

# WAQTC QAC COMMITTEE MEETING MINUTES

<p><b>LEADER:</b> GARTH NEWMAN, ITD  <b>FACILITATOR:</b> DESNA BERGOLD, D B CONSULTING</p>	<p><b>DATE:</b> FEB. 1 THROUGH FEB. 5  <b>TIME:</b> 1:00 TO 5:00 PM MON, 8:00 AM TO 5:00 PM TUES. THRU THUR., 8:00 AM TO 12:00 NOON FRI  <b>LOCATION:</b> HOTEL ALBUQUERQUE, ALBUQUERQUE, NM</p>
<p><b>ATTENDING:</b>  GARTH NEWMAN, ITD                      SEAN PARKER, ODOT  DAN GETTMAN, AKDOT &amp;              GILBERT ARREDONDO, UDOT  PF    LINDA HUGHES, WSDOT  CHRISTOPHER P. RUSSELL,              BRIAN TCHOUBON, CDOT  CDOT    BRAD NEITZKE, WFL  MISTY MINER, MDOT  BRIAN LEGAN, NMDOT</p>	<p><b>ABSENT:</b>  MEGAN CHATFIELD, WFL-FHWA</p>

- Meeting Items:
1. Report from Executive Committee (EC) meetings – Garth Newman
- Reviews of AASHTO Revisions and Qualification Advisory Committee (QAC) proposed Revisions for each procedure
2. Revisions to Embankment/Base and In-Place Density AASHTO Test Methods
    - a. T 255/T 265, Moisture Content of Aggregate and Soil
    - b. T 99/T 180, Moisture/Density Relations
      - i. Change formula in both A1.6
    - c. T 272, Family of Curves
      - i. Correcting max. dry density and optimum moisture for coarse particles – Garth
    - d. T 85, G<sub>sb</sub>
      - i. T 85; Test for Specific Gravity and Absorption of Coarse Aggregate
    - e. T 224, Coarse Particle Correction
    - f. T 310, In-place Density and Moisture Content of Soil-Aggregate
  3. Revisions to Concrete AASHTO Test Methods
    - a. R 60, Sampling Concrete
    - b. T 309, Temperature
    - c. T 119, Slump
    - d. T 152, Air Content
      - i. Needs to reference T 309 instead of ASTM
      - ii. Remove the s from sides
      - iii. Tap around the perimeter
    - e. T 121, Density
      - i. Needs to reference T 309 instead of ASTM
      - ii. Remove the s from sides
      - iii. Tap around the perimeter
      - iv. Address secondary cementitious materials - Garth
    - f. T 23, Test Specimens
  4. Revisions to Aggregate AASHTO Test Methods
    - a. T 2, Sampling Aggregate
      - i. Review Linda’s AASHTO ‘A’ method
    - b. T 248, Reduction
    - c. T 255, Moisture Content of Aggregate

- d. T 11/T 27, Sieve Analysis
- e. T 176, Sand Equivalent
  - i. Mixing working solution as in FOP – Garth
- f. T 335, Fractured Particles
- 5. Revisions to Asphalt AASHTO Test Methods
  - a. T 168, Sampling HMA
    - i. This is a ‘C’ method, what is the next step? – Garth
  - b. R 47, Reducing
  - c. T 329, Moisture Content
  - d. T 308, Asphalt Content
  - e. T 209,  $G_{mm}$
  - f. T 166,  $G_{mb}$
  - g. R 66, Sampling Asphalt Materials
  - h. T 30, Sieve Analysis
    - i. Revise Note 2
  - i. T 312, Gyratory
  - j. R 35, Superpave Volumetric Design
- 6. Other AASHTO revisions:
  - a. T 84; Specific Gravity and Absorption of Fine Aggregate
    - i. Section 8.2 – calibrated to standardized
  - b. T 90; Determining Plastic Limit and Plasticity Index
    - i. ‘unglazed porcelain – from July
  - c. T 275; Bulk Specific Gravity ( $G_{mb}$ ) of Compacted Hot Mix Asphalt (HMA) Using Paraffin-Coated Specimens
    - i. Add note 3 addressing filling voids with paraffin - Rich
  - d. T 304; Uncompacted Void Content of Fine Aggregate
    - i. Calibration of the measure – Garth

WAQTC issues

- 7. Greg Christensen’s TP-XX Constant Mass
- 8. Archiving historical documents / list of documents / Garth’s additions – July meeting
- 9. Developing a Sampling Qualification – July Meeting
- 10. Style Guide and distinction between FOP and SOP – July meeting
- 11. Tracking of revisions proposed to AASHTO – Garth
- 12. Qualification for exam proctor trainers; MDT Examiner/Proctors Training Plan – Teleconference
- 13. New inputs for written exams – Garth from July meeting
- 14. Online training task force
- 15. Audit clarification – Garth report from EC
- 16. Adding T 84, Specific Gravity and Absorption of Fine Aggregate to the WAQTC qualifications – Rich
- 17. On-line documents: should they be addressed in the Style Guide? - Desna

