

# WAQTC EXECUTIVE BOARD

## 2023 SUMMER MEETING MINUTES

**MEETING CALLED BY:** LARRY ILG, CHAIR  
**RECORDER:** DESNA BERGOLD, COORDINATOR

**DATE:** July 28<sup>th</sup>, 2023  
**TIME:** 10:00 AM TO 12:00 PM MDT  
**LOCATION:** TEAMS

### ATTENDEES:

LARRY ILG, ODOT, CHAIR  
MIKE SAN ANGELO, AKDOT & PF, VICE CHAIR  
L. SCOTT NUSSBAUM, TREASURER, UDOT  
MICHAEL VOTH, CFLHD  
OAK METCALFE, MDT  
AMY BEISE, NDDOT  
MISTY MINER, MDT, QAC CHAIR

GILBERT ARREDONDO, UDOT,  
QAC VICE CHAIR  
SEAN PARKER, ODOT, QAC MEMBER  
**ABSENT:**  
CRAIG WIEDEN, CDOT  
BRIAN IKEHARA, HDOT  
CHAD CLAWSON, ITD  
GARRETT WEBSTER, WSDOT

### Agenda Items / Objectives:

1. **Report on 2022 Proposed AASHTO revisions**
  - a. *T 112, Clay Lumps and Friable Particles (TS 1c)* – Champion Sean Parker
2. **2023 Proposed AASHTO revisions from the QAC**
  - a. *T 11, Materials Finer Than 75- $\mu$ m (No. 200) Sieve in Mineral Aggregates by Washing (TS 1c)* TS meeting Aug. 2 at 3:30 pm – Champion Sean Parker
  - b. *T 27, Sieve Analysis of Fine and Coarse Aggregates (TS 1c)* TS meeting Aug. 2 at 3:30 pm – Champion Sean Parker
  - c. *T 30, Mechanical Analysis of Extracted Aggregate (TS 2c)* TS meeting Aug. 2 at 1:00 pm – Champion Larry Ilg
  - d. *T 121, Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete (TS 3b)* TS meeting July 31 at 1:00 pm – Champion Oak Metcalfe
  - e. *T 166, Bulk Specific Gravity ( $G_{mb}$ ) of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens (TS 2c)* TS meeting Aug. 2 at 1:00 pm – Champion Oak Metcalfe
  - f. *T 329, Moisture Content of Asphalt Mixtures by Oven Method (TS 2c)* TS meeting Aug. 2 at 1:00 pm – Champion Oak Metcalfe
3. **Administration Manual and RPIH**
  - a. Revisions from the QAC
    - i. Annex A - Asterisks for Performance Exams that are paperwork
    - ii. Term selected 'technician'
4. **Operations Manual**
  - a. FOP Work Plan
  - b. Training Materials Update Calendar
  - c. Examiner Orientation
5. **QAC 2023 Proposed Revision to the Training Materials**
  - a. Change publication date to the year that it is used

TOPIC	Discussion / <i>Decision</i>	ACTION REQUIRED BY:
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- b. List of training revisions attached.
- 6. CDOT New QAC Member
- 7. Funding and Budget – Scott Nussbaum
- 8. Third-Party Written Exam Delivery progress
- 9. YouTube Channel and video training
- 10. Training materials accessibility
- 11. Program Improvements – QAC ideas
  - a. Begin addressing ADA compliance
  - b. Software that could house all the videos and members can share materials
  - c. Facilitation training
- 12. Executive Board interview video
- 13. 2024 QAC Meeting locations
  - a. Winter Meeting
    - i. First choice: Honolulu HI
    - ii. Second choice: Santa Fe NM
    - iii. Third choice: Las Vegas NV
  - b. Summer meeting
    - i. First choice: Minneapolis MN
    - ii. Second choice: Coeur d’Alene, ID
    - iii. Third choice: Anchorage, AK
- 14. Other items

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TOPIC	Discussion / <i>Decision</i>	ACTION REQUIRED BY:

WELCOME	Larry Ilg, ODOT and Executive Board Chair, welcomed everyone to the meeting.	
2022 PROPOSED AASHTO REVISIONS	<p><i>T 112, Clay Lumps and Friable Particles (TS 1c) – Champion Sean Parker</i></p> <p>During the 2023 Spring Meeting, Desna said that the 2023 version of T 112 in the AASHTO Materials Library did not include the editorial revisions. Sean Parker, ODOT and Qualification Advisory Committee (QAC) Member, is the Champion of these revisions and alerted Matt Beeson, Technical Subcommittee (TS) 1c Chair. Desna checked the version that is currently in the AASHTO Materials Library that is ready for publication and the editorial revisions are included.</p> <p><i>No further action necessary.</i></p>	

2023 PROPOSED AASHTO REVISIONS FROM THE QAC

T 11	<p><i>T 11, Materials Finer Than 75-<math>\mu</math>m (No. 200) Sieve in Mineral Aggregates by Washing (TS 1c) – Champion Sean Parker</i></p> <p><u>Revision proposal:</u></p> <ul style="list-style-type: none"> <li>• Section 2.1, Referenced Documents, add ‘T 255, Total Evaporable Moisture Content of Aggregate by Drying’</li> <li>• Section 8.1 add ‘according to T 255’ and remove ‘at a temperature of 110 <math>\pm</math> 5°C (230 <math>\pm</math> 9°F).’</li> <li>• Section 8.5 add ‘according to T 255’ and remove ‘at a temperature of 110 <math>\pm</math> 5°C (230 <math>\pm</math> 9°F).’</li> </ul> <p>Desna said that this revision was sent to Matt Beeson, TS 1c Chair on June 2, 2023. Sean confirmed that the revisions are on the TS agenda for the upcoming AASHTO Committee on Materials and Pavement (COMP) Annual Meeting.</p> <p><i>Sean Parker will represent the WAQTC proposed revisions during the upcoming AASHTO COMP Annual Meeting.</i></p>	SEAN PARKER
T 27	<p><i>T 27, Sieve Analysis of Fine and Coarse Aggregates (TS 1c) – Champion Sean Parker</i></p> <p><u>Revision proposal:</u></p> <ul style="list-style-type: none"> <li>• Section 2.1, Referenced Documents, add ‘T 255, Total Evaporable Moisture Content of Aggregate by Drying.’</li> </ul>	

