

# EXO-TEC Solutions, Inc.

1 Kiddie Drive, Suite 215 Avon, MA 02322  
( 508 ) 580-0901 Fax ( 508 ) 580-0906  
www.exo-tec.biz

## AIA / CES Presentations Program

The following presentations are offered by EXO-TEC Solutions, Inc. for building construction education programs. Please feel free to fill in proposed presentation dates and fax back to the above number for availability.

### **Successful Through Wall Flashing Systems**

Deficient through wall flashing systems are the predominant cause of water leakage into the through the building enclosure system. The results of such leaks are building enclosure system failures, structural element failures, the growth of mold spores and fungus in building enclosure systems and degraded indoor air quality. The presentation begins with a brief history of the evolution of through wall flashing systems. Materials and systems currently available on the market are reviewed and critiqued. A series of product specific installation details are reviewed. Finally, through wall flashing system cost data are offered along with a review of the benefits and drawbacks of the various systems discussed.

Duration: 1 + Hour ( Usually runs longer than an hour due to questions )

AIA CES Credits: 1

Handouts Provided: Copy of Power Point Presentation

Presenter: Len Anastasi

Sponsor: Trowel Trades Supply

Previous Audiences: A, AIA, CSI, BSA/ BEC, Build Boston

Proposed Date: \_\_\_\_\_

### **Air Barriers 101: Basic Theory And Design**

Research conducted at Oak Ridge National Laboratories in Oak Ridge, TN, the Canadian Mortgage Housing Corporations, Sweden and Germany has concluded that controlling the air flow through building enclosure systems is more important and effective than controlling vapor migration. Air flow has the ability to transport exponentially more moisture into and through the building enclosure system than occurs through vapor migration. The results of controlling air flow are reduced moisture problems such as corrosion, deterioration, and the growth of mold, mildew and fungus. Ancillary benefits are the improvement of the energy efficiency and indoor air quality of the building. The presentation begins with an explanation of air barrier systems. Studies on the benefits of air barrier systems are reviewed. Types and categories of air barrier systems are explained. The performance of above grade vertical building enclosure systems with and without air barrier systems are analyzed. Prescriptive requirements for air barrier systems are reviewed. Finally, industry resources on air barrier systems are offered.

Duration: 1 Hour

AIA / CES Credits: 1  
Handouts Provided: Copy of the Power Point Presentation  
Presenter: Len Anastasi  
Sponsor: Air Barrier Association of America  
Previous Audiences: A, E, AIA, CSI, TCA, BSA/BEC, Build Boston

Proposed Date: \_\_\_\_\_

### **Air Barriers 102: Design Considerations**

As follow up to Air Barriers 101, this presentation focuses on design considerations for air barrier systems. Products and systems are reviewed and critiqued. Ancillary building enclosure system components are discussed. Problematic areas of the building enclosure system are brought to attention. The goal of the presentation is to point out critical considerations that should be addressed prior to commencing with the working drawings for a project.

Duration: 1 Hour  
AIA / CES Credits: 1  
Handouts Provided: Copy of the Power Point Presentation  
Presenter: Len Anastasi  
Sponsor: Air Barrier Association of America  
Previous Audiences: A, AIA, CSI, Build Boston

Proposed Date: \_\_\_\_\_

### **Masonry Veneer Anchors And Air Barrier Systems**

As follow up to Air Barriers 101 and 102, this presentation focuses on the one building envelope system component that has the potential to be the most detrimental to the air barrier system. The installation of masonry veneer anchors creates, by far, the most penetrations in the air barrier system. Leaks that can occur due to improper anchor selection, installation and sequencing have the most potential to render the air barrier system ineffective. Requirements for masonry veneer anchors used with air barrier systems are reviewed. The various anchor systems currently available on the market are exhibited and critiqued. Finally, testing and inspections methods and protocols are offered to insure an effective air barrier system.

Duration: 1 Hour  
AIA / CES Credits: 1  
Handouts Provided: Copy of the Power Point Presentation  
Presenter: Len Anastasi  
Sponsor: Air Barrier Association of America  
Previous Audiences: A, E, CSI, BSA/BEC, Build Boston, ABAA Conference

Proposed Date: \_\_\_\_\_

### **Air Barriers 103: Avoiding Pitfalls With Air Barrier**

With the proliferation of the use of air barriers in building enclosure systems the potential for problems exists in the industry. This workshop will review the proper planning, product selection, specifications, details and field quality assurance needed for a successful air barrier installation. The program starts with a list of steps to be taken during each phase of design and construction. Proper exterior wall design based on type of construction and proper material selection based on type of construction will then be reviewed. Details for specific wall construction type and product selection will be then be offered and reviewed. Poor detail examples will also be reviewed and discussed. Finally, quality assurance guidelines will be offered including pre-construction meetings, mock-up review and field inspection recommendations. Examples of problem installations will also be offered with explanations of the problems.