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Topic	Discussion / <i>Decision</i>	ACTION REQUIRED BY:
	<p>Garth Newman, ITD and Qualification Advisory Committee (QAC) Chair, welcomed the committee members and thanked Brian Legan and NMDOT for hosting the Winter meeting at the Associated Contractors of New Mexico (ACNM) training facilities.</p>	
Opening discussion	<p>Christopher Russell, CDOT, asked why WAQTC doesn't certify on Atterburg limits: <i>AASHTO T 89, Determining the Liquid Limit of Soils and T 90, Plastic Limit and Plasticity Index of Soils</i>; and grain size; <i>T 311, Grain-Size Analysis of Granular Soil Materials</i>.</p> <p>T 89 and T 90 methods were once in the Embankment module but as they are not commonly an acceptance test performed in the field it was removed.</p> <p>FOPs for AASHTO T 89 and T 90 are in the FOP library for agency use in training. Garth explained that while these FOP's are current at this time, since Rich Giessel, AKDOT, left they do not have a champion. He explained that a champion revises the FOP's when the AASHTO procedure that they are based on is revised. Daniel Gettman, AKDOT, expressed interest in becoming the champion but would like to discuss it with Rich. Dan will let the committee know if he will volunteer to be the champion of these two methods.</p> <p><i>Dan will decide whether he can champion the FOP for T 89 and T 90 for the FOP library.</i></p> <p>Chris felt that his question was answered and is good with leaving things the way they are.</p> <p><i>No other action required.</i></p>	DAN GETTMAN
Time sensitive item – FOP for T 209 short form	<p>It was recently discovered that there are some remaining references to the temperature correction factor in the <i>FOP for T 209, Theoretical Maximum Specific Gravity (<math>G_{mm}</math>) and Density of Hot Mix Asphalt (HMA)</i>. The written exams were not revised when the option of performing a temperature correction was removed from the training materials in 2013. Also, the option reappeared in the FOP short form in the calculations. Desna Bergold, D B Consulting, would like direction on how to proceed. It was decided to fix and distribute the affected written exams and wait until July to fix the short forms.</p> <p><i>Desna will fix and distribute the exams and revise the 2016 materials.</i></p>	DESNA BERGOLD
Report from Executive Committee meetings	<p>Garth reported on the Executive Committee (EC) meetings by reviewing the minutes.</p> <p>According to the August 2015 EC minutes and subsequent polling it appears that WAQTC will adopt the term 'Certification.' The revision to the <i>Administration Manual</i> was reviewed. He also pointed out that</p>	

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	<p>the Executive Committee will most likely be renamed the 'Executive Board' to distinguish it from the committee. These changes will be discussed and voted on at the upcoming EC Spring Meeting, April 6 and 7 in Salt Lake City, UT.</p> <p><i>No action required.</i></p>	
REVIEWS OF AASHTO 2015 REVISIONS AND QAC PROPOSED REVISIONS FOR EACH PROCEDURE		
AASHTO TEST METHODS COVERED IN THE EMBANKMENT/BASE AND IN-PLACE DENSITY MODULES		
T 255	<p><i>AASHTO T 255; Total Evaporable Moisture Content of Aggregate by Drying</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 265	<p><i>AASHTO T 265; Laboratory Determination of Moisture Content of Soils</i></p> <p>The committee discussed development of an alternative method of drying soils at a previous meeting. Garth was assigned to look at the possibilities. The question is should there be a method for determining the moisture content of soils other than T 265 so that results for <i>AASHTO T 99, Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop</i> could be obtained quicker. There are many issues to consider: uncontrolled heating apparatuses could be difficult to use with soils that may have organic material. Garth indicated that there would have to be a study by either a DOT or university to determine the viability of a new test method.</p> <p>The committee feels the idea has merit but needs to be researched, consideration needs to be given to what or how the organics are affected using the different apparatus and temperatures.</p> <p>The executives need to give the QAC direction</p> <p><i>No proposed revisions to the AASHTO method at this time.</i></p>	
T 99/T 180	<p><i>AASHTO T 99, Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop and T 180, Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop</i></p> <p>The formula for calculating the corrected density for oversized particles (Section A1.6) in both methods is mathematically correct but confusing. The FOP's for these test methods have a version of the formula that is more intuitive. Replacing the formula in A1.6 in both test methods will be proposed.</p> <p><i>Revisions to T 99 and T 180 will be presented to the EC for approval and submittal to AASHTO.</i></p>	GILBERT ARREDONDO FOR GARTH NEWMAN

