

The AASHTO Accreditation Program

**Procedures Manual for the Accreditation
of Construction Materials Testing
Laboratories**

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AASHTO ACCREDITATION PROGRAM
PROCEDURES MANUAL FOR THE ACCREDITATION OF CONSTRUCTION MATERIALS TESTING LABORATORIES

1. Introduction

The American Association of State Highway and Transportation Officials (AASHTO) established the AASHTO Accreditation Program (AAP) in June 1988. AASHTO is a national association of state highway and transportation departments with membership from all fifty states, the District of Columbia, and Puerto Rico. Its purpose is to foster the development, operation, and maintenance of a nationwide, integrated transportation system.

The objective of AAP is to provide a mechanism for formally recognizing the competency of a testing laboratory to perform specific tests on construction materials. It is a voluntary program available to all laboratories including independent laboratories, manufacturers' in-house laboratories, university laboratories, and governmental laboratories. AASHTO encourages participating laboratories to provide feedback on the operation of AAP.

The AASHTO Materials Reference Laboratory (AMRL) provides technical support and administrative coordination for AAP. AMRL is under the sponsorship of AASHTO.

Note 1 -- The AAP is under the auspices of AASHTO. AASHTO has assigned responsibility for monitoring and administrating the operation of AMRL and AAP to its Highway Subcommittee on Materials (HSOM). The Subcommittee has in turn established an AMRL Administrative Task Group (ATG) to assist it in carrying out these responsibilities. The members of the AMRL Administrative Task Group are appointed by the Chair of the Highway Subcommittee on Materials.

AAP operates under procedures shown in Figure 1 and includes the fields of construction materials testing listed in Table 1. This table gives the on-site assessment, quality management system evaluation and proficiency testing requirements for each field of testing. AMRL provides laboratory assessments, quality management system evaluations, and proficiency testing samples for laboratories testing soils, asphalt binders, emulsified asphalts, hot mix asphalt (HMA), and HMA aggregates. Similar services offered by the Cement and Concrete Reference Laboratory (CCRL) are used for laboratories testing cement, concrete, concrete aggregates, steel reinforcing bars, supplementary cementitious materials, and masonry. CCRL is located at the same address as AMRL but is under the sponsorship of ASTM.

2. Scope of AASHTO Accreditation Program

AASHTO will accredit laboratories for specific tests on asphalt binders, cutback asphalts, emulsified asphalts, soils, aggregates, HMA, cement, concrete, metals, sprayed fire-resistive materials, supplementary cementitious materials, and masonry. The specific tests for which AASHTO grants accreditation are those included in the scope of the AMRL and CCRL on-site assessment programs for which both apparatus and procedures are evaluated. The AAP includes standard methods of testing, practices, specifications, and guides from standard development organizations such as AASHTO, ASTM, and ISO/IEC/ANSI. The AAP also includes standards that have been developed by state departments of transportation and other standards development organizations provided that the AASHTO SOM approves of their inclusion in the program.

Accreditation applies to testing performed within the confines of the laboratory accredited and testing performed in the field (on-site). Accreditation does not extend to the work performed by subcontractors whether it was performed in the accredited laboratory or in the field or in another location on behalf of the accredited laboratory.

Accreditation is permitted to be extended to a temporary facility for up to 12 months without first undergoing an on-site assessment if the temporary facility is staffed, equipped, and sufficiently controlled by a main facility that is AASHTO accredited for the testing being conducted at the temporary facility. The temporary facility must be implementing the quality management system of the main facility. All work at the temporary facility must be supervised by personnel that conform to the requirements of Section 3.4. Temporary facilities include trailers or other structures, and the personnel and equipment associated with them that have been established for a specific project.

Before accreditation is extended to the temporary facility, the temporary facility must submit their inventory of equipment along with copies of the most recent equipment calibration, standardization, and check records. The temporary facility must also perform testing and receive satisfactory ratings on extra proficiency samples chosen by the AAP.

The temporary facility's information will be listed under the same accreditation directory listing of the main facility for up to 12 months. The listing shall indicate the location of the temporary facility, the scope of testing, and the expiration date of the temporary extension of accreditation.

If a temporary facility is expected to operate longer than 12 months, laboratory management must apply for separate accreditation of the temporary facility before the expiration date of the temporary extension of accreditation to ensure uninterrupted accreditation. The AASHTO Accreditation Program reserves the right to perform an on-site assessment at a temporary facility during the 12 month period at a cost to the main facility if there is any question about the conformance to the requirements of this document or about the quality of work being conducted at this temporary facility.

Note 2 -- The AASHTO Accreditation Program (AAP) encourages laboratories to always contact the project owner or specifying agency regarding accreditation requirement before requesting accreditation for a temporary facility. In some cases, the project owner or specifying agency may waive the requirements for accreditation provided that the operations of the temporary facility are controlled to its satisfaction by the laboratory's main facility.

Mobile laboratories are transportable, functionally operational testing facilities that are frequently moved to different sites and are capable of maintaining a separate accreditation from any main facility. Mobile laboratories must implement a quality management system and conform to the requirements of this document with the understanding that certain documents may be retained and management may be located at the main facility. If management is located at a different facility, the laboratory must prove that effective supervision is being provided to the mobile laboratory. An accreditation directory listing for a mobile facility differs from that of a typical laboratory by the addition of the words "mobile laboratory" to the name. After the mobile facility is relocated, the laboratory management must notify the AAP and submit evidence that any equipment for which its calibration may have been affected by the move has been calibrated or standardized at the new site.

Any situations that are not described in this manual such as joint venture or other shared responsibility arrangement must be approved by the ATG.

Note 3 -- Temporary facilities include trailers or other structures set up for a specific job and the personnel and equipment associated with them.

AASHTO accreditation requires a laboratory to comply with the requirements of AASHTO R 18, *"Recommended Practice for Establishing and Implementing a Quality System for Construction Materials Testing Laboratories."* At the option of the laboratory, by meeting additional requirements, accreditation can be extended to include recognition of a laboratory's compliance with the following standards:

ASTM C1077 - Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation

ASTM C1093 – Standard Practice for Accreditation of Testing Agencies for Unit Masonry

ASTM C1222 - Standard Practice for Evaluation of Laboratories Testing Hydraulic Cement

ASTM D3666 - Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Bituminous Paving Materials

ASTM D3740 - Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

ASTM E329 - Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials used in Construction

ISO/IEC 17025 - General Requirements for the Competence of Calibration and Testing Laboratories

3. AASHTO Accreditation Program Criteria

3.1. Quality Management System Criteria

The laboratory shall establish, implement, and maintain a quality management system which meets the requirements specified in AASHTO R 18.

Note 4 - A laboratory must satisfy additional criteria in order to be recognized by AASHTO for complying with ASTM standards C1077, C1093, C1222, D3666, D3740, , and E329 and ISO/IEC 17025.

