

## **Eileen McEnroe Hankes, P.E.**

McEnroe Consulting Engineers provides specialized skills to solve unique problems. Eileen's core competency is solving structural issues with existing buildings through performing structural evaluations, condition assessments, damage investigations, forensic engineer, non-destructive evaluation, design of structural repairs and building restoration, façade investigations, and assistance with capital planning. She has personally provided engineering services for over 200 projects in the Milwaukee area since 2008.

Eileen established the McEnroe Consulting Engineers in 2019 with over 20 years of experience in investigative structural engineering of existing buildings. McEnroe Consulting Engineers is a certified DBE firm and 100% women owned.

### **Professional Registration:**

Professional Engineer – WI, CO

### **Education:**

M.S., Civil Engineering (Structural), Georgia Institute of Technology, Atlanta, GA  
B.S., Civil Engineering (Structural), University of Notre Dame, Notre Dame, IN

### **Professional Affiliations:**

Structural Engineers Association of Wisconsin  
Association of Preservation Technology International



## **Projects with McEnroe Consulting Engineers:**

**Pritzlaff Building Façade Examination, Milwaukee, WI:** Perform façade critical examination as required by City of Milwaukee for all buildings over 5 stories.

**Lincoln Center of the Arts Façade Examination, Milwaukee, WI:** Perform façade critical examination as required by City of Milwaukee for all buildings over 5 stories.

**Gaenslen Elementary School Wall Cracking and Settlement Investigation, Milwaukee, WI:** Structural investigation of cracks in CMU walls throughout a 1980's school building. Performed exploration of exterior walls, level survey and visual assessment to determine potential sources for cracking and movement. Prepared report outlining sources of movement, potential solutions with ball-park costs, and recommended next steps.

**Elm Creative Arts Elementary School Floor Movement Investigation, Milwaukee, WI:** Investigation of significant floor settlement and associated wall cracking throughout building constructed in 1990. Performed geotechnical investigation, level survey and visual assessment to isolate the source of the settlement. Prepared a report discussing the source of the movement, potential solutions with ball-park costs, and recommended actions.

**Solomon Juneau MacDowell Montessori Pilaster Repairs, Milwaukee, WI:** Perform an assessment of a series of brick pilasters that are separating from the walls of this 1930's school. The pilasters were cracking and creating a hazardous condition. Provided recommendations and details for removing the pilasters and enclosing affected portions of the wall.

**Rufus King High School Floor Investigation, Milwaukee, WI:** Investigate the source of movement that was cracking a terrazzo floor in an early 1900's building. Provided recommendations and details for repairing the floor.

**Bradley Tech Structural Investigations, Milwaukee, WI:** Investigate two issues of cracks and potential movement in floor systems. Provided recommendations and details for addressing the issues.

**Milwaukee School of Languages Speaker Supports, Milwaukee, WI:** Structural analysis to confirm the existing building capacity, and design of a support system to hang new speakers in the auditorium.

**Genesee Woods Residence Restoration, Oconomowoc, WI:** Structural analysis and design for restoration and alteration of a residence that was significantly damaged by a tree falling during a storm.

**7<sup>th</sup> Street Garage Loading Dock Investigation and Repair, Milwaukee, WI:** Investigate the significance of substantial cracks in concrete structural beams that support a heavily used loading dock. Provide conceptual options for repair including steel and concrete approaches. Design and detail a structural steel option while working with facilities staff to identify limitations on the use of the area during the construction process.

**Rust-Oleum Fire Suppression Canister Supports, Kenosha, WI:** Work with Butters-Fetting Co. to design and detail structural supports for a ductwork explosion and fire suppression system.

**20 Ton Studios Expansion Feasibility Study, Milwaukee, WI:** Perform a visual assessment of an early 1900's electrical power station that has been transformed into an art studio for large-format and heavy pieces. The feasibility study explored the structural implications of major changes and additions to create new spaces within and adjacent to the existing building. The proposed uses for the building included continued use as an art studio and additional areas for exhibit space, office space, a penthouse residential unit, and a roof top gathering space

**Eagle Public Market, Town of Eagle, WI:** Perform structural analysis and design to extend openings in a metal building end wall and install a steel canopy to modernize the building aesthetic.