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T 272	<p>Revisions to AASHTO T 272; <i>One-Point Method for Determining Maximum Dry Density and Optimum Moisture</i> were proposed by WAQTC in 2015 and was included in the AASHTO ‘rolling ballot 3’.</p> <p>Garth pointed out that the revisions as proposed did not address correcting the maximum dry density and optimum moisture content determined by T 272 for coarse particles. The results cannot be used as a density standard unless they are corrected for the coarse particles removed. Proposed revision is to add section 8.3.6:</p> <p style="padding-left: 40px;">When oversize particles have been removed, it may be necessary to use the annex of T 99 or T 180 to correct the maximum dry density and optimum moisture content.</p> <p>Also proposed will be adding the corrected optimum moisture content and corrected maximum dry density to the report section.</p> <p>While reviewing this method the committee noticed that the report section required the optimum moisture to be reported to the nearest whole number and the maximum density to the nearest 5 kg/m<sup>3</sup> (1.0 lb/ft<sup>3</sup>) this should be 0.1 and 1 kg/m<sup>3</sup> (0.1 lb/ft<sup>3</sup>) respectively. Garth feels this revision should be considered editorial and will talk to James Williams, TS 1b Chair. These revisions may have to wait until the previous (2015) revisions have made it through the system.</p> <p><i>Revisions to T 272 will be held until 2017.</i></p> <p><i>Garth will talk to James Williams concerning the reporting accuracy.</i></p>	GARTH NEWMAN
T 85 and T 84	<p><i>T 84, Specific Gravity of Fine Aggregate and T 85, Specific Gravity of Coarse Aggregate</i></p> <p>Desna asked if G<sub>s</sub> should be included in the title. It was pointed out that these test methods cover three different specific gravities; G<sub>sb</sub>, G<sub>sa</sub>, G<sub>sb</sub> SSD, and two different materials. Introducing the asphalt nomenclature into aggregate testing may be confusing.</p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 224	<p><i>T 224; Correction for Coarse Particles in the Soil Compaction Test</i></p> <p>The 35<sup>th</sup> Edition of AASHTO Standard Specifications for Transportation Materials discontinued this test method ‘for lack of use.’ This is misleading; the method is still in use but is now in the annexes of T 99 and T 180. This statement will be removed in another year.</p> <p><i>No action required.</i></p>	

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T 310	<p><i>T 310; In-Place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)</i></p> <p>Brian Legan, NMDOT, asked the committee how they dealt with the interim verification (between calibrations) of the gauges. Many agencies have verification blocks they use. Brian would like to know where to obtain verification blocks. Those members who have the blocks will research where they can be purchased and share this information with Brian.</p> <p><i>Research obtaining verification blocks for Brian Legan.</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	ALL
<b>AASHTO TEST METHODS COVERED IN THE CONCRETE MODULE</b>		
R 60	<p><i>R 60; Sampling Freshly Mixed Concrete</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 309	<p><i>T 309; Temperature of Freshly Mixed Hydraulic Cement Concrete</i></p> <p>This test method was discontinued by AASHTO, WAQTC proposed a full standard in 2014. This will be included in the 2016 36<sup>th</sup> edition of AASHTO Standard Specifications for Transportation Materials.</p> <p><i>No action required.</i></p>	
T 119	<p><i>T 119, Slump of Hydraulic Cement Concrete</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 152	<p><i>T 152; Air Content of Freshly Mixed Concrete by the Pressure Method</i></p> <p>The committee noticed that the base of the air meter is identified as the ‘measuring bowl’ in apparatus but referred to as ‘bowl’ in the test method. It is much better to use consistent nomenclature throughout a test method. The committee proposed using ‘measuring bowl’ in each instance when referring to the base of the air meter.</p> <p>At one point the committee thought the test method needed to reference AASHTO T 309 instead of the ASTM 1064 since T 309 will be reinstated in 2016. It was determined that a reference to a test method for determining the temperature of concrete is not in T 152 at all. No action needs to be taken.</p> <p>In July the QAC updated the FOP to refer to the side of the measuring bowl instead of sides. At that time they also revised ‘Tap around the sides . . .’ to ‘Tap around the perimeter . . .’ these revisions will be proposed.</p>	