3.2. On-Site Assessment and Quality Management System Evaluation Criteria

The laboratory shall receive required AMRL or CCRL on-site assessments and quality management system evaluations. Laboratories accredited by the AAP for ISO/IEC 17025 may elect to have the R 18 quality management system review performed in conjunction with their ISO/IEC 17025 assessment. On-site assessments of accredited laboratories must be received in the normal sequence of the AMRL and/or CCRL tours.

In cases where the first assessment of a laboratory seeking accreditation is out-of-sequence to the AMRL and CCRL tours, the second assessment must be received during the next regularly scheduled visit if more than 6 months has lapsed since the date of the first assessment. If the next regularly scheduled visit is between 6 to 12 months following an out-of-sequence assessment, an abbreviated surveillance assessment may be performed. If the time period since the out-of-sequence assessment exceeds 12 months, a full assessment will be performed.

Failure to receive applicable on-site assessments will result in revocation of accreditation. The laboratory shall, within 90 calendar days of the date of issuance of the formal assessment report noting the deficiencies, provide AMRL with satisfactory evidence that all deficiencies noted were either corrected or that action has been taken to correct the deficiencies.

3.3. Proficiency Testing Criteria

The laboratory shall participate in all AMRL and CCRL proficiency sample programs required for the test method(s) included in the scope of the laboratory's accreditation (see Table 1). The laboratory shall, within 60 calendar days of the date of issuance of a proficiency sample report, (1) investigate to determine the possible reason(s) for results beyond 2 standard deviations of the grand average (i.e. z-scores greater than 2.0), (2) take action to correct any issues that are uncovered in the investigation, and (3) document and maintain records of the investigation and corrective actions taken.

Consecutive occurrences of either nonparticipation or results beyond 2.5 standard deviations of the grand average (i.e. z-scores greater than 2.5) will result in suspension of accreditation for the applicable test method(s). In order for reinstatement of accreditation for the test method(s) to occur, the laboratory must receive ratings within 2 standard deviations of the grand average on the next regularly scheduled round of proficiency samples or on an extra proficiency sample. Extra proficiency samples are surplus samples that were produced for a regularly scheduled round of testing and are available for purchase by contacting the AAP.

When available, the AMRL and CCRL offer extra proficiency sample(s) that allow laboratories that have had their accreditation suspended for proficiency testing issues the opportunity to test sample(s) for reinstatement of accreditation. Test results must be accompanied by a completed corrective action report identifying the probable source of previous low ratings and the changes that have been implemented before performing testing on the extra proficiency sample. The laboratory is responsible for the cost of the extra proficiency sample(s). If the laboratory receives ratings beyond 2 standard deviations on the extra proficiency sample(s), the suspension will remain in effect. If the laboratory receives ratings within 2 standard deviations and the corrective action supplied by the laboratory includes a root cause analysis that has been found to be acceptable, the suspension will be removed. In either case, laboratories must receive satisfactory ratings on the next regularly scheduled round of proficiency samples to avoid future revocation of accreditation for the affected test method(s). If the laboratory receives ratings beyond 2 standard deviations on two extra proficiency samples, reinstatement can only occur on the next regularly scheduled round of proficiency testing.

3.4. Personnel Qualification Criteria

The laboratory's personnel shall conform to the qualifications outlined in 3.4.1 through 3.4.5 and must be full-time employees of the laboratory at the location that is accredited or is seeking accreditation. In addition, if the laboratory is accredited or is seeking accreditation for additional ASTM quality standards that require certifications, such as C1077, C1093, D3666, D3740, and E329, valid certifications must be held by the appropriate personnel acting in the specified capacities. At least one person must fulfill the requirements of each position, where relevant. It is possible for an individual to act in multiple capacities, but the laboratory must conform to the requirements for each position unless it is otherwise stated in the individual ASTM standard to which the laboratory is attempting to conform.

3.4.1. Technical Director / Manager - The technical director or manager of inspection or testing services provides direction for the technical activities of the laboratory and is responsible for ensuring that all testing is carried out in a way that complies with the requirements of this document. The person holding this position shall: (1) be a full-time employee of the laboratory, (2) be a registered engineer or a person with equivalent science-oriented education, or have experience in satisfactorily directing testing or inspection services, or both, for the materials covered by the accreditation, and (3) have at least 3 years of experience in the inspection and testing of highway construction materials.

3.4.1.1. It is understood that some tests are frequently conducted at small field or peripheral locations. Therefore, it is not required that the manager be directly present at such locations at all times. If technical direction is provided by a manager who is not present at the physical location of laboratory at all times, the

laboratory must provide the AASHTO Accreditation Program (AAP) with sufficient evidence that proves that technical direction is being provided on a full-time basis. It is the responsibility of the laboratory to ensure that the evidence is comprehensive. This evidence will be forwarded to the Chair of the Administrative Task Group for review. If the evidence is not found to be acceptable by the Chair of the Administrative Task Group, the laboratory's request for accreditation will be denied until the laboratory has a manager in place at that location that conforms to the requirements of Section 3.4.1.

- 3.4.2. Laboratory Supervisor – The laboratory supervisor is the primary supervisor in the laboratory. This position provides direct oversight to the technical staff and is often responsible for on-site training and evaluation of technicians. The laboratory supervisor shall have at least 3 years of experience in the inspection and testing of highway construction materials.
- 3.4.3. Supervising Laboratory Technician – The supervising laboratory technician is the testing technician that also provides direct oversight to the technical laboratory staff and can be responsible for on-site training and evaluation of technicians. The supervising laboratory technician shall have at least 3 years of experience in the inspection and testing of highway construction materials.
- 3.4.4. Supervising Field Technician – The supervising field technician is the testing technician that also provides direct oversight to the technician staff that operates in the field, but this person is not necessarily required to work in the field all the time. The supervising field technician shall have at least 3 years of experience in the inspection and testing of highway construction materials.
- 3.4.5. Technician – The technician maintains appropriate certifications for assigned responsibilities and performs technical duties such as sampling, sample preparation, testing, and recording of results as appropriate.
- 3.5. **Additional General Criteria**
 - 3.5.1. The laboratory shall notify AMRL in writing within 60 calendar days of any major change in its quality management system, capability to perform tests for which it is accredited, laboratory ownership, location (see Section 5), managerial personnel, facilities, and any other change which may affect the scope of its accreditation. If there is a name or ownership change of the laboratory, the laboratory must submit a copy of its new business license or other substantiating evidence to AMRL.
 - 3.5.2. The laboratory's functional organization shall be consistent with that reported by the laboratory and appear adequate to support their testing capability.
 - 3.5.3. Interviews with supervisory and technical staff members responsible for performing tests shall indicate that the documented practices for training and assuring competency are consistent with actual laboratory practice.
 - 3.5.4. The laboratory operation shall not be impaired by management problems.
 - 3.5.5. The laboratory shall have managerial staff with the authority and resources needed to discharge their duties.
 - 3.5.6. The laboratory shall maintain a ratio of supervisory to non-supervisory personnel which ensures adequate supervision.
 - 3.5.7. The laboratory shall provide effective separation between neighboring testing areas which are incompatible.
 - 3.5.8. The laboratory shall be organized in such a way that confidence in its independence of judgment, integrity, and impartiality is maintained at all times.