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	<ul style="list-style-type: none"> <li>• Section 8.1 add ‘according to T 255’ and remove ‘at a temperature of 110 ± 5°C (230 ± 9°F).’</li> <li>• Remove final sentence in Note 5.</li> </ul> <p>This revision was sent to Matt Beeson, TS 1c Chair on June 2, 2023. Sean confirmed that the revisions are on the TS agenda for the upcoming AASHTO Committee on Materials and Pavement (COMP) Annual Meeting.</p> <p><i>Sean Parker will represent the WAQTC proposed revisions during the upcoming AASHTO COMP Annual Meeting.</i></p>	SEAN PARKER
T 30	<p><i>T 30, Mechanical Analysis of Extracted Aggregate (TS 2c) TS meeting Aug. 2 at 1:00 pm – Champion Larry Ilg</i></p> <p><u>Revision proposal:</u></p> <ul style="list-style-type: none"> <li>• Break paragraphs with multiple steps into individual steps.</li> <li>• Add (in red) ‘Dry the sample <b>to constant mass according to T 255</b>, if necessary,’ remove redundant constant mass language</li> <li>• Remove first sentence in Note 3.</li> <li>• Remove second ‘add wetting agent.’</li> <li>• Editorial ‘active voice’ revisions.</li> </ul> <p>This revision was sent to Allen Myers, TS 2c Chair on June 1, 2023. Larry confirmed that the revisions are on the TS agenda for the upcoming AASHTO COMP Annual Meeting.</p> <p><i>Larry Ilg will represent the WAQTC proposed revisions during the upcoming AASHTO COMP Annual Meeting.</i></p>	LARRY ILG
T 121	<p><i>T 121, Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete (TS 3b) TS meeting July 31 at 1:00 pm – Champion Oak Metcalfe</i></p> <p><u>Revision proposal:</u></p> <ul style="list-style-type: none"> <li>• Break paragraphs with multiple steps into individual steps.</li> <li>• Add ‘and remove any standing water from the bottom’ after ‘dampen the measure.’</li> </ul>	

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	<ul style="list-style-type: none"> <li>• Add ‘Determine the mass of the empty measure using a balance that meets the requirements of Section 4.1.’</li> <li>• Add ‘Determine the net mass by subtracting the mass of the empty measure (Section 7.2), from the mass of the measure and concrete (Section 7.12)’</li> <li>• Sections 3.1.1, 8.2, and 8.6, change theoretical density variable to <math>\rho_T</math></li> <li>• Section 7.7.2.2 add ‘in consolidating the final layer’</li> <li>• Section 3.1.1 fix internal cross referencing after M, Section 3.1.4</li> <li>• Other ‘active voice’ revisions</li> </ul> <p>This revision was sent to Brandon Varilek, TS 3b Chair, on June 1, 2023. Oak Metcalfe, MDT and Executive Board Member, confirmed that the revisions are on the TS agenda for the upcoming AASHTO COMP Annual Meeting.</p> <p>Desna said that Wally Heyen, TS 3b Vice Chair, sent the version of the method Deb Kim, AASHTO Publications, had revised for 2023 publication with the WAQTC proposed revisions tracked for Desna to verify they were still represented. Desna told Wally that the proposed revisions were accurate and thanked him for the opportunity to review.</p> <p><i>Oak Metcalfe will represent the WAQTC proposed revisions during the upcoming AASHTO COMP Annual Meeting.</i></p>	OAK METCALFE
T 166	<p><i>T 166, Bulk Specific Gravity (<math>G_{mb}</math>) of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens (TS 2c) TS meeting Aug. 2 at 1:00 pm – Champion Oak Metcalfe</i></p> <p><u>Revision proposal:</u></p> <ul style="list-style-type: none"> <li>• Break paragraphs with multiple steps into individual steps</li> <li>• Change ‘<math>52 \pm 3^\circ\text{C}</math> (<math>126 \pm 5^\circ\text{F}</math>)’ to ‘<math>52 \pm 3^\circ\text{C}</math> (<math>125 \pm 5^\circ\text{F}</math>)’ in Section 5.5</li> <li>• Add apparatus section in Method C, include: <ul style="list-style-type: none"> <li>○ 11.1 Forced-Air, Ventilated, or Convection Oven—capable of maintaining the temperature surrounding the sample at <math>163 \pm 14^\circ\text{C}</math> (<math>325 \pm 25^\circ\text{F}</math>).</li> <li>○ 11.2 For other equipment, see Methods A or B.</li> </ul> </li> </ul>	

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TOPIC	Discussion / <i>Decision</i>	ACTION REQUIRED BY:

	<ul style="list-style-type: none"> <li>Remove sentence describing apparatus in Procedure.</li> <li>New Section 12.2.2, add ‘and dry according to T 329’ and remove ‘at 110 ± 5°C (230 ± 9°F)’</li> <li>New Section 12.2.4, add ‘and dry to constant mass according to T 329’ remove ‘at 110 ± 5°C (230 ± 9°F)’ and following oven sentence.</li> <li>Move ‘More than one oven may be used . . .’ into a note.</li> <li>Add ‘For drying samples, meeting the requirements of Section 5.5. and’ in Section 11.1</li> <li>Delete ‘More than one oven may be used . . .’ paragraph</li> </ul> <p>This revision was sent to Allen Myers, TS 3c Chair, on June 1, 2023. Oak confirmed that the revisions are on the TS agenda for the upcoming AASHTO COMP Annual Meeting.</p> <p><i>Oak Metcalfe will represent the WAQTC proposed revisions during the upcoming AASHTO COMP Annual Meeting.</i></p>	OAK METCALFE
T 329	<p><i>T 329, Moisture Content of Asphalt Mixtures by Oven Method (TS 2c) TS meeting Aug. 2 at 1:00 pm – Champion Oak Metcalfe</i></p> <p><u>Revision proposal:</u></p> <ul style="list-style-type: none"> <li>Break paragraphs with multiple steps into individual steps</li> <li>Remove ‘Preheat the oven’ in the new Section 6.5 and revise to ‘active voice’</li> </ul> <p>This revision was sent to Allen Myers, TS 3c Chair, on June 1, 2023. Oak confirmed that the revisions are on the TS agenda for the upcoming AASHTO COMP Annual Meeting.</p> <p><i>Oak Metcalfe will represent the WAQTC proposed revisions during the upcoming AASHTO COMP Annual Meeting. Wally sent the updated version to verify.</i></p>	OAK METCALFE

