



US Building Consultants Inc.

Cost-effective solutions to building envelope problems

Scott "Spiderman" Mulholland CGC BEC CMR CMA CIEC

PRINCIPAL/CEO

AREAS OF EXPERTISE

- Third party quality control and inspections for new and existing construction
- Building science and research, moisture engineering controls
- Construction failures, latent defects, dispute resolution, forensic analysis
- Project Management and Restoration, Waterproofing, Design & Restoration (WDR) Programs for building envelope construction
- Exterior moisture intrusion investigations and assessments
- Environmental (mold) investigations and remediation systems/protocols
- New construction plans, review and building envelope commissioning
- Expert witness research, reporting, mockups and testimony
- ASTM/AAMA field testing and analysis for new and existing construction
- Laboratory analysis for product/material testing and controls
- Stucco, EIFS, masonry, concrete, wood, glass and metal cladding systems
- Chinese drywall inspection, remediation and certification
- Law enforcement certified sniper/rapel training P/T & (SWAT)

PARTIAL LIST OF SCHOOLING, LICENSING, CERTIFICATIONS, AND TRAINING

- Florida State Certified General Contractor: License # CGC1519110 (active)
- Alabama General Contractor: License # 22648 (inactive)
- Florida State Licensed Roofing Contractor: License # 162401 (inactive)
- Registered Roofing Contractor 1995 – 1999: License #RC0066807 (inactive)
- Certified Indoor Environmentalist Consultant (CIEC) 2006: Certification # 02538
- ACAC Board Certified CIEC: Certification # 0702026
- Florida State Licensed Mold Assessor: License #MRSA1793



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REGISTRATIONS

State Certified General Contractor #CGC1519110

Florida Licensed Mold Assessor # MRSA1793

Florida Licensed Mold Remediation # MRSR1916

Council Certified Indoor Environmental Consultant # ACAC 0702026

Florida Licensed Home Inspector # HI4479

Certified Moisture Intrusion Specialist EDI # FL-003

Certified EIFS & Cladding Expert EDI # FL-003

Certified Building Envelope Investigator AWC/BESI/EDI #199233/FL-003

Board Certified Building Envelope Inspector #FL-0174

BESI Certified Defective Drywall Consultant #FL0038

Certified HVAC Technician (Environmental)

Certified Masonry Inspector #MAS066

Certified NAWC Waterproofer

PARTIAL LIST OF SCHOOLING, LICENSING, CERTIFICATIONS, AND TRAINING (CONTINUED)

- Florida State Licensed Mold Remediation: License #MRSR1916
- Florida State Licensed Home Inspector: License #HI4479
- ACAC Certified Indoor Environmental Consultant: License #ACAC 0702026
- Building Envelope Science Institute Certified Chinese Defective Drywall Consultant (CDDC): Certificate #FL0038, September 2009-2011
- Indoor Air Quality Technician Mainstream Engineering: Certification #53252C71B665BEDC1
- National Association of Waterproofing Contractors Certified, Instructor, Author Above Grade Certification Programs 1997-2003
- Exterior Design Institute Certified Building Envelope Inspector, October 2006
- Exterior Design Institute Certified Building Envelope Inspector level II 2007-Present.
- Exterior Design Institute Dual-Certified Third Party EIFS Inspector: #FL003, July 1996
- Exterior Design Institute Certified Moisture Intrusion and Analysis: #FL003MA 1996-present
- Certified HVAC Technician Mainstream Engineering EPA Clean Air Section 608 Required by 40CFR part 82, subpart F: Certification # 848871EA13EFBEDC1
- Board Certified Building Envelope Inspector and current Senior Instructor(BECI): #FL-0174, 2008- Present
- Certificate of Achievement from Construction Estimating Institute for *Cost Estimating for Contractors* 2012
- Certificate in Education for Building Science in Construction Orlando, FL, November 2006
- Certified Construction Inspector Badge: Certification #5379, April 1997
- Certified by STO Corporation Technical Training: Certificate # 95JW383 July 1995
- Certified STO Concrete Restoration Division: Certificate #1784 March 1995
- Parex Inc. Trained, June 1994
- Certified National Moisture Free Warranty Program 2000
- Certified Construction Project Manager, May 1997 (CCP designation)
- Certified Association of Wall and Ceiling Industry: #AWCI99233, December 2005
- Environmental Training P96.1 through American Indoor Air Quality Council 1994
- Certified Indoor Air Quality Council Technician Course "ABIH": Approval #022868 September 02
- Certified Mold Remediation Technician: CMR Designation #P0702-9, 2001
- Finestone: Certification #9306 December 1997
- Trained HVAC and the Indoor Environment Sept 2002 (AIACC)
- Dryvit Approved and Trained, 1994
- Certified Waterproofer (NAWSRC) since 1996 - 2002
- Certified in Protocol 96.1 Indoor Air Quality Testing Certification Course: #04A0401-1 August 1996
- Certified Structural Masonry Inspector, December 1997, #MAS066
- Master Certificate in Masonry Construction, Practical Principles and Water Resistance, Troubleshooting and Repair, January 1998
- Trained in EIFS Remediation by the NAHB Research Center, April 1999
- Additional training and certification for products and materials for building envelope construction in roofing, waterproofing, below grade, cladding, doors, window, concrete, coatings, epoxy applications, and membranes.

