2023 Year in Review





Golf Parkway Corporate Cente Brookfield, W

What a year! In 2023, we made a commitment to growth and had a strong hiring season as well as a record number of interns. Our team is now 70 people strong and we have been able to work on many exciting projects this year.

Our Chicago office has grown to 15 people and has helped to significantly expand our national reach in just over two years. We recently welcomed Ashley Sanner to the team. She is working in Denver and will help establish an office there in 2024.

I am so proud to work with this talented group of individuals. We have built a team that is the best at what they do. We pride ourselves on early project involvement - helping to explore and review several framing options to identify the correct system for the project. Our experience in all material types allows us to provide a broad range of knowledge and technical support to form thorough and cost-effective solutions.

Our clients have taken us to new heights across the nation, while allowing us to maintain our strong Midwestern roots. We are humbled by our many successes in 2023 and look forward to 2024. Thank you for the opportunity to work together.

Five years ago, Randy and I completed an ownership transition plan that we began in 2013 for legacy continuation of PE. Since 2018, Randy has added additional principals, expanded into the Chicago market, grown PE to 70 staff members, developed new clients leading to projects in 38 states, deepened PE's restoration group, and recently committed to a fourth office in Denver, Colorado. Simply amazing!

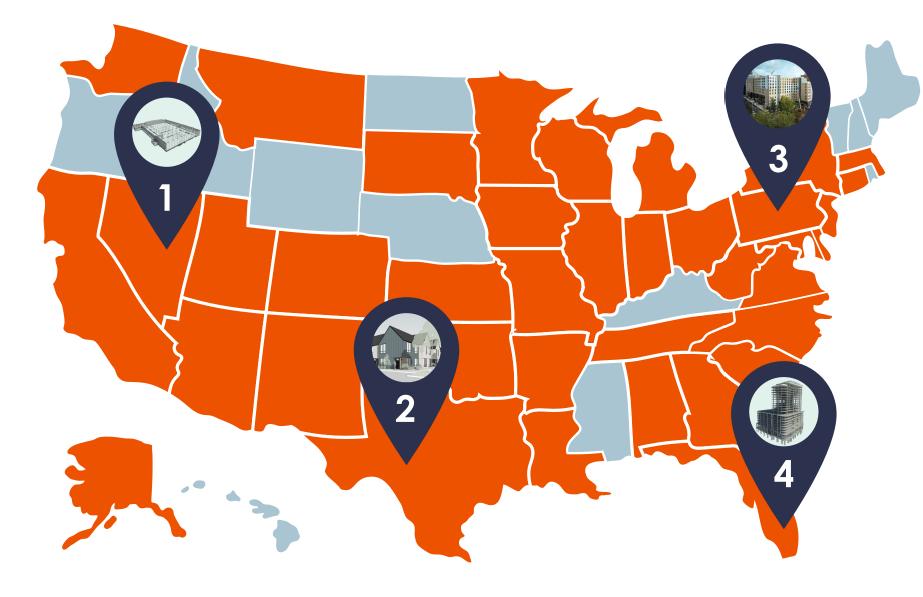
Looking back at PE's beginnings, with Tom Hildebrandt and a few others operating out of the basement of my home, I really had no idea PE's impact and contribution to the local and national design and construction industry would be so far-reaching. Honestly, I'm completely astounded how Randy and his team of leaders have not only expanded the firm, but have deepened its excellence as a leading local, and now national, consulting structural engineering firm. Congratulations, PE!

- Randy Elliott President, Managing Principal

> - Richard Pierce Founder, Board Chair

2023 Projects

In 2023, Pierce Engineers had active projects in 38 states. We are so grateful for our clients locally and across the nation. We look forward to new design challenges where we can apply our innovation and creativity in 2024!



A few project highlights

1. The Fontanesi West End Expansion - Henderson, NV

This large industrial warehouse includes various temperaturesegmented storage areas and docks. Additionally, there's a 2-story office building attached and a separate vehicle maintenance facility. All structures feature a standard metal roof deck supported by a steel joist and beam roof structure, resting on interior steel columns with tilt-up concrete load-bearing walls around the perimeter.

2. The Sylvan Development - Woodlands, TX

This 22.5-acre housing development has 300 residential units, comprised within several different building types, including two-story single-family houses and three-story townhomes and apartments. The site also features several amenity buildings. All structures are wood framed and have post-tensioned slab-on-ground foundations to accommodate the expansive clay soils in the region. *Rendering provided by Kahler Slater

3. HERE - Pittsburgh, PA

This 410,000 square-foot residential building, close to the University of Pittsburgh, consists of six stories with cold-formed metal framing atop five stories of post-tensioned concrete. Outdoor amenities, including a hot tub, kitchen, and gathering spaces, are on the fifth and second floors. The lowest level houses parking and additional amenities, while the first floor accommodates retail space.

