Appendix A

Certified Air Barrier Specialist Knowledge area's

6.3
Job task analysis

The written exam is based on a Job Task Analysis of the air barrier industry. The critical tasks performed by individuals consist of:

a. ABAA Quality Assurance Program
   i. To possess knowledge and understanding of the administrative obligations of the QAP program.
   ii. Familiarity with the QAP Manual.

b. Building science knowledge:
   i. Heat flow
   ii. Moisture flow
   iii. Airflow
   iv. Combining all the above

c. Materials, accessories, and components
   i. Installation of components in proper sequence and compliance with manufacturer's instructions and technical bulletins

d. Air barrier details
   i. Understanding manufacturer's basic details for air barriers
   ii. Locating air barrier details on drawings

e. Air barrier design
   i. Understanding basic air barrier design
   ii. Identifying critical air barrier system requirements

f. Project specifications
   i. Comprehend project specification requirements
   ii. Explain the hierarchy of contract documents

g. Building code knowledge
   i. International Energy Conservation Code - 2018
   ii. International Building Code 2018
   iii. International Residential Code 2018

h. Regional standards
   i. ASTM E779 Standard Test Method for Determining Air Leakage Rate of Air Barrier Assemblies

ii. ASTM E1827 Standard Test Methods for Determining Airtightness of Buildings Using an Orifice Blower Door
iii. ASTM E2178 Standard Test Method for Air Permeance of Building Materials
iv. ASTM E2357 Standard Test Method for Determining Air Leakage Rate of Air Barrier Assemblies
v. Material property test methods
vi. Material specifications

i. Industry standards
i. ABAA T0001 Standard Method for Building Enclosure Airtightness Compliance Testing
ii. ABAA T0002 Standard Test Method for Pull-Off Strength of Adhered Air and Water Resistive Barriers Using an Adhesion Tester
iii. ABAA S0003 Standard for Air Barrier Material - Light Density Open Cell Semi-Rigid Spray Polyurethane Foam - Material Specification
iv. ABAA T0004 Standard Test Method for Determining Gap Bridging Ability of Air and Water Resistive Barrier Materials
v. ABAA S0005 Standard for Air Barrier Material – Non-Insulating Sheathing - Gypsum Based – Material Specification
vi. ABAA S0006 Standard for Air Barrier Material – Mechanically Fastened Engineered Polymer Film – Material Specification
vii. ABAA S0007 Standard for Air and Water Resistive Barrier Material - Medium Density Closed Cell Rigid Spray Polyurethane Foam - Material Specification

j. ABAA material listing requirements
i. Basic requirements
ii. Requirements by material type

k. Construction site requirements
i. Safety and health
ii. Communication

l. Installation requirements
i. Assessment of environmental conditions
ii. Assessment of work for compliance to project contract documents
iii. Key installation issues
iv. Repairs of deficiencies

m. Contract Documents
   i. General conditions
   ii. ABAA model three-part project specifications for air barrier material types
   iii. Contract requirements

n. On-site testing of air barriers
   i. Visual inspection
   ii. Adhesion/cohesion testing
   iii. Pull adhesion
   iv. Density tests
   v. Air leakage tests

o. Air barrier project audits
   i. Audit requirements
   ii. Audit reporting
   iii. Correction methods

p. Commissioning the air barrier system
   i. Test methods for air leakage of whole buildings
   ii. Air leakage performance requirements

q. Correcting air leakage paths
   i. Identifying the air leakage of a whole building
   ii. Identifying air leakage by zone
   iii. Finding specific air leakage paths