



MEET JOHN LAWLER

Building a concrete network

Mason Nichols



During his childhood, John Lawler's father introduced him to the concept of engineering, initially piquing his interest in the field.

"My dad, who was an electrical engineer, came in and did a demonstration to a scouting group I was a part of about how bridges are constructed," Lawler says. "He took a piece of paper and folded it in specific ways. Suddenly, you could put a weight on it and it could carry the load. That was my first exposure to the idea that, 'Hey, the way you put materials together matters and can result in something special.'"

His dad's demonstration stuck with Lawler over the years, even as he worked his way through high school and eventually Hope College in Holland, Mich., where he earned a bachelor of science degree in engineering physics.

During his time at Hope, Lawler worked summer jobs with an engineering firm, where he performed construction site surveying and drafting. He also did some concrete testing, learning a skill that would prove fruitful later in his career.

After graduating from Hope, Lawler pursued a graduate degree in structural engineering at Northwestern University in Evanston, Ill. While at Northwestern, he studied under Surendra Shah, who is recognized worldwide for his research into concrete's properties. Lawler's work with Shah further cemented his relationship with concrete.

Lawler's studies also acquainted him with Wiss, Janney, Elstner Associates Inc., a construction engineering firm where he works today as a principal. The firm, which served as an advisor on some of Shah's research, seemed like the perfect match for Lawler. As he explained, this was because WJE performs a combination of lab and field work, offering the same type of balance he enjoyed during his college and graduate studies.

Lawler credits a significant portion of the success in his career to two long-time PCI members who also happen to be colleagues at WJE, Don Meinheit and Andy Osborn. Meinheit worked as a principal out of the firm's Chicago, Ill., location, while Osborn is a senior principal in Boston, Mass. Both

Meinheit and Osborn encouraged Lawler to become involved with PCI and its committees early in his career.

This encouragement led to Lawler's involvement with PCI's Concrete Materials Technology Committee, where he subsequently served as chair. Subsequent to his time in this position, Lawler spearheaded a research project on ultra-high performance concrete (UHPC) alongside Maher Tadros. As coprincipal investigator on the effort, Lawler worked with Tadros to help demystify UHPC. Specifically, the duo aimed to find a way for precasters to consistently produce nonproprietary UHPC, thus making the technology more cost-effective and accessible for widespread implementation. As a result of this work, Lawler and Tadros wrote a guideline that was adopted by the Concrete Materials Technology Committee and has since been distributed to PCI's membership.

In addition to his UHPC- and PCI-related work, Lawler is proud of many projects he has contributed to while at WJE. He cited notable examples involving durability investigations conducted on critical infrastructure structures and historic bridges. In many of these investigations, Lawler and his team identified relevant deterioration mechanisms and projected the expected future service life of the structures with the goal of supporting the selection of effective and efficient repairs.

Lawler's expertise relies heavily on his extensive firsthand experience in practical hands-on assessments of material durability and repair techniques with a particular focus on corrosion mitigation approaches, such as cathodic protection. This understanding in material degradation and corresponding repair strategies has played a significant role in advancing his concrete durability practice.

With a career in materials development and concrete testing that has so far spanned multiple decades, Lawler has plenty to be proud of. As he says, the advice he would offer anyone else seeking a similar path is simple: get involved.

"Building your network through PCI can really make a difference in your career and professional development," Lawler says. "The access I have to PCI and its members has afforded me numerous opportunities that have built upon themselves, leading to additional success." 