ADMINISTRATION MANUAL AND RIGHTS, POLICY, AND INFORMATION HANDBOOK (RPIH)

TECHNICIAN	<p><i>Proposed revisions from the QAC</i></p> <p>During the Spring Meeting, the Board noticed that multiple terms are used interchangeably: ‘participant,’ ‘examinee,’ and ‘individual’ in both the <i>Administration Manual</i> and the <i>RPIH</i>.</p>	
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TOPIC	Discussion / <i>Decision</i>	ACTION REQUIRED BY:

	<p>The Board asked the QAC to select a term and revise the manuals appropriately.</p> <p>The QAC determined that ‘technician’ would be the appropriate term to use. The Board agreed.</p> <p><i>The Administration Manual and Registration, Policies, and Information Handbook will be revised as approved.</i></p>	DESNA BERGOLD
ANNEX A	<p><i>Asterisks for Performance Exams that are not lab work.</i></p> <p>The QAC proposed revisions in Annex A, Test Methods for Asphalt II Qualification. Where it indicates that there is a performance exam for WAQTC TM 13, it should be qualified with an asterisk and a footnote that states, ‘Performance examination consists of performing appropriate calculations.’</p> <p>The QAC proposed a similar statement for the FOP for AASHTO R 75, in the Test Methods for Embankment and Base Qualification and the combined Test Methods for Embankment and Base/In-place Density Qualification with the footnote reading, ‘Performance exam consists of graphing a family of curves.’</p> <p>The Board approved these revisions but suggested revising the footnote for the FOP for AASHTO R 75 be revised to ‘Performance exam consists of graphing a family of curves <b>and calculations.</b>’</p> <p><i>The Administration Manual and Registration, Policies, and Information Handbook will be revised as approved.</i></p>	DESNA BERGOLD

OPERATIONS MANUAL

FOP WORK PLAN	<p><i>FOP Library Work Plan</i></p> <p>Desna drafted revisions to the FOP Library Work Plan. The revisions address moving the work the QAC performs updating the FOP Library to the annual Winter Meeting. These revisions were approved.</p> <p><u>Proposed revision to the FOP Library Workplan:</u></p> <ul style="list-style-type: none"> <li>- Add, ‘Revisions drafted for review and approval during the QAC Winter Meeting.’</li> </ul> <p><i>The FOP Library Workplan in the Operations Manual will be revised as approved.</i></p>	DESNA BERGOLD
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TOPIC	Discussion / <i>Decision</i>	ACTION REQUIRED BY:

TRAINING MATERIALS UPDATE CALENDARS	<p><i>Training Materials Update Calendars</i></p> <p>Desna drafted revisions to the Training Materials Update Calendars to address the work for the FOP Library. These revisions were approved.</p> <p><u>Proposed revision to the Training Materials Update Calendars:</u></p> <ul style="list-style-type: none"> <li>- To include FOP Library Process</li> </ul> <p><i>The Training Materials Calendars in the Operations Manual will be revised as approved.</i></p>	DESNA BERGOLD
EXAMINER ORIENTATION	<p><i>WAQTC Performance Exam Examiners Orientation</i></p> <p>Desna drafted revisions to the Performance Examiner Orientation. The Board and the QAC agreed that a technician should not be allowed to restart a ‘trial’ because the Performance Exam is open book.</p> <p><u>Proposed revision to the WAQTC Performance Examiner Orientation:</u></p> <ul style="list-style-type: none"> <li>- Remove ‘An examinee can restart a trial from the beginning, once. Voluntarily restarting a test method will not be counted as a failure of that trial. The examinee must state that they want to start over without prompting.’</li> </ul> <p><i>The WAQTC Performance Examiners Orientation in the Operations Manual will be revised as approved.</i></p>	DESNA BERGOLD

