

# 2026 HolmesCo Training Courses

## **New Construction Cleaning and Protection of Masonry**

- PRO001 – Masonry Cleaning: Stain Identification and Removal
- PRO009 – New Rules for Construction Clean Down
- PRO018 – Protective Treatments for Masonry
- PRO038 – Polished Concrete: From Start to Maintenance

## **Improving the Building Envelope**

- PRO007 – The Role of Air and Water-Resistive Barriers in the Building Envelope
- PRO039 – High Performance Design and Detail Considerations for Air Barriers
- PRO014 – Managing Condensation, Water Intrusion and Energy in the Real World
- PRO019 – Masonry Walls & Concrete Floors in Sustainable Design
- PRO020 - Managing Project-Specific Details

## **Restoration and Retrofits**

- PRO036 – Introduction to Existing Building Retrofits
- PRO006 - Restoration Cleaning: Turning Back the Hands of Time
- PRO034 - Retrofit Anchoring of Masonry and Stone Facades
- PRO011 - Troubleshooting Masonry Construction

## **Waterproofing**

- CETCO1 – Blindsided Waterproofing
- CETCO2 - Below Grade and Plaza Deck Waterproofing
- CETCO3 – Green Roof Systems
- CETCO4 – Vapor Intrusion Mitigation Systems (VIMS)
- KOSTER1 – Concrete and Moisture Vapor
- KOSTER2 - A Systems Approach to Waterproofing



**PRO001 – Masonry Cleaning: Stain Identification and Removal (1 HSW unit)**

Description: A survey of types and causes of staining common to new masonry construction, with recommendations and guidelines for cleaning and product selection.

Learning Objectives:

1. Explain why masonry cleaning is important
2. Identify 4 dangers of cleaning with muriatic acid
3. Identify 6 types of common masonry stains
4. List 4 characteristics of effective cleaners
5. Identify 4 ways reputable manufacturers backup their masonry cleaners
6. Explain why testing is important
7. Identify and describe the 4 main steps of post-construction clean-down

**PRO006 - Restoration Cleaning: Turning Back the Hands of Time: (1 HSW unit)**

Description: A comprehensive look at the tools and techniques of cleaning historic architecture. "Restoration Cleaning" categorizes types of contaminants. It compares abrasive, water and chemical cleaning. The program concludes with 10 "must know" tips for successful restoration cleaning.

Learning Objectives:

1. Identify 4 levels of contaminants.
2. Explain the 3 main methods of restoration cleaning.
3. Name the 4 main types of chemical cleaners.
4. List 10 tips for cleaning historic buildings.

**PRO007 – The Role of Air and Water-Resistive Barriers in the Building Envelope (1 HSW unit)**

Description: An introduction to air and water-resistive barriers and how they work. Their role of air leakage in causing mold in walls and high energy costs is explained. The program includes discussion of the different products on the market. It also explains why contemporary building envelopes need these products now more than ever before.

Learning Objectives:

1. Identify 9 basic points about air barriers.
2. Describe how air barriers work.
3. Compare/contrast air and vapor barriers.
4. Identify state/federal air barrier initiatives.
5. Identify 4 basics of effective air barriers.
6. Compare/contrast 3 types of air barriers.

### **PRO009 – New Rules for Construction Clean Down (1 HSW unit)**

Description: An overview of the importance of proper cleaning in new construction. The advantages of proprietary cleaners and proper cleaning techniques are covered to show the value they provide in producing a great masonry project.

Learning Objectives:

1. The need for new rules.
2. The need for different cleaning formulations.
3. The importance of cleaning early.
4. Why higher water volume is better than higher pressure.
5. The need to place more importance on new construction clean down.

### **PRO011 - Troubleshooting Masonry Construction (1 HSW unit)**

Description: An overview of procedures for identifying and preventing problems and maintaining and restoring the appearance and functionality of masonry and the masonry- veneer building envelope.

Learning Objectives:

1. Troubleshoot the main problems impacting appearance and performance of new masonry.
2. Explain how proper new-construction cleaning prevents problems.
3. Identify problems “breathable” air barriers solve.
4. List ways of solving problems common to existing masonry.
5. Describe the main factors involved in restoring and maintaining the appearance and performance of historic building envelopes.

### **PRO014 – Managing Condensation, Water Intrusion and Energy in the Real World (1 HSW Unit)**

Description: Window-opening air and water leakage has been a difficult problem for the construction industry. This course evaluates building failures, conventional construction approaches, and new developments in waterproofing techniques to show a path forward for designers seeking higher-performing wall assemblies.

