

# WAQTC QAC COMMITTEE MEETING AGENDA

**LEADER:** Garth Newman, ITD  
**FACILITATOR:** Desna Bergold  
**RECORDER:** Desna Bergold

**DATE:** JAN. 30, FEB. 1 THRU 3, 2012  
**TIME:** DAILY BEGINNING 1:00 PM JAN. 30TH  
**LOCATION:** Reno NV

**ATTENDEES:**

Garth Newman, ITD	Greg Christensen, AKDOT & PF
Wendy Tripp, UDOT	Misty Miner, MDOT
Linda Hughes, WsDOT	Alan Hotchkiss, CDOT
Ryan Hixson, FHWA	
Desna Bergold, DB Consulting	

**ABSENT:**

Sean Parker, ODOT  
 Brian Legan, NMDOT

**MEETING ITEMS:**

**AASHTO ITEMS**

1. AASHTO T 40 safety and liability issues (from 6/11 QAC teleconference) – propose T 308 disclaimer
2. AASHTO T 248 – 2011 revisions – changes to mixing language (from Billings)
3. AASHTO T 335 – changes made to FOP in Billings – Table 1 (cumulative) Notes 1 and 2 (sieve, sieves)
4. AASHTO T 166 still has 77 ±1.8° T 209 has changed to ±2°
5. AASHTO T 85 – consistent soaking time – Alan (email)
  - a. In SIGNIFICANCE 1.1 is states “approximately 15 hours” for the soak time.
  - b. In TERMINOLOGY 3.1.2.3 ... “approximately 15 hours”
  - c. In SUMMARY 4.1...”approximately 15 hours”
  - d. In SIGNIFICANCE & USE 5.3 ... “approximately 15 hours”
  - e. In PROCEDURE 8.1... “15-19 hours”
  - f. In PRECISION & BIAS 11.1... “15 hours minimum”
  - g. Address drying beyond SSD
6. AASHTO T 84 has same soaking issues
7. AASHTO T 312 – mold tolerance – Garth (email)
8. AASHTO T 231 -6.2.1 contradiction with Table 1 – Garth (email)
9. T 99, T 180, T 224, & T 272 – white paper sent by Garth
10. WAQTC should introduce TM 8 as an AASHTO Test method – executive committee July 2011 (Tom Baker) – revisions for backscatter (Sean email)
11. TP 68 Density of In-Place Hot Mix Asphalt (HMA) Pavement by Electronic Surface Contact Devices needs to be proposed as Standard or it may be deleted - executive committee July 2011 (Tom Baker)
12. Constant mass definition in AASHTO – list of all references in AASHTO – start with one tech section per year for consistent definition
13. Unifying the concrete test methods. T 121, T 152, T 23; i.e. ‘When to rod or vibrate, what screen to use to wet sieve...’ – Greg

**WAQTC ITEMS**

14. FOP Style guide
15. Formatting WAQTC TMs – short v AASHTO
16. Short form revision date i.e. FOP for AASHTO T 2 (11) – Garth
  - a. Referencing revision date in the title
17. Asphalt 2 Module – Sean and Wendy –