QAC 2023 PROPOSED REVISIONS TO THE TRAINING MATERIALS

PUBLICATION DATE	<p><i>Training Materials Publication Date</i></p> <p>During the QAC Summer Meeting, Gilbert Arredondo, UDOT and QAC Vice Chair, said that UDOT begins using the revised training materials at the beginning of the following year, which means that they won’t be using the 2023 Training Materials until the beginning of 2024. For this cycle, the training materials have a ‘Pub. Date’ in the footer of ‘November 2023.’ This has caused some confusion for the technicians. They frequently ask if they have the most current copy. The QAC considered using January of the following year as the ‘Pub. Date.’</p> <p>Most of the members have the same schedule as UDOT and approve of the change. Misty Miner, MDT and QAC Chair, said that MDT begins using the revised materials before the end of</p>	
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TOPIC	Discussion / <i>Decision</i>	ACTION REQUIRED BY:
	<p>the year, but wouldn't have a problem with changing the 'Pub. Date.'</p> <p>Larry asked what the value would be in changing it. Comparisons were made to the AASHTO dates that are just the year even though they aren't published until the end of July.</p> <p>Desna explained that the 'Pub.' date in the footer was started by the QAC to be able to readily discern while training whether a technician has the most recent version of the Training Materials, the revision date is in the header of the documents and in the file name in the footer on the left.</p> <p>The Board decided that both the date the documents are put in service and a date indicating the year of use. For example, for the current year it would say 'Pub. October 2023 (v. 2024).'</p> <p>Desna explained that this revision would not go into effect until the next publication.</p> <p><i>The Training Materials will be revised in 2024 to include a version date.</i></p> <p><i>Desna will draft a revision to the WAQTC Style Guide for approval in 2024.</i></p>	DESNA BERGOLD
LIST OF PROPOSED REVISIONS	<p><i>QAC 2023 Proposed Revisions to the WAQTC Training Materials</i></p> <p>A list of the proposed revisions is attached.</p> <p>Desna was asked to go through the list and summarize the revisions.</p> <p>A revision to the <i>FOP for AASHTO T 255, Total Evaporable Moisture Content of Aggregate by Drying</i>, included a change to the instruction under Table 2, 'Immediately <del>seal</del> <b>place or cover</b> moisture content samples <b>in a container capable of being sealed</b> to prevent any change in moisture content or follow the steps in "Procedure."</p> <p>Scott Nussbaum, UDOT and Executive Board Treasurer, pointed out that the revision removes the instruction to seal the container. He asked what the intention was. Desna explained that this revision was part of the revisions being proposed to the combined <i>FOP for AASTHO T 255/T 265, Moisture Content of Aggregate and Soil</i>. Misty explained that in the FOP for AASTHO T 255/T 265, soil needs to be placed in a container suitable for drying with a 'close-fitting' lid, but aggregate does</p>	

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	<p>not. In the FOPs this was further confused by the potential use of a microwave safe container with a lid that can only be used on aggregate and ‘containers: clean, dry, and capable of being sealed’ that are used for all samples that have been reduced and may be transported or stored, however briefly until the original mass determination.</p> <p>This proposed revision did not add the clarity intended and will not be included in the Training Materials.</p> <p><i>In the FOP for AASHTO T 27/T 11, Sieve Analysis of Fine and Coarse Aggregates and Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing</i>, another combined test procedure, there was some confusion between the FOP Methods A, B, and C, which identify different processes to perform and calculate the sieve analysis and AASHTO T 11 Method A and B which address washing the sample with and without a wetting agent. The FOP for AASHTO T 27/T 11 addresses the use of a wetting agent in a note.</p> <p>All the revisions were approved except those noted.</p> <p><i>The approved revisions will be included in the 2023 Training Materials.</i></p>	DESNA BERGOLD
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OTHER ITEMS

CDOT	<p><i>New QAC Member</i></p> <p>During the 2023 QAC Summer Meeting, Christopher Russell, CDOT, announced that it was his final meeting, he is leaving CDOT to pursue other opportunities. He said that Madeline Enright, CDOT, will be replacing him on the QAC.</p> <p><i>Christopher Russell will be replaced by Madeline Enright in the Administration Manual and Registration, Policies, and Information Handbook and on the WAQTC webpage.</i></p>	DESNA BERGOLD
FUNDING AND BUDGET	<p>Scott shared the financial report as of June 2023.</p> <p>Scott said that the old, pooled fund is closed.</p> <p>He also indicated that UDOT and D B Consulting are negotiating a new contract. A contract is necessary because UDOT rules don’t allow D B Consulting’s total contract value to exceed \$250,000. A large percentage of the contract amount is direct expenses (travel, website, third-party exams) that are administered by the contract.</p>	

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TOPIC	Discussion / <i>Decision</i>	ACTION REQUIRED BY:
	<p>Scott also said that HDOT will no longer contribute to the pooled fund after 2023 and will be stepping down as member. The Board agreed that someone should reach out to Brian Ikehara, HDOT and Executive Board Member, and determine if there is anything that WAQTC can do.</p> <p>Mike San Angelo, AKDOT, suggested that if the reason for stepping down is financial then perhaps HDOT can be persuaded to remain a WAQTC member agency with the financial obligation waived for a time.</p> <p>Larry said that he will reach out to Brian and indicate that WAQTC could waive the commitment for 2 years and then revisit HDOT's membership.</p> <p><i>Larry Ilg will discuss HDOT's WAQTC membership with Brian Ikehara.</i></p>	LARRY ILG
THIRD-PARTY WRITTEN EXAM DELIVERY	<p>Desna reported that all the written exams are now active in Webassessor. She said there were a couple of initial issues, but they have been resolved.</p> <p>Desna added that Kryterion hosted a meeting on July 27<sup>th</sup>, and they have proposed holding monthly 'check-in' meetings to answer any questions that may come up.</p> <p>Desna invited Mark Willoughby and Kevin Burns, WSDOT; Dan Gettman, AKDOT; Lori Copeland, ITD; and Gilbert Arredondo, UDOT; all members of the QAC, to attend the meeting.</p> <p>Desna was asked what type of information was covered at the meeting. Desna said she asked about changing an administrator's role in the system, Mark asked why the candidates weren't allowed scratch paper at the testing center, etc. Mayra Garcia, Kryterion, assured the attendees that she would take care of the issues and followed up with an email that day.</p> <p><i>No further action required at this time.</i></p>	
YOUTUBE CHANNEL AND VIDEO TRAINING	<p>Desna informed the Board that the QAC had discussed this during the Summer Meeting and each member had agreed to develop a video with voice over for a test method for review at the 2024 QAC Winter Meeting.</p> <p><i>No further action from the Board at this time.</i></p>	

