

## Laboratory Assessment Preparation List

**General Assessment Guidance:** This document is intended to provide guidance for laboratories preparing for an AASHTO re:source On-Site Laboratory Assessment, specifically with regard to the availability of documentation required by AASHTO R18 “Establishing and Implementing a Quality Management System for Construction Materials Testing Laboratories”. Preparing for the assessment will improve the efficiency, productivity, and benefit of the assessment for the laboratory.

**For laboratories with approved corporate quality manuals:** Many aspects of your quality system have already been reviewed and approved for your laboratory during the corporate quality manual review process. The assessor will need to see records that are specific to your location during the assessment, including the following: organization chart, biographical sketches, equipment records, proficiency sample records, technician training and evaluation records, internal audits, management reviews, and technician certifications to meet the requirements of any ASTM quality standards that you have requested.

<b>Quality System Assessment Preparation</b>	
<b>Quality Management System</b>	Have your laboratory’s quality management system updated to conform with the current requirements of AASHTO R18 and available for review. Have the current version of R18 available to access.
<b>Organization Chart</b>	Have a current organization chart available showing staff, including the names of laboratory technicians.
<b>Biographical sketches</b>	Have biographical sketches (resume, CV, etc.) available for all supervisory personnel.
<b>Measurement Standards</b>	If using measurement standards (other than a reference thermometer), verify that the calibrating agency is a national metrology institute, an agency with a current verifiable certificate of measurement traceability issued by the NIST Office of Weights and Measures, is ISO 17025 accredited, <b>OR</b> the manufacturer performs proprietary calibrations for equipment that they produce. If using a reference thermometer, have the ISO 17025 certificate available from the agency that calibrated the reference thermometer. Refer to the agency’s accreditation listing to verify that they are accredited for thermodynamic calibrations in the range of use for the equipment being calibrated. See the document <b>“AASHTO Accreditation Policy and Guidance on Thermometer Selection and Records”</b> in the re:University Document Library for more information on thermometer requirements. <a href="http://aashtoresource.org/university/document-library">http://aashtoresource.org/university/document-library</a>
<b>Equipment Records</b>	Have the most current calibration, standardization, check, and maintenance records available for all equipment applicable to the scope of the assessment. Records from the past five years shall also be made available for review upon request.
<b>Proficiency Sample Records</b>	Have the most current year of final results and corrective action letters available for all samples within the scope of proficiency sample participation. Records from the past five years shall also be made available for review upon request.
<b>Technician Training and Evaluation Records</b>	Have the most current competency evaluation records available for all technicians who participated in demonstrating tests during the assessment. Testing must be demonstrated by the personnel that typical perform the testing at this location. All personnel demonstrating testing should have an initial training record and a current competency evaluation record for each test method that person will be demonstrating. Initial training and records of competency evaluations from the past five years shall also be made available for review upon request.
<b>Internal Quality System Reviews Records</b>	Have the most current internal quality system reviews records available for evaluation. Records from the past five years shall also be made available for review upon request.
<b>Management Review Records</b>	Have the most current management review records available for evaluation. Records from the past five years shall also be made available for review upon request.

<b>Quality System Assessment Preparation (continued)</b>	
<b>ASTM Quality Standards</b>	Have your laboratory's quality management system updated to conform with the current requirements of the applicable ASTM Quality Standards (C1077, D3666, D3740, and/or E329) and available for review. <b>Have personnel certifications related to these standards available for review.</b> Sending the personnel certifications to your assessor by email prior to the assessment can facilitate the review process.
<b>ASTM C1077</b>	To qualify for ASTM C1077 (Aggregate), demonstration of ASTM test methods C117, C127, C128, and C136 are required during the assessment. Have the most current version of C1077 available.
<b>ASTM D3666</b>	To qualify for ASTM D3666, demonstration of at least three ASTM test methods for each requested D3666 scope is required during the assessment. Have the most current version of D3666 available.
<b>ASTM D3740</b>	To qualify for ASTM D3740, demonstration of five ASTM soil and/or rock test methods is required during the assessment. Have the most current version of D3740 available.
<b>ASTM E329</b>	<u>To qualify for ASTM E329</u> - demonstration of at least one ASTM quality system requirement (ASTM C1077, ASTM D3666, or ASTM D3740) is required. Have the most current version of E329 available. <u>To qualify for ASTM E329 for Sprayed Fire-Resistive Materials only</u> - at least one SFRM test must be demonstrated; an additional quality system is not required. <u>To qualify for ASTM E329 Steel Inspection</u> - demonstration of F3125 Rotational Capacity (aka Skidmore test) is required. The laboratory must possess the equipment and current versions of the applicable documents listed in E329.
<b>ISO/IEC 17025</b>	This quality system requires additional auditing time, which is included in your request form estimate if you requested evaluation of ISO/IEC 17025 (approximately 7 to 14 hours). This time is usually planned for the last days of the assessment. If you need to adjust that schedule, be sure to discuss this with your assessor prior to the beginning of the assessment.  Have your laboratory's quality management system updated to conform with the current requirements of ISO/IEC 17025. Be prepared to discuss processes and show documentation related to topics that are addressed in-depth by ISO/IEC 17025, such as contract review, document control, and purchasing. Additional information can be found on our website at <a href="https://aashtoresource.org/aap/iso-iec-17025">https://aashtoresource.org/aap/iso-iec-17025</a>

*This document does not address all of the apparatus and procedural requirements which may be evaluated during the assessment. Please consult AASHTO R18 or the applicable ASTM standard for specific requirements. Please contact us at (240) 436-4900 if your laboratory has additional questions with regard to preparing for the On-Site Assessment.*