

# Request for Proposal

## Air Leakage Control Technician Training Program and Technical Reference Manual

**Issued: July 27, 2022**

The Education Committee of the Air Barrier Association of America (ABAA) is seeking the services of an independent consultant or consulting firm for the development of a technical training manual, training program and instructor's guide and resources on a program on finding and fixing air leakage paths in the building envelope.

The technical training manual is to include how to find the leaks in the building envelope, tools and procedures to be used, selection of materials to be used to seal the leaks and the process to be taken to seal the leaks. The technical training manual will follow a Job Task Listing to be developed under this work scope. The instructor's guide shall provide guidance on how to deliver the information for each Function during a face-to-face program delivery.

This course will provide direction on locating and sealing air leaks focusing on new or existing wood framed buildings that are three or four stories in height (excluding buildings with elevators).

For this document, the following terms and definitions shall be used:

**job task listing**

work required to be undertaken to complete a project within the scope of the project

**job task analysis**

survey of the competence of a group of people and then compared to what is required to complete a job for the purpose of determining existing skills and skills that need to be learned

**technical training manual**

document that includes all the steps on how to perform a task that can be followed by an individual resulting in the task being completed

**instructor's guide**

document that provides guidance of methods to deliver a training program by means of various teaching methods

**learning objectives**

what the person needs to learn to be able to complete a job task

An individual or firm that has experience in developing training curriculum and creating education-based training manuals--starting with the developing a job task list--would be considered a qualified firm for the purpose of this project. Proposals shall be received by **September 2nd, 2022, at 5:00 pm (EDT)**.

**If you are considering bidding, please notify ABAA of your intention by emailing Ryan Dalglish at [rdalglish@airbarrier.org](mailto:rdalglish@airbarrier.org) by August 12<sup>th</sup>, 2022 at 5:00 pm (EDT)**. Failure to register will not disqualify your proposal but will possibly prevent you from receiving updated information in a timely manner.

All Request for Information (RFI's) will need to be submitted by **August 19<sup>th</sup>, 2022, at 5:00 pm (EDT)**.

Responses to RFI's will be completed by **August 26<sup>th</sup>, 2022, at 5:00 pm (EDT)**.

All RFI's and project understanding clarifications will be provided to all firms and contractors that have confirmed they will be submitting a proposal.

All questions regarding the proposal should be directed to Ryan Dalglish at (866) 956-5888 or via email at [rdalglish@airbarrier.org](mailto:rdalglish@airbarrier.org).

## **About ABAA**

ABAA is a nonprofit association representing the air and water resistive barrier industry. ABAA's general membership consists of manufacturers of air barrier materials and products, contractors who install air barrier materials and accessories, and individuals with a general, academic, or business interest. This project will be overseen by the Education Committee of the Air Barrier Association of America (ABAA), with a technical review from ABAA's Technical Committee and the ABAA Washington State Ad Hoc Group. ABAA's committees include persons from manufacturers, architects, consultants, specifiers, testing agencies and laboratories.

## **Summary of Project and Deliverables**

### **Development of a Training Reference Manual**

The training reference manual is to be developed for individuals for use in self-study or as part of a face-to-face training program. The intent is the manual would be divided into two distinct parts. Part one of the manual is to provide step-by-step instructions on how to find the paths of air leakage in the building enclosure and select the appropriate tools or process to find the leaks. Part two is to provide guidance on how to determine the best approach to provide air sealing strategies, select the materials to be used to air seal, how to undertake proper procedures to carry out the air sealing required, and to verify that the work has been successfully carrier out. The manual will be used by an individual as a site reference manual to be referred to during the work. The manual is to include knowledge reviews and other means whereby the person can verify that they have learned the knowledge and skills required

The selected organization shall provide the following deliverables:

1. Develop a task listing that details each step that a person needs to do to complete the task. Confirm that the task listing is complete for the job of an air leakage control technician by validating the Task Listing by circulating it within ABAA's committees and other industry

stakeholders defined. The Task Listing shall identify any tasks that require knowledge, skills or abilities that are currently available through other organizations and can be a prerequisite for personnel certification.

The purpose of developing a Task Listing is to separate what a person needs to know to be able to complete the job from information that would be for informational purposes and not required. This allows the training to focus only on what the person needs to know. Submit the Task Listing to ABAA for approval before commencing any other work on developing the training manual. **(A current draft task listing is included in Appendix A)**. Incorporate responses from ABAA and provide to ABAA for approval. Once the Task Listing has been approved, group associated tasks together under Functions to produce a Function/Task Listing.

