



INTERNATIONAL
CONCRETE REPAIR
INSTITUTE
NEW ENGLAND CHAPTER

2012 Boot Camp & Product Trade Show
Masonry Restoration – “Repairing the Past & Preserving the Future”
March 8, 2012

PRESENTATION OVERVIEWS

PRESENTATION 1:

"Up Against the Wall: How to Address Masonry Issues"

Presented By: David Morand, P.E., SECB

Senior Project Manager/Structural Engineer, Gale Associates, Inc.

Description: Contractors, Specifiers, and Designers are responsible for providing a safe, aesthetic, and “leak-free” environment for building occupants during new construction and renovations. Masonry walls (both old and new) often present many challenges including:

- Moisture intrusion (leaks) into building interiors
- Deterioration and damage (typically visible on exterior surfaces)
- Stains on exterior surfaces

The presentation will include examples of these problems, discuss the various causes, and provide repair solutions. It will also describe how Designers investigate wall problems to identify causes and effects of moisture leaks and other types of damage. The audience will come away with a general knowledge of typical masonry wall issue repairs and some “rule of thumb” do’s and don’ts.

PRESENTATION 2:

"Early Twentieth Century Transitional Masonry Facades"

Presented By: Matthew Bronski, P.E., Assoc. AIA

Senior Project Manager, Simpson Gumpertz & Heger, Inc.

Description: Many cities in the U.S. have a large stock of buildings with “transitional” facades that were common construction in the U.S. from the 1890’s until the beginning of WWII. In their design and construction, these facades are a technical transition between the load-bearing mass-masonry barrier walls that preceded them, and the modern curtain walls that succeeded them. With time and exposure to the elements, the inherent design shortcomings in these transitional facades are now manifesting. In many cases, fracture and loss of façade materials from these transitional facades constitute a potential threat to public safety. Understanding how these building facades are fundamentally different (both in their design concepts, and in the details of their construction) from both earlier and later building facades is critical to understanding and properly diagnosing their particular problems, evaluating repair options, and designing appropriate and durable repairs.

PRESENTATION 3:

"Troubleshooting Cracks and Deteriorating Masonry: Mechanisms and Solutions"

Presented By: Michael Schuller, P.E.

Principal, Atkinson-Noland & Associates, Inc.

Description: How do you know what caused the crack in your building and what type of fix should you use? It might be structural load, thermal expansion, moisture-related movement, or foundation issues. We will discuss the types of crack you might find in a masonry wall and learn simple procedures to diagnose the cause. A good part of the seminar will concentrate on crack repair and the different methods available to make sure you have the right solution to your cracking problem. Also, there will be discussion on different mechanisms and how they affect brick, stone, and mortar. This includes causes and potential solutions associated with:

- Moisture Infiltration
 - Efflorescence and Staining
 - Freezing Damage
 - Salt Crystallization
- Structural Overload
- Movement