

## CCIL Requirements for HMA Asphalt Technician Certification

### 1.0 Hot Mix Asphalt (HMA) Laboratory Technician

**1.1 General** The “Certified Asphalt Technician” is the generic title given to the asphalt technician that includes a basic knowledge and hands-on experience in hot mix asphalt laboratory testing methods.

**1.2 Qualification** The minimum academic qualification and experience required are based on the criteria listed in Table 1.

**Table 1: Academic Qualification and Experience Criteria**

Academic Qualifications	Experience (Years) *
High School Diploma**	3
College/University, non-technical Diploma	2
College/University Technology Diploma	1

Notes:

- \* Number of seasons in construction with a minimum of 6 months continuous hands-on related experience in each category
- \*\* Previous work experience will be considered for applicants who do not possess a High School Diploma

**1.2.1** Asphalt technicians applying for certification must have documented hands-on experience in various hot mix asphalt laboratory testing methods while meeting minimum qualifications listed in Table 1.

**1.2.2** The Certified Asphalt Technician must participate in the required inter-laboratory proficiency testing program as well as the required testing during the laboratory inspections.

### 1.3 CCIL Certified HMA Laboratory Technician Types

**1.3.1** CCIL offers three types of certified HMA technicians, depending on laboratory of employment certification:

**Type 1. HMA Certified Marshall and Superpave Laboratory Technician**

**Type 2. HMA Certified Marshall Only Laboratory Technician**

**Type 3. HMA Certified Superpave Only Laboratory Technician**

**1.3.2** New Technicians employed by CCIL Certified Marshall and Superpave laboratories must apply for Type 1.

**1.3.3** New Technician employed by CCIL certified Marshall ONLY laboratories can only apply for Type 2.

**1.3.4.** New technicians employed by CCIL certified Superpave ONLY laboratories can only apply for Type 3.

**1.3.5** New technicians seeking certification must pass all practical and written examinations.

**1.3.6** New technicians seeking certification for Marshall or Superpave only who attend the CCI HMA Technician Certification Program must participate in the certification program in its entirety. However, participation in the practical and written examinations will be focused only on Marshall or Superpave related topics.

Note: The CCIL HMA technician certification program (only offered in Ontario) includes comprehensive examinations both practical and written in all related Marshall and Superpave test procedures. The written component also includes in part calculations pertaining to the various test methods. As this is not an asphalt training course, CCIL does not supply reference notes, books, test standards or any other related printed materials. Technicians participating in the CCIL HMA certification program are encouraged to take Marshall and/or Superpave training course(s), if needed, for skill enhancement prior to participation in the CCIL HMA certification program.

**1.3.7** A technician employed at a CCIL certified asphalt laboratory and currently holding valid card may renew the card as usual through successful participation in the written examination overseen by CCIL personnel every 5 years.

**1.3.8** A certified technician that has been loaned or transferred to a laboratory from another certified laboratory shall only perform tests that he/she is qualified to perform. The loaned technician shall not participate in any CCIL proficiency testing that may be required of the acquiring laboratory.

## **1.4 Certification Requirements**

**1.4.1** The Type 1 Asphalt Technician must complete certification examinations and obtain passing grades on procedures listed in CCIL LC 101, Appendices A-2 through to A-5, as well as demonstrating proficiency in the test procedures in Table 2.

**Table 2: Practical Examination Requirements**

Test	Test Method (Note 1)
Sample Preparation	C702, LS-600
Preparation of Marshall Specimens	D6926/LS-261
Bulk Specific Gravity of Compacted Asphalt Mixes Using Saturated Surface-Dry Specimen	D2726 /LS-262
Theoretical Maximum Relative Density of Bituminous Paving Mixtures	D2041/LS-264
Marshall Stability and Flow of Bituminous Mixtures	D6927
Percent Compaction of Compacted Bituminous Paving Mixtures	ATT-67/ LS-287
Quantitative Extraction of Asphalt Cement from Bituminous Paving Mixtures <ul style="list-style-type: none"> <li>• Using either Solvent Methods and/or</li> <li>• Ignition Furnace</li> </ul>	D2172/LS-282 and/or D6307/LS-292
Sieve Analysis of Extracted Aggregates	D5444/LS-282/LS-292
Preparing and Determining the Density of Hot Mix Asphalt Specimens by Means of the Superpave Gyrotory Compactor	T312/LS-313 (Note 2)

Note 1: Test Methods are publications of the following organizations:

- “C” and “D” are ASTM,
- “LS” is MTO
- “T” is AASHTO
- “ATT” is Alberta Transportation

Note 2: This test does not apply for Type 2 Asphalt Technician Certification

**1.4.2** The Type 2 Asphalt Technician employed by Marshall only laboratories must complete certification examinations and obtain passing grades on procedures listed in CCIL LC 101, Appendices A-2 and A-4. This technician type must also demonstrate proficiency in all the test procedures in Table 2 except for Sample Preparation using Gyrotory Compactor as per Note 2.