have another ballot to address the changes. Chair discussed the negative with comment from RI (Felag) to better understand the issue and how to resolve. Primarily dealt with footnote not referencing changes, thus could remove the footnote altogether (if equivalent). Alternatively the ASTM equivalent C40 allows dual units while AASHTO T21 does not; in this case the footnote could stay, explaining this difference. While RI voted negative it is more of an editorial in nature (explaining the footnote), and therefore willing to withdraw the negative.

Chair: "The value stated in SI Units is the standard." T21 does not have this; if we add this language it could potentially address the issue.

There was a consensus that there does not seem to be enough in the standard to require dual units; Just document where this occurs.

AMRL recommendation to have dual units. ASTM C40 shown as an example. Many states typically use inch-lbs for measurements. GA noted that a 2008 version of T21 included dual units.

Chair also mentioned comment from KS, stating that there are 2 procedures listed in T21 (most states are using the second procedure).

Overall the Chair feels a re-balloting would provide an opportunity to resolve all the comments and negatives.

Action Item: tech section ballot will be sent out this spring. (In the meantime will publish the existing standard as is for HM-34)

Item 12a – SOM ballot to revise T248

NJ (Sheehy) comment about use for the word friable. In this ballot item there was language included for reducing samples that were not completely dry, and friable was used to explain the moisture condition. This was contested as it did not properly identify the condition. Chair agreed to revise the wording (see "Action by Chair" below)

a. 2013 SOM Ballot Items:

Item Number:	**8**
Description:	SOM ballot item to revise T 19 - Section 5.5.1. See pages 2, 13, and 34 of the TS 1c minutes.
Decisions:	Yes: 46, No: 0, No Vote: 7
No comments received.	
Item Number:	**9**
Description:	SOM ballot item to revise T 21 -" Sections 1.1, 4, 9, and 10. Designate the glass color standard procedure as the standard method. See pages 2, 3, 13, 14, and 35 - 40 of the TS 1c minutes.
Decisions:	Yes: 44, No: 2, No Vote: 7
Affirmative votes with comments:	
Virginia Department of Transportation (Charles A. Babish) (andy.babish@vdot.virginia.gov))	In section 1.1, it is talking about two procedures. The additional language makes it seem like there is a preferred method. If this is so then the wording in the second line in section 1.1 should be changed

	from "one standard procedure" to "The standard procedure" In section 4.1 "Glass color standard" should be changed to "Glass color standards" or " Glass color standard plate". Five colors are needed for this comparison. The numbering needs correcting in 4.1.1.
New York State Department of Transportation (Robert A Burnett) (bburnett@dot.state.ny.us)	The intended change, to designate the glass color standard procedure as the standard method, is fine. There is a pre-existing issue with T 21 in that the role of the Organic Plate in the method is not clear. It is not mentioned in the Apparatus Section; it appears for the first time in Section 9.1. Prior to that, only the Gardner Color Standard is mentioned. And then finally, in Section 10.1, the Organic Plate #3 becomes the color by which the results are judged, with the Gardner number in parentheses. The Organic Plate ought to be added to the Apparatus section, at least.
Missouri Department of Transportation (David D Ahlvers) (david.ahlvers@modot.mo.gov)	In section 1.1 add reference to section 9.2 after alternate method.
Kansas Department of Transportation (Richard E. Kreider) (richard.kreider@ksdot.org)	KDOT performs this test using the standard color solution procedure. It seems questionable to deem one the "standard" procedure and one an "alternative". I think by webster's definition, they are both alternative ways to perform the same procedure. My only concern would be when our lab fails a sample, will a producer argue that we're not running the "standard" procedure so our test is invalid?
Negative votes with comments:	
Kentucky Transportation Cabinet (Allen H Myers) (allen.myers@ky.gov)	The proposed changes do not serve to improve the standard. Alternately, we suggest totally removing the "standard color solution" procedure. Eliminating this procedure could be considered an improvement or advancement of the method. If the user desires to continue performing this option, the previous version of the standard can be referenced. As another suggestion, to achieve essentially the same result, the following sentence could be added to the end of Section 1.1: "Either method is equally acceptable and capable of identifying that organic impurities may be present.". The balance of the method could remain unchanged.
Rhode Island Department of Transportation (Mark E. Felag) (mfelag@dot.ri.gov)	Footnote on title and reference at the end of the specification is used if there is a difference in the standards and to note the differences. If there is no difference then I would suggest removing the footnote from the standard title and at the end of the specification. On a related note.....Title of ASTM is now changed to allow either units to be used....C 40/C40M-11. The AASHTO does not mention this. In order for this to be equivalent allowing either units you need to add the ASTM Section 1.2 stating that either unit are to be regarded separately as the standard. My recommendation for both comments above would be to: 1) Leave it for this year by removing the footnote but leaving the designation as is (this would resolve my negative). 2) For next year's ballot to include the ASTM section 1.2 and change the AASHTO designation to T 21M/T 21 - 15.
Item Number:	**10**
Description:	Concurrent ballot item to revise T 27 - Sections 8.1 and 8.6. See pages 3 and 41 of the TS 1c minutes.
Decisions:	Yes: 46, No: 0, No Vote: 7
Affirmative votes with comments:	
Virginia Department of Transportation (Charles A. Babish) (andy.babish@vdot.virginia.gov)	Agree with the following change: Section 8.1 - change "Determine and record the mass of material that will be placed on the sieves to the nearest 0.1 percent of the total original dry sample mass." to "Determine and record the mass of material that will be placed on the sieves to the accuracy of the balance as defined in Section 6.1."