Learning Objectives:

1. Explain why job-site conditions should be used as systems engineering requirements in construction product development.
2. Compare and contrast the similarities and differences between silicone, urethane, and STPE seal- ants.
3. Describe the multi-step weatherproofing process of conventional window installation and how such installations fare in real-world testing conditions.
4. Explain new window weatherproofing techniques using liquid flashing membranes.
5. Instruct others on construction defect remediation using STPE technology through case-study examples.

### **PRO018 – Protective Treatments for Masonry (1 HSW unit)**

Description: An overview of the effects of water on masonry architecture. Types of masonry water repellents are compared. Application methods are discussed. The program ends with a look at treatments for protecting masonry against non-water threats such as oil and graffiti.

Learning Objectives:

1. List 6 ways water penetration harms masonry.
2. Identify the 2 main types of protective treatments.
3. Research and select appropriate protective treatments.
4. Describe the general application procedures for protective treatments.

### **PRO019 – Masonry Walls & Concrete Floors in Sustainable Design (1 HSW unit)**

Description: An in-depth examination of the roles masonry walls and concrete floors play in building that improve occupant well-being; environmental performance and economic returns.

Learning Objectives:

1. Name the features that make masonry a sustainable choice
2. Explain how air barriers reduce energy waste in buildings
3. List ways that masonry, air barriers, and finished concrete flooring can contribute to LEED points
4. Explain how finished concrete flooring can improve building performance

### **PRO020 - Managing Project-Specific Details – Real-time Collaboration Between the Design Professional and Product Specialists: (1 HSW unit)**

Description: A depiction and analysis of unusual and problematic detailing conditions from specific projects that go beyond use of a manufacturer's standard details for common conditions. This shows how fluid-applied flashing and detailing products rather than peel & stick membranes can be successfully used to handle particularly challenging conditions and how manufacturers can interact with manufacturers to obtain this detailing support.

Learning Objectives:

1. Explain how architectural drawings are sometimes lacking in structure amenable to waterproofing and air-barrier detailing.
2. Demonstrate how simple modifications can greatly enhance constructability and detailing to prevent water intrusion and air leakage.
3. Show how to draw air / water barrier details to facilitate use of fluid-applied products rather than self-adhered membranes and building wrap.
4. Explain how to work with manufacturers to optimize preparation of details for implementation by contractors.

### **PRO034 - Retrofit Anchoring of Masonry and Stone Facades (1 HSW unit)**

Description: An overview of existing masonry and stone façade instability issues, the cause and recognition of these problems, and the cost-effective re-anchoring solutions for repair involving various masonry wall construction techniques. A detailed look into the different types of retrofit anchoring systems available to stabilize existing masonry and stone facades.

#### Learning Objectives

1. Recognize the function and characteristics of brick ties and anchors
2. Recognize existing masonry veneer instability conditions and their associated cause.
3. Review the types of retrofit anchoring options and how they function.
4. Summarize the typical retrofit anchoring and masonry restoration process

### **PRO036 – Introduction to Existing Building Retrofits (1 HSW unit)**

Description: This program introduces building retrofits as a method to achieve green building standards by adapting existing structures. While a building retrofit may have several types of interventions, participants will learn how effective air sealing will improve overall occupant comfort, health, and safety. This includes a detailed look at sources of air leakage and the various methods to address this infiltration. Several real-world examples will demonstrate the importance of identifying source of air leakage, investigating existing conditions, and proper detailing.

#### Learning Objectives

1. Define building retrofits and identify goals of intervention.
2. Illustrate how effective air sealing can help achieve goals of retrofit.
3. Identify common sources of air leakage.
4. Explain how to implement air sealing in a building retrofit.

### **PRO038 – Polished Concrete: From Start to Maintenance (1 HSW unit)**

Description: This presentation explains the benefits of polished concrete flooring, including aesthetics, abrasion & stain resistance, sustainability, and reduced maintenance costs. We discuss the products and procedures involved in each flooring job type from new to restoration. Participants will discover the importance of jobsite mockups and how they are used to manage expectations. The program also shows how to protect and maintain finished concrete flooring according to flooring use. It includes tips for protecting finished floors from damage during building construction and beyond.

#### Learning Objectives

1. Explain the benefits of polished concrete
2. Describe flooring job types and considerations required when specifying for each.
3. Be able to plan and implement a mockup as part of the project to validate that specifications meet expected outcomes.
4. Be able to select appropriate protective treatments for a given flooring use and aesthetic intent.