- 3.5.9. The laboratory personnel shall have the necessary education, training, technical knowledge and experience for their assigned functions.
- 3.5.10. The laboratory shall conduct tests and render reports accurately, objectively, and without bias.
- 3.5.11. The laboratory shall use good organization practices and shall take adequate measures to ensure good housekeeping in the laboratory.
- 3.5.12. The laboratory's work load, indicated by their record system, shall be consistent with available equipment, facilities and personnel.
- 3.5.13. The laboratory shall pay all fees charged for services required for accreditation.
- 3.5.14 For those test methods for which it is seeking accreditation:
 - a) The laboratory shall maintain facilities (fixed or mobile) for proper control of the laboratory environment.
 - b) The laboratory shall maintain facilities for proper storage, handling and conditioning of test specimens and samples.
 - c) The laboratory shall maintain necessary calibration equipment and reference standards.
 - d) The laboratory shall maintain facilities and equipment conforming to specification requirements necessary for the testing performed.
 - e) The laboratory shall have the test areas, energy sources, lighting, heating and ventilation necessary to facilitate performance of tests.
 - f) The laboratory shall have an environment which does not adversely affect test results and shall have facilities for the effective monitoring, control and recording of environmental conditions as appropriate.
 - g) The laboratory shall demonstrate the capability of performing tests according to the current version of test specifications.
 - h) The laboratory shall demonstrate adequate care when recording and processing data and test results.
 - i) The laboratory shall demonstrate proper techniques for selecting, identifying, handling, conditioning, storing and retaining test samples.

3.6. **AASHTO ISO/IEC 17025 Accreditation**

- 3.6.1. General - A laboratory interested in obtaining accreditation for ISO/IEC 17025, *General Requirements for the Competence of Calibration and Testing Laboratories*, must first have a current and valid AASHTO R 18 accreditation. A laboratory must also be implementing a quality management system which satisfies the requirements of ISO/IEC 17025. Additionally a laboratory must receive an on-site ISO/IEC 17025 assessment from AMRL (in addition to the applicable AMRL and CCRL technical on-site assessments) and resolve all nonconformities noted in the report. After initial accreditation, the AASHTO Accreditation Program will monitor the compliance of the laboratory using several surveillance activities, including proficiency testing, on-site technical assessments by AMRL and CCRL, and surveillance assessments (see Section 3.6.3).

- 3.6.2. **How To Get Started** - A laboratory seeking accreditation for ISO/IEC 17025 must submit an on-line request for ISO/IEC 17025 accreditation, along with a copy of its current quality manual and supporting documentation, such as standard operating procedures (SOPs), a copy of its most recent internal audit report, and a copy of the records from its most recent management review. An AAP ISO/IEC 17025 Auditor will then initiate the process by conducting an in-house review of the quality management system documentation. If the review indicates that the quality management system is essentially in compliance with the requirements of ISO/IEC 17025, the Auditor will contact the laboratory and schedule a date for the initial on-site assessment of the laboratory. If not, the Auditor will contact the laboratory and obtain additional information.
- 3.6.3. **The ISO/IEC 17025 Assessment Process** - The initial on-site assessment of the laboratory will cover all applicable sections of ISO/IEC 17025 and will last approximately two to three days. The AAP will grant accreditation if all nonconformities have been resolved within the stated time frame. After accreditation has been granted, the AAP ISO/IEC 17025 on-site assessments will alternate between surveillance assessments and re-assessments. Surveillance assessments are on-site visits to ISO/IEC 17025 accredited laboratories undertaken to ensure that such laboratories continue to operate in compliance with AAP requirements. The AAP ISO/IEC 17025 surveillance assessments will normally be less comprehensive than the initial audit or re-assessments and will last approximately one to two days. The first surveillance assessment will occur approximately 12 months after the laboratory has been granted accreditation for ISO/IEC 17025. AAP ISO/IEC 17025 assessments will then alternate between re-assessments and surveillance assessments at intervals of approximately 27 months. The interval between complete re-assessments, therefore, will be approximately 54 months (4 ½ years). Re-assessments will be comprehensive and, similar to the initial audit, will last approximately two days.
- 3.7. **Adding Test Methods to Accreditation** - If a laboratory wishes to add test methods to the scope of its accreditation between normally scheduled on-site assessments, the laboratory should contact the AASHTO Accreditation Program (AAP) to determine the appropriate course of action.

Note 5—In some cases, another on-site assessment may not be necessary if another test method that closely resembles the newly requested test method(s) has already been observed during the current tour assessment.

If a laboratory wishes to add ASTM quality management system standards, such as ASTM C1077, D3666, D3740, and E329, to the scope of accreditation, it shall submit evidence of conformance to the AAP for review. This addition is permitted to occur without an additional on-site assessment. Applicable fees will be charged for this review.

- 3.8. **Confidentiality and Consent to Release Information** - AMRL ensures that all confidential information obtained from laboratories is held in confidence. This includes findings noted in on-site assessments, proficiency sample testing results, and reasons for accreditation actions. The only laboratory-specific information that can be shared with the public is that which is available in the Directory of Accredited Laboratories on the AMRL website. Confidential information is not shared with anyone beyond AMRL staff and the AMRL Administrative Task Group without the written consent of the laboratory. A Consent to Release Information form or acceptance of the terms of the specifier tools on AMRL's website must be submitted by laboratory management before information will be released by AMRL to external sources.

4. **Accreditation Process (see Figure 1)**

- 4.1. **Application** - A laboratory desiring information on AAP or AMRL on-site assessment, quality management system evaluation, and proficiency sample programs should contact AMRL using the following contact information:

AASHTO Materials Reference Laboratory
4441 Buckeystown Pike
Suite A
Frederick, MD 21704-7507
Telephone: (240) 436-4900
Email: info@amrl.net
Website: www.amrl.net

Information on the CCRL on-site assessment, quality management system evaluation, and proficiency sample programs may be obtained using the following contact information:

Cement and Concrete Reference Laboratory
4441 Buckeystown Pike
Suite C
Frederick, MD 21704-7507
Telephone: (240) 436-4800
Email: ccrl@astm.org
Website: www.ccrl.us

Laboratories requesting accreditation must (1) complete an Accreditation Request Form, (2) complete a Criteria Compliance Document (CCD), and (3) submit an application fee. Arrangements will then be made for the laboratory to receive appropriate AMRL or CCRL on-site assessments, quality management system evaluations, and proficiency samples.

The applicant laboratory must agree to comply with the requirements for accreditation and supply any information needed for the evaluation of the laboratory.

