

MATTHEW E. KUBA, P.E.

Associate Principal



Summary

Matt Kuba is the Midwest Regional Façade Engineering practice leader. He specializes in structural analysis, finite element modeling and thermal performance analysis of exterior wall systems, with a focus on structural glass and steel specialty structures. His portfolio includes higher education, government, residential, retail, cultural and commercial projects.

Matt provides detailed design of exterior wall systems that balance structural efficiency, aesthetics, and thermal performance. He believes in a balanced approach that provides the specific level of detail required to each individual project.

Areas of technical expertise

- Facade Forensics
- Facade Engineering

Education

- M.S., Structural Engineering/Civil Engineering, 2008, University of Wisconsin-Madison
- B.S., Civil Engineering, 2006, University of Wisconsin-Madison

Registrations

- Licensed Professional Engineer in AL, MA, MI, NJ, NY, RI, TX, and WI

Select project experience

Facade Forensics

Faena House Condominium Tower, Miami Beach, FL

Investigation of alleged waterproofing, tile, guardrails, safety glazing and stucco deficiencies on a new construction. Provided sworn testimony regarding structural glass aspects of exterior guardrails.

Private Residence, Storm Loss Assessment, Dallas, TX.

Damage assessment services for insurer of private residence as a result of a tornado event. Glass assessment included review of hermetic seals for IGU's, scratched glass and broken glass claims.

Commercial Office Building, Lake Charles, LA. Damage assessment services of curtain wall as a result of a hurricane event. Glass and curtain wall assessment included review of IGU seals, aluminum mullions, and curtain wall gaskets.

Confidential Residential Tower, Chicago, IL. Expert consultant services in connection with the evaluation of certain alleged design and construction issues on a high rise residential tower. Services included investigation for the causation of operable vent hardware failures.

Confidential Residential Tower, Pensacola Beach, FL. Hurricane Sally structural and building envelope damage assessment of a high-rise condominium tower.

Office and Apartment Buildings, Blast Damage, Milwaukee, WI. Damage assessment services and owner representative during inspection and testing of various window systems as a result of an explosion. Assessment included review of curtain wall mullions, punched windows, storefront units, terrace doors, sliding doors, IGUs, weather seal gaskets, and operable window components.

*Denotes work performed with previous employer.

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Confidential Senior Living Housing, Condensation Investigation, Chicago Area, IL. Investigation of exterior wall systems for condensation issues related to thermal performance of wall make up.

Confidential Hospital, Condensation Investigation, NY. Investigated exterior wall systems for condensation issues related to thermal performance of existing wall make up and the proposed repair make up.

Office Building, Construction Defect Assessment, Madison, WI. Investigation of glass breakage due to potential nickel sulfide inclusions, lamination bubbles, IGU primary seal failures, and site installed gasket issues.

Office Building, Construction Defect Assessment, Chicago, IL. Review of glass balustrade design exhibiting excessive deflections in newly constructed condition.

Office Building, Lafayette, LA. Engineering investigation of a six-story office building following reported distress caused by Hurricane Laura and Delta. The evaluation also included recommendations for repair methodology and scope of the lock-strip gasket curtain wall system and IGUs.

Private Residence, Bedminster, NJ. Investigation of extensive IGU primary seal failures throughout private residence during sale process.

Condominium Tower, Miami Beach, FL. Review of extensive glass breakage on newly constructed exterior glass balustrade.

Confidential Residential Tower, Glass Damage Assessment, Birmingham, AL. Glass investigation and support services for insurer regarding widespread damage to IGUs during construction.

Confidential Highrise Office Building, New York, NY. Investigation of failed fasteners on building envelope.

Confidential Office Building Madison, WI. Investigative services related to glass defects on a new addition to a 9 story office building. The point supported, insulated glass walls exhibited multiple glass breakages, lamination bubbles, IGU primary seal failure, and site installed gasket issues. Provided on site observations to determine the likely causes of the glass breakage and other glass defects.

Facade Engineering

Confidential Hotel, Maryland. Facade engineering services for a 17 story 305 room hotel. The recently completed building had installation issues with the anchorage of the window wall system to the post tensioned slabs. TT provided field fixes for the post installed anchorage system of the wind wall.

3201 Cuthbert Street, Philadelphia, PA. Structural engineering design and speciality engineering services for a new 600,000-square-foot, 12-story life sciences laboratory and office building. The project features best-in-class cGMP and laboratory spaces. The structural steel design incorporates a Vierendeel truss in the facade to create column-free lobby space. The roof top features a long-span canopy with architectural corrugated metal panel cladding.

The Couture, Milwaukee, WI. Structural and façade engineering services for a 860,000-square-foot mixed-use development that is comprised of a 44-story tall/slender residential tower with public, retail and restaurant areas located in the podium base of the site. The site also contains a new light rail connection that passes through the low-rise podium and over the top of the two-story basement parking levels. Façade engineering services include contract document review, subcontractor submission reviews, and on site observations of curtain wall, window wall, storefront, and structural glass systems.

Hartsfield–Jackson Atlanta International Airport, West Parking Deck Canopy, Atlanta, GA. Façade engineering services for a single layer ETFE canopy and round HSS tube diagrid covering the rooftop courtyard of a new parking structure at Hartsfield-Jackson Atlanta International Airport. Services included finite element analysis of ETFE, structural analysis of diagrid structure, and preliminary connection detail sketches.

Sworn testimony

Deposition, 3315 Tower Condo. v. Coastal Const., regarding an investigation of alleged waterproofing, tile, guardrails, safety glazing and tiles deficiencies on new construction. Provided testimony regarding structural glass aspects of exterior guardrails. Miami Beach, FL. February 3, 2022.

Select papers, lectures and publications

“Tilt!,” Extraordinary Laminated Glass Projects, Chicago, IL, October 2019 (presenter)

“Role of Glass Engineer,” GlassConGlobal Conference, Boston, MA, July 2016 (presenter)

“Integrated Structural and Thermal Design of Facades,” GlassCon Global Conference, Philadelphia, PA, July 2014 (presenter)

CONTACT

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