

DENNIS K. JOHNSON

Principal



+CONTACT

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Dennis Johnson has over 42 years of experience in investigations, repair design, construction quality assurance programs, design peer review, and performance testing of exterior wall systems and fenestration systems, and glazing materials. He has specialized in exterior wall system investigations, including window, curtain wall, and skylight systems with air infiltration, water leakage, material, and other performance related problems. These projects have involved field testing, technical studies, and evaluation of wall systems to determine their existing operating performance and evaluate potential repair concepts. He has expert knowledge of a wide array of wall systems, such as metal and glass curtain walls, brick masonry, EIFS, metal panels, and sealants.

Mr. Johnson's technical knowledge is extensive in the area for repair and replacement design of contemporary and historic structures. He has lectured, authored, and edited numerous technical studies and reports on the subject, as well as curtain wall design. His peer review experience has focused on new construction projects involving review of architectural contract documents and shop drawings and field/laboratory quality control testing.

Prior to joining RRJ, he was a Senior Consultant at a national architectural and engineering forensics consulting firm for 16 years. His portfolio of work included major building facade investigations, materials analysis, peer reviews, and field/laboratory testing of windows, curtain walls, and other types of wall systems. Previously, he served for ten years as Manager of the Physical Laboratory division of R.W. Hunt, an inspection and testing services company specializing in industrial materials, engineered products, and architectural structures.

■ EDUCATION

Bachelor of Science in Civil Engineering
 University of Illinois at Urbana-Champaign

■ PROFESSIONAL AFFILIATIONS

Insulating Glass Certification Council (IGCC)
 Board of Directors

ASTM International
 Task Group ASTM E06: Building
 Performance

American Architectural Manufacturers Association
 (AAMA)

■ TEACHING

Real Estate and Construction Centre, Singapore
 and Kuala Lumpur, Malaysia, May 1998
 Lecturer at Executive Training Course on
 Curtain Walls and Cladding

University of Wisconsin
 Lecturer in several seminar sessions

Windows Conference for Historic Buildings,
 Washington, D.C., 1997
 Lecturer at curtain wall symposium



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■ PUBLICATIONS

- "Installation Details and Condensation Performance," RRJ *Insight* Issue No. 23, R.J. Kudder, D.K. Johnson, and S.K. Flock, August 2006
- "Importance of Condensation Control in Cold Climate Wall Assemblies," RRJ *Insight* Issue No. 23, R.J. Kudder, D.K. Johnson, and S.K. Flock, August 2006
- "Effect of Installation Details on the Condensation Performance of Window Frames," Committee on Performance and Durability of Window-Walls Interface, ASTM International *Journal of Testing and Evaluation*, R.J. Kudder, S.K. Flock, and D.K. Johnson, 2004
- "Design of Durable Wall Systems by Eliminating Food and Water," RRJ *Insight* Issue No. 19, D.K. Johnson and G.D. Hall, October 2004
- "Back to the Wall," *The Construction Specifier*, D.K. Johnson and D.S. Patterson, October 2000
- "Failure of Thin Bonded Cladding," *The Construction Specifier*, D.K. Johnson and D.S. Patterson, August 2000
- "Mock-ups," *The Construction Specifier*, D.K. Johnson and D. Slaton, July 2000
- "Spandrel Glass Failures," *The Construction Specifier*, D.K. Johnson and D. Slaton, May 1999
- Contributed to chapter on Masonry, Windows, and Curtain Walls for Handbook on Forensic Engineering. Chapter authors are K. Beasley and D.S. Patterson; R. Ratay, editor; published by McGraw-Hill in 1999
- "Controlling Leaks in Windows and Curtain Walls," *The Construction Specifier*, D.S. Patterson and D.K. Johnson, September 1998
- "Windows and Curtain Walls: Out with the Old?" *Building Operating Management*, D.K. Johnson and D.S. Patterson, Winter 1997
- "Aluminum Replacement Windows: Design Issues, Performance and Quality Control," Window Rehabilitation Guide for Historic Buildings. Charles E. Fisher III, Deborah Slaton, and Rebecca A. Shiffer, editors. Historic Preservation Education Foundation, Washington, D.C., D.S. Patterson, D.K. Johnson, and J.M. Walaszek, 1997
- "Diagnostics and Repair of the Curtain Wall," Window Rehabilitation Guide for Historic Buildings. Charles E. Fisher III, Deborah Slaton, and Rebecca A. Shiffer, editors. Historic Preservation Education Foundation, Washington, D.C., S.J. Kelley, D.K. Johnson, and B.S. Kaskel, 1997
- "Effects of Repair/Maintenance Coatings on the Performance of Exterior Insulation and Finish Systems (EIFS)," *Exterior Insulation and Finish Systems (EIFS): Innovation and Solutions to Industry Challenges* (third volume), ASTM STP 1339. R.G. Thomas, Jr., and Dick Hopkins, editors. ASTM International, West Conshohocken, PA, R.L. Wohl, L.L. Phelps, G.L. Zwayer, and D.K. Johnson, 1997
- "Using Modified ASTM E 1105 to Identify Leakage Sources in Building Wall Systems," *Water Leakage through Building Facades*, ASTM STP 1314. R.J. Kudder and J.L. Erdly, editors. ASTM International, Philadelphia, PA, N.V. Krogstad, D.K. Johnson, and R.A. Weber, 1996
- "Common Problems at the Interface between Masonry Drainage Walls and Windows," *Masonry, Esthetics, Engineering, and Economy*, ASTM STP 1246. Donald H. Taubert and Tim Conway, editors. ASTM International, N.V. Krogstad, R.A. Weber, and D.K. Johnson, Philadelphia, PA, 1996