A laboratory may obtain initial accreditation based on an application submitted subsequent to an on-site assessment if: (1) the on-site assessment includes a quality management system review of the applicable field(s), (2) the application is submitted within 90 calendar days of the date of issuance of the final report of the on-site assessment, and (3) the application is accompanied by a deficiency resolution report as described in Section 4.4.4.

Laboratories wishing to expand the scope of their accreditation to include a new field(s) of testing must include an applicable quality management system evaluation(s) in the scope of their on-site assessment and must submit a deficiency response as described in Section 4.4.4.

Applications for initial accreditation and requests for accreditation in new fields of testing which do not satisfy the above requirements will be considered but may require an additional visit to the laboratory before processing can proceed.

- 4.2. **On-Site Assessment** – The on-site assessment and quality management system evaluation requirements specified by AAP include a visit by AMRL or CCRL laboratory assessors to evaluate the apparatus and procedures used to conduct the physical tests for which the laboratory requested accreditation and to determine if the laboratory's quality management system implementation activities are consistent with those specified in the laboratory's quality management system manual. Chemical tests for cement are evaluated based on a review of the laboratory's test qualification data as described in AASHTO T 105 and ASTM C114.

The personnel used by the laboratory during the AMRL and CCRL on-site assessments shall be representative of the personnel available at that laboratory location during the period between assessments. The temporary acquisition of personnel to enhance the results of the assessment is prohibited.

AMRL and CCRL laboratory assessors are employed full-time and are not associated with any testing laboratory. Therefore, there is no possibility of conflict of interest.

The AMRL and CCRL operate laboratory assessment programs which cover North America and beyond. Requests for assessments will be considered from any location under the condition that the U.S. Department of State has not issued travel warnings for that area. Typical AMRL and CCRL assessment tours take approximately 24 months for completion.

AMRL generally uses one assessor for soil, aggregate and bituminous materials testing laboratories. However, AMRL may elect to send two assessors, at the same time, to laboratories that test soil, aggregate and bituminous materials. A single CCRL assessor conducts the inspection of a cement, concrete, concrete aggregate, and masonry testing laboratory. Therefore more than one assessor could visit a laboratory requesting coverage of all fields of testing included in AAP. These visits would generally occur at different times. The time required for each visit will vary depending on the number of tests covered and the willingness of the laboratory to assist the assessor.

Those laboratories seeking recognition for compliance to ISO/IEC 17025 must receive a separate AAP ISO/IEC 17025 assessment in addition to AMRL and CCRL on-site assessments (see Section 3.6.3).

At the completion of each AMRL and CCRL assessment, the assessor holds a briefing conference with the laboratory staff to summarize the findings and point out deficiencies requiring correction (deviations from standard methods of test for which accreditation is requested or problems with the laboratory's quality management system). The assessor leaves a copy of a preliminary report, signed by the assessor and a laboratory manager, identifying the deficiencies. On returning to the office, the assessor prepares a formal report and sends it to the laboratory.

The laboratory must provide AAP with satisfactory evidence that all deficiencies noted were either corrected or that action has been taken to correct deficiencies before AASHTO can grant accreditation (see Section 4.4.4). In most cases, this evidence will take the form of written documentation. Occasionally, however, because of action or inaction by the management of a laboratory, another visit to the laboratory may be required before granting accreditation. The laboratory may have to pay an additional fee for this service, if it is required.

A laboratory may obtain additional specific information about the AMRL and CCRL on-site assessment programs by contacting the AMRL and CCRL (see Section 4.1 for contact information).

- 4.3. **Proficiency Testing** - Proficiency testing is an additional factor used to evaluate the performance of a laboratory. It provides information not otherwise available from the on-site assessment and a means of continued monitoring of laboratory performance. AAP requires laboratories to participate in AMRL or CCRL proficiency testing programs depending on the field(s) of testing for which the laboratory is seeking accreditation (see Table 1). Participation includes performing all test methods within the scope of a laboratory's accreditation on all applicable samples distributed within the specified time frame and returning the resulting data to AMRL or CCRL for analysis. If not already participating, a laboratory submitting an accreditation request form will be enrolled in all applicable AMRL proficiency testing programs and billed the appropriate amount.

Proficiency samples are distributed by AMRL and CCRL. The distribution schedules are located on the AMRL and CCRL websites (see Section 4.1).

Initial accreditation may be granted to a laboratory if it has enrolled in the appropriate proficiency testing program(s) but the distribution schedule is such that it has not received samples for testing. This assumes all other criteria for the accreditation have been met. However, continued participation in the program(s) is required to maintain accreditation.

See Section 3.3 for Proficiency Testing Criteria.

A laboratory may obtain additional information on the AMRL or CCRL proficiency testing programs by contacting the AMRL or CCRL (see Section 4.1 for contact information).

- 4.4. **Accreditation Decisions** - AASHTO uses a management council approach in reaching decisions on accreditation. AMRL acts as the technical advisor in compiling all necessary information resulting from the on-site assessment(s), quality management system evaluation(s), proficiency testing, and communications from the laboratory which describe steps taken to correct identified deficiencies. The accreditation decision is made by the Chair, AMRL Administrative Task Group of the AASHTO Highway Subcommittee on Materials, who has been designated by the Subcommittee to act as a Management Council for the AAP.

All accreditation decisions are confined to those matters specifically related to the scope of the accreditation being considered.

AASHTO evaluates a laboratory's accreditation status after AMRL, CCRL, and AAP ISO/IEC 17025 assessments; every 12 months after the initial accreditation; and whenever there is evidence to question a laboratory's conformance to accreditation requirements.

- 4.4.1. Initial Accreditation - AASHTO accreditation is initially granted on a test-by-test basis after successful completion of a process which includes submission of an application and payment of fees, on-site assessment and quality management system evaluation of the laboratory, enrollment in the required proficiency testing programs, and resolution of identified deficiencies. If a laboratory has a deficiency in a specific test, it may choose to withdraw accreditation for the test rather than respond to the deficiency. AMRL staff review the documents submitted by the laboratory and prepare a report for review by the Chair of the AMRL Administrative Task Group. If accreditation is denied, the laboratory is notified of the reason for the denial and given an opportunity to respond or appeal the decision. If a laboratory satisfies all AASHTO accreditation criteria, the Chair of the AMRL Administrative Task Group approves the laboratory's request for accreditation, and AMRL prepares a certificate of accreditation for the signature of the Chair, AASHTO Highway Subcommittee on Materials and the Executive Director of AASHTO. The certificate is sent to the laboratory, and the laboratory's information is entered in the AAP Directory of Accredited Laboratories (see Sections 6 and 7).
- 4.4.2. Annual Accreditation Review - The accreditation status of a laboratory is reviewed annually. The annual accreditation review determines whether the laboratory has received all applicable on-site assessments and quality management system evaluations. The review also includes an evaluation of updated personnel information. A Criteria Compliance Document (CCD) must be completed and submitted online with supporting documentation during the anniversary month in which the laboratory was first granted accreditation or during the month that precedes the anniversary month. The laboratory has a total of 60 days from the issuance of the first reminder email to submit the CCD and supporting documentation for review.