UNIVERSITY OF WISCONSIN COLLEGE OF ENGINEERING

Department of Engineering for Career Professional Development

- Low slope roofing systems, built up, single ply, metal, polyurethane, and foam roofs, 2006
- Preventing and detecting deficiencies in design and construction documents, 2004
- Masonry design/construction diagnosing masonry problems, 2002
- Preventing and detecting deficiencies in design and construction documents, 2004
- Preventing/solving moisture related problems in buildings, 2002
- Waterproofing and moisture control in building assemblies, 2002
- Handling mold related problems in buildings, 2002
- Construction inspection and quality control of building construction, 2001
- Construction management techniques and procedures, 2000

EDUCATION AND MILITARY SERVICE

1979 – 1980

Mr. Mulholland was enlisted into the United States Marine Corps prior to completing the 11th grade. While simultaneously serving his country, he finished two years of high school in one year and graduated from the Los Angeles Adult Community College where he received his high school diploma.

1979 – 1983

Mr. Mulholland served in the United States Marine Corps. He graduated fourth in his class from Marine Corps Sniper School, served as a scout sniper instructor and graduated as an officer of the Provost Marshal in the Philippines in 1980. Additional education included counter guerrilla-operations; Terrorist Tactics, Marine NCO School; Squad Leader, Small Arms Expert School (Ft. Bragg), Jungle Environmental Survival Training (JEST), Mountain Warfare School (three months in Korea 1981), Mountain Climbing and Rope Tying (Pisgah National Forest, North Carolina, 1982), Spy Rigging (California and Japan), Insurgents Tactical Training ITT, Tactical Operations against guerrilla warfare, Aerial Helicopter Assaults behind enemy lines, received specialized education in the S-2 Intelligence field and Surveillance Target Acquisition Team (STA). Security clearance: Secret.

1983 – 2022

After leaving the United States Marine Corps, Mr. Mulholland spent over 38 years as a business owner in the waterproofing, restoration and construction industry. His education and training is extensive and focuses on quality control, forensic studies, moisture engineering, building science and failure analysis. He became a full time consultant in 2003, and holds multiple licenses and certifications, including State Certified General Contractor, and has performed full-scale waterproofing and restoration services for residential, commercial, and high-rise buildings for over two and a half decades.

Mr. Mulholland participates in on-going education through the University Of Wisconsin College Of Engineering, as well as, additional education with the NAHB research center for EIFS remediation. He continues to pursue his education in building science, laboratory analysis, building commissioning, and construction quality control management while obtaining training through many manufacturers. Mr. Mulholland has flown around the country attending educational courses for products, materials, and application in the waterproofing and restoration industries. His most vital education comes from his on-the-job experience in which he has spent over 38 years running and managing multiple companies associated with the construction industry.

WORK EXPERIENCE IN THE CONSTRUCTION INDUSTRY

2008- PRESENT: BUILDING ENVELOPE SCIENCE INSTITUTE INC.

Chairman, Board of Directors

Responsibility: Chairman of the Board of Directors, who assists in research and development of products and materials and certifications, education committee member, principal instructor and primary author for Building Envelope Certification courses.