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	<i>Revisions to T 152 will be presented to the EC for approval and submittal to AASHTO.</i>	GILBERT ARREDONDO FOR GARTH NEWMAN
T 121	<p><i>T 121; Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete</i></p> <p>The same revisions as T 152: remove the s from sides and replace ‘Tap around the sides . . .’ to ‘Tap around the perimeter . . .,’ were approved.</p> <p>Garth proposed addressing secondary cementitious material in 8.4, Cement Content, because most agencies often use flyash and other cementitious materials. Although it seemed fairly easy to address in 8.4, when the committee reviewed Section 3.1.4 they realized that in order to determine absolute volume the specific gravity of all components would have to be considered. Upon realizing the difficulty in addressing cementitious materials easily, Garth withdrew his proposal and will discuss the issue with the Chair of TS 3b, Mick Syslo, perhaps an AASHTO task force would be the best approach.</p> <p><i>Garth will talk to the TS Chair.</i></p> <p>In reviewing section 3.1.1, it was determined that the cross referencing is incorrect in the definition for <i>T</i> and <i>V</i>. It was also determined that there is an error in 3.1.3.</p> <p><i>Revisions to T 121 will be presented to the EC for approval and submittal to AASHTO.</i></p>	<p>GARTH NEWMAN</p> <p>GILBERT ARREDONDO FOR GARTH NEWMAN</p>
T 23	<p><i>T 23; Making and Curing Concrete Test Specimens in the Field</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
<b>AASHTO TEST METHODS COVERED IN THE AGGREGATE MODULE</b>		
T 2	<p><i>T 2; Sampling of Aggregates</i></p> <p>Garth explained the difference between and AASHTO ‘A’ method, wholly owned by AASHTO, and a ‘C’ method, wholly owned by ASTM that is referenced in AASHTO with an AASHTO alpha-numeric designation. AASHTO is moving towards discontinuing most of the ‘C’ methods. WAQTC has a list of the ‘C’ methods with which it has concerns. The EC agreed that the QAC could begin addressing some of the most critical test methods. The QAC began with <i>T 2; Sampling of Aggregates</i>.</p> <p>Linda Hughes, WSDOT, drafted a new ‘Standard Practice for Sampling Aggregates.’ R XX instead of T 2 because it is a ‘practice’</p>	

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	<p>(R) with no resultant. The new R XX relies heavily on the WAQTC FOP for Sampling Aggregates.</p> <p>The committee reviewed and revised the new standard practice and approved a final draft.</p> <p><i>The new R XX will be submitted to the EC for approval and submittal to AASHTO.</i></p>	GILBERT ARREDONDO FOR GARTH NEWMAN
T 248	<p><i>T 248; Reducing Samples of Aggregate to Testing Size</i></p> <p>Garth informed the members that this is going to be an 'R' (Standard Practice), in the next edition. This will need to be addressed in the summer meeting for the FOPs.</p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 255	<p><i>T 255, Total Evaporable Moisture Content for Aggregates</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 11/T 27	<p><i>T 11; Materials Finer Than 75-<math>\mu</math>m (No. 200) Sieve in Mineral Aggregates by Washing and</i></p> <p><i>T 27; Sieve Analysis of Fine and Coarse Aggregates</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 176	<p><i>T 176; Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test</i></p> <p>Garth would like to introduce a means to thoroughly mix the working solution because ITD has seen variations in test results that have been attributed to improperly mixed working solution. He proposed including the following in section 4.9:</p> <p style="padding-left: 40px;">‘Thoroughly mix solution by filling the bottle with 2 L (1/2 gal) of water. Add the stock solution and agitate vigorously for 1 to 2 minutes. Add the remainder of the water, approximately 2 L (1/2 gal). Repeat the agitation process.’</p> <p>Also, the final sentence in the paragraph should be rewritten in active voice: ‘Discard working solutions more than 30 days old.’</p> <p><i>Revisions to T 176 will be presented to the EC for approval and submittal to AASHTO.</i></p>	GILBERT ARREDONDO FOR GARTH NEWMAN
T 335	<p><i>T 335; Determining the Percentage of Fracture in Coarse Aggregate</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	



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AASHTO TEST METHODS COVERED IN THE ASPHALT I AND ASPHALT II MODULES		
T 168	<p><i>T 168; Sampling Bituminous Paving Mixtures</i></p> <p>This standard practice is also a ‘C’ method.</p> <p>Garth spoke to the Allen Myers, TS 2c Chair, to determine what AASHTO intended. Allen said that there is some movement towards developing an ‘A’ method but it may take some time and that if WAQTC would like to propose something it would be welcome.</p> <p>The members decided they would be willing to develop an ‘A’ method and will seek permission from the EC.</p> <p><i>The EC will be asked to approve development of a new standard practice for Sampling Bituminous Paving Mixtures.</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	GILBERT ARREDONDO FOR GARTH NEWMAN
R 47	<p><i>R 47; Hot Mix Asphalt (HMA) to Testing Size</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 329	<p><i>T 329; Moisture Content of Hot Mix Asphalt (HMA) by Oven Method</i></p> <p>Garth will follow up on the correction to the constant mass formula from the last meeting.</p> <p><i>Garth will speak to Allen Myers, TS 2c Chair.</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	GARTH NEWMAN
T 308	<p><i>T 308; Determining the Asphalt Binder Content of Hot Mix Asphalt (HMA) by the Ignition Method</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 209	<p><i>T 209; Theoretical Maximum Specific Gravity (<math>G_{mm}</math>) and Density of Hot Mix Asphalt (HMA)</i></p> <p>Major revisions were proposed in 2014; these revisions are still pending.</p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 166	<p><i>T 166; Bulk Specific Gravity (<math>G_{mb}</math>) of Compacted Hot Mix Asphalt (HMA) Using Saturated Surface-Dry Specimens</i></p> <p>Brad Neitzke, WFL, outlined the revisions that AASHTO is considering at this time. Discussion of other revisions should wait</p>	