	Action by Chair: Agreed with the comment, editorial change made.
Item Number:	**11**
Description:	Concurrent ballot item to revise T 85 â€“ Section 8.4. See pages 4 and 42 of the TS 1c minutes.
Decisions:	Yes: 46, No: 0, No Vote: 7
Affirmative votes with comments:	
Virginia Department of Transportation (Charles A. Babish) (andy.babish@vdot.virginia.gov)	In section 8.4, Agree with the intent; however, the wording is not as clear as it could be. **"**Maintain the water level in the bath at the overflow outlet**"** does not say the water has to be level with the outlet. I think it should read "Maintain the water level in the bath to the overflow outlet" or perhaps, "Maintain the water level in the bath at the maximum overflow depth to obtain a constant water level throughout the test." **Action by Chair: agreed with the suggested language, editorial change made.**
Item Number:	**12a**
Description:	Concurrent ballot item to revise T 248 â€“ Revisions recommended by WAQTC: Revise section 5.2, add a new section 5.3. Revise section 10.1.2. Figures 2, 3 will need to be revised by AASHTO publication staff to agree with revision. See pages 5, 17, 18 and 43 â€“ 49 of the TS 1c minutes.
Decisions:	Yes: 45, No: 0, No Vote: 8
Affirmative votes with comments:	
Virginia Department of Transportation (Charles A. Babish) (andy.babish@vdot.virginia.gov)	Agree with the following recommended changes: Section 5.3, fourth sentence - change "dry it until it" to "dry the sample until it" **Action by Chair: agreed, editorial change made.** Section 5.3, sixth sentence - change "contemplate" to "to be performed" **Action by Chair: no change made.** Section 10.1.2 - change "After the sample has been rolled a sufficient number of times, a minimum of four times, so that is is mixed thoroughly," to "After the sample has been rolled a minimum number of four times or until the sample is thoroughly mixed,". This statement as written is not clear. **Action by Chair: agree that the balloted language is awkward, but disagree with the suggested language. The word, "or" could be interpreted to mean that fewer than four would be allowed. No change made.**
New York State Department of Transportation (Robert A Burnett) (bburnett@dot.state.ny.us)	In T 248, since a new Note 2 was added in Section 5.3, the former Note 2 and its reference in Section 7.1 need to be changed to Note 3. **Action by Chair: agreed, editorial change made.**
New Jersey Department of Transportation (Eileen Sheehy) (eileen.sheehy@dot.state.nj.us)	NJDOT objects to the use of the term "friable" in Section 5.3. We use the term to classify coarse aggregate that is of unacceptable quality in that it breaks apart easily. We would prefer that the third sentence of 5.3 be changed to read, "When Method A is desired and the sample is damp or shows free water, dry it until it appears dry or until clumps can be easily broken by hand" and eliminate Note 2. **Action by Chair: The term, "friable" is used in some standards to refer to a deleterious material. Agree to remove "friable" with other minor editorial changes, but will retain note 2 to provide guidance on proper moisture condition.**
Rhode Island Department of Transportation (Mark E. Felag) (mfelag@dot.ri.gov)	T 248 - We look forward to the results of the comparison data by WAQTC.
Item Number:	**12b**
Description:	Concurrent ballot item to revise TP 77- Revisions recommended by New Mexico, as presented at TS meeting. See pages 6, 21 â€“ 32, and 50 â€“ 64 of the TS 1c minutes.
Decisions:	Yes: 45, No: 0, No Vote: 8
Affirmative votes with comments:	

New York State Department of Transportation (Robert A Burnett) (bburnett@dot.state.ny.us)	In TP77, Note 4 should reference Sections 8.3 and 8.4, and not 8.2. Section 8.8 should reference Section 8.4, not 8.3. **Action by Chair: agreed, editorial change made.**
Georgia Department of Transportation (Georgene M Geary) (ggeary@dot.ga.gov)	In TP77, part of section 3.4 could be revised as follows: "A graphical method and source/aggregate specific correlation method are shown in the Appendix..." The existing language is "A graphical method and an aggregate specific correlation method are shown in the Appendix..." **Action by Chair: agreed, editorial change made.**

b. Task Force Reports:

Chair spoke with the Task Force leaders as they could not attend the call:

TF 11-01 – review the procedure of T112

Came about due to AMRL comments. Balloted a year ago, a number of comments received and are working on redrafting the standard with the comments for upcoming ballot.