Services: Certification courses on products, materials, inspections, and remediation. Building Envelope Certification Levels 1-5, research and development with new construction products and materials, board review of technological advances with building envelope materials and associated issues, case study analysis, LEED certified information, CSI training protocols for investigations, building envelope commissioning studies, building construction online library and resource center, buildings science technology research, training and certification courses for both inspectors, consultants, project managers, and remediation contractors for Chinese drywall (CDDI, CDDC, CDDPM, and CDDR designations).

BESI has launched a national effort to assist developers, building owners and construction companies to help reduce the building envelope challenges with training, seminars and support. The board of directors is committed to helping the construction industry advance in new technological advancements while maintaining sound, proven and tried principles. BESI is implementing the structure to support the construction industry and if you are interested in becoming a part of the institute and its efforts, contact BESI at 1-(877)-688-2374. www.BESInstitute.com

2009 - PRESENT: U S BUILDING LABORATORIES.

LABORATORY TESTING & ANALYSIS

Director of Building Science and Construction.

Responsibility: Includes conducting forensic testing and analysis on construction materials and products in the lab.

Services Include: ITA system protocols and ASTM laboratory analysis for building envelope components for pre-construction and post-construction evaluation and performance, testing of failed building envelope waterproofing, roofing, exterior cladding, doors and windows, concrete material failures, environmental testing,

and analysis, toxic Chinese drywall testing and analysis for inspection and remediation protocols including stabilization, Chinese drywall chamber testing (patent rights holder) and exploratory investigative testing and analysis, research and development, building envelope commissioning research, experimental testing for life cycle and energy efficiencies.

USBLI works under contract and in conjunction with many other laboratories across the U.S. including Analytical Research Systems Inc. of Gainesville and the University of Florida toxicology, analytical, and nuclear departments for testing of construction products and materials.

2003 - PRESENT: U S BUILDING CONSULTANTS INC.

Principal/CEO

Forensic Investigator and Consultant

Responsibility: Mr. Mulholland is the principal at U S Building Consultants, Inc. and Building Consultants International. The Company provides full forensic engineering, new and existing construction management (CM), forensic investigations, building science and project management, laboratory analysis, waterproofing and consultants has two principals and, through its qualifying agents, holds the USBCI Engineering License #34998 and the Certified General Contractor License #1519110.

Services Include: Forensic engineering, moisture intrusion and analysis, forensic / diagnostics, inspection for building envelope, laboratory analysis, ASTM field testing, hydrodynamic and hydrostatic water testing, material sample testing and analysis, waterproofing and restoration reviews for building envelope construction, failure analysis, third party consulting, expert witness, contract administration, quality control inspection existing and new construction, material specification and selection, roofing and waterproofing inspection, infrared thermography, specifications and blue print waterproofing reviews (prior to construction), environmental protocols, testing, and laboratory microbial analysis (IAQ) for commercial buildings. Reserve studies, annual inspections for preventive maintenance, training and teaching (full power point presentations) in waterproofing building envelope construction.

SPIDERMAN'S PROFESSIONAL SERVICES, INC
1987-2003 Principal / CEO
1991-2003 Principal of ITA Systems, Inc.
1999-2003 Principal of Leak Watch Systems, Inc.

Mr. Mulholland was the Principle/CEO of three Florida-based corporations in the construction industry. He managed and operated the corporate offices in Pensacola, Florida from 1987 through 2003. The companies' structures had many divisions including waterproofing, restoration, concrete repairs, roof repairs, remediation of complete building envelope components, inspection, testing, and analysis, diagnostics, consulting, indoor air quality, building maintenance, and a technology and training division. He supervised approximately 50 full-time employees, additional support staff, and sub-contractors. Mr. Mulholland retired from actual construction in 2003 and became a full time consultant. He has continued to teach and train on a national and international level since 1988 for the construction industry.