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AASHTO T 40 safety and liability issues	<p>This committee feels that the Standard statement in ASTM D 140 1.3 referenced from T 40 sufficiently covers the safety and liability issue.</p> <p>Each state may want to discuss this with their safety officers.</p> <p><i>Nothing needs to be addressed.</i></p>	
AASHTO T 248 – 2011 revisions	<p>The changes proposed to the AASHTO SOM were not approved in committee as there were too many questions. These changes need to be resubmitted.</p> <p><i>Need the comments of AASHTO members to determine if revisions are required. Bryce Simons (championed for Cole Mullis) will try to provide those.</i></p>	Desna Bergold
AASHTO T 335	<p>These changes were recommended from revisions to WAQTC FOP's.</p> <p>Add 'Cumulative' to the title of the second column in Table 1 to reflect that the sample includes all the material retained above the No. 4 sieve.</p> <p>In Note 1 remove the word 'sieves' leaving just the word 'sieve' because in Method 1 the only sieve that the sample can be washed over is the No. 4 sieve. In Note 2 remove the word 'sieve' leaving just the word 'sieves' because in Method 2 there are multiple sieves the sample can be washed over. As the Notes have different numbers it is appropriate that they are specific to the section they are referencing.</p> <p><i>Changes will be sent to the Executive Committee (EC) for approval</i></p>	Garth Newman
AASHTO T 166	<p>These changes were recommended because of the changes to T 209.</p> <p>The temperature range references should be changes from <math>\pm 1.8^\circ</math> to <math>\pm 2^\circ</math> to reflect the accuracy of the thermometer used.</p> <p><i>Changes will be sent to the EC for approval</i></p>	Garth Newman
T 84 and T 85	<p>Alan Hotchkiss prepared proposed changes to these test procedures because they reference the soaking time in water as approximately 15 hours many times. The actual soaking time in the procedure is 15-19 hours. The committee reviewed all the references to time frames and concluded that in many instances stating that the soaking is for 'the required' time saved needless and somewhat contradictory repetition. See proposed procedure.</p> <p><i>Changes will be sent to the EC for approval</i></p>	Garth Newman
AASHTO T 312 – mold tolerance	<p>Garth Newman has concerns with the tolerance of the 'in use' molds. He noted that the 150.2 mm inside diameter allowance is not consistent with other requirements that have the mm to the</p>	

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	<p>hundreds decimal place and that the inside diameter should be 150.20mm max. Tom Baker says that the Tech Section intended the tolerance to be 150.2mm and does not intend to change it.</p> <p>Garth referenced the AMRL newsletter <a href="http://amrl.net/AmrlSitefinity/default/aboutus/newsletter/Newsletter_Fall2011/4.aspx">http://amrl.net/AmrlSitefinity/default/aboutus/newsletter/Newsletter_Fall2011/4.aspx</a> as the tolerances to the hundredths.</p> <p><i>It was decided later after conversations with Tom Baker that the WAQTC should propose changing the tolerance to 150.20. Changes will be sent to the EC for approval with the rest of the T 312 proposal.</i></p>	Linda Hughes Garth Newman
AASHTO T 312	<p>Garth brought the issue below to the committee's attention during the discussion of the FOP for T 312. The committee decided to address these concerns while considering the other T 312 issues.</p> <p><i>T 331; Bulk Specific Gravity and Density of Compacted Hot Mix Asphalt (HMA) Using Automatic Vacuum Sealing Method</i> should be added in the Referenced Methods and in 10.2 as an option when determining bulk specific gravity.</p> <p>Section 9.6 needs to address laboratory prepared and plant produced material.</p> <p>The committee intends to alert Tom Baker that T 312 does not have dual units and ask if AASHTO should address this or should the WAQTC.</p> <p><i>Changes will be sent to the EC for approval and discussion with Tom Baker will be held at that time.</i></p>	Garth Newman
T 231	<p>Garth Newman pointed out that the first sentence of T 231 states 'Caps should be about 3 mm (0.125 in.) thick, and in no instance shall any part of a cap be more than 8 mm (0.31 in.) thick.' This should be removed and it should read 'Cap thickness shall meet the applicable portion of table 1.'</p> <p><i>Changes will be sent to the EC for approval</i></p>	Garth Newman
T 119	<p>During the discussion of the Concrete test methods Wendy Tripp brought up that in the slump procedure is states 'Rod the second layer and the top layer each throughout its depth, so that the strokes just penetrate the underlying layer.' It would be more consistent to change the final sentence in 7.2 to 'penetrate approximately an inch.'</p> <p><i>Changes will be sent to the EC for approval</i></p>	Garth Newman