TOPIC	Discussion / <i>Decision</i>	ACTION REQUIRED BY:
<p>TRAINING MATERIALS ACCESSIBILITY</p>	<p>During the 2023 Summer Meeting, Christopher Russell, CDOT and QAC Member, informed the QAC that CDOT has been addressing accessibility issues in their training. It has been a difficult road and he wanted to alert the QAC that it could become an issue with the WAQTC TTQP Training Materials.</p> <p>The QAC decided to alert the Board to the possibility.</p> <p>The Board indicated that there is much to consider but perhaps it is time to get started.</p> <p>Oak said that closed captioning is one of the first things they have tried to address.</p> <p>Mike Voth, FHWA, said that there are a lot of decisions points when preparing a document to be read aloud by computer software, especially with the number of symbols and acronyms in the training documents.</p> <p>The Board agreed that if member states are addressing accessibility, WAQTC should work with them. If necessary, WAQTC could contract with an outside entity.</p> <p>Scott said that a meeting should be set up that Craig Wieden, CDOT, could attend. The Board could determine what types of issues CDOT has been experiencing and WAQTC could develop a plan.</p> <p>Desna was asked to poll the Board Members and find a good time for a meeting in September.</p> <p><i>Desna will schedule a meeting to discuss Training Materials accessibility in September.</i></p>	<p>DESNA BERGOLD</p>
<p>PROGRAM IMPROVEMENTS</p>	<p>During the 2023 Executive Board Spring Meeting, the Board asked the QAC to brainstorm program improvements.</p> <p>Since CDOT's current experience trying to address accessibility, the QAC discussed the possibility of making WAQTC Training Materials more compliant. Perhaps just start a review and modification of the FOPs and PowerPoints.</p> <p>The QAC also discussed facilitation training, video software and a share point for materials, and instructor preparation courses.</p> <p><u>QAC ideas for program improvement:</u></p> <ul style="list-style-type: none"> <li>- Addressing Training Materials ADA compliance</li> </ul>	

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TOPIC	Discussion / <i>Decision</i>	ACTION REQUIRED BY:

	<ul style="list-style-type: none"> <li>- Facilitation training</li> <li>- Positive culture training</li> <li>- Instructor preparation courses</li> <li>- Video software/site for sharing materials and programs</li> </ul> <p><i>The Executive Board will consider these suggestions further.</i></p>	EXECUTIVE BOARD MEMBERS
2024 QAC MEETING LOCATIONS	<p><i>2024 QAC Meeting Locations</i></p> <p>The QAC proposed the following meeting locations.</p> <p>Winter Meeting</p> <ul style="list-style-type: none"> <li>• First choice: Honolulu HI</li> <li>• Second choice: Santa Fe NM</li> <li>• Third choice: Las Vegas NV</li> </ul> <p>Summer meeting</p> <ul style="list-style-type: none"> <li>• First choice: Minneapolis MN</li> <li>• Second choice: Coeur d'Alene, ID</li> <li>• Third choice: Anchorage, AK</li> </ul> <p>The Board discussed the proposed locations for the 2024 Winter Meeting. Although it may be good to try to visit with HDOT considering their impending departure, many agencies would not be able to send a technician to a meeting in Hawaii. Scott said that, in UDOT, travel to Hawaii requires the Governor's approval, and he was informed that the Governor would not approve. Larry said that ODOT would not approve travel to Hawaii either.</p> <p>Mike San Angelo asked why there weren't other member agencies listed. Misty explained that the QAC considered New Mexico an opportunity to meet with someone from NMDOT and Las Vegas, NV, was considered because it is the same GSA per diem as Reno, NV. The QAC has had many Winter Meetings in Reno because of the cost savings.</p> <p>The Board said that the driving factors for selecting a location for meetings should be to go to a member agency's location or cost.</p> <p>Mike asked which member agency has not hosted a meeting recently. Larry said that ODOT hasn't but that he does not recommend Portland at this time. The Board considered Eugene, OR but wants to know if the cost of flights might make that option expensive. Desna reminded the Board that the QAC used</p>	

TOPIC	Discussion / <i>Decision</i>	ACTION REQUIRED BY:
	<p>to hold meetings in Vancouver, WA. Many members could fly into Portland relatively cheaply. Desna was asked to estimate a cost comparison.</p> <p>The Board then asked why Minneapolis MN was proposed for the 2024 Summer Meeting. Desna explained that Sharon Tylor, NDDOT and QAC Member, offered to host the meeting but thought that traveling to Minneapolis would be easier.</p> <p>The Board asked Amy Beise, NDDOT, her thoughts. Amy said that they would be happy to host the meeting. Scott asked Amy where she would like the meeting held. Amy said although North Dakota is a little tricky to get to, she would like to have the meeting in Bismarck.</p> <p><i>Desna will generate a cost comparison to determine if the 2024 QAC Winter Meeting will be held in Eugene, OR. or Vancouver, WA.</i></p> <p><i>The 2024 Summer Meeting will be held in Bismarck, ND.</i></p>	<p>DESNA BERGOLD</p>

# QAC 2023 Proposed Revisions to the WAQTC Training Materials

## General files

### Terminology

- Revise the definition of fractured criteria to read, 'The specified requirement for fractured particles determined by each agency.'

## Aggregate (AgTT)

### FOP for AASHTO R 76, Reducing Samples of Aggregate to Testing Size

#### **FOP:**

- New date
- New AASHTO date
- New terminology section with definition of saturated surface-dry (SSD)
- New Note 1 with approximation of SSD.
- Apparatus Method B – Quartering and **Sectoring**
  - Added Stick or pipe
  - Added quartering template
- Method Selection
  - Paragraph describing elements of the method selection, materials and moisture content
  - Note 2: discussing drying material if desired
  - Bulleted section on use of each method and material it can be used on
  - Table 1: revised to match bulleted selection method
- Procedure
  - Revised headings
  - Added Method B Sectoring

#### **Review Questions**

- Added question on sectoring

#### **Performance Exam Checklist:**

- Added quartering template
- Added Sectoring steps
- Added 'Increments combined to produce appropriate sample mass?'

**PowerPoint:**

- Revisions to match the FOP revisions

FOP for AASHTO T 255, Total Evaporable Moisture Content of Aggregate by Drying

**FOP:**

- New date
- Sample Preparation
  - Revise instruction under Table 2, 'Immediately ~~seal, place or cover~~ moisture content samples **in a container capable of being sealed** to prevent any change in moisture content or follow the steps in "Procedure."' The Board pointed out that this revision unintentionally did not require sealing the sample. This revision is not accepted.
- Procedure
  - Use the term 'drying interval' for time of additional drying throughout.