2. After the Function/Task Listing has been approved by ABAA, develop individual Learning Objectives for each task in an appropriate amount, based on the importance of the tasks and how critical they are to the technical learning. The Learning Objectives shall be developed using Bloom's Taxonomy Verb Chart (or other acceptable adult learning strategies) and identify the most appropriate action. Provide the Learning Objectives to ABAA for review and comment. Incorporate modifications to address comments received. Present final Function/Task Listing with Learning Objectives for each task to ABAA.
3. Each Function with associated Tasks and learning objectives shall form a chapter in the Technical Training Manual. As a first step, develop a sample chapter of the Technical Training Manual, as selected by ABAA for ABAA's review and approval. The sample chapter is to provide ABAA how the manual is intended to be developed and show writing style, format and details. Each chapter shall contain pictures and drawings to augment the editorial text so that the individual can fully understand what the steps are required to complete each task. Present the sample chapter to ABAA for comments. Incorporate any changes required to address comments on the chapter and present to ABAA for final approval. The ABAA approved chapter is to be used as the example as to how all chapters will be developed.
4. Write and develop each chapter of the Technical Training manual. Present each chapter, when drafted, to ABAA for comments. Incorporate any changes required to address comments on each chapter and present to ABAA for final approval.
5. Provide a draft Technical Training manual for final approval.

### **Deliverables for Instructor's Guide**

1. Instructor(s) guide on how to deliver the material in the training manual and resources to support the delivery of the program. The intent of the instructor manual is to provide standardized instruction to individuals that will be teaching the course. The instructor manual will typically provide things such as:
  - Key notes for Instructor
  - Teaching approach required

- Lesson Planning
- Teaching aids and course materials (drawings, mock-up's, tools, PowerPoint, etc.)
- Preparation Checklist
- Time associated to each module
- Materials and resources for each module that are needed
- An outline of how to communicate and teach the difference modules (group exercise, case study, what power point slide to show, questions and guidance to engage discussion, knowledge reviews for students to assess
- Activities, examples, quizzes, and other components to reinforce learning objectives and test the individuals understanding

This becomes a guiding document to allow consistent delivery from instructor to instructor and organization to organization. It provides the instructor with all the information and tools needed.

### **Development of a Training Program**

The intent is to deliver the training in several formats, including face to face, online learning platforms, webinars, and other methods to reach the intended audience. The development of a training program will consist of a variety of means to allow for delivery of a training program to the industry, based on the technical content developed in the Technical Training Manual.

The deliverables shall include recommendations for delivery and the required resources associated with the type of delivery proposed.

### **Deliverables for Training Program**

2. Training plans to be provided for face-to-face training delivery which identify the functions/tasks are to be covered, how the training is to be delivered, exercises or other means to foster learning, and the time required for each Function.
3. Recommendations for the student/instructor ratio required for the type of training delivery and recommended qualifications for the instructors.

### **General Notes**

- As part of this project, all assets and material created for this manual and program will become ABAA's property. For assets already being used by the organization, ABAA would look to create an agreement that allows the organization to still retain ownership through a joint licensing arrangement where both parties can use the assets for their own purposes. For anything new developed specifically for this project, those items will be owned by ABAA.

- For the technical training program, ABAA has training manuals developed in Adobe InDesign and would be the preferred choice.
- Training manual and training program will be ABAA branded and that all branding requirements/guidelines, logos, etc., will be provided to the selected consultant or confirm if ABAA will use the content produced to develop a branded document.
- ABAA will be developing a certification program for these candidates and is a separate project being undertaken by a Certification Committee. This training manual will assist those in obtaining a new credential.

## **Requirements for Proposal**

The following information is to be included in the consultant's proposal:

### ***firm overview***

provide a brief narrative on the history of the firm. Include a list of current/past construction-related and trade association clients, with a focus on experience in developing technical manuals and adult education-based learning

### ***project understanding***

a statement that clearly and concisely states the firm's understanding of the project and describes its capability to perform the work. The firm shall provide specific information on their approach for developing task listing and then using the task list to develop the Training Technical Manual

### ***resumes***

provide CVs of the firm's personnel who will be assigned to the project

### ***similar projects***

include a summary of specific projects the individual or firm has conducted that are similar in nature to the proposed project

### ***project management***

include a summary of how the firm intends to address comments from a technical review committee and how technology will be used to communicate changes and make comments.

What software will be used for the training manual and how will it be delivered to ABAA.

Identify the anticipated timeline to complete the project, allowing sufficient time for review and comment by ABAA.

### ***References***

Provide three references from past clients: those related to the construction industry are preferable. Reference information should include name, address, phone number and website address.

### ***Fee Proposal***

Provide a detailed estimate of the costs for each task associated with completion of this project, including labor hours. Fees for the training manual and the training course development shall be broken out in the proposal.