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<p>Unifying the concrete test methods. T 121, T 152, T 23</p>	<p>Greg Christensen prepared and presented the proposed changes: Change T 23 to match ASTM and other methods with the option to rod or vibrate at 1 in. Also in T 23 - change vibrator to be consistent with ASTM and conversion (the conversion is not correct). R 39 change 7.2.4 to address 1 in. slump and to match ASTM C 192 and T 23. Also in R 39 - Change the vibrator requirements to match T 23. T 152 - Change largest aggregate particle to 1 1/2" to be consistent with T 121. <i>Changes will be sent to the EC for approval</i></p>	<p><i>Garth Newman</i></p>
<p>T 22</p>	<p>Sean Parker emailed some concerns about T 22 and a proposal to include a reference to C 39 that was missed. Other proposed changes include: Adding section 4.4 to include the technician qualification requirements from ASTM C 39 with a direct reference to ACI. The committee felt that this is covered by R 18. AASHTO seems to have chosen to have this requirement covered there. The sense is ACI is a ASTM related entity. They also felt that this may require including technician requirements in all the test methods. <i>The committee decided not to add this section.</i> Adding language in section 6.2 to include the perpendicularity of 4 x 8 in cylinder. <i>This recommendation will be forwarded to the Executive Committee.</i> Sean also proposed incorporating the break diagrams from ASTM. The committee reviewed the ASTM break diagram and determined that Types 5 and 6 are not complete breaks, ASTM (7.6) instructs continue breaking until complete failure. Also ASTM does not have a Cone and Shear (c) type fracture. And since Types 5 and 6 are mostly pad cap type breaks and AASHTO is referring to ASTM to deal with them it is covered. <i>The committee decided not to add this section.</i> <i>Recommended changes will be sent to the EC for approval</i></p>	
<p>T 329</p>	<p>This procedure was reviewed as a part of the effort to make the use and definition of the term ‘constant mass’ more consistent. The group has determined that for any use of the term ‘constant mass’ there must be three elements covered in the procedure: the temperature of drying,</p>	

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	<p>the intervals at which the sample is weighed, and the percent of loss allowed.</p> <p>It is proposed that in this procedure the ‘terminology section’ be removed and Section 6.6 be revised to read:</p> <p>‘The sample shall initially be dried for <math>90 \pm 5</math> minutes and its mass determined. Then dry the sample to constant mass at <math>30 \pm 5</math>-minute intervals until further drying does not alter the mass by more than 0.05 percent.’ (temperature is addressed in Section 6.4 of this procedure)</p> <p>This will be the model on which the other test method revisions will be based.</p> <p>The calculation equation for constant mass needs to be added to the Calculations section.</p> <p><i>Desna will add the equation and send the changed procedure to the committee for use as a model for the assignment below.</i></p> <p><i>Changes will be recommended to the EC.</i></p>	<p><i>Desna Bergold</i> <i>Garth Newman</i></p>
T 209	<p>Problems with sampling and sample preparation were identified. The procedure does not adequately address the difference between lab produced and plant produced samples. Using the revised T 312 as guide a proposed revisions needs to be developed.</p> <p><i>A proposal addressing the issues will be developed and reviewed at the next meeting</i></p>	<p><i>Linda Hughes</i> <i>and Misty Miner</i></p>
Constant Mass	<p>Using the reworked T 329 as a model assignments were made to fix each instance in the various procedures. Desna will resend the spreadsheet that lists which test methods use the term.</p> <p>Soils and embankment – Alan Hotchkiss Aggregates – Greg Christensen Asphalt Binder – Garth Newman Asphalt Mixtures TS 2c– Linda Hughes, Wendy Tripp, and Misty Miner Asphalt Mixtures TS 2d – Ryan Hixson</p> <p>Test procedures in Subcommittees 3, 4, and 5 will still need to be addressed.</p> <p>Desna will follow-up every other month.</p> <p><i>The assigned will make the changes and bring to the committee for review.</i></p> <p><i>The constant mass will be addressed in each procedure it is used.</i></p>	<p><i>Desna Bergold</i> <i>Members of the</i> <i>Committee</i></p>
TP 68	<p>Most states don’t use the method or equipment. ITD would like to see it a standard and has an editorial fix before recommending it as</p>	

