
Thomas J. Kalman | Forensic Engineer, P.E.

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Professional Summary:

Mr. Kalman has broad experience within civil and structural engineering that includes civil design, structural design, structural analysis, structural inspections, property condition inspections, and land surveying. Mr. Kalman has thorough experience in building design including municipal maintenance garages, agricultural production facilities, midrise hotels, apartment buildings and large-scale senior living facilities. He also has a firm understanding of current building codes, construction detailing, construction document creation, construction document revision process and Revit drafting and detailing.

Licenses and Certifications:

Professional Engineer, Indiana, License #PE12100750

Professional Engineer, Iowa, License #P26465

Professional Engineer, Michigan, License #6201310593

Professional Engineer, Minnesota, License #59536

Professional Engineer, Missouri, License #PE-2022000157

Professional Engineer, Nebraska, License #E-19558

Professional Engineer, North Carolina, License #052593

Professional Engineer, North Dakota, License #PE-29970

Professional Engineer, Ohio, License #PE.86983

Professional Engineer, South Dakota, License #16126

Professional Engineer, Wisconsin, License #48895-6

EVS/R – Roof Specialist

Level 1 Roof Specific Rope Access Certified – Authorized Person

Federal Aviation Administration (FAA) Part 107 – Certified Remote (Drone) Pilot

OSHA 10-Hour Construction Program

John Deere Material Handling Inspection Certified

Project Experience:

Forensic Engineering Inspections Residential & Commercial Structures

Performed forensic investigations and analysis to determine cause of failure and extent of damage to roof systems, structural framing systems, and foundation systems across Iowa, Minnesota, Wisconsin, and Missouri.

Summit of Bettendorf, Bettendorf, IA Senior living complex

Performed structural inspection and analysis of failed concrete columns during construction. Designed and detailed shoring plan to support precast concrete beams while concrete columns were reinforced. Designed and detailed concrete column reinforcement. Coordinated design with steel fabricator, general contractor, and architect.

WATCO Freight Dock. Sauget, IL Load capacity analysis

Performed structural inspection of existing 100-year-old concrete dock structure to determine load rating for offloading of barges along the Mississippi river. Conducted structural analysis of existing concrete dock and pile system utilizing Staad Pro to determine maximum load the dock could support.

Kretschmer Building Rehabilitation, Dubuque, IA Manufacturing building repurposing

Repurposing of manufacturing building into apartment building. Performed design and detailing of new structural steel framework to support the concrete floors on each level and a skylight at the roof level. Was the professional engineer of record for the project. Coordinated preparation of structural drawings and documents with the architect and contractor.

Alpla Group, Iowa City, IA Commercial roof capacity analysis

Roof capacity analysis for the replacement and relocation of large HVAC air handlers on the roof. Conducted inspection to verify existing conditions and performed calculations of the existing steel bar joists to determine possible locations for new air handlers and required reinforcements to the bar joists.

IRL Parkview #1 & #2, Coralville, IA Five story apartment building design

Was the professional engineer of record, responsible for analysis and design of all structural systems including cast in place concrete garage below grade, first level steel framing and four floors of wood framing. Coordinated the creation of construction documents with the owner, architect, and contractor.

302 Main Street, Cedar Falls, IA Three story office building design

Responsible for analysis and design of all structural systems including drilled concrete pier foundation system, masonry elevator shaft, masonry demising wall and a three-story structural steel frame. Coordinated the creation of construction documents with the architect and the contractor.

Structural Solar Reviews

Worked with a solar installer and local building officials to inspect and analyze existing residential and commercial roof systems for structural capacity required to support proposed solar arrays. Prepared construction details and documents required to install solar panels on the roof. Completed hundreds of jobs across Iowa, Illinois, Wisconsin, Minnesota, and Ohio.

Professional Experience:

EFI Global, Forensic Engineer, 2022 – Present
Axiom Consultants, Structural Engineer, 2018 – 2022
HBK Engineering, Structural EIT, 2016 – 2018

Education:

Bachelors, Civil Engineering, University of Iowa, Iowa City, IA 2015

Affiliations:

American Society of Civil Engineers (ASCE)