**Performance Exam Checklist:**

- Step 7: add 'temperature'

**PowerPoint:**

- Slide 15: remove drying interval
- Add another slide after initial drying to include the drying interval.
- Revisions to match the FOP revisions

FOP for AASHTO T 27 /T 11, Sieve Analysis of Fine and Coarse Aggregates and Materials Finer Than 75- $\mu\text{m}$  (No. 200) Sieve in Mineral Aggregates by Washing

**FOP:**

- New date
- New AASHTO date
- Procedure Method A
  - Note 1: revise to '**When required by the agency**, add a detergent, dispersing **solution**, or other wetting **agent**.'
  - Remove Note 2
  - Step 5: add 'limit agitation to 10 min.'
- Procedure Method B
  - Note 1: revise to '**When required by the agency**, add a detergent, dispersing **solution**, or other wetting **agent**.'
  - Remove Note 2
  - Step 5: add 'limit agitation to 10 min.'



## QAC 2023 Proposed Revisions to the WAQTC Training Materials

- Procedure Method C
  - Note 3: revise to 'When required by the agency, add a detergent, dispersing solution, or other wetting agent.'
  - Remove Note 4
  - Step 13: add 'limit agitation to 10 min.'

### Performance Exam Checklist:

- None

### PowerPoint:

- Revisions to match the FOP revisions
  - Instructor's note on Slide 9: add 'The same mechanical sieve shaker may not be practical for all sizes of samples because the large sieving area needed for practical sieving of a large nominal size coarse aggregate very likely could result in loss of a portion of the sample if used for a smaller sample of coarse aggregate or fine aggregate.'

## FOP for AASHTO T 335, Determining the Percentage of Fracture in Coarse Aggregate

### FOP:

- New date
- Terminology: revise the definition of fractured criteria to read, 'The specified requirement for fractured particles determined by each agency.'
- Sampling and Sample Prep
  - Step 3a: revise to 'Dry and cool the sample, if necessary, to sufficiently obtain a clean separation of FA and CA material in the sieving operation.'
  - Step 4a: revise to 'Dry and cool the sample, if necessary, to sufficiently obtain a clean separation of FA and CA material in the sieving operation.'

### Performance Exam Checklist:

- New date
- Step 3: move 'Sample dried and cooled?' to Step 1.

### PowerPoint:

- Revisions to match the FOP revisions

## FOP for AASHTO T 176, Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test

### PowerPoint:

- Renumber steps on Slides 33, 35, and 36

## QAC 2023 Proposed Revisions to the WAQTC Training Materials

### Written exams

- New year
- New inputs for calculation questions
- Replaced one question per exam with a Sectoring question.

### Asphalt (AsTT I and II)

#### FOP for AASHTO R 97, Sampling Asphalt Mixtures

##### **FOP:**

- New Date
- Apparatus: revise to 'Agency approved release agent.'
- Procedure General: clarify use of cardboard boxes, revise to 'Cardboard boxes can used if the sample has cooled to the point that asphalt binder will not migrate from the aggregate.'
- Procedure Roadway Before Compaction: revise the first bullet to 'requiring' and the second bullet to 'Laying asphalt mixture on existing asphalt or laying a second lift of asphalt mixture allowing Method 2.'
- Safety second sentence: add 'breakdown' in front of 'roller'

##### **Review Questions**

- Question 2 second bullet: remove 'Plants with.'

##### **Performance Exam Checklist:**

- None

##### **PowerPoint:**

- Revisions to match the FOP revisions
- Add 'Recycled Asphalt Pavement (RAP) used in mix designing and 'Cold Mix' used in roadway patching may be sampled from a stockpile.' to the instructor's notes on Slide 35.

#### FOP for AASHTO R 47, Reducing Samples of Asphalt Mixtures to Testing Size

##### **FOP:**

- New date
- New AASHTO date
- Apparatus: revise Quartering Template to match AASHTO
- Change section title 'Quartering' to 'Quartering and Sectoring'
- Change Apex Method to Sectoring
- Quartering and Sectoring Methods

## QAC 2023 Proposed Revisions to the WAQTC Training Materials

- Step 2: replace 'dump' with 'place'
- Step 6 :change 'full quartering' to just 'quartering' and add 'sectoring'
- Revise 'Apex' section to 'Sectoring' throughout
- Add step in Sectoring: 'If necessary, repeat until the appropriate sample mass has been obtained.'

### Review Questions

- New date
- Revise 'apex' to 'sectoring'

### Performance Exam Checklist:

- New date
- Revise 'Apex' section to 'Sectoring' throughout

### PowerPoint:

- Revisions to match the FOP revisions
- Slide 14 Step 1: revised to 'not to **exceed** max missing temperature.'

## FOP for AASHTO T 329, Moisture Content of Asphalt Mixtures by Oven Method

### FOP:

- New date
- Significance: change 'rock' to 'aggregate' and 'mix' to 'asphalt mixture.' (Student)
- Apparatus: revise 'Sample container' to just 'Container.'
- Added steps to determine constant mass
- Revise constant mass steps to mimic the FOP for AASTHO T 255

### Performance Exam Checklist (editorial):

- Step 4: add 'to the nearest'
- Step 6: add '(if unknown)' after JMF and add the temperature range if unknown

### PowerPoint:

- Revisions to match the FOP revisions

## FOP for AASHTO T 308, Determining the Asphalt Binder Content of Asphalt Mixtures by the Ignition Method

### FOP:

- Sampling: move Step 3 to Step 2
- Procedure: move Steps 1 in Methods A and B to a new General section.
- Method B

## QAC 2023 Proposed Revisions to the WAQTC Training Materials

- Add step 16 addressing constant mass determination
- Step 17: revise for clarity
- Method B Calculations
  - Add formula and example for constant mass
- Annex
  - Step 8: revise to calculate the difference between the asphalt binder contents of the correction specimens and include Steps 8a and 8b to address whether the difference exceeds 0.15 percent or not.
  - New Step 9 to address calculating the correction factor.