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	<p>until the AASHTO pending revisions are settled.</p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
R 66	<p><i>R 66; Sampling Bituminous Materials</i></p> <p>Gilbert Arredondo, UDOT, pointed out that the minimum sample size for emulsified asphalts is 1 gallon. Many agencies do not obtain samples this size. To begin obtaining samples this large could lead to disposal problems. The committee members want to discuss the sample size with their agencies binder lab to determine whether to propose a smaller sample size in 2017.</p> <p><i>Discuss emulsified sample size with member's binder personnel and report at the Summer Meeting.</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	ALL
T 30	<p><i>T 30; Mechanical Analysis of Extracted Aggregate</i></p> <p>The issues concerning Note 2 and its description of how to determine if a particular mechanical washing apparatus will cause significant degradation has been of considerable concern for many members. Since notes contain only non-mandatory information this shouldn't be a problem for accreditation but everyone is concerned with how AMRL will address this. If this becomes an issue perhaps it will need to be discussed will AMRL.</p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 312	<p><i>T 312; Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyrotory Compactor</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
R 35	<p><i>R35; Superpave Volumetric Design for Asphalt Mixtures</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
AASHTO REVISIONS		
T 84	<p><i>T 84, Specific Gravity and Absorption of Fine Aggregate</i></p> <p>In Sections 8 and 9, the method uses the term 'calibrated.' Since it is referring to determining the mass of the pycnometer filled with water to a designated mark the term 'standardized' should be used.</p> <p>Brad recommended contacting Scott Seiter, TS 1c Chair, to revise this method editorially. To be certain, Brad will call an AMRL representative to determine how the two terms are interpreted for this test method.</p>	

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	<p>Brad also pointed out that <i>AASHTO R 18, Quality Management System for Implementing a Quality Management System for Construction Materials Testing Laboratories</i> uses a pycnometer as an example of a calibrated measure.</p> <p>Brad reported that Tracy Barnhart, AASHTO, told him that AMRL considers this to be a ‘standardized’ pycnometer not a ‘calibrated’ one because it does not require documentation of the uncertainty. (In a follow up after the meeting, Tracy confirmed that the example in R 18 will be removed.)</p> <p><i>Garth Newman will contact Scott Seiter, TS 1c chair and ask for an editorial revision.</i></p>	GARTH NEWMAN
T 90	<p><i>T 90, Plastic Limit and Plasticity Index of Soils</i></p> <p>Rich Giessel had wanted to address the requirement of ‘unglazed porcelain dish’ for mixing the material. Upon investigation the method does not refer to an ‘unglazed dish, but ‘unglazed paper.’ Dan Gettman, AKDOT, withdrew the request.</p> <p><i>No proposed revisions to the AASHTO method.</i></p>	
T 275	<p><i>T 275, Bulk Specific Gravity (<math>G_{mb}</math>) of Compacted Hot Mix Asphalt (HMA) Using Paraffin-Coated Specimens</i></p> <p>Rich Giessel had proposed revisions to Note 2 and additional Notes 3 and 4. The proposed Note 3 addresses the problems of filling the open and interconnected voids with paraffin and covers how to coat the specimen. It also suggests using beeswax instead of paraffin. Note 4 would cover how to determine the specific gravity of a floating material.</p> <p>The committee pointed out that an alternate material (beeswax) cannot be introduced as an option in a note. There was also concern about the description of how to coat the specimen. After much discussion there was no consensus on how to address the potential of filling the interconnected voids. The committee requests that Dan and AKDOT revise their proposal, with committee support, and resubmit.</p> <p><i>Dan will determine if AKDOT wants to pursue revisions to the specimen coating section.</i></p> <p><i>No proposed revisions to the AASHTO method.</i></p>	DAN GETTMAN
T 304	<p><i>T 304, Uncompacted Void Content of Fine Aggregate</i></p> <p>The test method describes the cylindrical measure as: A right cylinder of approximately 100 mL capacity having an</p>	