Mr. Mulholland's experience involves all types of construction but primarily focuses on building envelope water intrusion, environmental analysis, forensic investigations, quality control and building science and research. Mr. Mulholland has extensive experience in building envelope moisture and environmental investigation, forensic failure analysis and remediation protocols. He has been recognized as a national consultant and specialist in the areas of stucco and EIFS systems regarding design, application, and investigative work. Mr. Mulholland has been recognized by Fortune 100 companies for his unique specialty in "Forensic Investigation and Analysis" of commercial buildings. He has additional experience in studies dealing with contract administration, quality control, construction management, legal issues in construction, and testifies as an expert witness in his fields of expertise.

Additionally, Mr. Mulholland has been listed as an expert witness in ASTM's Directory of Scientific and Technical Consultants and Expert Witnesses, the Lawyer's Desk Reference, the National Forensic Center, National Consultants Referral, Inc., Technical Network Services, and the American Arbitration Association.

INVOLVEMENT IN THE INDUSTRY AND PROFESSIONAL AFFILIATIONS (FORMER & CURRENT)

- 2009-Current: Building Envelope Science Institute, Board of Directors, Senior Instructor and educational committee for certification programs taught nationally to Fortune 1000 Companies and others in the construction industry with the aim of building envelope science, forensic investigation protocol and industry standard awareness.
- 2009- Current: Chairman of the Board of Directors for the Defective Drywall in America Work Group (DDIA) for Chinese and defective drywall. Helped design, produce, and instruct the national certification protocols for inspection, project management, consulting, and remediation of Chinese/defective drywall in residential, commercial, and high rise buildings.
- 2009: Worked with the Florida Task Force (Florida Operations Drywall Incident Management Team- *IMT* for operation drywall which included eight departmental agencies.

INVOLVEMENT IN THE INDUSTRY AND PROFESSIONAL AFFILIATIONS (FORMER & CURRENT) - CONTINUED

- 1996-2009: Exterior Design Institute, Former President, Former Vice President, Former Chairman of the Board of Governors, Developer and Instructor of their Moisture Intrusion and Analysis Certification Course, Certified Third Party Stucco/EIFS Inspector, Certified Moisture Intrusion and Analysis for Building Envelope Construction. Certified and trained Inspectors across the nation for over 12 years with EDI.
- American Walls & Ceilings International - Certified Third Party Stucco/EIFS Inspector.
- National Association of Waterproofing Contractors, Certified Waterproofing Contractor, Secretary/Treasurer 1997, Board of Directors 1996, Chairman of their committee that developed their national Above Grade Waterproofing Certification Program, technical column writer in their monthly magazine 1994-1996.
- EIFS Industry Manufacturer's Association, Education Committee 1996-1998 and Technical Committee 1998.
- Association of Construction Inspectors, member with Certified Construction Inspector (Badge #5379) and Certified Construction Project Manager designation.
- American Society of Testing and Materials Committee (ASTM) - C11 C24 D08 D22 E06 Serves as the technical director on the C-11.01 work item WK26072 Standard Practice for Evaluation of Buildings to Identify Corrosive Gypsum Board. Helped institute the first task group on Chinese drywall inspections within the Sub-Committee - E06.41 with Rob Thomas, E06.58 Chairman. Mulholland will assist working on upcoming committees for inspection, testing, and remediation standards that will follow over the next several years.
- Serves on the E-6.58 Performance/Standards for EIFS, E-6.51.11 Standards/Practices for Installation of Exterior Windows, Doors and Skylights, C-24 Building Seals, Sealants, and Waterproofing committees, and formerly E-6 Performance of Buildings and C-11 Gypsum and Related Building Materials and Systems (includes EIFS) Committees, expert witness, speaker. Expert panelist at their 1999 workshop entitled "Investigation and Remediation of Water-Related Problems on EIFS-Clad Wood-Framed Buildings." Mulholland also serves on the D22 committee on Air Quality and the Committee D08 on Roofing and Waterproofing systems.
- Construction Specifications Institute, former Editor of bi-monthly newsletter, Former Vice President of Pensacola Chapter, Speaker.
- American Arbitration Association, Member - National Forensic Center, Member - Southern Building Code of Congress International, Member - National Association of Home Builders, Member
- Community Associations Institute, Member & Speaker - Builders Association-North Central Florida, Member & Speaker - National Association of Home Builders, member and several other industry organizations

PUBLICATIONS (PARTIAL LIST)