**MPS Facilities Building Coal Bin Evaluation and Shoring, Milwaukee, WI:** Structural assessment of concrete deterioration in a below-grade abandoned coal bin. Provided 4 approaches of varying cost and longevity to address the issues for safety concerns. Provided structural drawings of MPS's preferred option for internal trade's staff to install a support system of a medium-term longevity.

**Washington High School Structural Investigation, Milwaukee, WI:** Investigation of deteriorated concrete, interior wall cracks, and parapet movement. Prepared report providing recommendations for addressing these issues.

## Representative projects with previous firms:

- General Mitchell International Airport Parking Garage Façade Examination, Milwaukee, WI
- Mitchell Park Conservatory (Domes) Evaluation and Design of Safety Measures, Milwaukee, WI
- Milwaukee County Zoo, Pachyderm Tunnel Reinforcement, Milwaukee, WI
- 1433 Water Street – Laacke & Joys Building Adaptive Reuse, Milwaukee WI
- University of Wisconsin-Milwaukee Southwest Quadrant Building Evaluation, Milwaukee, WI
- Milwaukee Public Museum Façade Replacement with PV Panels, Milwaukee, WI
- Milwaukee Art Museum and War Memorial Center Structural Evaluation & Capital Planning, Milwaukee, WI
- St. John’s on the Lake Existing Facility Audit, Milwaukee, WI.
- Great Lakes Naval Base Building 236 Wall Evaluation, North Chicago, IL
- Bucyrus International: Office Building Wall Stabilization, Heritage Museum Building Design, Machine Shop Roof Assessment and Reinforcing, South Milwaukee, WI
- George Williams College Campus Evaluation and Admin Building Repairs, Williams Bay, WI
- Milwaukee River Flushing Station Crack Investigation, Milwaukee, WI
- Milwaukee County Emergency Facade Evaluations, Milwaukee, WI:
- Milwaukee Public Library Façade Restoration, Milwaukee, WI
- Jones Island: Waste Heat Tunnel Concrete Deterioration Repair, Floor Capacities and Building Evaluations Milwaukee, WI
- HACM College Court and Lapham Park Façade Repairs, Milwaukee, WI
- Grand Avenue Club Façade Assessment, Milwaukee, WI
- Black Point Estate Historic Structures Assessment, Lake Geneva, WI
- 411 East Wisconsin Avenue Parking Garage Repairs, Milwaukee, WI
- Museum Exhibit Designs for Museum of Science and Industry, NASCAR Hall of Fame, and Utah Museum of Natural History
- Miralea, Masonic Homes of Kentucky Independent Living Center Design, Louisville, KY
- Treat Hall at Johnson and Wales University Façade Restoration, Denver, CO
- Cherry Creek Village HOA Assessment and Repairs, Denver, CO
- Navajo Headwaters Lodge Log Cabin Historic Restoration, Chromo, CO
- Insurance Investigations, including snow loading, fire damage, vehicle impact, hydrostatic pressure loading, etc.
- Arapahoe Farms Townhomes Foundation Underpinning, Fort Collins, CO
- Wayward Wind Timber Arch Repair, Fort Morgan, CO
- 2500 Littleton Boulevard Adaptive Reuse, Littleton, CO
- Fox Theatre Balcony Vibration Analysis, Atlanta, GA
- US Custom House Ramp Repair & Reinforcing, Denver, CO
- Colorado State Governor’s Mansion Carriage House Addition and Restoration, Denver, CO
- Escuela de Guadalupe Foundation Wall, Denver, CO
- Reformed Dutch Church of Claverack Roof Trusses, Claverack, NY
- University of Northern Colorado – Sports and Recreation Facilities, Greeley, CO