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	<p>inside diameter of approximately 39 mm and an inside height of approximately 86 mm made of drawn copper water tube meeting ASTM B88 Type M or B88M Type C. The bottom of the measure shall be metal at least 6 mm thick, shall be firmly sealed to the tubing, and shall be provided with means for aligning the axis of the cylinder with that of the funnel.</p> <p>Garth pointed out that no other test methods use vague terms such as ‘approximately’ and the use of this term to describe a piece of equipment should be addressed. After investigating various tolerances for the dimensions and how they affect the volume, it was determined that it would be impossible to address the issue without introducing an accuracy to the dimensions that is not desired. Garth withdrew the suggestion.</p> <p>All found it interesting though that the method requires a copper cylinder but commonly the device purchased is brass which does not comply with the test method.</p> <p><i>Garth will contact Scott Seiter, TS 1c chair, about the requirement of a copper cylinder meeting ASTM B88 Type M or C.</i></p>	GARTH NEWMAN
Greg Christensen’s TP-XX Constant Mass	<p>Constant Mass is a term used in a number of procedures many of which do not detail a process to achieve the condition required. The QAC has been working on a definition for the term:</p> <p><i>Constant mass</i> – the state at which a mass does not change more than a given percent, after additional drying for a defined time interval, at a required temperature.</p> <p>At the 2014 Winter meeting Greg Christensen, formerly AKDOT, volunteered to draft a practice for drying items to constant mass.</p> <p>The committee reviewed and revised the Standard Practice Greg provided. The revised TP XX will be submitted to the EC.</p> <p><i>The new TP for Determining Constant Mass will be presented to the EC for approval and submittal to AASHTO.</i></p>	GILBERT ARREDONDO FOR GARTH NEWMAN
OTHER WAQTC BUSINESS		
Archiving historical documents / list of documents / Garth’s additions	<p>There has been a lot of discussion concerning the disposition of WAQTC’s historical documents that are in Garth’s possession. The EC has asked the QAC to identify documents that should be archived and how it is to be accomplished. (List of documents attached to 2014 Summer meeting minutes.)</p> <p>Garth has a file drawer of materials that need to be scanned. Brad volunteered his staff to scan these hard documents. Garth will ship the materials to WFL. The documents will be scanned and identified by</p>	

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	<p>the titles on the folders. Brad will return the PDFs and hard copies to Garth.</p> <p>Garth will find, identify, and organize the electronic files that he can find.</p> <p>Garth will send the old training cd's to Desna to upload to a cloud file. The QAC will review the materials and make recommendations to the EC.</p> <p><i>Garth will work with Brad and Desna on the hard copies and disks. The QAC will review and make recommendations.</i></p>	GARTH NEWMAN BRAD NEITZKE DESNA BERGOLD
Developing a Sampling Qualification	<p>Sean Parker, ODOT, asked if anyone was interested in developing a Sampler Qualification at the 2015 Summer meeting. The discussion was tabled at that time.</p> <p>Apparently some agencies have already addressed their need for sampling to be independent of testing.</p> <p>Sean withdrew the suggestion.</p> <p><i>No action required.</i></p>	
SCC	<p>Matt Strizich, EC Chair, requested that the QAC discuss the pros and cons of training and qualifying technicians on Self-Consolidating Concrete (SCC).</p> <p>The use of this material is becoming more common especially in the precast industry. In 2015, the WAQTC proposed revisions to <i>T 152, Air Content of Freshly Mixed Concrete by the Pressure Method; T 121, Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete;</i> and <i>T 23, Making and Curing Concrete Test Specimens in the Field</i> that address the special handling of SCC for these test methods. These revisions will be incorporated into the WAQTC training materials when they are included in the AASHTO test methods. To address the remaining current acceptance testing of SCC WAQTC would need to develop training for <i>T 345, Passing Ability of Self-Consolidating Concrete (SCC) by J-Ring</i> and <i>T 347, Slump Flow of Self-Consolidating Concrete (SCC)</i> and possibly more test methods.</p> <p>The QAC discussed the option of adding these test methods to the existing Concrete Testing Technician (CTT) qualification. Linda said that adding these methods to CTT may not be the best answer since it is a specialty item. Misty Miner, MDT, feels that it would create a training and qualification issue to add it the existing module. Gilbert says that UDOT hasn't used SCC in the field much and the field technician's haven't had to test it.</p>	

