

Joshua D. Moyer, PE | Forensic Engineer

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Professional Summary:

Mr. Moyer is a Civil/Structural Engineer with extensive experience in the design, inspection, and rehabilitation of various bridges ranging from complex fracture critical and historic structures in the heart of Philadelphia and Chicago to secluded western US Forest Service bridges. Joshua has experience working with various DOT's and municipalities across the country and has provided services in Montana, Wyoming, Idaho, Utah, Michigan, Illinois, and Pennsylvania. He has worked extensively with the AASHTO LRFD and LFD Bridge Design Specifications and is a NBIS certified bridge inspection team leader. Joshua has also inspected residential and commercial structures to assess structural failures, impact damage, water damage and infiltration, hail damage, and wind damage.

Areas of Expertise:

- Design, rating, and analysis of bridge structures
- Bridge inspection
- Commercial structural inspection, failure analysis, and damage assessment
- Roof inspection and failure analysis
- Ice damming
- Water damage assessment
- Determination of required repair and rehabilitation procedures

Licenses and Certifications:

Professional Engineer, Arizona, 80903

Professional Engineer, Montana, 49049PE

Professional Engineer, Wyoming, PE 19592

Professional Engineer, Idaho, P-21951

Professional Engineer, North Dakota, PE-30061

Professional Engineer, South Dakota, 16393

Professional Engineer, Colorado, PE.0063526

Professional Engineer, Utah, 13705497 PE

Project Experience:

Billings, Montana

Billings Bypass - Yellowstone River Bridge

Developed plans, specifications, and estimate package for the longest steel plate girder bridge in Montana.

Teton County, Wyoming
Gros Ventre River Bridge

Developed the plans, specifications, estimate package and seismic design for this three-span structure located near Jackson, WY.

Hettinger, North Dakota
Train Impact Damage Assessment

Performed structural inspection and assessment of a grain elevator and two warehouse buildings impacted by a derailing train and provided replacement and rehabilitation options.

Yellowstone Club, Big Sky, Montana
Slab Settlement Assessment

Performed the inspection and research necessary to determine the cause of slab settlement for this 8,779 square foot residence.

Bozeman, Montana
Waterline Collapse Assessment

Reviewed calculations, submittal packages, and inspected this Montana State University building to determine cause of a 6" stainless steel waterline collapse which flooded multiple buildings.

Bozeman, Montana
Snow Overload & Water Damage Assessment

Inspected five storage unit facilities to determine the cause of water infiltration into the units. Inspection revealed structural deformations resulting from snow overloading and infiltration due to roof panel separation.

Billings, Montana
Hail Damage Assessment

Inspected this 6,076 square foot residence for hail damage.

Helena, Montana
Commercial Roof Repair Plan

Developed a roof repair plan for this commercial building. Determined limits of wind damage and developed repair specifications.

Bozeman, Montana
Water Damage Assessment

Investigated water infiltration in this five-story apartment building to determine the source.

Helena, Montana
Water Damage Assessment

Inspected residence to determine the source of water damage and suspected microbial growth.

Helena, Montana
Hail and Wind Damage Assessment

Inspected residence and detached garage to determine the extent and age of hail and wind damage.

Bozeman, Montana
Water Damage Assessment

Inspected house for water infiltration due to ice damming and evaluated roof system code compliance.

Professional Experience:

EFI Global, Forensic Engineer, 2022 – Present

Morrison-Maierle, Bridge Engineer, 2016 – 2022

Alfred Benesch & Company, Project Engineer, 2011 – 2016

CDM Smith, Graduate Engineer II, 2009 – 2011

ABS Consulting, Civil Engineering Intern, 2008

Specialized Education:

Advanced Roof Class, EFI/Vale, 2023

Northern Region Bridge Inspection Refresher Training, USFS, 2022

Safety Inspection of In-Service Bridges, FHWA-NHI, 2017

Ultra-High Performance Concrete Connections for Prefabricated Bridge Elements, FHWA, 2017

Education:

Bachelor of Science, Civil Engineering, The Pennsylvania State University, University Park, PA, 2009