

J. David Odom

Specialist in Building Forensics and Moisture & Mold Problems

Education

B.S., Earth Science, Campbell University (1971)

Recent Career Highlights

- Author of a recent article for the National Council of Architectural Registration Boards (NCARB) on the high risk of building failures in “green buildings”
- Authored a 2005 NCARB continuing education monograph on moisture and mold problems that is being used for training architects nationwide.
- Co-author of three manuals on design & construction defects, moisture and mold problems, and building commissioning (includes the NCARB article) as well as over 50 technical articles
- Selected as **"IAQ Industry Person of the Year"** by IAQ Publications, Inc., April 1998
- Honored in 1999 as one of the **"50 Most Influential People in Indoor Air Quality"**
- Lecturer on improving building performance at the Univ. of Wisconsin, Univ. of Florida, Clemson University, the Florida Engineering Society, and currently an adjunct professor at Valencia Community College (Orlando, FL)
- Member of the Board of Directors for the National Institute of Building Science's BETEC committee
- Member of ASHRAE's committee on Total Building Commissioning (GPC-1-1996R)
- Co-inventor of an air conditioning unit (Patent Serial # 09/282,657) that improves occupant comfort, increases energy efficiency, and substantially decreases initial construction cost over currently available equipment
- Executive-on-loan to Atlanta Committee for the 1996 Olympic Games (ACOG) to assist with indoor air quality services for the Olympic Village facilities

Areas of Technical Specialization

- Litigation support, forensic building evaluations, and expert witness
- Sustainable development concepts for building systems
- Building moisture intrusion and mold problems
- IAQ problems in commercial, institutional & residential buildings
- HVAC system performance
- Building envelope system performance
- Remedial designs to correct building performance problems
- Building commissioning
- Analyzing corrosion and paint/coatings performance problems

Since 1985 Mr. Odom has completed over 200 projects for the Walt Disney Company with their facilities worldwide including EuroDisney, Hong Kong Disneyland, Castaway Cay (their Caribbean resort), and at Walt Disney World. Also, during the past 25 years he has directed project teams providing building failure analysis services related to design, construction, and operational problems. During that time Mr. Odom has worked on projects involving over 50,000 hotel rooms plus hospitals, schools, courthouses, dormitories, convention centers, sports complexes, and a variety of commercial facilities. He has completed projects throughout the US and the Caribbean, as well as in South Pacific, France, the Philippines, and Hong Kong.

Building Envelope/HVAC System Evaluations and Remedial Designs

Mr. Odom has conducted more than 500 investigations and studies in buildings with IAQ problems for the purpose of evaluating building envelope and/or HVAC system performance. Remediation costs for the problem buildings have ranged from several thousand dollars to over \$60 million. Remedial repairs have ranged from minor HVAC system balancing to complete HVAC and building envelope replacement.

Litigation Support/Forensic Investigations/Expert Witness

Since the mid-1980s, Mr. Odom has assisted designers, contractors, and building owners in analyzing building failures and with recovering the cost of remedial repairs. These projects have involved hotels (Omni Charleston), public buildings (Martin County Courthouse), schools (Richmond, South Carolina & Bloomingdale HS, Tampa, FL), colleges (University of South Carolina), jails (Alachua County, Florida), and hospitals (North Mississippi Women's Hospital). In several cases, financial recovery has exceeded \$15 million.

Mr. Odom managed a \$60 million mold remediation and reconstruction effort for Hilton Hawaiian Village in Honolulu, Hawaii. This work includes significant litigation support and cost recovery services for Hilton's attorney. To date, the building owner has recovered over \$30,000,000 from the defendants using mediation alone (without depositions).

Building Commissioning & Problem Avoidance (Peer) Reviews

For new building owners seeking to avoid future building problems, Mr. Odom has managed more than 25 problem avoidance (peer) reviews of facilities under design. The total construction value of buildings peer-reviewed (i.e., commissioned) exceeds \$1.5 billion. Additionally, Mr. Odom has conducted building commissioning and pre-occupancy performance testing of heating, ventilating, and air conditioning (HVAC) systems in several dozen buildings over the past six years. Noteworthy projects that he has commissioned include the Olympic Village in Atlanta prior to the 1996 games, and a \$400 million resort/casino complex in the Bahamas, Atlantis II. Also, Mr. Odom has commissioned virtually all of the new construction at Walt Disney World since 1990.

Mr. Odom has managed a 5-year program for the General Services Administration (GSA) in Washington, D.C. This project involved numerous federal courthouses, office buildings, laboratories, border stations, and warehouses nationwide. The intent of this program was to substantially improve the building's performance in four areas: sustainability, energy performance, workplace productivity, and functional performance.