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	<p>There is some support for developing training and qualification for the SCC test methods but not as part of the current CTT. Perhaps a CTT II or SCC addition that would require a CTT qualification as a prerequisite. Misty feels that developing a CTT II or training on SCC would be proactive. Sean agrees that a secondary qualification would work for him. Dan says AKDOT has developed AKDOT test methods. He feels the WAQTC should begin addressing the SCC methods. Brad would like to see training available but not necessarily a qual. at this time. Linda thinks having FOPs in the library would be a start. Garth thinks that since SCC is used for high risk products such as precast/pre-stressed structural items a qualification is important.</p> <p>All said they would support developing standalone training and qualifications for SCC testing. Should <i>T 351, Visibility Stability Index (VSI) of Self-Consolidating Concrete (SCC)</i> also be included? Are there any other methods that should be included?</p> <p>Committee members will discuss what test methods should be included in a SCC qualification with their agency specialists. Their findings should be reported to Desna by Friday March 11<sup>th</sup> and she will compile the lists. Desna will send a reminder.</p> <p><i>Committee Members consult agency specialist and report to Desna by March 11<sup>th</sup>.</i></p> <p><i>The potential for a SCC standalone qualification, with a draft list of methods, will be presented to the EC.</i></p>	<p>ALL</p> <p>GILBERT ARREDONDO FOR GARTH NEWMAN</p>
Style Guide and distinction between FOP and SOP	<p>From the 2015 Winter meeting minutes:</p> <p><b>The need to define the difference was driven by the FOP library and possible inclusion of an SOP for developing a family of curves. As it was determined to develop an R method for AASHTO, the need for the definitions in the Style Guide is not urgent.</b></p> <p><b><i>Topic was tabled at this time.</i></b></p> <p>It was determined that this issue no longer exists.</p> <p><i>No action required.</i></p>	
Tracking of revisions proposed to AASHTO	<p>Matt Strizich has been sharing the AASHTO balloting with Desna who has been summarizing the ballots and distributing the summary to the committee. As this seemed to work well, Desna asked if this process should be formalized.</p> <p>The QAC members reported that as they have not been getting the balloting information from their EC members, and it has been helpful and informative to get the summaries from the consultant. The QAC would like to ask the EC to make forwarding the AASHTO ballots to the consultant an assignment for the Chair. They would also like the</p>	

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	<p>consultant to continue to summarize and distribute.</p> <p>After the 2015 AASHTO SOM meetings Garth summarized the discussion and status of the proposed methods. This was also appreciated and should continue.</p> <p>Garth said he needs to discuss the new AASHTO SOM process with Evan Rothblatt, AASHTO, he would like to understand the two kinds of balloting and how it is all programmed. Garth will then let the QAC know what he finds out.</p> <p><i>The EC will be asked to assign forwarding the AASHTO ballots to the consultant.</i></p> <p><i>Garth will speak to an AASHTO SOM representative about the balloting process and report.</i></p>	<p>GILBERT ARREDONDO FOR GARTH NEWMAN</p> <p>GARTH NEWMAN</p>
Qualification for exam proctor trainers	<p>The QAC was tasked to review the trainer and exam proctor training manuals from ITD and MDT. Linda also provided WSDOT's manuals for review.</p> <p>Chris expressed his concern that the 'qualification' for performance examiners would involve required multi-day training; he feels the <i>Administration Manual</i> adequately covers the requirements.</p> <p>The intent is not to require extensive training for the performance examiners; the QAC is more concerned that the technicians used as performance examiners have consistent instructions throughout the agencies.</p> <p>Garth supplied ITD's <i>Guidelines for Examiners Conducting Performance Exams</i> that they require the examiners review and sign at the beginning of each examination. Chris said that CDOT informs the examiners of what is expected of them and how they are to observe the performance exam, it is just not formalized. The committee agreed that perhaps developing WAQTC guidelines for examiners for all member agencies to use would make performance exams more consistent throughout the agencies. Everyone is doing something similar and many have established processes but some haven't documented the process.</p> <p>Gilbert and Desna will put together a checklist or bulleted training, based on the materials supplied, and distribute for input.</p> <p><i>Gilbert and Desna will compile a draft checklist or training and distribute for feedback by April.</i></p>	<p>GILBERT ARREDONDO DESNA BERGOLD</p>
New inputs for written exams	<p>From 2015 Summer meeting minutes:  <span style="color: red;">Garth suggested that committee members create new input</span></p>	

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	<p>values for the calculations in the exams for the module they will be reviewing. All agreed.</p> <p>The following members volunteered for:            EB/DTT: Chris Russell and Linda Hughes            Concrete: Misty Miner and Richard Giessel            Aggregate: Gilbert Arredondo and Sean Parker            Asphalt: Garth Newman and Megan Chatfield, WFL</p> <p>Rich Giessel has already supplied his new inputs. Desna would like a deadline well before the 2016 Summer meeting so she can get the new inputs incorporated before the next manual update.</p> <p><i>Everyone will have the new inputs to Desna by Friday May 27<sup>th</sup>.</i></p>	ALL
Online training task force	<p>At the 2015 Summer meeting Gilbert was asked to follow up with Jeff Saddler, UDOT, concerning the status of the on-line training. Gilbert reported that Jeff thought the assignment was complete. Jeff had contacted the task force members for copies of the existing on-line training. He initially intended to compile the training materials that are currently used by other states. Upon reviewing the existing on-line training from Montana and Alaska, Jeff said it was decided to use the existing on-line eLearning platforms that are already being used by Montana and Alaska.</p> <p>The task force was unaware of this development and does not know who Jeff consulted.</p> <p>Misty explained that MDT is redoing their training and she is willing to have the WAQTC use their materials, although it would be great to have help developing it. But even with MDT's permission there are many more issues to address.</p> <p>Garth is concerned that the expense to develop the training is just the beginning. As the test methods and training materials are revised the online training will have to be updated, many of them yearly. Maintenance of the materials may be cost prohibitive.</p> <p>It is also unknown whether this training would fall under <i>Section 508 of the Rehabilitation Act</i> and the training would need to be accessible to people with disabilities.</p> <p>Garth volunteered to alert the EC to these concerns.</p> <p>Brad thought the EC should consider retaining or consulting legal counsel especially concerning Section 508. He wondered if FHWA could assist the WAQTC in this.</p> <p>The on-line training task force and the QAC would like direction from the EC on how to proceed.</p>	GARTH NEWMAN