4. Residence 27 - Miami, FL

Residence 27, a 460,000 square-foot tower by Biscayne Bay in Miami, is a 21-story sibling to Residence 23, a 33-story tower designed in tandem nearby. The tower has 12 apartment levels above 8 levels of parking and first-floor retail. A wind tunnel study reduced wind forces by 25% compared to code-prescribed loads, resulting in a more costeffective structure.

Concrete

This year, construction wrapped up on The Trade Hotel, Milwaukee's newest luxury hotel located across the street from Fiserv Forum. This 180,000 square-foot, 9-story hotel was constructed with post-tensioned concrete floors supported by concrete columns and a driven pile foundation. The building is topped with a steel framed roof to allow for optimal column placement in the rooftop restaurant, providing dramatic views of the city. The first two floors of the building are designated for public use including a large lobby, ground floor bar, 400 seat ballroom, and meeting spaces. The first and second floor are connected via a monumental stair taking a sculptural form inspired by Milwaukee's Hoan Bridge.

In 2023, we designed over **4,000,000** square feet of concrete framed projects. Our tallest active project is 33 stories!

Our Top Markets for Concrete

Steel

Arrowhead Pharmaceuticals wrapped up construction

- Commercial
- Commercial Residential
- Parking Garages





on their new 125,000 square-foot laboratory and office in Verona, Wisconsin. Composite steel, moment frames, and conventional spread footings make up the building's	This year we designed over 3,000,000 square feet of steel framed projects!
structural system. The project has many significant architectural features including a circular rotunda with a monumental stair, a green roof area, and extensive glass around the entire façade. The building design also incorporates two blast resistant chemical storage rooms.	Our Top Markets for Steel - Commercial - Industrial - Office



Wood

PE completed design work on the redevelopment of a 9 acre site that was the former home to the Zor Shriner temple on Madison's west side. The site development plans called for two apartment buildings separated by a private drive. When both buildings are completed, they will add a total of 479 new apartments to the red hot Madison market. The design team determined that the most suitable structure for the buildings would be a post-tensioned concrete transfer podium supporting five stories of wood framed construction. Post-tensioned concrete was an ideal candidate for the transfer podium on this project because its low span to depth ratio helped minimize excavation depth on a site with a relatively shallow water table. There are

a few unique challenges associated with this construction type including managing the drying shrinkage of the wood framed walls. During initial discussions, PE worked closely with the architect to provide estimates of the drying shrinkage that might be expected, so they could develop appropriate architectural details around exterior openings. With the project challenges successfully tackled, the completed construction drawings were turned over to the general contractor, and work quickly began on Revelry, the first of the two buildings to be constructed.

We designed over 7,000,000 square feet of wood framed projects this year and our top market was commercial residential.

Cold-Formed Metal Framing

Construction began this year on The Clove, a seven-story mixed use structure located in Buffalo Grove, Illinois. The new apartment building features a restaurant and retail space on the first floor, and is connected to a new precast parking structure via a 4-story walkway. The 360,000 square-foot building is constructed with cold-formed metal framing bearing walls and trusses with miscellaneous structural steel as required for the large open spaces below. Construction is slated to wrap up in early 2025.



We designed over 1,000,000 square feet of cold-formed metal framing this year and our top market was commercial residential.

Restoration & Adaptive Reuse

PE was retained by Frank Productions to assess the condition of the main floor slab of the Orpheum Theater. PE observed large areas where the structural supporting slab in the mechanical rooms and tunnels had been removed during previous remodels and had not been properly structurally repaired. PE provided direction on immediate shoring to allow events to continue while repair documents were developed. PE has coordinated with Frank Productions for ongoing services over the last few years.



Construction is well under way at ThriveOn King in Milwaukee. The former Schuster's/Gimbels building is being restored and converted into the ThriveOn Collaboration headquarters. The project also includes additional office space, and 100 mixed-income apartments with additional amenities for residents. In 1984, the exterior of the building was covered to cut utility costs. As part of this redevelopment, the metal cladding has been removed to showcase the beautiful masonry and terra cotta details. It has been exciting to see this historic building brought back to life to serve the residents of the Bronzeville neighborhood and the greater Milwaukee community.

Continuing Education Opportunities

We are happy to offer continuing education courses that we can present to your office. The courses are AIA CES approved and eligible for continuing education credits. We currently have 2 courses:

In Vibration 101, we discuss the basic principles of vibrations in building structures, survey common sources of excitation input energy, connect excitation to dynamic response, define vibration acceptance criteria, and explore mitigation and management techniques targeting occupant comfort and optimal equipment performance.

Post-Tensioned Concrete 101 is an introductory course introducing post-tensioned concrete as an efficient structural building material. We discuss the advantages of unbonded vs. bonded post-tensioned concrete, identify general terminology, define general parameters for a post-tensioned concrete building layout, including column sizing and slab thicknesses, and determine the differences between concrete lateral systems.

We are actively working to build our library of classes. Be on the lookout in early January for additional course offerings! If there are more topics you are interested in, please let us know.





