

Dan Zachreson, PE, CXLT | District Engineering Principal

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Professional Summary:

Mr. Zachreson is a licensed professional engineer with over 20 years of experience in architectural and structural engineering and construction. He has conducted over 2,000 forensic engineering investigations, most of which have involved structural and building envelope (roof coverings, wall cladding, windows/fenestrations) damage and/or failures. His engineering experience includes root cause studies of structural failures and collapses, moisture intrusion and condensation, soil subsidence, foundation settlement and heaving, damage assessment related to earthquake, fire, and storm events (hail, wind, hurricane, snow and ice), wind vs wave damage assessment, water testing and destructive testing of various building assemblies, stucco testing, design of temporary and permanent repairs for damaged structures and building envelope systems, structural framing and foundation design and analysis. Other experience includes expert witness testimony in depositions, construction of light framed buildings, and engineering management. Mr. Zachreson has developed and presented instructional courses on earthquake damage evaluation, snow/ice structural damage evaluation and wildfire building envelope damage assessment. As District Engineering Principal, he oversees the engineering division for Northern California and Northern Nevada.

Licenses and Certifications:

Professional Engineer, CA, #71471

Professional Engineer, NV, #018766

Professional Engineer, WA, #43530

Professional Engineer, OR, #79568PE

Professional Engineer, AZ, #46873

Professional Engineer, MT, #18830

Professional Engineer, CO, #42355

Professional Engineer, ID, #13491

Professional Engineer, UT, #7080435-2202

Professional Engineer, AK #13034

UAS Remote Pilot Part 107 Certificate, FAA #4414709

CXLT (Certified XL Tribometrist)

Project Experience:

ProNet Group, Paradise, California Wildfire Roof Damage Assessment

Evaluated roof wildfire damage and prescribed scope of repair for a 17-building residential community in Paradise, California.

ProNet Group, Arcata, California Snow Damage Assessment

Evaluated snow load damage for 500,000 square feet of greenhouses at a commercial flower grower. Differentiated recent snow load damage from historical earthquake damage and wear damage after an unusual snow event.

EFI Global, Mountain Home, California Construction Defect Investigation

Water intrusion investigation of six-story office building. Identified installation defects in the glass curtain walls and exterior roof/deck drains that resulted in interior water damage to the recently constructed structure. Identified responsible parties acting for defense of the general contractor.

EFI Global, Seattle, Washington Construction Defect Investigation

Water intrusion investigation of a dozen dormitory buildings at the University of Washington. Investigated moisture intrusion and failure of traditional stucco clad buildings. Developed demolition protocols (stucco removal locations) for destructive examination and provided repair recommendations.

EFI Global, Houston, Texas Hurricane Ike Damage Evaluation.

Investigated hurricane damage to marble panel façade of twenty-story, steel framed structure. Developed inspection protocols and prescribed façade repairs.

EFI Global, Rocklin, California Forensic Engineering of Structures – Western United States

Performed over 2,000 inspections of wood framed, concrete, masonry and steel framed building structures to identify damages resulting from construction and material defects, leaking pipes, differential foundation settlement, moisture intrusion and excessive structural loading including: snow loads, earthquake, wind, vehicle impact and various other incidents leading to structural damage.

EFI Global, Rocklin, California Pedestrian Safety and Slip and Fall Investigations

Performed more than 50 investigations of slip or trip and fall claims. Investigation involved analysis of the accident scene to determine if the building or structure was built to applicable building codes and ADA compliance. Determined if there were any other deficiencies with the facility, such as lack of adequate maintenance or general disrepair, that may have contributed to the accident. Measured walking surfaces with an XL tribometer to determine slip resistance of the surfaces.

Wood Rodgers Inc., Sacramento, California Sacramento Flood Preparedness – Sacramento, California

Performed water modeling to determine extent of flooding that would occur due to levee failure. Oversaw creation of the flood depth maps.

TLC Engineering, Libby, Montana

Town of Joliet Montana, Water Main – Joliet, Montana

Worked as assistant to the Forensic Engineer retained by the City Attorney to recover liquidated damages incurred by overrun of the project and other construction issues.

Professional Experience:

EFI Global, District Engineering Principal, 2021
ProNet Group, Northwest Region District Manager, 2018 – 2021
EFI Global, Northwest District Manager, 2017 – 2018
EFI Global, Senior Forensic Civil/Structural Engineer, 2006-2017
Wood Rodgers, Inc., Designer, 2004-2006
TLC Engineering, Designer/Drafter, 2003-2004
HDS Construction, Owner/Carpenter, 2001-2003
Jericho Construction, Carpenter/Laborer, 1999-2001
Great Oaks Painting and Drywall, Painter/Drywall installer, 1998-1999

Specialized Education:

Building Pathology Courses: Roofs; Walls; Thermal Movement, Corrosion and Ozone, ASCE, 2016
Roof Science and Technology II, RCI, 2014
Roof Science and Technology, I, RCI, 2013.
Arctic Engineering, University of Alaska at Anchorage, 2011
CXLT Certification, Mr. William English, 2009

Education:

Bachelor of Science, Civil Engineering, California State University, Sacramento, California, 2003

Affiliations:

American Society of Civil Engineers

Courses Instructed/ Guest Lecturer:

Earthquake Damage Assessment for Insurance Adjusters
Evaluation of Snow/Ice Structural Damage
Evaluation of Building Envelope Wildfire Damage – Paradise Fire Case Studies