### Performance Exam Checklist:

- New date
- Step 5: revised to 'With pan below basket **assembly**, sample evenly distributed in basket assembly **keeping material away from the edges?**'

### PowerPoint:

- Revisions to match the FOP revisions

FOP for AASHTO T 209, Theoretical Maximum Specific Gravity ( $G_{mm}$ ) and Density of Asphalt Mixtures

### FOP:

- New date
- New AASHTO date
- Apparatus
  - Vacuum measurement device: replace accurate to '0.1 kPa (1 mmHg)' to 'readable to at least 0.2 kPa (2 mmHg)'
  - Remove second listing of manometer
  - Add: 'Suspension apparatus: Suitable apparatus and holder to permit determining the mass of the sample while suspended below the balance. The wire suspending the holder shall be the smallest practical size to minimize any possible effects of a variable immersed length.'
- Procedure – General Step 9: change '3.7 ±0.3 kPa (30 ±5 mm Hg)' to '4.0 ±0.6 kPa (30 ±5 mm Hg)'
- Procedure – Bowl Step 3a move second sentence from Step 14A and rewrite to read, 'Immerse the suspension apparatus sufficiently to cover both it and the bowl.'
- Procedure – Mixtures Containing Uncoated Porous Aggregate first paragraph change 'bituminous' to 'asphalt binder' and add ' $G_{mm}$  and'

## QAC 2023 Proposed Revisions to the WAQTC Training Materials

- Change title from 'Annex A' to 'Annex'
- Annex **A**
  - Bowl – Standardization Step 2: add 'Immerse the suspension apparatus sufficiently to cover both it and the bowl.'
  - Bowl – Check Step 2: add 'Immerse the suspension apparatus sufficiently to cover both it and the bowl.'
  - Pycnometer or Volumetric Flask – Standardization Step 5: change 'lid to 'plate or cover'
  - Pycnometer or Volumetric Flask – Check Step 5: change 'lid to 'plate or cover'

### Performance Exam Checklist:

- New date
- Step 11: add 'of 4.0 ±0.6 kPa (30 ±5 mm Hg)'
- Step 15: add 15b 'Balance tared?'
- Step 15: add 15d 'Suspension apparatus submerged?'

### PowerPoint:

- Revisions to match the FOP revisions

FOP for AASHTO T 166, Bulk Specific Gravity ( $G_{mb}$ ) of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens

### FOP:

- New date
- Procedure Method A Step 4: add 'ensuring that the device is **completely submerged and not touching the sides or the bottom of the water bath.**'
- Procedure Method B: move Note 2 to the beginning of the procedure and remove the note designation.

### Performance Exam Checklist (editorial):

- New date
- Method A Step 5: add '(within 5 sec.)'
- Method B Step 2b: add '(within 5 sec.)'

### PowerPoint:

- Revisions to match the FOP revisions

FOP for AASHTO T 30, Mechanical Analysis of Extracted Aggregate

### FOP:

- New date

## QAC 2023 Proposed Revisions to the WAQTC Training Materials

- Mass Verification: revise the allowable variation from 0.10 percent to 0.1 percent.
- Make Procedure Step 13 two Steps
- Calculations: mass verification formula  $M_f(T_{308})$  definition revised to 'Mass of aggregate remaining in basket assembly'

### Review Questions (editorial):

- Question 1: add 'without overloading.'

### Performance Exam Checklist (editorial):

- New date
- Step 2: revise mass verification allowable variation
- Step 7: add 'reasonably clear'

### PowerPoint:

- Revisions to match the FOP revisions

FOP for AASHTO T 312, Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor

### FOP (editorial):

- Revised illustration of device movement (Student)

### Performance Exam Checklist (editorial):

- Added Step 1: 'Gyratory warmed up?'
- Step 3: delete 'rotating base surface, and rollers'
- Step 7: add 'within'
- Step 17: remove 'Asphalt mixture sample measured to a height of 115 ±5 mm at required number of gyrations?'
- Step 17: Add 'Specimen height and number of gyrations recorded?'
- Step 6: add '(if unknown)' after JMF and add the temperature range if unknown

### PowerPoint:

- Revisions to match the FOP revisions

WAQTC TM 13, Volumetric Properties of Asphalt Mixtures

### FOP (editorial):

- Background:
  - o Revise the third paragraph to read, 'The sample is then compacted in a gyratory compactor to simulate the in-place asphalt mixture pavement after it has been placed, compacted, and endured several years of traffic.'
  - o Revise next paragraph to, 'effective binder.'

## QAC 2023 Proposed Revisions to the WAQTC Training Materials

### **Performance Exam:**

- Add a 'P' and 'F' on each calculation line to allow the examiner to mark pass or fail.
- Move 'V<sub>a</sub> (0.1%)' up to the top of the FIND and REPORT section
- Add 'P<sub>s</sub> (0.01%)'

### **PowerPoint:**

- Revisions to match the FOP revisions

### Written Exams

- New year
- New inputs for calculations questions.
- Revisions to match the FOP revisions

## Concrete (CTT)

### FOP for AASHTO T 119, Slump of Hydraulic Concrete

#### FOP:

- New date
- New AASHTO date
- Apparatus Mold: 'The mold shall be free from dents, **deformations, and adhered mortar.**'
- Procedure
  - Step 5: add 'Rod the bottom layer throughout its depth.'
  - Step 9: revise to 'Keep an excess amount of concrete above the top of the mold at all times,' to '**Always keep an excess of concrete above the top of the mold.**'
  - Note 1: move first sentence 'If a decided falling away or shearing off of concrete from one side or portion of the mass occurs, disregard the test and perform a new test on another portion of the sample,' to Step 13d.