Duration: 1 Hour

AIA / CES Credits: 1

Handouts Provided: Copy of the Power Point Presentation

Presenter: Len Anastasi

Sponsor: Air Barrier Association of America

Previous Audiences: A, E, CSI, Build Boston

Proposed Date: \_\_\_\_\_

### **Healthy Walls = Rainscreen & Ventilation**

The presentation reviews the history of the various types of above grade exterior wall assemblies and the coinciding moisture theory and practice. The rainscreen cladding with drainage space is explained in detail. Proper detailing and construction of the system with various cladding systems are presented. The presentation ends with a summary of the various systems and offers some examples of good detailing and installations.

Note: This presentation is geared toward single family home and multi-family low-rise residential construction types where wood framing is predominantly used.

Duration: 1 Hour

AIA/CES Credits: 1

Handouts Provided: Copy of the Power Point Presentation

Sponsor: Keene Building Products

Previous Audiences: A, Residential Design & Construction

Proposed Date: \_\_\_\_\_

## **Four Barriers For Four Wetting Potentials: How To Design Effective Exterior Wall Systems**

This presentation looks at the four wetting potentials that exterior wall assemblies are exposed to due to the climatic difference between the interior and exterior environment. The four barriers needed to effectively separate the two environments and not create moisture problems are identified. The science and physics behind the inclusion and location of these barriers will be discussed. Various exterior wall assemblies will be reviewed and critiqued. The 2012 International Energy Code requirements for insulation exterior wall assemblies will be reviewed and critiqued. Live hygrothermal analyses will be run to show which insulation schemes work and which ones do not.

Duration 1 hours

AIA/CES Credits: 1

Handouts: Copy of the Power Point Presentation

Sponsor: Air Barrier Association of America

Previous Audiences: A, E, AIA, CSI, Build Boston, ABAA Convention

Proposed Date: \_\_\_\_\_

### **Avoiding Pitfalls With Spray Foam**

The use of spray polyurethane foam insulation in building construction has increased dramatically over the past decade because of its superior insulating qualities, performance and ability to provide all four barrier needed to effectively separate the interior environment form the exterior environment. As expected, problems have arisen due to improper installation equipment and techniques, a lack of understanding of the properties of the material and improper detailing. We will address these issues as well as show how spray foam provides the most effective means to comply with the 2012 IECC insulation requirements.

Duration 1 hours

AIA/CES Credits: 1

Handouts: Copy of the Power Point Presentation

Sponsor: Air Barrier Association of America

Previous Audiences: A, E, AIA, CSI, Build Boston, ABAA Convention

Proposed Date: \_\_\_\_\_

### **Presenter Background:**

Len Anastasi has worked in the construction industry for over 30 years in masonry, waterproofing and restoration work. He currently owns EXO-TEC Manufacturing, Inc. which manufactures specialty construction products, EXO-TEC Solutions, Inc. which performs marketing work for various quality and innovative manufacturers of construction products and EXO-TEC Consulting, Inc. which performs consulting services on building enclosure issues for building owners, managers, design professionals and lawyers. In his construction and consulting work, he has performed inspections and / or repairs on over 300 buildings as well as giving expert testimony in trials and reviews on dozens of legal cases.

He is a member of ASTM's E 06 Committee on Building Performance where he has authored both proposed standards as well as proposed changes to existing standards. He is a member of the Boston Society of Architects' Building Enclosure Council where he has presented on several topics and has been sponsored to speak at the Build Boston Exposition, AIA National Convention and CSI National Convention. He has authored several articles and papers on building enclosure performance and has spoken on these topics at several conventions, seminars and meeting. He is a past President of the Air Barrier Association of America and current Director as well as a member of the Construction Specification Institute ( CSI ) and the International Concrete Repair Institute ( ICRI ). He is also a guest lecturer at the Boston Architectural Center.

**Previous Audience Legends:**

- A Architectural firms
- E Engineering firms
- AIA American Institute of Architects
- CSI Construction Specifications Institute
- ASTM American Society For Testing Materials
- TCA Trade contractor associations

Organization Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

Contact Person: \_\_\_\_\_

E-Mail: \_\_\_\_\_