TF 13—01 – review the AIMS standards TP81 and PP64

Tasked with reviewing published research using AIMS and recommend revisions. The feedback would then keep the provisional standard moving forward. At TRB the mineral aggregates council requested to join the task force (chair limited to 5-6 people to join). There should be good feedback from this.

V. New Business:

a) NCHRP Issues: 2 NCHRP projects related to aggregates:

i. NCHRP 04-35, "Enhanced Test Method for Specific Gravity and Absorption of Coarse and Fine Aggregate". Project is ongoing.

ii. Pooled fund solicitation 1337, "Real-Time Quality Control Monitoring and Characterization of Aggregate Materials in Highway Construction using Laser Induced Breakdown Spectroscopy (NCHRP IDEA Project 150).

Amir Hannah – have looked at unbound layers, developing models for relationships between modulus and parameters used in this process for MEPDG. Don't think there is much directly related to aggregates. Issue is that they are not getting enough feedback for research needs from this tech section and others for research needs statements. Received approximately 103 research needs statements (typically received 150 or so). This is something the tech sections need to address prior to the next SOM meeting. Amir volunteered to review drafts and assist anyone who wants to submit a research needs statement.

Babish (VA): is this the correct TS to discuss using recycled aggregate products (recycled materials for pavement structures)? (answer: yes). VA has a research arm and has been

looking into using recycled products in paving structures and sees this as the direction of things to come.

b) Correspondence, calls, meetings, etc:
Haleh Azari working on precision and bias statements for a number of standards (T11, T30 and others). Will send along the reports with the recommendations for revisions to the stewards.

General discussion about studies conducted by NM, VA, and GA about inverted pavement projects (pavement structures comprised of unbound aggregate with HMA on top). Cannot be designed with MEPDG. GA Report to be issued soon; will send to Scott Seiter who will then distribute to the tech section. GA looking to conduct a pooled fund study to further this research. Potentially do a synthesis of this work through TRB.

c) Proposed New Standards:
n/a

d) Proposed New Task Forces:
n/a

e) Standards Requiring Reconfirmation: Expect TS ballot

Standard	Description	Stewards
M 45-06(2010)	*Aggregate for Masonry Mortar*	DC, NM
T 2-91(2010)	*Sampling of Aggregate*	AL, ND
T 96-02(2010)	*Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angles Machine*	FL, NC
T 113-06(2010)	*Lightweight Pieces in Aggregate*	FHWA, DC
T 210-10	*Aggregate Durability Index*	VA
MP 16-10	*Reclaimed Concrete Aggregate for Use as Coarse Aggregate in Hydraulic Cement Concrete*	FL, IA
TP 81-12	*Determining Aggregate Shape Properties by Means of Digital Image Analysis*	None assigned

f) Standards for possible TS revision ballot:

T 21	*Organic Impurities in Fine Aggregates for Concrete:* Resolve/address comments from SOM ballot.	ID

g) Other discussion:

(NM) has recently completed an inverted pavement project and while its cost was approximately 12% lower than the conventional pavement section, it is doing very well. (GA) says there will be a report coming out shortly with their research and Virginia's. Scott wants to know what the intention is. (NM) thinks it would be appropriate to sit down and determine what documents are needed. (VA) asked what the thickness of the hot-mix layers used by GA and NM. (GA) used 3.5" and (VA) used 3". (VA) asked if the hot-mix layer is bound to the unbound aggregate. (NM) says no. (GA) offers to send the research to Scott and he can send it to the committee. Also floats the idea of a pooled fund study. Scott proposes a synthesis through TRB. (VA) suggests the joint committee on pavements, since there is no universally accepted procedure or design method for this. (GA) agrees and says that that committee is looking for research ideas.

h) Adjourn

TS 1c Meeting Summary

Meeting Date:	March 19, 2014	
Items approved by the TS for Subcommittee Ballot:		
Standard Designation	**Summary of Proposed Changes**	**Subcommittee Only or Concurrent?**
T 21	• Address units situation and ballot this spring	Tech Section
M 45-06(2010)	• Ballot for re-approval	
T 2-91(2010)	• Ballot for re-approval	
T 96-02(2010)	• Ballot for re-approval	
T 113-06(2010)	• Ballot for re-approval	
T 210-10	• Ballot for re-approval	
MP 16-10	• Ballot for re-approval	
TP 81-12	• Ballot for re-approval	
New Task Forces Formed		
Task Force Name	**Summary of Task**	**Names of TF Members**
	•	
Other Action Items		

These are from 2013:

- T 2 will be re-written as an A standard by Cecil.
- T 96 is being reviewed to determine whether or not it should be revised and balloted as an A standard.
- T 112 is being worked on based on negatives and comments from a TS ballot. A ballot is expected to be issued in 2014.
- Haleh Azari (AASHTO) is working on precision estimated for T 11, T 96, and T 304. This will be discussed at the mid-year web meeting.
- Work on making the water bath temperatures in T 84 and T 85 the same as the ones specified in T 166 and T 209.