**PRO039 – High Performance Design and Detail Considerations for Air Barriers (1 HSW unit)**

Description: Beyond being code required, discuss the importance of air barriers and their impact on energy efficiency and indoor air quality. This course evaluates common installation challenges of various technologies and how to overcome them to reduce construction delays and innovations in fluid applied waterproofing technologies to show a path forward for designers seeking higher-performing wall assemblies. This course also uses several specific, yet common, details to discuss sequencing of materials to achieve air barrier continuity while also managing moisture.

Learning Objectives:

1. Explain the essential role air barriers play increasing energy efficiency & improving occupant health by positively impacting indoor air quality (IAQ).
2. Review of air barrier types and advantages of High-Performance Technologies that are better suited to meet the needs of today's construction market.
3. Explain critical importance of a building envelope Pre-Construction Meeting and the essential topics to cover.
4. Identify and explain essential elements to achieve air barrier continuity through review of typical transition details found on most buildings.



### **CETCO1 - Blindsight Waterproofing (1 HSW unit)**

Description: This presentation identifies the challenges of blindsight waterproofing applications. Topics covered include: the importance of shoring systems, waterproofing penetrations, detailing/design considerations and the advantages of a quality assurance program.

#### Learning Objectives:

1. Evaluate and select appropriate waterproofing systems and components for specific site conditions and construction methods.
2. Identify common difficulties/problems for waterproofing installation and performance.
3. Determine methods to avoid, prevent and solve problems.
4. Review importance of a standardized Quality Assurance Program.

### **CETCO2 - Below Grade and Plaza Deck Waterproofing (1 HSW unit)**

Description: This presentation provides an overview of the construction of below grade and plaza deck waterproofing. The training will cover the various waterproofing techniques and define many of the terms associated with waterproofing.

#### Learning Objectives:

1. Education of Below Grade and Plaza Deck Waterproofing solutions for open, active day lit spaces and walkable communities.
2. Material selection and product exposure to include sodium bentonite, super absorbent polymers, self-adhered membranes, hot rubberized asphalt and concrete water stops.
3. Evaluation and selection of appropriate waterproofing products and accessories for specific site conditions including preservation/reuse of existing facilities.
4. The importance of quality control measures for desired performance of installed waterproofing systems and total building commissioning.

### **CETCO3 - Green Roof Systems (1.5 LU/HSW Units)**

Description: This presentation will cover the various aspects of designing a green roof system. This will include waterproofing considerations, drainage/water retention/accessory components, growing media and vegetation, detailing and design considerations and the advantages of a quality assurance program.

#### Learning Objectives:

1. To learn the importance and benefits of green roofs
2. Evaluate and select appropriate waterproofing systems and components for specific site conditions and construction methods
3. To review preservation/reuse of existing facilities
4. To understand the function of each component of an effective green roof



## **CETCO4 - Vapor Intrusion Mitigation Systems (VIMS) (1 HSW Unit)**

Description: This presentation overviews what constitutes a vapor intrusion mitigation system. This includes the reasons for implementing a vapor intrusion system and the necessary materials for the system. The training also includes a discussion of project conditions that influence the design decisions. Finally, an emphasis will be given on the need for stringent quality control measures.

### **Learning Objectives:**

1. Evaluate risks of vapor intrusion
2. Discuss material selection to include vapor intrusion
3. Review project conditions that could affect installed materials
4. To understand the importance of quality control measures with VIMS



### **KOSTER1 - Concrete and Moisture Vapor (1 HSW Unit)**

Description: This presentation covers the topics related to moisture issues with concrete. The sources of moisture problems will be discussed as well as approaches on repairing the issues. A discussion of test methods including the pros and cons of each method as well as who is responsible for the moisture testing and decision making.

#### Learning Objectives:

1. Assess sources of moisture problems
2. Become knowledgeable about allowances for mitigation systems for contract documents.
3. Understand pros and cons of moisture test methods.
4. Assign responsibility for moisture testing and decision making.
5. Explore approaches to minimize effects on schedule.
6. Identify approaches to repair.

### **KOSTER2 - A Systems Approach to Waterproofing (1 HSW Unit)**

Description: This presentation takes a systems approach to waterproofing building structures. A review of concrete failure and water ingress points leads into the various approaches to waterproofing a structure including positive and negative side waterproofing. Technics covered include injection grouts, negative side topical treatments as well as horizontal moisture migration control.

#### Learning Objectives:

1. Overview of concrete failure issues.
2. Waterproofing using injection techniques.
3. Negative side waterproofing means and methods.