Awards

- 1999** Recipient of the U.S. Army's Commanding General's "Award of Excellence" for superior project performance on the Hale Koa Hotel's building mold renovation and HVAC redesign project in Honolulu, Hawaii
- 1997** Award of Distinction, *Communicating Effectively with Employees When Sick Building Syndrome Strikes*, Florida Public Relations Association
- 1997** Excellence Award for Informational Brochures, *The Dynamics of Occupant Outrage When Indoor Air Quality Problems Strike the Workplace*, Society for Technical Communication (STC) Florida Technical Publications and Art Competition
- 1996** Excellence Award for Organizational Manuals, *Preventing Indoor Air Quality Problems in Hot, Humid Climates: Problem Avoidance Guidelines*, STC Florida Technical Publications and Art Competition
- 1995** Distinguished Award for Informational Brochures, *Moisture Problems: Why HVAC Commissioning Procedures Don't Work in Humid Climates*, STC Florida Technical Publications and Art Competition
- 1994** Excellence Award for Informational Brochures, *Solving Indoor Air Quality Problems in Hot, Humid Climates*, STC International Technical Publications Competition
- 1993** Best-of-Show Award and Distinguished Award for Informational Brochures, *Solving Indoor Air Quality Problems in Hot, Humid Climates*, STC Florida Technical Publications and Art Competition

Publications, Seminars, and Presentations

Manuals/Books

With George H. DuBose, Norman Nelson, Richard Scott. ***Mold & Moisture Prevention***. An AIA continuing education monograph (115 pages) for the National Council of Architectural Registration Boards (NCARB). Published in 2005

Chapter contributing author to L. Harriman, G. Brundrett, R. Kittler. ***Humidity Control Design Guide for Commercial and Institutional Buildings***. Published by ASHRAE, 2001.

With George H. DuBose, ***Commissioning Buildings in Hot, Humid Climates***, Published by Fairmont Press, June 1999.

With George H. DuBose. ***Preventing Indoor Air Quality Problems in Hot, Humid Climates: Problem Avoidance Guidelines***. Published in 1991; revised 1992-1994 and 1996.

With George H. DuBose. ***Moisture and Mildew Control Guidelines for New Construction***. Developed for a Central Florida theme park and resort owner. 1991.

Seminars & Presentations (Partial List)

Co-author with George DuBose and Richard Scott. **"The Hidden Risks of Green Construction: Why Building Failures Are Likely"**. Accepted for publication in the October 2007 issue of *Direct Connections*-an NCARB publication.

"The High Risk of Green Construction: Why Moisture & Mold Problems Are Likely". Presentation at Florida Annual AIA conference. July 2007

"Avoiding Moisture & Mold Problems in Florida Buildings: Design & Construction Guidelines". Article in *Florida Engineering Society Journal*. November 2006.

Seminars for the **Florida Engineering Society** in south and central Florida on the avoidance of moisture intrusion problems in new construction. January & February 2006.

With Mark Mendell, Terry Brennan, et al. **"Causes and Prevention of Symptom Complaints in Office Buildings: Distilling the Experience of Indoor Environmental Quality Investigators"**. Sponsored by Lawrence Berkeley National Laboratory. Presented at *Indoor Air 2005* Beijing, China.

Lorman Educational Seminars. Multiple 1-day seminars on preventing, solving, and litigating construction defects and moisture problems. Seminars were held throughout the country in 2004, 2005 and 2006.

"The Escalating Risks from Moisture & Mold". Co-author with Richard Scott in *The Georgia Engineer*. December/January 2002 issue.

"The Escalating Risks from Moisture & Mold Problems". Article in *The Florida/Caribbean Architect*. Winter 2001.

"Reducing Indoor Air Quality Complaints Through Building Commissioning". Presented at the November 2001 annual conference for the Association of Energy Engineers (AEE).

"Consistently Achieving High Performance Buildings". Presented at the June 2001 annual conference for the National Association of State Facility Administrators (NASFA) in Lexington, KY.

"Commissioning the Thermal Envelope". Presented at the April 2001 National Conference on Building Commissioning in Cherry Hill, N.J.

"Preventing IAQ Problems in Hot/Humid Climates". A full-day Professional Development Seminar (PDS) presented at the Winter 2001 ASHRAE conference in Atlanta, GA.

"Walt Disney World's Approach to Minimizing Building Failures and Optimizing Building Performance" Presented at *Energy '99* Exposition Sponsored by the U.S. DOE and FEMA.

"Sustainable Building Design and Operations" conference at the Jimmy Carter Center (Atlanta, GA) sponsored by Southface Energy Institute. July 1999.

"The Dynamics of Occupant Outrage When IAQ Problems Strike." *IEQ Strategies*. June 1999.

"Building Commissioning as a New Project Delivery System". Total Building Commissioning Conference conducted by the Univ. of WI. Courses taught: Las Vegas (Mar, '99), Madison, WI (Aug. '99), Houston, TX (Nov., '99), Las Vegas (Feb. '00), Madison, WI (Aug. '00), Las Vegas (Feb. '01), Madison, WI (April '01), and Ontario, CA (Feb. 02)

"Building Commissioning: What is it? How does it work? What are its Problems and Limitations?" Presented for CSI commissioning workshop. February 1999.