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	<p><i>Garth will discuss the concerns and issues with the EC.</i></p> <p><i>This will also be on the EC Spring meeting agenda.</i></p>	GILBERT ARREDONDO FOR GARTH NEWMAN
Audit clarification	<p>The QAC requested clarification from the EC concerning the assignment: Develop a work plan for Reciprocity Audits of Member Agencies.</p> <p>Garth reviewed the 2015 August EC meeting minutes with the QAC. The EC decided:</p> <p><i>The proposed auditing program will address reciprocity eligibility. Agencies' programs will be found either compliant or non-compliant for providing reciprocal qualifications.</i></p> <p>Desna thought that the AMRL Certification Details Form would be a good model for a Reciprocity Questionnaire. With Garth's permission, she developed questions based on the requirements in the <i>Administration Manual</i>.</p> <p>The committee members reviewed the questionnaire. Sean asked who should respond to a questionnaire. The QAC thought it should be each agency's TTQP program head.</p> <p>Gilbert feels that the questionnaire is a good start to determine an agency's program compliance with the <i>Administration Manual</i>.</p> <p>The questionnaire was revised to include exam security and retention which was a concern of the EC.</p> <p>The QAC proposed presenting the questionnaire to the EC.</p> <p>In reviewing the questionnaire there was a discussion of the <i>Registration, Policies, &amp; Information Handbook (RPIH)</i> guide document. The RPIH has not been updated by the WAQTC since 2007. The guide document needs to be updated and distributed.</p> <p><i>Desna will update the RPIH. Garth will review revisions.</i></p> <p><i>The revised Reciprocity Questionnaire will be presented to the EC.</i></p>	<p>DESNA BERGOLD GARTH NEWMAN</p> <p>GILBERT ARREDONDO FOR GARTH NEWMAN</p>
Adding T 84 to the WAQTC qualifications	<p>Rich Giessel asked Dan to poll the QAC on adding training and qualification of <i>T 84, Specific Gravity of Fine Aggregate</i>.</p> <p>As this test method is not required in the field in most states, the QAC would not recommend requiring all testing technicians qualify on it. Gilbert said that UDOT includes T 84 in their training and qualification program and would be willing to share it with AKDOT if</p>	

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	<p>they would like. He will discuss it with Dan.</p> <p><i>No action required.</i></p>	
On-line documents: should they be addressed in the Style Guide?	<p>As more of the WAQTC training materials are posted on the WAQTC website Desna asked if the style and format of these materials should be addressed in the <i>WAQTC Style Manual</i>.</p> <p>The committee thought this was a good idea.</p> <p><i>Desna will draft revisions to the guide and bring it for approval at the 2016 Summer meeting.</i></p>	DESNA BERGOLD
Spring meeting QAC representative	<p>Garth cannot attend the EC Spring Meeting and asked the QAC to select a representative. Desna will be attending and will support the selected representative.</p> <p>The EC Spring Meeting will be held on April 6<sup>th</sup> and 7<sup>th</sup> immediately following the WASHTO conference in Salt Lake City, UT. Gilbert volunteered to represent the QAC as he will not have to travel. The committee thought Gilbert would make a good representative and feel that saving travel costs is a good idea.</p> <p><i>Gilbert will represent the QAC at the EC Spring Meeting in April.</i></p>	GILBERT ARREDONDO
QAC Vice Chair Position	<p>Garth explained that the EC approved the creation of a QAC Vice Chair position to support Garth and potentially become Chair when he retires. At the 2015 Summer meeting Garth asked that anyone interested in the Vice Chair position provide him with a written letter of interest.</p> <p>Misty has submitted a letter of interest. Sean expressed interest to Garth verbally at the New Mexico meeting. Garth asked Sean to provide a letter of interest in writing. Garth will forward the letters to the EC and request that they select a QAC Vice Chair.</p> <p><i>Garth will confer with EC and request that a decision be announced at the April EC meeting. Gilbert will follow up.</i></p> <p><i>The 2016 QAC Summer meeting will be held at the Residence Inn, Vancouver WA; July 18<sup>th</sup> through 22<sup>nd</sup>.</i></p>	GARTH NEWMAN GILBERT ARREDONDO