



**INTERACTIVE
ENGINEERING**
www.IENG-inc.com
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David Alphonse Reed, PE, BSME

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David is an experienced Professional Engineer with a diverse background spanning construction, engineering, and entrepreneurship. He earned his Bachelor of Science in Mechanical Engineering from the University of Central Florida. David's professional experience includes serving as the lead Generator Service Engineer on multi-million-dollar projects at Siemens Energy, Inc., developing novel optics fabrication machines, and conducting hands-on property damage forensic investigations. He has direct expert witness experience, providing courtroom testimony and sitting for multiple depositions. As a founding member of Interactive Engineering, Inc., he initially focused on business operations before transitioning to a full-time forensic engineering role in March 2024. As an expert witness David has worked on hundreds of cases providing inspections, reports, and root cause and origin analysis.

PRIMARY AREAS OF CONSULTING

Roof Systems

- Hail damage to residential & commercial roof coverings
- Wind damage to residential & commercial roof coverings
- Synthetic storm damage (Fraud)
- Roof covering defects
- Roof conditions analysis
- Water infiltration and mapping
- Roof coatings/paint application failures

Structural Engineering:

- Ground vibration/blasting claims
- Lightning claims
- Wood and concrete pier foundations
- Wood, concrete, concrete block, foundations systems
- Foundation Settlement Mapping
- Chimneys
- Steel helical piles
- Structural and cladding wind load analysis

Building Enclosures

- Stucco cladding
- Wood-frame, concrete, concrete masonry unit (block) walls
- Fenestration Analysis (window/doors) IAW AAMA 511
- Wall penetrations

Building Code Compliance

- General construction code requirements and best practices
- Construction defects
- Roof coverings

LICENSURE/CERTIFICATIONS/COURSES

Licensed Professional Engineer

- Florida (PE# 101476)
- Colorado (PE# 66277)
- Texas (PE# 157944)
- Georgia (PE# 55105)

Certifications/Memberships

- TRI Florida High Wind Installer Certification
- OSHA 30
- Certified SolidWorks Professional

TESTIFYING EXPERIENCE

Depositions:

1. John Sedleskey v. Universal Insurance Co; 2018-CC-000518
2. R & K Certified Roofing of Florida, Inc. v. National Specialty Insurance Company; EUO
3. Roberson v. American Strategic; 2018 CC 000508
4. Dietrich v. Heritage Property & Casualty; 2019-CC-000706
5. Mott V. First Protective; 2023 37766 COCI
6. Pritchard v Citizens; 25-006367 PIC (DOAH)

Trials:

1. R And K Roofing of Florida, Inc. v. Wayne Furnari; 2023 SC 000561
2. Dream Team Roofing Inc v Munro, Sharyn; 50-2024-CA-006437-XXXX-MB

WORK HISTORY

Interactive Engineering, Inc.

Owner/Engineer

May 2020 – Current

Founding member of a forensic engineering firm, initially focused on business operations with periodic contributions to engineering projects. Responsibilities include drafting forensic engineering reports based on data from expert witnesses and conducting research into novel causes of loss. Tasked with quality assurance of reports prepared by other engineers, with a focus on roofing and construction-related cases. Conducts on-site inspections both independently and as part of a team to support forensic investigations.

R&K Roofing of Florida, Inc.

Owner/General Manager

August 2015 – March 2024

Directed all leads and teams across multiple, simultaneous construction projects. Charged with direct oversight of all project aspects from initiation to completion. Coordinated production schedules, material procurement, and logistics to ensure all projects complied with customer expectations. Negotiated with vendors to secure competitive pricing and enhance profitability. Managed sales team operations, including product development, pricing strategies, contract reviews, and customer satisfaction. Oversaw company purchasing accounts, ensured accounting accuracy, managed insurance audits, and facilitated timely payment collections. Ensured compliance with industry standard liability insurance and OSHA safety regulations. Conducted scope of work analysis, bid drafting, and submission of bids for Architectural, Engineer, or Builder firms. Awarded contracts from clients such as the City of Ormond Beach, City of Daytona Beach, and City of Palm Coast.

Interactive Estimates, Inc.

Owner/CEO

November 2019 – August 2023

Founded a company specializing in standardized third-party estimates for construction scopes of work. Served primarily construction and roofing companies by providing bid support for insurance-related projects.

Siemens Energy, Inc.

Engineering Level 2 – Research and Development, Operations Support

May 2011–May 2015

Technical lead for a \$50M+ generator rewind project, driving product and process solutions for service issues across the generator fleet. Expertise in root cause analysis of part and assembly failures, finite element structural analysis (FEA) for new and existing components, and risk assessments for service project plans. Provided strategic recommendations on repairs, modifications, and modernization, with on-site and remote support during planned and forced outages. Skilled in presenting complex technical data to diverse stakeholders and contributing to Siemens senior design outreach as both a student and mentor. Project lead for the design of a generator frame loading analysis toolset, which culminated in the award of a patent.

Dyna Technologies, Inc.

Project Engineer

January 2009 – May 2011

Collaborated with a team of engineers to design and assemble components for a thermoforming optical lens press machine. Responsible for vendor-supplied component integration, including technical analysis, risk assessment, and validation to ensure compatibility with system requirements. Contributing author to Small Business Innovation Research (SBIR) proposals, supporting technical content development and project justification.

AMPAC, University of Central Florida

Engineering Lab Assistant

September 2007 – September 2008

Conducted experiments for the development of surface nanotechnology coatings for industrial and commercial applications. Contributed to process optimization for synthesizing functional concrete from fly ash while maintaining product performance. Supported the application and performance analysis of high-temperature powder coatings to improve thermal stability and erosion durability.

AWARDS & DECORATIONS

Patents:

No. US 8,718,419 B2 Generator frame foot loading measurement system using fiber optic sensing technique