"Commissioning New Construction for Energy Efficiency". Business Energy Solutions Expo. Orlando, FL. December 1998.

"Risk Communication Can Prevent Occupant Outrage." *Healthy School Environment Report*. November 1998.

"Solving IAQ Problems in Hot, Humid Climates". A one-day seminar presented in conjunction with the University of Florida, Clemson University, and Florida State University.

"Diagnosing IAQ Problems: What Works, What Doesn't Work, and Why". Presented in Key West, Florida, in conjunction with the Florida Engineering Society.

Lecturer at seminars conducted by the TRANE Company, AIA, Valencia Community College, and the Florida Hotel/Motel Association on building performance problems and their solutions.

"Using Building Commissioning as a Tool to Prevent Improve Energy Efficiency and Reduce IAQ-Related Building Failures." Fifth Annual National Conference on Building Commissioning. Huntington Beach, California. May 1997.

"Hot, Humid Climate IAQ Problems." IAQ Publications Symposium on Hot, Humid Climates. January 1997. Tampa, Florida.

"Emotions in the Air: When Sick Building Syndrome Strikes." *Risk Management*. November 1996.

"Avoiding IAQ Problems in New Buildings." American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE) Symposium. San Antonio, Texas. June 1996.

"Avoiding IAQ Problems in Hot/Humid Climates." Hot/Humid Climate Symposium. Fort Worth, Texas. May 1996.

"Avoiding IAQ Problems in New Buildings: In Search of the Silver Bullet." Indoor Environment '96. April 1996. Baltimore, Maryland.

"Why New Buildings Don't Work." Indoor Environment '95. May 1995. Baltimore, Maryland.

"Solving IAQ Problems in Hot/Humid Climates." Environmental Management '95. April 1995. Tampa, Florida.

"Emerging Trends in Building Science". The Florida Energy Office. Cocoa Beach, Florida. December 1994.

"Why Buildings Don't Work." *Florida Real Estate Journal*. December 1994.

"Diagnosing IAQ Problems: What Works, What Doesn't Work, and Why." Annual Conference, Florida Section of the American Industrial Hygiene Association. University of South Florida. Tampa, Florida. November 1994.

"Solving Indoor Air Quality Problems." *Building Standards* (bimonthly magazine of the International Conference of Building Officials). September/October 1994.

"Indoor Air Quality Problems in Florida: The Rules Are Different Here." *The County Reporter*. Part 3 of 3. September 1994.

"Commissioning in Hot, Humid Climates: The Rules Are Different." With George DuBose and Philip Fairey. *TAB Journal*. Summer 1994.

"Combating Indoor Air Quality Problems." *The Military Engineer*. No. 562. March/April 1994.

"Indoor Air Quality Problems: Preventing a Public Relations Nightmare." *The County Reporter*. Part 2 of 3. March 1994.

"Indoor Air Problems: Why Are Public Buildings So Susceptible to Indoor Air Quality Problems?" Part 1 of 3. *The County Reporter*. January 1994.

"Moisture Problems: Why HVAC Commissioning Procedures Don't Work in Humid Climates." With George H. DuBose and Philip W. Fairey. *ASHRAE Journal*. December 1993.

"Problems in Hot, Humid Climates." *Building Management Hawaii*. July-August 1993.

"Corrosion Control in Hydrogen Sulfide Environments." *Florida Water Resources Journal*. July 1993.

"IAQ Problems in Hot, Humid Climates." *Skylines*. Building Owners and Managers Association (BOMA). February 1993.

"Indoor Air Troubles Thrive in Florida's Humid Climate." *Florida Specifier*. November 1992.

"Indoor Air Quality Problems in Hot, Humid Climates." Society of American Military Engineers. Environmental Seminar. Montgomery, Alabama. 1992.

"Moisture Problems: Why HVAC Commissioning Procedures Don't Work in Humid Climates." 8th Symposium on Improved Methods of Building Design in Hot/Humid Climates. Texas A&M University. 1992.

"Designing and Constructing Mildew Free Hotels." With G.H. DuBose and N.L. Nelson. *ASHRAE Transactions*. Vol. 98, Part 1. January 1992.

"Moisture Control in New Construction". Presented to the *American Institute of Constructors*. June 1991.

"Design Practices Can Avoid Mildew Problems." *Suncoast Architecture/Builder*. August 1991.

"Mold and Mildew Related Problems in Resorts". East-West Conference and Technology Transfer-Walt Disney World Seminar. 1990.

"Designing, Constructing and Operating a Mildew-Free Hotel in Florida".
Presented to the Engineer's Network of the CFMHA. 1987.

"Mold and Mildew Problems: Cause, Cure and Prevention". Presented to the
Central Florida Building Engineers. 1985.

Membership in Professional Organizations

American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE)
American Industrial Hygiene Association (AIHA)
Building Owners and Managers Association (BOMA)
National Association of Corrosion Engineers (NACE)
National Institute of Building Sciences (NIBS)