Mr. Mulholland is the author of three (3) national certification programs for **BESI**, **EDI** and **NAWSRC** (see experience heading along with articles and training seminars for the construction industry). Mr. Mulholland is also the author of the book JUMP now you have no excuse, endorsed by Tony Robbins, John Spence and Joe Picci - Amazon.com

PUBLISHED POWERPOINT PRESENTATIONS FOR EDUCATION, AIA, AND THE CONSTRUCTION INDUSTRY (A PARTIAL LIST):

- Advances in Building Envelope Systems
- Building envelope failures
- Design & detailing of building components
- Why buildings leak and how to stop it
- Forensic investigations with case histories
- Inspecting and analyzing mold and mildew problems Straight talk to contractors
- Straight talk to architects
- Understanding waterproofing methodology
- Building sealants and their performance
- Properly installing stucco and EIFS
- Properly installing masonry
- Professional restoration of homes and buildings
- How to detect mold in buildings
- Building science methodology
- Forensic investigation of building envelope failures
- MOLD problems & solutions
- Introduction into waterproofing & design
- Understanding water intrusion issues
- Stucco, EIFS investigation and remediation
- Restoration of building envelope components
- Roofing system failures, what to look for
- Building envelope commissioning processes
- Diagnosing problems, failure analysis of construction projects
- Toxic Chinese drywall crisis- inspection/remediation strategies
- Overview of history and facts on Chinese/defective drywall
- Chinese drywall remediation facts and fiction
- Forensic analysis studies and testing on defective Chinese drywall.

SPEAKING AND LECTURING (PARTIAL LIST)

- University of Florida Warrington College of Business: Corporate Training 101: Developing Leadership (2015)
- SWRI Fall Technical Meeting: “The Importance of Properly Diagnosing Building Envelope Failures” (2014)
- CSI Greater Orlando Chapter: “Forensics and Building Envelope Failures” (2014)
- Principal instructor at the Building Envelope Training and Certification Conference for the Building Envelope Science Institute (2014).
- Principal instructor and author of the Building Envelope Trained and Building Envelope Certified Inspector courses for the Building Envelope Science Institute (2013).
- Keynote speaker for the Construction Specifications Institute lunch in and training seminar on building envelope construction, forensic analysis, construction related failures and design deficiencies New Mexico 2012.
- Speaker for HB Construction on “Advances in Building Envelope Science”. Topics included technological advances with building envelope materials, building envelope commissioning studies, case study analysis, and R&D of new construction products and materials (2011).

SPEAKING AND LECTURING (PARTIAL LIST) – CONTINUED

- Realty Investment Club of Houston: What is Chinese or Defective Drywall, How It's Affecting 43 States (2011)
- Spoke to Coastal Construction Products: Building Envelope Investigation and Case Histories (2011)
- Sante Fe Entrepreneur School: Speaker for Program of Entrepreneurship geared toward at-risk teenagers (2011-2013)
- Speaker: Insights 2010 Conference and Tradeshow, Miami: Presented on the extensive studies and analysis conducted on defective Chinese drywall and its effects on over 37 states nationwide (2010)
- Expert panel speaker for the Building Envelope Science Institute on Chinese drywall remediation. First annual conference and tradeshow event (2010) (see www.besintitute.com).
- Main Speaker for the Florida Wall & Ceiling Contractors Association: Presented on the forensic studies and laboratory analysis to date on domestic and Chinese drywall in America. Mulholland has spoken three more times including the prestigious Southeast Conference in Florida. (2010)
- Speaker and expert panelist at the Tainted Chinese Drywall conference hosted by the Indian River State College CCTI and ESARC: Presented facts and facilitated a Q&A session on remediation efforts and methodologies in regard to Chinese drywall claims (2010)
- Speaker at numerous town hall meetings across the state of Florida for Chinese drywall/investigative studies (2009).
- Construction Owners Association of America (COAA) National Conference on behalf of the University of Florida Facilities, Planning and Construction Committee: Building Envelope Commissioning, Environmental Concerns, Toxic Chinese Drywall, and the Direction of the Construction Industry (2009).
- Technical Symposium on Corrosive Imported Drywall with ARS: Presented analytical results from corrosion studies in both domestic and Chinese drywall sampling. Results covered a six month study and research on the corrosive properties of diffusion of sulfur compounds from Chinese drywall on copper materials which included metallurgical third party studies (2009)
- Speaker and instructor for Building Envelope Science Institute: Senior Instructor to contractors, consultants, and industry leaders on Chinese drywall inspection, testing, analysis and remediation protocols (2009 – 2011)
- Main Speaker BANCF Commercial Building Council, Gainesville, Florida (2006)
- Main speaker and conference coordinator: State of Texas Association of Real Estate Inspectors (TAREI) (2004)
- Main Speaker for AIA Alabama State Seminar (2002)
- Expert speaker for Mealey's National Toxic Mold Conference, Palm Springs, Florida (2002)
- State of Louisiana AIA Conference: "Waterproofing Design/Protection of the Building Envelope" (2000)
- Regional EIFS Symposium hosted by the Alabama EDI Governor and Members (2000)
- Regional Terminix Meeting & Educational Seminar (2000)
- CSI/AIA Workshop, Baton Rouge, LA, "Investigating Building Envelope Waterproofing Failures & Design" (1999)

