

Madison Monaghan is a Staff Consultant at Engineering Systems Inc. (ESI), specializing in forensic structural engineering. Miss Monaghan's expertise includes structural analysis, repair and renovation design, code compliance and construction defect investigations. She has preformed structural failure assessments and collapse investigations to determine the extent of damage and develop remediation plans.

Licenses & Certifications

- State of Illinois EIT. License No. 061.043497
- FARO Focus Scanner User Certification Program

Positions Held

Engineering Systems Inc., Aurora, Illinois

- Staff Consultant, 2025 – Present
- Intern, 2024 – 2024

Bechtel Innovation and Design Center, West Lafayette, Indiana

- Teaching Assistant, 2024 - 2025

Tigerbrain Engineering, Oviedo, Florida

- Intern, 2023 – 2023

Giffels Webster, Birmingham, Michigan

- Intern, 2022 - 2022

Professional Affiliations/Honors

American Society of Civil Engineers (ASCE)

- Member since 2025

Project Experience

Investigations

Damage Assessments

- Balcony Structural Assessment & Risk Mitigation
- Investigation and Assessment on the Extent of Fire Damage on Structural Components. Remediation design on Fire Damage.
- Investigation of lift collapses and Total Structural Collapses.
- Hurricane Damage Assessments

Construction

- Investigations of Construction Accidents & Root Causes
- Inadequate Construction Investigations & Risk Mitigation

Madison T. Monaghan

Staff Consultant

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ESi IL - Aurora

4215 Campus Drive
Aurora, IL 60504

Education

MS, Civil Engineering
Purdue University. Current

BS, Civil Engineering
Purdue University. 2025

Areas of Specialization

Civil & Structural Engineering

Failure Analysis

Structural Analysis

FARO 3D Modeling

Risk Assessment & Mitigation

Geotechnical Investigations

Construction Defect Investigations