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	<p>one. As the rest of the committee does not use the method they have no comment. The Executive Committee will need to decide what to do.</p> <p><i>Discuss with the Executive Committee</i></p>	<i>Garth Newman</i>
TM 8 to be proposed as a AASHTO TP	<p>WsDOT is still working towards no longer using direct transmission (no more holes) and so it was decided this should be removed from TM 8 before AASHTO reformatting. Sean sent an email in October mentioning that ODOT's QA section just performed a review of TM 8 and he has some recommendations for the procedure.</p> <p>Desna will overlay the appropriate sections of TM 8 into T 310, remove moisture portion and input core correlation. Desna will also solicit Sean's comments from his QA section.</p> <p><i>Desna will have a draft in two weeks review and return for draft by EC spring meeting.</i></p>	<i>Desna Bergold</i>
T 99 and T 180	<p>Garth reviewed the previous discussions and revisions that were agreed upon in Henderson (1/11). Garth accepted those revisions before incorporating his current recommendations. Garth presented his recommendations, the majority of which were on the incorporation of the T 224 equations into an Annex in these test procedures. The committee reviewed the proposed revisions and after discussion and changes the email from Sean Parker was read and his concerns were reviewed and considered.</p> <p>At some point the changes in T 99 will have to be incorporated into T 180.</p> <p>The previously accepted changes were revisited and Misty Miner (who was not present) at the Henderson meeting. Expressed concern about eliminating the 'mold factor' option when determining the wet density and only allowing the use of the measured mold volume. Wendy Tripp (a new member of the committee) also had concerns and wished to discuss them with her agency.</p> <p>As consensus could not be reached this issue will be presented to the Executive Committee.</p> <p>Misty Miner, Linda Hughes, and Wendy Tripp will write a white paper discussing the need to keep the mold factor as an option for use in the calculation. Garth Newman will write a paper discussing the advisability of removing the mold factor option and using measured volume in the calculation.</p> <p>There are other AASHTO sections that have references to T 224 and will eventually need to be addressed: M 57 and T 134.</p> <p><i>All agree that incorporating T 224 into T 99 and T 180 as an annex will be the right approach and the annex revisions discussed at this</i></p>	

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	<p><i>meeting will eventually be recommended to the Executive Committee.</i></p> <p><i>White papers should be complete around mid-March</i></p> <p><i>Present white papers to the Executive Committee</i></p>	<p><i>Misty Miner,</i> <i>Linda Hughes,</i> <i>Wendy Tripp</i> <i>Garth Newman</i></p>
T 272	<p>There was a general discussion of what would be necessary to revise in this test method. This method directly references use with the T 99 procedure and incorporation of the T 180 references proved problematic. The suggestion was made to revise this to be an appendix (not annex; annex is required information, an appendix is optional) to T 99 and T 180.</p> <p>Sean had many comments in an email that were reviewed.</p> <p><i>The committee decided that there is quite a lot of work left to do on this method. This will be revised as a standalone and the option of an appendix will be discussed when it is proposed.</i></p>	<p><i>Garth Newman</i></p>
T 310	<p>The committee feels that 10.2.3 is confusing and that it does not have anything to do with percent density and should be clarified or removed.</p> <p>10.2.1 final sentence should be removed and the reference to T 224 removed.</p> <p><i>This change is on hold until T 99 and T 180 have been revised.</i></p>	
Short form WAQTC and TMs	<p>Historically the Test Methods (TM) were developed and then the training materials were developed from the TMs and the referenced AASHTO test methods. The committee determined that both formats do not need to be supported. Desna Bergold will ensure that the TMs are completely represented in the short forms (FOP). This will allow for the elimination of the TM format. The 'FOP for' language will be removed from the current FOP short forms. The short form FOP for the TMs would become the TMs. TM 11 will be reformatted.</p> <p>The 'Methods' Appendix B should be removed, as it adds little value.</p> <p>TM 11 will have to be included in Appendix A.</p> <p><i>The current FOP's for the TMs formatting will replace the Test Method formatting.</i></p> <p><i>Appendix B 'Methods' Section will be removed from the next training materials package and TM 11 will be included in Appendix A in the appropriate modules.</i></p>	<p><i>Desna Bergold</i></p>
TM 11	<p>Who is using this procedure? Are there revisions that need to be made to the procedure to make it useful to member states?</p> <p>Is this ready to be presented to AASHTO (with or without</p>	<p><i>Desna Bergold</i></p>

