

Eric Brian Rosero, PE

Forensic Engineering Expertise

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 and wall cladding causing moisture entry, humidity and condensation-related losses, and groundwater entry.

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.

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 control layers connect is key to effective moisture management. Examples of past work include residential window installations, siding installations, and roofing installations.

Structural Analysis/Design

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

Qualifications & Training

- Influencing Building Codes on the National, Provincial, State, and Local Levels, International Institute of Building Enclosure Consultants (IIBEC), February 2024
- Mine Subsidence Cause, Effect, and Mitigation, American Society of Civil Engineers (ASCE), December 2022
- 2022 International Institute of Building Enclosure Consultants (IIBEC)/Architectural Engineering Institute (AEI) Building Enclosure Symposium, November 2022
- Air Barrier Performance in Building Enclosures: Compliance, Continuity, and Complexity, IIBEC, October 2022
- It's Not Raining – Where is the Water Coming From? Moisture Movement in Building Enclosures, IIBEC, October 2022
- Roof-To-Wall Connections, IIBEC, October 2022
- Continuous Insulation – Wall Assembly Case Studies Comparisons, IIBEC, October 2022
- Concrete Repair by Shotcrete Application, American Concrete Institute (ACI), May 2022
- Manufactured Stone Veneer Common Pitfalls in Design and Installation, IIBEC, March 2022

- Impact of Hot Weather Conditions on Concrete Repairs (Part 1), ACI, March 2022
- Durable Repair of Corroding Structures: Case Studies Part 2, ACI, March 2022
- Durable Repair of Corroding Structures: Case Studies Part 1, ACI, February 2022
- Evaluation of Concrete Structures, ACI, February 2022
- Repairing Concrete with Corroded Reinforcing Steel, ACI, February 2022
- Electronic Leak Detection Testing: Standards, Science and Practical Applications, IIBEC, February 2022
- Mass Timber Structural Design: Tips for Practicing Engineers, WoodWorks Wood Products Council, November 2021
- National Academy of Forensic Engineers (NAFE) Virtual Winter Conference, January 2021
- A Master Class on Wood Lateral-Resisting Systems: In-Depth Diaphragm Layout and Analysis, Woodworks Wood Products Council, December 2020
- Can a Poor Air Seal Cause Roof Failure? IIBEC, September 2020
- Mold in Office Buildings: It Won't Go Away, IIBEC, September 2020
- National Academy of Forensic Engineers (NAFE) Virtual Summer Conference, August 2020
- Avoiding Ethical Pitfalls in Failure Investigations, ASCE, March 2020
- Structural Building Condition Surveys: Looking for Trouble, ASCE, March 2020
- Building Envelope Fundamentals: Air Barriers, Vapor Barriers, Vapor Retarders and Water-Resistive Barriers, USG Corporation, March 2020
- Building a Better System with Roof Boards, USG Corporation, March 2020
- Structural Cementitious Floor Sheathing Panels, USG Corporation, March 2020
- Low Slope Roofing, System Selection and Design Criteria, Johns Manville, March 2020

Education

Master of Science Degree in Civil Engineering
University of Illinois at Chicago (UIC)
May 2017

Bachelor of Science in Civil Engineering
University of Illinois at Chicago (UIC)
December 2013

Licenses & Certifications

PE - Professional Engineer
Licensed by the State of Illinois - Number 062070266

Employment History

Forensic Engineer
Nederveld, Inc.
2019 - Present
Duties include forensic engineering analysis relating to building pathology, fire loss damage, structural damage from vehicle impacts, tornado events, storm damage (wind, snow, and hail), water loss events, calculations, and plan of repair design.

Project Engineer
ATMI Precast, Aurora, IL
2018 - 2019
Duties included authoring detailed design calculations for warehouses and logistics centers throughout the Midwest that included the design of precast panels,

Eric Brian Rosero, PE 2
Last Modified: 4/17/25

connections, and temporary bracing. In addition, shop drawings were reviewed to ensure they conformed to design calculations and project specifications.

Structural Associate

Sargent & Lundy, Chicago, IL

2014 - 2018

Duties included authoring detailed design calculations for domestic and international nuclear power plants that included the design of pile foundations, shallow foundations, precast/cast-in-place concrete buildings, composite modular walls for nuclear containment structures, structural steel connections, and electrical/mechanical equipment supports. In addition to authoring calculations, design drawings, and shop drawings were reviewed to ensure they conformed to code requirements and project specifications. Lastly, engineering inspections were performed for nuclear power plant cooling towers to ensure there are no structural damages.

Project Engineer Intern and Field Engineer Intern

Hensel Phelps Construction Company, Fort Carson, CO

2013

Duties include reviewing shop drawings and design drawings, issuing material submittals, issuing request for information (RFI) packages, layout of building foundations using survey equipment, managing concrete pours, and assisting the construction crew as needed.

**Professional
Affiliations**

Member: International Institute of Building Enclosure Consultants (IIBEC)

Member: American Concrete Institute (ACI)

**Expert Witness
Experience**

Deposition

January 2025

Jacqueline K. Souza v. Erie Insurance Company

Expert Witness for Erie Insurance Company on behalf of Best, Vanderlaan & Harrington

United States District Court Northern District Court of Illinois Eastern Division, Case No. 1:22-CV-3744

September 2023

First Congregational Church v. Country Mutual Insurance Company

Expert Witness for Country Mutual Insurance Company on behalf of HeplerBroom, LLC

Circuit Court for the Nineteenth Judicial Circuit Lake County, Case No. 2022 LA 323