Meet Maher Tadros

Bridge builder

Maher Tadros’s mother wanted him to be a medical doctor, but he just couldn’t do it. “I’m an engineer,” Tadros says. “It’s how my brain is wired.”

The medical profession’s loss was the precast concrete industry’s gain.

Born in Egypt in 1946, Tadros received his bachelor’s and master’s degrees at Assiut University in Assuit, Egypt, where he was first drawn to the potential of concrete structures.

“It felt like a specialty with unlimited potential,” he says of the field. In 1972 he left Egypt to pursue a doctorate at the University of Calgary in Canada, where he focused his studies on precast/prestressed concrete designs.

That same year he joined PCI and credits the organization with shaping his view of the industry. “What attracted me to the organization at such a young age was the combination of so much experience under a single umbrella,” he says. “It broadens your mind to see so many sides of the business in one place.”

Tadros spent the first few years after receiving his PhD working as a consultant doing structural design of multistory buildings, but the work didn’t satisfy him.

“I wasn’t content with just designing,” he says. “I felt like I also needed to be a teacher and researcher.”

During that time, Tadros wrote a paper with his university advisor that was published in *PCI Journal* and was later selected for the American Society of Civil Engineers’ T. Y. Lin Award. With that success, he turned his attention to academia. He secured a position as an assistant professor at West Virginia University in Morgantown, W.Va., then two years later became an associate professor at the University of Nebraska.

Changing the way bridges are made

Over the past three decades, Tadros has made many contributions to the growth of the precast concrete industry through his work at Tadros Associates. Along with becoming the principal author of the *PCI Bridge Design Manual*, he developed several innovative precast concrete products, including the NU I-girder, which allows designers to create longer, shallower precast concrete bridges with attractive curves and excellent stability.

“Shallow-depth long-span bridges used to be the exclusive domain of structural steel,” he says. The advent of the NU I-girder helped give the precast concrete industry a foothold in that market.

Tadros is also responsible for developing the inverted tee, which drove innovations in rural precast concrete infrastructure, and most recently the NU precast concrete bridge deck, which has accelerated the bridge construction process.

His success in the industry has garnered him many awards, including *PCI Journal*’s Martin P. Korn Award for contributions to the advancement of precast and prestressed concrete in the area of design and research in 1989, 1996, and 2001; the PCI Distinguished Educator Award in 1995; and a PCI Fellow position. He was elected a Titan of the industry in 2004.

Mentors made the man

Tadros attributes much of his success to the guidance of great mentors over the years, including his doctorate advisor Amin Ghali, Nebraska State bridge engineer Lyman Freemon, and his partner in the consulting business Nader Jaber.

“I’ve been very blessed in my career,” he says.

He also credits the welcoming culture at PCI, where professionals at all levels of their careers can come together to share ideas, build friendships, and help each other out. He recalls attending PCI events as a young man and having industry titans Norm Scott and Charles Wilson invite him into their conversations and encourage his work.

“They were giants of the industry,” Tadros says, “and their words of encouragement had a great influence on me.”

He hopes the next generation finds the same support and mentors at PCI so they, too, can take risks, be creative, and continue to push the industry forward.

“The four words that are engraved in my head and would probably be helpful to the young people here are: innovation, persistence, quality, honesty,” he says. “If you’re passionate about your ideas or your solutions, insist on persuading others and then provide the highest possible quality because that’s what keeps you alive.”

Sarah Fister Gale