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	<p>revisions)?</p> <p><i>Poll member states on their use of the test method and requested revisions.</i></p>	
Short form revision date(s)	<p>Garth would like to see the last date of revision as an extension of the TM number (example TM 8 (11)). The short forms for AASHTO and TMs on the website have the latest date of revision in parentheses (example T 255 (11)) All agree this would be good.</p> <p>AASHTO revision dates should be added to the AASHTO reference in the Scope.</p> <p>The date at the bottom will now be the published date, example 'Pub. October 2011'</p> <p>For review question and performance exams the revision date will be in parentheses next to the file name in the footer example: T30_pr1 (09) and T30_rev (10).</p> <p><i>Desna will make these revisions for the next training package. Desna will also include this in the draft Style Guide.</i></p>	<i>Desna Bergold</i>
Style Guide	<p>A style guide needs to be developed to assist in consistency throughout the materials. The two previous agenda items will need to be reflected in the Style Guide.</p> <p>The committee went through the document 'Specs' from the original development of the materials and revised to match the existing format. They also discussed what they would like to see.</p> <p>Garth recommends putting the Significance section into the Short Form.</p> <p>At some point the committee will need to develop criteria for Scope, Significance and other sections.</p> <p>Scope may be the statement "This is an FOP for . . ." and the rest of the information could be washed together into Significance.</p> <p>Desna will put together a couple of examples and determine how much work it would take, and then perhaps put together a bid to complete the work.</p> <p>Other points to be incorporated into the Style Guide:</p> <ul style="list-style-type: none"> <li>• There was discussion of how much of the apparatus should be listed in the FOP. The disposable items should be listed in the FOPs in detail; major equipment may have a reference to the AASHTO procedure. This will be determined on a case-by-case basis.</li> <li>• Text wrapping breaks will be inserted whenever a reference orphans the number.</li> <li>• PowerPoint style - Use the same template for the slides (font,</li> </ul>	<i>Desna Bergold</i>

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	<p>bullets, etc.) and each module will have a different color scheme.            Considered animation only (needs to add value)  <i>Desna will have a draft Style Guide ready two weeks before the conference call.</i></p>	
FOP for T 312	<p>The committee went through the proposed FOP T 312 and developed a Short Form to work from.            Linda will work on the PowerPoint            Send out for review two weeks before the quarterly meeting.  <i>Reformat and send out the Short Form by 2/10/12</i></p>	<i>Desna Bergold</i>
Next quarterly meeting	<p>5/21/12 9:00 Mtn.  <i>Linda will try to set this up</i></p>	<i>Linda Hughes</i>
Next meeting WAQTC Materials review meeting	<p>August 20<sup>th</sup> through 24<sup>th</sup> for the next WAQTC QAC. Two options:            Albuquerque NM or Vancouver WA.  <i>Desna will poll for flight costs, per diem and facilities.</i></p>	<i>Desna Bergold</i>
Volumetric Module	<p>Reviewed Wendy's submittal. The group put together an outline recommending how the module should be put together.            Linda will provide Wendy the PowerPoint template for asphalt.  <i>Wendy will revise the Volumetric module based on the QAC recommendations and have draft ready for review by April 30<sup>th</sup>.</i></p>	<i>Wendy Tripp</i>