The AMRL sends an email to the laboratory's accreditation and laboratory contacts that instructs them to submit the CCD 30 days prior to the first day of the laboratory's annual review month. Another reminder is sent on the first day of the laboratory's anniversary month if the CCD has not yet been submitted. Once the laboratory submits the documentation, the AMRL staff completes the review to ensure compliance with personnel criteria defined in this document and in any quality management system specifications included in the scope of the laboratory's accreditation. If the laboratory does not submit the document during the month of their anniversary date, or if a review indicates that the laboratory has not complied with accreditation requirements, action will be taken to suspend accreditation in appropriate areas, and the laboratory will be notified of the unresolved criteria.

4.4.3. **Periodic On-Site Assessments and Quality Management System Evaluations of Accredited Laboratories -** An accredited laboratory must have AMRL or CCRL conduct an on-site assessment(s) of their test facilities at routine intervals (see Section 4.2). Each on-site assessment and quality management system evaluation of an accredited laboratory provides the laboratory with an opportunity to change the scope of its accreditation. In addition, laboratories recognized for compliance to ISO/IEC 17025 must receive an AAP ISO/IEC 17025 assessment (see Section 3.6.3). The process which follows each periodic on-site assessment and quality management system evaluation of an accredited laboratory is similar to the process followed after the initial on-site assessment and quality management system evaluation described in Section 4.4.1, except that: (1) the report prepared by AMRL staff is not forwarded to the Chair of the AMRL Administrative Task Group if it indicates full compliance with AAP criteria and no change in the scope of the laboratory's accreditation; and (2) a new accreditation certificate is not issued. The directory will reflect any changes in the scope.

4.4.4. **Deficiency Resolution Following an On-Site Assessment -** If notified of a deficiency resulting from an on-site assessment, a laboratory must respond to AMRL within 90 calendar days of the issuance of the final report. The response must include a description of the corrective action taken and substantiating evidence, such as records, copies of newly prepared or revised documents, equipment invoices, or photographs. If more than 90 calendar days are needed to resolve a deficiency, the laboratory shall provide AMRL with a written plan for resolving the deficiency including an estimated completion date and any evidence of action taken such as equipment purchase orders. Plans for future resolution of deficiencies will be reviewed and may result in accreditation being granted, denied, suspended, or revoked. If there is a deficiency that is identified as a repeat issue, a root cause analysis is required as part of the response that addresses the deficiency.

If a laboratory does not respond within 90 calendar days of the issuance of the report, or if responses received are inadequate, action will be taken to suspend or deny accreditation in appropriate areas and the laboratory will be notified of the unresolved criteria. If a laboratory does not resolve a deficiency within 180 calendar days of the issuance of the final report, and desires to maintain its accreditation, an additional on-site assessment may be required.

4.4.5. **Deficiency Resolution Following Notification of Unresolved Criteria -** When notified of unresolved criteria a laboratory is given the opportunity to respond to the conditions specified in the notification. Responses will be reviewed and will result in accreditation being granted, reinstated, denied, suspended, or revoked.

4.5. **Appeal Procedure -** A laboratory denied accreditation or whose accreditation has been revoked has the right of appeal if it believes it has submitted sufficient information to warrant accreditation. AASHTO uses a two-level appeal procedure as documented below. Accreditation will continue to be denied or revoked throughout the appeals process unless the original decision has been overturned.

4.5.1. **First-Level Appeal -** A laboratory makes a first-level appeal by sending explanations and supporting documentation to AMRL. The appeal and supporting documentation must be sent within 30 calendar days from receiving notice of denial or revocation. Upon receipt of an appeal, AMRL prepares a

memorandum for the Chair of the AMRL Administrative Task Group (ATG) presenting the appeal and the laboratory's supporting documentation. AMRL sends the memorandum and supporting documentation to the six voting members of the ATG which includes the Chair, the Secretary, and the four regional representatives for comments and recommendations.

Based on all the comments and recommendations made, the ATG Chair prepares a first-level appeal ballot for the voting members requesting that they agree or disagree with the recommendation of the Chair. Support of at least 2/3 of the voting members of the ATG is required to uphold the recommendation of the Chair. If the recommendation is not upheld, the opposite position is the ruling of the ATG.

The laboratory is notified of the decision on its appeal by certified mail, return receipt requested. Decisions are mailed within 15 calendar days from when the decision is made by the ATG. If the appeal is denied, the notification letter will include the reason for the denial and information on the second-level appeal process which is available to the laboratory. If the laboratory decides to resolve the issue, the laboratory must provide AMRL with evidence of corrective action taken. If the appeal is granted, the scope of the laboratory's accreditation is revised to include the additional test(s).

- 4.5.2. **Second-Level Appeal** - A laboratory may make a second-level appeal by informing the Chair of the Highway Subcommittee on Materials (HSOM) in writing within 30 calendar days after receipt of the denial of the first-level appeal. A special review panel comprised of the HSOM Chair and three members chosen by the HSOM Chair from the HSOM is established to hear the second-level appeal. Members of the ATG who participated in the first-level appeal are not eligible for membership on the panel. The laboratory will be notified in writing of the appeal hearing time. At the discretion of the HSOM Chair, the hearing may be either a face-to-face meeting or a telephone conference call between the panel and the laboratory representative. The hearing will be held within 45 calendar days of receiving the notice of the second-level appeal.

Travel expenses for panel members participating in the appeal hearing will be covered by AAP, while the laboratory will be responsible for its expenses related to the hearing. Following the hearing, AMRL, in consultation with the HSOM Chair, will ballot the panel. On the ballot, the panel will vote to either support or deny the appeal. Support by at least three members of the panel will be required to grant the appeal; otherwise, the appeal is denied.

The laboratory is notified of the decision on its second-level appeal within 30 calendar days of the hearing by certified mail, return receipt requested. If the appeal is denied, the laboratory may decide to resolve the issue by providing AMRL with evidence of the corrective action taken. If the appeal is granted the scope of the laboratory's accreditation is revised to include the additional test(s).

- 4.6. **Suspension and Revocation of Accreditation** - A laboratory may have its entire accreditation or its accreditation for specific test methods suspended or revoked if it is found not to conform to AAP criteria.
 - 4.6.1. **Suspension of Accreditation** - Suspension is a temporary removal of the accredited status of a laboratory when it is found to be out of compliance with the terms of its accreditation. The action of suspension is not necessarily tied to the annual review process and may occur at any time for cause. Reasons for suspension include, but are not limited to, loss of key personnel, loss of major equipment, damage by fire or flood, changing laboratory location, failure to pay fees, and failure to resolve deficiencies related to the requirements of accreditation. The Chair of the ATG will notify a laboratory of the reasons for and conditions of the suspension, the action(s) required for reinstatement, and the deadline for satisfactorily completing the action.

During the suspension, the laboratory is prohibited from using the AAP logo on its test reports. Additionally, the AAP directory will show the laboratory's status as suspended.