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■ PUBLICATIONS

"Field Versus Laboratory Performance Testing," *Progressive Architecture*, D.K. Johnson and A.S. Weber, August 1991 Received Construction Index Excellence Award from ArchiText, June 1992

"Investigative Techniques for Water Penetrations," *Association for Preservation Technology International Bulletin XXIII*, No. 2, D.K. Johnson and A.S. Weber, 1991

"Looking Out: Window Replacement and Quality Assurance," *The Construction Specifier*, S.J. Kelly and D.K. Johnson, March 1989

■ PRESENTATIONS

"Recognizing and Mitigating Risks Associated with Modern Building Façade Construction," Construction SuperConference, O.C. Guedelhofer, D.K. Johnson, A. Adams, III, and L. Goodman, Panelists, Las Vegas, NV, December 7, 2016

"Where Weather Meets the Wall - 2," Construction Specifications Institute Webinar, D.K. Johnson and K.K. Zimnicki, April 1, 2008

"Where Weather Meets the Wall," The 51st Annual Construction Specifications Institute Show, D.K. Johnson, B.A. Faith, and K.K. Zimnicki, June 21, 2007

"Thin Cladding Systems, Analysis, Design, and Preservation," AIA 2001 National Convention, Denver, CO, D.K. Johnson, D. Slaton, D. Brinkley, and D. Luker, May 2001

"Modern Thin Cladding Considerations," Preserving the Recent Past 2 at the Association For Preservation Technology International Conference, Philadelphia, PA, October 2000

"Preservation of Thin Facade Cladding Systems: A Comparative Analysis," Association For Preservation Technology International Conference, Banff, Alberta, Canada, D.K. Johnson, D. Brinkley, and K. Luker, October 1999

"Non-Destructive Testing and Analysis with Case Histories," Preserving the Twentieth Century Building Envelope Symposium at MIT, Cambridge, MA, D.S. Patterson, M.J. Scheffler, and D.K. Johnson, October 1999

"Water Penetration and Wind Speeds," ASTM Third Symposium on Water Problems in Buildings, Atlanta, GA, D.K. Johnson, D. K. and J.M. Walaszek, April 1998

"Laboratory Testing for Low-Slope Standing Seam Metal Roof Application," Fourth International Symposium on Roofing Technology, National Institute of Standards, Washington, D.C., R.S. Koziol, N.V. Krogstad, L.R. Meyers, and D.K. Johnson, 1997

"Masonry Leak Investigation: Theory and Technique," The Sixth North American Masonry Conference, Philadelphia, PA, G.L. Zwyer and D. K. Johnson, 1993