#### Performance Exam Checklist:

- Steps 3, 6 and 9: remove 'moving a scoop around the perimeter of the mold to evenly distribute the concrete as discharged.'

#### PowerPoint:

- Revisions to match the FOP revisions

### FOP for AASHTO T 121, Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete

#### FOP:

- New date
- New AASHTO date
- Apparatus Mallet: change '0.14 m<sup>3</sup>' to '**14 L**' and 'of 0.028 m<sup>3</sup> (1 ft<sup>3</sup>)' to '**larger than 14 L (0.5 ft<sup>3</sup>)**'
- Table 1: remove the final row for 1 ft<sup>3</sup> measures.
- Change 'Procedure Selection' to 'Consolidation Selection'
- Procedure
  - Rodding
    - Move Step 2 to Step 1 and Step 1 to Step 2
    - Remove Step 12
  - Internal Vibration: remove Steps 8 and 9
  - Self-Consolidating Concrete



## QAC 2023 Proposed Revisions to the WAQTC Training Materials

- Step 3: add 'Do not exceed 125 mm (5 in.) drop height'
- Step 5: Revise the beginning of the sentence to read, 'Finish the surface. . .'
- Strike-off and Mass Determination: add step addressing excess or deficient concrete after consolidation.

### Performance Exam Checklist:

- Step 1: remove 'and volume' add 'dampened'
- Step 2: remove dampened

### PowerPoint:

- Revisions to match the FOP revisions

## FOP for AASHTO T 152, Air Content of Freshly Mixed Concrete by the Pressure Method

### FOP:

- New date
- New AASHTO date
- Apparatus Container for Water: remove parenthetical 'may also be a squeeze bottle' and add 'or plastic wash bottle'
- Change 'Procedure Selection' to 'Consolidation Selection'
- Procedure
  - Rodding: remove Step 12
  - Strike-off and Air Content
    - Add step addressing excess or deficient concrete after consolidation.
    - Step 2: add that the plate is inclined when used for strike-off

### Performance Exam Checklist:

- Step 11: revise to 'Concrete struck off level with top of the measure using the bar or **inclined** strike-off plate ~~and rim cleaned off?~~'
- Step 12: revise to 'Top flange of ~~base~~ **measure** cleaned?'

### PowerPoint:

- Revisions to match the FOP revisions

## FOP for AASHTO R 100, Making and Curing Concrete Test Specimens in the Field

### FOP:

- New date
- New AASHTO date

## QAC 2023 Proposed Revisions to the WAQTC Training Materials

- Moved 'Consolidation Selection' section from Procedure to its own section above Procedure.
- Procedure ~~Making~~  
**Molding** Specimens General
  - Section title change
  - Step 6: revise to 'Fill molds in the required number of layers, attempting to slightly overfilling the mold on the final layer. ~~Add or remove concrete before completion of consolidation to avoid a deficiency or excess of concrete.~~'
- ~~Making~~ **Casting** Cylinders
  - Section title change
  - Move Self-Consolidating Concrete section under Internal Vibration Section
- ~~Making~~ **Casting** Flexural Beams
  - Section title change

### Performance Exam Checklists:

- None

### PowerPoint:

- Revisions to match the FOP revisions

### Written Exams

- New year
- New inputs for calculation questions

## Embankment/ Base and In-place Density (E&B/IPD)

### FOP for AASHTO T 255/T 265, Moisture Content of Aggregate and Soil

#### FOP:

- New date
- Apparatus
  - Separate drying containers for soils and aggregate
  - Microwave safe container (for aggregate drying only)
- Sample Preparation
  - Revise instruction under Table 2, 'Immediately ~~seal~~ place ~~or cover~~ moisture content samples in a container capable of being sealed to prevent any change in moisture content or follow the steps in "Procedure."' The Board pointed out that this revision unintentionally did not require sealing the sample. This revision is not accepted.
- Procedure
  - Step 1: revise separate container for soils and aggregate
  - Use the term 'drying interval' for time of additional drying throughout.

#### PowerPoint:

- Slide 15: remove drying interval
- Add another slide after initial drying to include the drying interval.
- Revisions to match FOP revisions

FOP for 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

#### Performance Exam Checklist:

- 'Moisture-density' to match AASHTO (instead of moisture/density, etc.)

FOP for AASHTO R 75, Developing a Family of Curves

#### FOP:

- Note 1: revised to just use the term 'intermediate curve.'

#### Practice:

- New date
- Revise points for curve 3
- 'Moisture-density' to match AASHTO

**PowerPoint:**

- Include a transition with and without the portion of the curves over optimum moisture.

FOP for AASHTO T 272, One-point Method for Determining Maximum Dry Density and Optimum Moisture

**PowerPoint:**

- 'Moisture-density' to match AASHTO

FOP for AASHTO T 85, Specific Gravity and Absorption of Coarse Aggregate

**FOP (editorial):**

- Apparatus: change 'towel' to 'cloth'
- Significance: change 'bituminous mixes' to 'asphalt mixtures' (Student)

**PowerPoint:**

- Instructor's note Slide 14: add 'Maintain at least 1 inch of water above throughout the soaking period.'
- Instructor's note on Slide 17: add 'Discuss calculating  $G_{sb}$  SSD at this time may indicate any error in weight and mass determinations.'

FOP for AASHTO T 310, In-place Density and Moisture Content of Soil and Soil-Aggregate by Nuclear Methods

**PowerPoint:**

- Slide 19: correct step numbering starting on slide 19
- Instructor's note Slide 19: add 'The drive pin can be used to mark the perimeter of the guide plate.'

FOP for AASHTO T 355, In-place Density of Asphalt Mixtures by Nuclear Methods

**PowerPoint:**

- Slide 18: revise to 'Rotate the gauge 90 degrees centered over the original footprint.'

Written Exams

- New year
- New inputs for calculation questions
- 'Moisture-density' to match AASHTO

Self-Consolidating Concrete Testing Technician (SCCTT) Module

**Exams**

- New year
- New inputs for calculation questions