### **Project Timelines**

Upon award, work would begin immediately. The key timelines are:

Bids Submittal:	September 2 <sup>nd</sup> , 2022
Award of Contract:	September 16th, 2022
Kick-off Meeting:	October 2022
Standing Coordination Meeting with ABAA	Monthly

During the development of materials, the chosen firm will engage in monthly meetings to discuss progress of the project. Review of the draft materials will be presented to the technical review committees for comments and requested changes. Reviews will be focused on both the technical content of the material and the way the material is presented for educational purposes.

## **Basis for Selecting Organization**

The selection of the organization will be based on the personnel identified in the proposal and the organization experience in developing training programs and courses. Experience in teaching and delivering live training and online learning will be an asset. Criteria and a weighting factor for selecting the organization shall include:

<b>SELECTION CRITERIA</b>	<b>Total % Value</b>
<p><b>1. Contractor’s understanding of Work Statements as demonstrated in the proposal including but not limited to:</b></p> <p>a. Proposed timeline that includes all reviews and deliverables.  b. Identify project team and if any sub-contractors would be used to complete the project.  c. Completeness of proposal in addressing each of the identified deliverables.</p>	20%
<p><b>2. Contractor’s experience with building enclosure air leakage control, building science and building/energy performance.</b></p>	30%
<p><b>3. Expertise in creating technical training manuals and delivery of education, with the qualifications and experience of personnel for project including but not limited to:</b></p> <p>a. Expertise in the development of technical training manuals and similar documents.  b. Expertise in creating lesson plans, course curriculum, learning resources, course planning.  c. Expertise in adult education.</p>	30%
<p><b>4. Expertise in developing Task Lists and using a Task List to determine the content proposed for the manual.</b></p>	10%
<p><b>5. Ability to meet project schedule milestones and final product delivery.</b></p>	10%

# APPENDIX A - Air Leakage Control Technician

## Draft Function/Task Listing

### Function A: Preparation

- Task A.1: Review the drawings/materials used/blower door test results
- Task A.2 Review of photos of building conditions
- Task A.3 Safety issues (lead paint, asbestos)
- Task A.4 Determine size and shape of building (square footage, stories, etc.)
- Task A.5 Technician's work scope
- Task A.6 Assess potential for air sealing--visual, pressurization, IR camera

### Function B Foundation

- Task B.1 Crawl space
- Task B.2 Ceiling (underside of main floor, penetrations, etc.)
- Task B.3 Walls
- Task B.4 Floor
- Task B.5 Slab on grade
- Task B.6 Concrete walls
- Task B.7 Combo: concrete/pony walls
- Task B.8 Floor (concrete, metal, wood, dirt)
- Task B.9 Penetrations

### Function C Walls

- Task C.1 Framed
  - Task C.1.1 Interior sealing
  - Task C.1.2 Exterior sealing
  - Task C.1.3 Dense pack
  - Task C.1.4 Finish



Task C.2      Solid

- Task C.2.1    Concrete (tilt-up, CMU)
- Task C.2.2    Pony walls
- Task C.2.3    Penetrations
- Task C.2.4    Open walls: Interior sealing/external sealing
- Task C.2.5    Common walls/fire walls

Task C.3      Ceiling

- Task C.3.1    Accessible attics
- Task C.3.2    non-accessible attics
- Task C.3.3    Roofs: exterior
- Task C.3.4    Roofs: interior
- Task C.3.5    Heat emitting devices
- Task C.3.6    Appliances (fans, heat lamps, heaters)
- Task C.3.7    Soffits
- Task C.3.8    Mechanical chases
- Task C.3.9    Sprinkler pipe/head penetrations

**Function D Fenestrations**

- Task D.1      Seal between the fenestration and air barrier system
- Task D.2      Seal joints in fenestrations

**Function E Mechanical (pipes, sprinkler heads, etc.)**

- Task E.1      Ducts
  - Task E.1.1    Duct leakage testing
  - Task E.1.2    Duct air sealing (distribution, intakes, etc.)
  - Task E.1.3    Ducts, pipes; chimneys and sprinkler heads (seal to air barrier system)
  - Task E.1.4    Incomplete duct installation (fresh air opening with no connected duct)

**Function F Combustion Appliances (furnaces, fireplaces, etc.)**

- Task F.1 Isolation
  - Task F.1.1 Determine if naturally aspirated
  - Task F.1.2 Conduct isolation test
  - Task F.1.3 Separate combustion appliance zone from conditioned space

**Function G Addressing Asbestos, Lead in Building Materials**

- Task G.1 Identification of materials containing asbestos or lead
  - Task G.1.1 Survey project to identify a 1 or 2 percent limit (point count)
  - Task G.1.2 Awareness class: Two hour if at or below limit--if above require a 16-hour class
- Task G.2 Industrial hygienist to determine protocol for drilling holes, etc., for a project
- Task G.3 Conduct work with respirators/contractor air monitoring