



Exponent[®]
Engineering & Scientific Consulting

Dave Burnett, P.E., CFPS

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Professional Profile

Mr. Burnett is a licensed civil engineer in 10 states with education, background, and experience primarily in the structural discipline. He has been practicing civil/structural engineering since 1991 and has more than 20 years of experience in forensic and research consulting.

Mr. Burnett's areas of expertise include design and construction of residential sites and structures, projects involving heavy timber and engineered wood products, property damage claims and appraisals, and expert consulting for litigation involving construction defects, construction accidents, OSHA investigations, and wood products liability cases.

In addition to his engineering degree, Mr. Burnett holds a Master of Science in Building Materials & Wood Technology. The focus of his graduate research was on the structural capacity of all-wood (pegged) heavy timber mortise-and-tenon joinery. Coursework and hands-on experience completed in this program included wood species identification, application of lumber grading rules, wood machining, kiln-drying operations, and load testing. In addition, the curriculum also included specific coursework in wood properties (physical and mechanical properties such as anatomy, wood-moisture relationships, thermal, electrical, and strength properties, etc.), wood protection (wood microbiology, decay and prevention, preservatives, finishes for exterior wood, etc.), wood adhesive technology (wood bonding and engineered wood products), a variety of light-frame structure technologies (building materials, energy efficiency, building products distribution and sales management, etc.), and graduate level structural engineering courses (finite element methods and advanced solid mechanics).

As a Senior Managing Engineer at Exponent, Mr. Burnett is routinely asked to lead or assist in forensic investigations related to building envelope and structural failures, construction defect and dispute litigations, construction costs analyses, first-party property insurance claims, insurance appraisals and bad-faith litigation, personal injury and construction accidents, and wood products failures or performance issues. He has evaluated hundreds of buildings and sites for issues related to site preparation (excavation, grading, drainage, etc.), foundations, structural capacity, the building envelope (roofing, cladding, moisture management systems, insulation, etc.), and interior finishes.

Mr. Burnett has investigated structural and architectural damage caused by wind, rain, hail, snow, tornado, earthquake, fire, explosion, vehicle impact, adjacent construction, occupant overloading, poor drainage, expansive or collapsible soils, weathering/age-related deterioration, and design/construction/manufacturing defects. While most of his practice involves residential and heavy timber construction, Mr. Burnett has conducted numerous investigations involving wind and hail damage, water intrusion through the building envelope, structural failure, fire damage and flame spread, and wood flooring problems in commercial buildings as well.

Prior to joining Exponent, Mr. Burnett's work experience included wind engineering (wind tunnel modeling for tall buildings and pedestrian wind environments), civil engineering design (grading, drainage, driveway

layout in mountainous terrain, and landscape irrigation design), residential structural design (foundations and framing), and fire investigation support (life safety code analysis).

Academic Credentials & Professional Honors

M.S., Building Materials and Wood Technology, University of Massachusetts, Amherst, 2000

B.S., Civil Engineering, University of Massachusetts, Amherst, 1991

Licenses and Certifications

Professional Engineer, Colorado, #PE.0034389

Professional Engineer Civil, Nebraska, #E-13039

Professional Engineer Civil and Structural, New Mexico, #19691

Professional Engineer Civil, Wyoming, #PE 12464

Prior Experience

Division Manager, Civil/Structural/Construction, AEI Corporation, 2008-2015

President, HAMMERBEAM Investigations & Timber Engineering Corp., 2005-2011

Project Engineer, Western Engineering & Research Corporation, 2000-2008

Lecturer (Advanced Timber Design), University of Colorado - Denver, 2004

President, Select Structural Inc., 1999-2004

Forensic/Structural Engineer, Gillans Inc., 1999

Research Engineer, University of Massachusetts Transportation Center, 1997-1998

Civil/Structural Engineer, Brockman Engineering Inc., 1995-1999

Civil Engineer, EDAW-HRV, Inc., 1993-1994

Engineer, CPP Wind Engineering Consultants, Inc., 1991-1993

Professional Affiliations

American Society of Civil Engineers — ASCE

Structural Engineers Association of Colorado — SEAC

National Fire Protection Association — NFPA

Record Holder National Council of Examiners for Engineers & Surveyors — NCEES

Publications

Burnett D, Clouston P, Damery D, Fiset P. Structural properties of pegged timber connections as affected by end distance. *Forest Products Journal* 2003; 53(2):50–57.