- 4.6.2. **Revocation of Accreditation** - A laboratory may have its accreditation revoked if the laboratory fails to meet program requirements or it is concluded that the deficiencies are too major and/or too numerous to be corrected in a reasonable time frame. Generally, the decision to revoke a laboratory's accreditation is made by the Chair of the ATG. However, the AASHTO Executive Director may unilaterally revoke accreditation of a laboratory if the laboratory acts in such a manner as to bring AASHTO into disrepute or the laboratory makes any statements relative to its accreditation that AASHTO considers false or misleading. The laboratory will be notified of the reasons for the revocation. The laboratory may appeal the revocation as outlined in Section 4.6.3.

A laboratory having its accreditation revoked must return its certificates of accreditation and cease use of the AAP logo on its reports, correspondence, or advertising. The AAP directory will no longer list the revoked laboratory. A revoked laboratory, or a laboratory which voluntarily withdraws its accreditation, may be required to reapply for accreditation as if it were a new laboratory and receive new on-site assessments.

- 4.6.3. **Appealing Revocation** - After receipt of a notification of revocation, a laboratory may elect to enter an appeal within 30 calendar days of notification. If a laboratory appeals the decision, the laboratory's accreditation will remain revoked during the appeals process.

- 4.7. **Surveillance On-Site Visits** - At the request of an employee of the AMRL or CCRL, the Chair of the Administrative Task Group can approve surveillance on-site visits to an accredited facility to (1) investigate a history of not correcting previously identified deficiencies, and (2) ensure that changes in the laboratory's quality management system, capability to perform tests for which it is accredited, laboratory ownership, location, management and technical personnel, and equipment and facilities do not affect the laboratory's accreditation status. If a recommendation is made for a surveillance on-site visit to confirm laboratory compliance with the requirements of the AASHTO Accreditation Program (AAP), the laboratory will be notified in writing and will be expected to receive the surveillance visit within the timeframe identified in the notification. These surveillance on-site visits are scheduled with laboratory personnel and will be made at additional cost to the laboratory.

If the laboratory is still found not to comply with the requirements of AAP during the surveillance on-site assessment, the laboratory's accreditation will be suspended, and the laboratory will have no more than 30 days to provide evidence that it is in compliance with the requirements of AAP. If the laboratory does not provide the necessary evidence, the laboratory's accreditation will be revoked, and the laboratory may be required to reapply for accreditation.

- 4.8. **Reports and Complaints from External Agencies** - If a local, regional, state, or national authority determines that the laboratory is operating in a way that violates the criteria specified in this document, the AMRL will submit the evidence collected by the agency to the ATG for an accreditation decision. The AASHTO Accreditation Program (AAP) reserves the right to revoke a laboratory's accreditation for any reason that calls into question the reputation of the accreditation program.

The laboratory in question will have 7 days to refute any external complaints by submitting a written explanation to before accreditation action will be taken. The procedures for suspension, revocation, and appeals in Section 4.6 will be followed when an accreditation action results from an external complaint.

5. **Laboratory Relocation**

If a laboratory relocates to an address that differs from the location where the most recent AMRL or CCRL on-site assessment took place, the laboratory must inform AMRL in writing prior to the move date. The AASHTO Accreditation Program (AAP) will then notify the laboratory that they must submit (1) a new

Criteria Compliance Document showing the revised address, (2) a description of any personnel changes, including a revised organizational chart, (3) evidence that equipment has been properly calibrated or standardized at the new location if the accuracy of such equipment may have been affected by the move, and (4) evidence of proper environmental controls to ensure that test method requirements are met, where applicable. This documentation must be submitted within 60 days of the laboratory relocation. Once the information is reviewed, a decision will be made about whether a surveillance on-site assessment is required to verify ongoing technical competence.

6. **Certificate of Accreditation**

AASHTO issues a certificate of accreditation which includes the name and location of the laboratory, and a reference to the AMRL website address where the laboratory's scope of accreditation and specific test methods are listed (see Figure 2). The official current status of accreditation is maintained on the AMRL website. Laboratories that have also demonstrated compliance with ISO/IEC 17025 receive a different certificate (see Figure 3). Certificates do not list the expiration date of the accreditation. The AASHTO Accreditation for an individual laboratory does not expire because it is a continual process.

Laboratories receive certificates free of charge upon initial accreditation. Laboratories requesting an additional copy of a certificate will be charged a \$50 processing fee for each certificate issued.

7. **Directory of Accredited Laboratories**

AASHTO maintains a directory of accredited laboratories containing the following information for each laboratory:

- a) Name and location of the laboratory
- b) Contact person at the laboratory
- c) Telephone number
- d) Accreditation initiation dates
- e) Scope of the accreditation

A current list of AAP-accredited laboratories is available on the Internet at <http://www.amrl.net>.

8. **AASHTO Accreditation Publicity Policy and Conditions for Accreditation**

8.1. **General** - The AASHTO Accreditation Program (AAP) displays the accreditation of laboratories in the following ways:

- a) An official Certificate of Accreditation, including the name and location of the laboratory, is presented by AAP to each accredited laboratory
- b) Accredited testing scopes, including current accreditation status, are published in the AAP Directory of Accredited Laboratories on the AMRL website (<http://www.amrl.net>)
- c) The accreditation status is provided to regulatory agencies, as requested

AAP encourages accredited laboratories to publicize their accreditation status using the following methods:

- a) Use of a statement that refers to its accreditation status
- b) Use of the AAP logo

- 8.2. **AAP Logo** – The AAP logo is available for use by accredited laboratories on websites, advertisements, brochures, and other approved items. To inquire about whether or not a specific use is acceptable and to request an electronic copy of the AAP logo, please contact AMRL.

A laboratory which meets the criteria of AASHTO Practice R 18 may use the logo:



A laboratory accredited for both AASHTO Practice R 18 and ISO/IEC 17025 may use the logo:



Note 6—Photographic and electronic copies of the logo are available from AMRL upon request.

- 8.3. **Statements of Accreditation** - A statement of accreditation must specify that accreditation is granted by AAP and that accreditation is limited to the laboratory and the standards for which the laboratory is accredited.
- 8.4. **Certificates** - Certificates are intended for display at the location of the accredited laboratory. When promoting accreditation or providing proof of accreditation, laboratories shall use the current scope of accreditation in conjunction with the certificate, as this document details the specific tests that are accredited.
- 8.5. **Publicity Guidelines**
- a) Use of statements regarding accreditation or the AAP logo shall be done in a manner that accurately represents the laboratory's accreditation status.
 - b) Statements regarding accreditation or the AAP logo shall not be used by laboratories that are seeking, but have not yet been granted, accreditation.
 - c) Statements regarding accreditation or the AAP logo shall be used by an accredited laboratory only under the name in which it holds accreditation.
 - d) Statements regarding accreditation or the AAP logo shall be used by an accredited laboratory only for the location at which it holds accreditation if the company has more than one laboratory location.
 - e) Reference to the accredited status of a laboratory may not be part of any promotional endorsement of services not covered by the laboratory's scope of accreditation.
 - f) A laboratory that is not accredited shall not state that it possesses a valid accreditation to any specifier or project owner as part of the bid process.
 - g) A laboratory shall not state that items tested in their accredited facility have been certified by AASHTO, AMRL, or CCRL.
 - h) If a statement regarding accreditation or the AAP logo is printed on a business card, it must be clear that the laboratory, and not the individual, is accredited.
 - i) If a statement regarding accreditation or the AAP logo is printed on letterhead or other corporate stationery, such stationery shall not be used for work proposals or quotes if none of the work is within the scope of accreditation.

