

AIA Charlotte  
1930 Camden Road  
Suite 1020  
Charlotte, NC 28203

Improving Energy Performance in the Building Envelope

# Improving Energy Performance in the Building Envelope

**For Architects, Engineers,  
Specifiers, Contractors,  
Building Owners and  
Managers, and Building Code  
Officials**

**Earn 5 AIA Sustainable Design HSW  
Learning Units for Architects**

**AIA Learning Units Qualify for PDH's for  
Professional Engineers in New York State, and  
May Qualify for PDH's in Other States  
Depending on State Licensing Board  
Requirements**



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# AIA Charlotte

Presents

## Improving Energy Performance in the Building Envelope

*A Day of Continuing Education*

**Delivering Energy Efficient Air and Vapor Barrier Systems  
Achieving Energy Efficient Roofing with Building Integrated  
Photovoltaics, Green Roofs, and Energy Star Design  
Insulated Cladding Solutions for High Performance Buildings  
Elements of Commissioning and Testing for High Performance  
Building Enclosures**

*Earn 5 AIA Sustainable Design HSW  
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Engineers in New York State, and May Qualify for PDH's in  
Other States Depending on State Licensing Board  
Requirements*

**Wednesday, April 28, 2010  
7:30 AM to 2:00 PM**

**Trane Charlotte  
4501 South Tryon Street  
Charlotte, NC 28217**

# Improving Energy Performance in the Building Envelope

April 28, 2010 – Charlotte

- 7:30 a.m. Registration**
- 8:00 a.m. Opening Remarks**
- 8:15 a.m. Delivering Energy Efficient Air and Vapor Barrier Systems by Tremco Global Sealants Group**
- Economic and Environmental Benefits of Air Barrier Systems
    - Impact of Energy Efficiency
  - Functions of an Air Barrier System
    - Control Functions of a Wall
    - Why Managing Air Flow is Critical to Sustainable Design
  - System Components
    - Permeable and Impermeable Systems
    - Contrast Sheet and Fluid Applied Systems
  - Common Design and Construction Issues
    - Specifications
    - Design
    - Sequence of Installation
    - Verification
  - Integrating Windows and Curtain-Walls into an Air Barrier System
- 9:30 a.m. Achieving Energy Efficient Roofing with Building Integrated Photovoltaics, Green Roofs, and Energy Star Design by Tremco Roofing Division**
- Building Integrated Photovoltaics (Solar)
  - Green (Vegetative) Roofs
  - Energy Star/Cool Roofs
  - Environmental Concerns
    - Urban Heat Island & Pollution
    - Energy infrastructure
    - Carbon Impacts
    - Interior comfort
    - Sustainability Impacts
  - Economic Benefits
    - Energy Reduction
    - Storm Water Issues
    - Renewable Energy/RECS
    - Cap and Trade
    - Waste Stream/Roof Life Cycle
    - Impacting building value
  - Major components and functions
    - Energy & Sustainable Focused Roofing Solutions
  - Design Considerations
    - Cost(s), Maintenance, Life Cycle, Legislation Impacts
- 10:45 a.m. Break**
- Meet speakers

11:00 a.m.

## Insulated Cladding Solutions for High Performance Buildings by Dryvit Systems, Inc.

- High Performance Building Envelopes
  - What does it mean?
- The Energy Challenge
  - Governmental Policy
  - Building Influences
- Building Envelope Performance Solutions
  - Managing Air Leakage
    - Air / Weather / Vapor Barriers
    - Testing Compliance
  - Improving Insulation Value
    - Addressing Thermal Bridging
    - Placement / Thickness
    - Energy Code and Climate
  - Moisture Protection
    - Insulated Claddings
    - Systems and Finishes
- Retrofit / Restoration Construction Options
  - EIFS as a Retrofit Cladding
  - Existing EIFS Restoration
- New Wall Assembly Research / Data
  - ORNL Net Facility Study
- Leadership in Energy and Environmental Design
  - Envelope Performance and LEED
  - Building Cost Factors
  - Environmental Impact
  - Life Cycle Analysis

12:15 p.m.

## Lunch

12:45 p.m.

## Elements of Commissioning and Testing for High Performance Building Enclosures by CanAm Building Envelope Specialists

- Commissioning
  - Architects
  - Contractors
  - Commissioning Agent
- Roof / Wall Intersections
- Empirical Observations
  - Stack Effect
  - Mechanical Venting
  - Wind Effect
- Inspections
  - Roof Inspector
  - Air Barrier Inspector
  - Window Inspector
  - Wall & Ceiling Inspector
  - Sealant/Waterproofing Inspector
- Testing
  - Blower Door Testing
  - Thermography
  - Full Building Testing

2:00 p.m.

## Close

# Registration

(Lunch Included)

April 28, 2010

## AIA Members:

By: April 20, 2010      \$85.00      \$ \_\_\_\_\_  
 After: April 20, 2010      \$95.00      \$ \_\_\_\_\_

## Non-AIA Members:

By: April 20, 2010      \$100.00      \$ \_\_\_\_\_  
 After: April 20, 2010      \$115.00      \$ \_\_\_\_\_

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Company: \_\_\_\_\_

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

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Profession: \_\_\_\_\_

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**Cancellation Policy:** 100% refund for cancellation made 14 days or more before event. 50% refund for cancellation made less than 14 days before event. No refund for cancellation made 7 days or less before the event.