SPEAKING AND LECTURING (PARTIAL LIST) – CONTINUED

- CSI Mobile Chapter: "Exterior Finishes and Waterproofing" (1999)
- Served on panel of experts at ASTM's E06 Workshop on "Investigation and Remediation of Water-Related Problems on EIFS-Clad Wood-Framed Buildings", Seattle, WA (1999)
- CAI State Conference: Presentation on "Exterior Finishes & Waterproofing", Destin, FL (1999)
- CAI: "Waterproofing the Building Envelope", Destin, FL (1998)
- Florida Dept. of Health Indoor Environmental Quality Seminar: "IAQ & Building Leaks" (June, 1998)
- CSI: "Waterproofing Design and the Building Envelope", Baton Rouge, LA (1998)
- CSI EIFS Workshop & Product Show: Jackson, MS, main speaker, (1998)
- Public Service Seminar, Fort Walton Beach, FL: "EIFS and Stucco Care and Maintenance" (1998)
- EDI : Presented "Dow Corning Sealants and EIFS Restoration Techniques" (1997)
- AIA, Wilmington NC Chapter Seminar: "Preventing & Stopping Building Leaks" (1997)
- North Carolina Lathe & Plaster Association: "Leaks in Stucco & EIFS Structures (1997).
- IAQ Association's Sick Building Symposium: "How Buildings Leak and Why" (1996)
- Exterior Design Institute 3rd Party EIFS Inspection Certification: "Proper Sealing of EIFS Segment" (1996)
- Exterior Design Institute Moisture Analyst Training and Certification: Instructor at 3-4 seminars per year - nationwide (1996-2001)
- Main Speaker at BANCFC Commercial Building Council, Gainesville, Florida (2009)
- NW Florida Home Builders Association: "Protecting Synthetic Stucco from Water Damage" (1996 & 1997)
- Building Industry Association of Okaloosa/Walton: "Protecting Stucco from Water Damage" (1996)
- NAWC Seminar: "Hi-Tech Diagnostic Equipment in Above Grade Waterproofing" (1996)
- NAWC Seminar: "New Developments in Above-Grade Waterproofing" (1996)
- Contractor's Seminar sponsored by Anderson Windows: "Costly and Expensive Leaks" (1995)
- AIA Seminar: "Why Buildings Leak and Design Prevention Standards" (1994)

EXPERT WITNESS CASES: Mr. Mulholland has been involved in several hundred litigation cases and has been qualified as an expert witness and testified in multiple states throughout the U.S. for almost two decades. He is easily qualified as an expert witness and has represented clients on all sides of the construction industry from building owners, insurance companies, architects, developers, contractors, subcontractors, and material manufacturers regarding his expertise in the field of forensic investigations, failure analysis, environmental testing and analysis, general construction and building science for the construction industries. For a full list of his cases complying to; "Rule 26 of the Federal Rules of Civil Procedure" and other expert witness qualification, recommendations, please contact the USBCI main office in Gainesville, Florida.

FOR ADDITIONAL INFORMATION PLEASE GO TO WWW.USBUILDINGCONSULTANTS.COM