- j) If an accredited laboratory is part of a larger organization, it may use statements regarding its accreditation or the AAP logo on the organizational letterhead, provided that the accredited laboratory is identified by name and location immediately preceding or following the statement or symbol.
- 8.6. **Websites** - Information on websites must conform to all Publicity Guidelines. To ensure access to the most current scope of testing, laboratories are encouraged to use a link to their scope of testing found on the AAP Directory of Accredited Laboratories.
- 8.7. **Test Reports**
- a) A laboratory may use an accreditation statement or the AAP logo on test reports where all the tests appearing on a test report are included in the scope of the laboratory's accreditation.
 - b) Where a laboratory is accredited for none of the tests on a test report, a laboratory shall not use a statement regarding accreditation or the AAP logo on the report or any document attached to the report.
 - c) Where both accredited and non-accredited tests appear on any report, the laboratory must clearly identify those tests that are not included in the scope of the laboratory's accreditation. For example, a laboratory might include a statement that the laboratory is not accredited for any tests methods marked by an asterisk.
 - d) There shall be nothing in the test report, any attachments, or other materials that implies or may lead any user of the results or any interested party to believe that the work is covered by the scope of accreditation when it is not.
- 8.8. **Consequence of Violation of the Policy** - Any laboratory that is found to violate this policy will be notified and granted one week to resolve the issue. If the laboratory does not resolve the issue, the laboratory's name and location will be listed on the Notice of False Accreditation Claims on the AMRL website (www.amrl.net) along with an explanation of the violation. AAP reserves the right to directly notify any specifier, project owner, or other organization about a laboratory's violation of this policy.
- 8.9. **Examples of Unacceptable Statements** - There are many ways to accurately promote a laboratory's accreditation status provided that the laboratory adheres to the guidelines listed in this document. Many of the "approved" methods of publicizing accreditation are dependent on the exact circumstance involved so the AAP will not list acceptable statements that anyone can use. However, there are certain statements that have been erroneously used by both accredited and non-accredited laboratories in the past that can provide guidance for what not to do.

The following statements are considered to be unacceptable statements regarding a laboratory's accreditation status:

Example 1: "Laboratory ABC is recognized by AAP."

This example ambiguously states that the laboratory is "recognized." The AAP does not "recognize" a laboratory or its accreditation status – it only "accredits" the laboratory for adherence to specific published standards and compliance with requirements published in this document. Other words that shall not be used include "certified," "approved," and possibly others.

Example 2: "Our laboratory is an AMRL-accredited laboratory."

This example incorrectly states that the laboratory is accredited by AMRL. Both AMRL and CCRL provide assessments and proficiency samples that are used by the AAP as a means to evaluate compliance to AAP procedures. Neither AMRL nor CCRL accredit laboratories.

Example 3: “Our technicians are AASHTO certified.”

Example 4: “Our asphalt is AASHTO certified.”

These examples erroneously state that the technicians that work at the accredited laboratory and the product produced at the plant that houses the accredited laboratory are also certified by AASHTO. AASHTO accreditation does not apply to personnel or products. It only applies to a laboratory that has demonstrated adherence to specific published standards listed in the scope of the laboratory’s accreditation and compliance with the requirements published in this document.

Example 5: “Our laboratories are AASHTO-accredited.”

This statement may be true if all of the laboratory locations within that organization possess valid accreditations. However, this statement would not be true if even one of the laboratory locations within that organization does not possess a valid accreditation.

The laboratory’s accreditation certificates must be returned to AMRL and advertising references to AASHTO accreditation must be discontinued (a) when accreditation has been revoked by the AAP, (b) when the laboratory voluntarily withdraws from participation in the AAP, or (c) if the laboratory becomes unable to conform to any of the criteria required for accreditation.

