

Andrew Mueller

Forensic Engineering Expertise

Structural Analysis/Design

Review appropriate documents, including project plans and specifications as it relates to the building structure for purposes of connection and member design, failure analysis, and extent of resulting damages. In addition, being a licensed professional engineer, replacement designs are provided upon request. Examples of past work include analysis of failed, collapsed, and displaced structures (concrete, steel, wood, masonry), and various building components (windows, doors, glass, roofing, exterior and interior cladding) as well as damage assessment of building structures after a fire.

Origin & Cause

Determine the source and responsible party or element related to the failure of a structural or architectural element, or water damage in a building. Examples of past work include failure of roofing, wall claddings causing moisture entry, humidity and condensation-related losses, and groundwater entry.

Building Fenestration/Building Envelope

The building envelope is a building's first line of defense to moisture entry. Identifying the type of system (single versus multiple barrier) and how the various adjoining materials' water and air barriers connect is key to effective moisture management. Examples of past work include storefront window, exterior cladding, and roofing material evaluations.

Building Pathology/Construction Defects

The building pathologist relies on an in-depth knowledge of building design, construction, use, and changes as well as assessing the environment of use and the materials and how these interrelate to systematically identify, investigate, and diagnose defects in a building. Past work includes construction and installation of various trade items, as well as design and specification of structural steel repairs. Worked in tandem with the general contractor, owner's representative, and multiple trades during construction operations.

Inspection and Evaluation of Roofing Systems

This includes steep and low slope roofs as well as various types of roofing materials, including both common and unique roofing applications. Past work involved offering opinions and repairs related to installation deficiencies and storm-related damages, including for hail and wind.

Education

Bachelor of Science Degree – Mechanical Engineering
South Dakota State University, Brookings, SD
May 2015

Licenses & Certifications

PE - Professional Engineer

Licensed by the State of Kansas – Number PE27419

Licensed by the State of South Dakota – Number 15924

Licensed by the State of Minnesota – Number 60628

Licensed by the State of Nebraska – Number E-20784

Licensed by the State of North Dakota – Number PE-29729

Andrew Mueller 1

Last Modified: 4/17/25

This CV is not a solicitation for services and is provided as information only. Retention of this expert can only be obtained through a mutually agreed upon Letter of Engagement.

Employment History

Forensic Engineer

Nederveld, Inc.

2022 - Present

Duties include forensic engineering analysis relating to building pathology, structural damage, including that due to fire, vehicle impacts, storm damage (wind, snow, hail), seismic, and water loss events, calculations, and plan of repair design and other.

Project Manager

HME Inc., Topeka, KS

2018 - 2022

Duties included managing the structural steel package on a variety of public, private, and federal projects. Coordinated directly with owner's representatives, and general contractors, and was responsible for communication and planning of work for HME personnel and the fabrication shop.

Steel Designer

HME Inc., Topeka, KS

2015 - 2018

Duties included detailing, engineering, and design structural steel for a wide range of projects. Created 3D models, fabrication drawings, erection plans, and calculation packages for submittal to designers of record and for field use. Design and engineering of in-house projects, including hydraulic transfer system, jet ski trailers, and a pool heater.

Construction Laborer

Clark Drew Construction, Brookings, SD

Summer 2011 and 2013

Duties included accomplishing various projects on active worksite and learning and applying basic carpentry and concrete pouring skills.

Laborer

Roster Valley Properties, Brookings, SD

Summer 2012

Duties included working on a small team to renovate a rental property and building a shed, removing siding, and weatherproofing the exterior of the property.

Professional Affiliations

Member: American Institute of Steel Construction (AISC)