

STP 1493

**Repair, Retrofit, and Inspection of Building Exterior Wall Systems**

---

**Table of Contents**

Overview

**Testing and Evaluation Techniques**

Case History of the Use of Electronic Survey Techniques to Assess Planar Distortions in Building Facades—*K.S. Coll, D.A. VanOcker*

Qualitative Sampling of the Building Envelope for Water Leakage—*L.L. Haughton, C.R. Murphy*

Applying ASTM C 1601-06 “Standard Test Method for Field Determination of Water Penetration of Masonry Wall Surfaces” in Practice—*G.A. Dalrymple, A.R. Whitlock*

The Identification of Corrosion-Related Damage from Cramp Anchors in a Limestone-Clad Building Façade Using NDE Techniques—*D.A. VanOcker, E.M. Johnson, T.D. Marcotte*

Snap, Crackle, Pop: Remediation of a Noisy Curtain Wall—*M.K. Schmidt, W.R. Hannen*

Techniques for Predicting Cladding Design Wind Pressures—*M. Browne, P. Irwin, J. Garber, M. Cicci, J. Dale, R. Parnell*

**Investigation, Rehabilitation and Detailing Case Studies**

Erroneous Design Assumptions and Construction Defects in a Thin Stone Façade System—*M. K. Schmidt, J.H. Murphy*

Energy Savings Resulting from Building Envelope Upgrades in Mid-Rise Construction: A Case Study—*J.E. Peterson, W.H. Blodgett*

Delayed Ettringite Formation (DEF) within Precast Concrete Cladding Panels on a Mid-Rise Commercial Office Building: A Case Study—*W.R. French, J.S. Schroeder*

Sill Pan Flashing for Block-frame Windows in Recessed Concrete Openings—*R. Bateman*

Envelope Remediation, an Over-Cladding Approach—*J.B. Lawrence, P.G. Johnson*

Over-Cladding of Aluminum Framed Curtainwalls and Skylights—*J.M. Boyd*

Façade Renovation of the Wexner Center for the Arts—*S.S. Li, N. McClelland*

A Form to Follow Function: Re-Cladding a Regional Health Care Center—*T.D. Forner*

Repair of an Earthquake Damaged Building Façade in Coordination with FEMA: A Case Study Including Stabilization, Evaluation, Historically Sensitive Restoration, and Hazard Mitigation—*C. Hendryx, S. Vlotho*

**Exterior Insulation and Finish Systems (EIFS)**

Design of Engineered Drainable Exterior Insulation and Finish System (EIFS) Cladding—*S.S. Ruggiero and A. L. Rabazzi*

Evaluation of Debonding of Lamina from Foam and Repairs to Exterior Insulation and Finish System (EIFS) Façade—*L. McGowan, S. Riley, J. Connolly, W. Shalkowski*

Retrofitting Barrier Exterior Insulation and Finish System: Methodology and Performance Assessment—*E.K. Olson, J.A. Taylor*