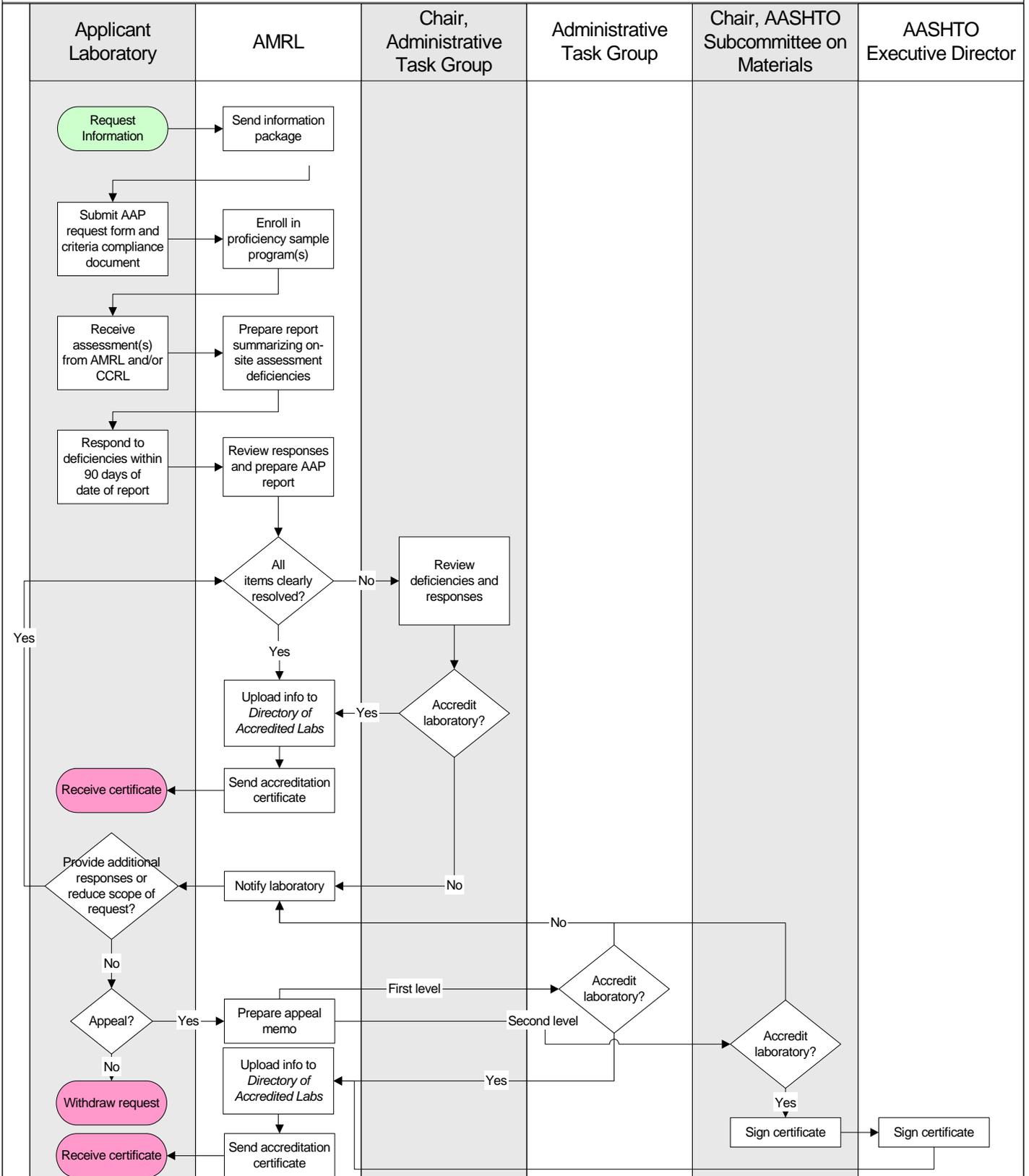
9. **Fees**

Laboratories participating in AAP are charged appropriate fees for proficiency samples and on-site assessments according to AMRL’s and CCRL’s normal billing procedures. In addition, laboratories participating in AAP will receive an invoice from AASHTO each year for the annual AAP administrative fee.

A laboratory may obtain additional specific information about the fees for AMRL and CCRL services by contacting the respective organizations or visiting their websites (see Section 4.1 for contact information).

Laboratories must pay all fees charged for services required for accreditation in order to maintain their accreditation. Charges include the annual administration accreditation fee, as well as fees for on-site assessments, proficiency sample testing, and any late payment penalties that may have been assessed.

AASHTO Accreditation Program - Initial Accreditation Process - Figure 1



**American Association of State Highway and Transportation Officials
AASHTO Accreditation Program Certificate of Accreditation**

This is to signify that

ABC Laboratory, Inc.
in
City, State

has demonstrated proficiency for the testing of construction materials and has conformed to the minimum requirements established in AASHTO R 18 set forth by the AASHTO Highway Subcommittee on Materials (HSOM).

The scope of accreditation can be viewed on the AAP Directory of Accredited Laboratories on www.amrl.net.


Bud Wright, Executive Director


Moe Jamshidi, AASHTO HSOM Chair



Figure 2 – Certificate of Accreditation for R 18

**American Association of State Highway and Transportation Officials
AASHTO Accreditation Program Certificate of Accreditation**

This is to signify that

ABC Laboratory, Inc.
in
City, State

has demonstrated proficiency for the testing of construction materials and has conformed to the minimum requirements established in AASHTO R 18 and ISO/IEC 17025. AASHTO R 18 requirements have been set forth by the AASHTO Highway Subcommittee on Materials (HSOM).

The scope of accreditation can be viewed on the AAP Directory of Accredited Laboratories on www.amrl.net.


Bud Wright, Executive Director
AASHTO
THE VOICE OF TRANSPORTATION



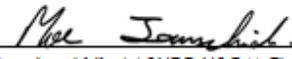

Moe Jamshidi, AASHTO HSOM Chair
AAP
AASHTO R18

Figure 3 – Certificate of Accreditation for R 18 and ISO/IEC 17025

Table 1

Fields of Testing and On-Site Assessment, Quality Management System Evaluation, and Proficiency Testing Requirements

Fields of Construction Materials Testing	On-Site Assessment (Including Quality Management System Evaluation) Requirements	Proficiency Testing Requirements Including
Soils ¹ (ASTM D3740)	AMRL Soils Assessment Including Quality Management System Evaluation ⁴	AMRL Soils Proficiency Samples ³
Asphalt Cements/Cutback Asphalts ¹ (ASTM D3666)	AMRL Asphalt Cements Assessment Including Quality Management System Evaluation ⁴	AMRL Asphalt Cement Proficiency Samples ³
Emulsified Asphalts ¹ (ASTM D3666)	AMRL Emulsified Asphalt Assessment Including Quality Management System Evaluation ⁴	AMRL Emulsified Asphalt Proficiency Samples ³
Hot Mix Asphalt ¹ (ASTM D3666)	AMRL HMA Assessment Including Quality Management System Evaluation ⁴	AMRL HMA Proficiency Samples ³
Aggregates ^{1,2} (ASTM C1077, D3666)	AMRL or CCRL Aggregate Assessment Including Quality Management System Evaluation ⁴	AMRL Coarse & Fine Aggregate Proficiency Samples ³
Concrete ² (ASTM C1077)	CCRL Concrete Assessment Including Quality Management System Evaluation ⁴	CCRL Concrete Proficiency Samples ³
Cement ² (ASTM C1222)	CCRL Cement Assessment Including Quality Management System Evaluation	CCRL Cement Proficiency Samples ⁵
Masonry ² (ASTM C1093)	CCRL Masonry Assessment Including Quality Management System Evaluation ⁴	CCRL Concrete Masonry Unit Proficiency Samples ³
Metals ^{1,2}	AMRL or CCRL Metals Assessment Including Quality Management System Evaluation ⁴	CCRL Reinforcing Bar Proficiency Samples ³
Sprayed Fire-Resistive Materials (SFRM) ¹	AMRL SFRM Assessment Including Quality Management System Evaluation ⁴	Not Applicable
Supplementary Cementitious Materials ²	CCRL Supplementary Cementitious Materials Assessment Including Quality Management System Evaluation ⁴	CCRL Pozzolan Proficiency Samples ³
AAP ISO/IEC 17025 Assessment	Those laboratories seeking recognition for compliance to ISO/IEC 17025 must receive a separate AAP ISO/IEC 17025 Assessment in addition to AMRL and CCRL on-site assessments.	AAP requirements apply

- ¹ Accreditation provided for AASHTO and ASTM test methods included in the scope of the AMRL on-site assessment program and ASTM standards D3666, D3740, and E329.
- ² Accreditation provided for ASTM test methods (and equivalent AASHTO test methods) included in the scope of the CCRL on-site assessment program which cover both the test apparatus and procedures and ASTM standards C1077, C1222, C1093, and E329. Chemical tests for cement are evaluated based on a review of the qualification data test as described in AASHTO T 105 and ASTM C114.
- ³ A laboratory must participate in any proficiency sample program (PSP) that includes a test method(s) for which accreditation is requested.
- ⁴ Provided in conjunction with the on-site visit.
- ⁵ A laboratory must test any CCRL cement proficiency samples applicable to the materials and tests for which accreditation is requested. CCRL distributes proficiency samples for three types of cement: portland cement, masonry cement, and blended cement.