FROM INDUSTRIAL EDGE TO PUBLIC TREASURE:

The Transformation of Detroit's Riverfront

BY SUSAN THWING

When Stephen White looks out over Detroit's vibrant riverfront today, he still sees the ghosts of what once dominated the shoreline—rusted bulkheads, parking lots, abandoned industrial pads, and miles of fencing that cut Detroiters off from their own waterfront.

But he also sees something else: a three-decade transformation that he has personally witnessed from the ground up. "I started working on the riverfront in 1998," said White, ASLA, OALA, LEED AP, Chief Strategy Officer and Senior Vice President at Albert Kahn Associates. "That was before the Conservancy even existed. Detroit had an extremely industrialized water's edge. It was derelict, left in decay, very inaccessible."

Today, that same edge is the Detroit International RiverWalk, named the best riverwalk in the country three years running. The difference, White said, is the result of "almost 30 years of continuous work" by partners across public, private, and civic sectors. And Albert Kahn Associates has led many of its most complex and catalytic phases.

A City Cut Off From Its Water

Before the first shovel ever hit soil, Detroit's waterfront was a study in contradiction. It sat along a major international waterway, yet residents couldn't reach it. "People forget that Detroit's riverfront was private for most of its history," said Stephanie Meiers, Director of Marketing at Albert Kahn. "Originally, it was French ribbon farms. Then it was industrialized. It went from private farmland to private industry. It wasn't until recently that we truly opened it to the public. And that's what makes it so special."

White recalls the context driving the earliest stages: Detroit's 300th birthday in 2001. "When the city was turning 300, dozens of tall ships were coming in," he says. "There was no place for them to moor up. No infrastructure, no power, no access. That urgency really accelerated planning."

A Firm Rooted in Detroit—and in Its Waterfront

Albert Kahn Associates has designed waterfront structures for more than a century, from Belle Isle's iconic marble lighthouse to the Detroit Harbor Terminal. But the modern riverfront effort marked a shift from industry to community.

"Anybody who lives in Michigan knows how important water is," said Stephanie Meiers, Director of Marketing. "And when you zoom in on Detroit, it's home. Albert Kahn has been headquartered in Detroit for 130 years. We've never left the city. We've stayed through the good, the bad, the everything. So connecting the public back to the waterfront is extremely important to us."

White had already worked on the redevelopment of multiple riverfront segments before the Detroit Riverfront Conservancy officially formed in 2003. As he explains, "We worked on several pieces before General Motors even started their portion."

That "portion" became the GM Riverfront Plaza. It was a transformative project requiring an enormous amount of hidden engineering.

Engineering the Invisible

One of the RiverWalk's biggest challenges is the part no visitor sees. "Everything you do not see above grade—that's where the real challenge is," White said. "Waterfronts were filled in over decades with industrial material. We've uncovered old buildings, foundations, cofferdams, even vehicles." On one site across the river, he said, "We literally found a city bus buried underground."

The GM Plaza presented a different problem: unstable fill. "The site couldn't support a plaza without the threat of structural damage," White explained. "We had to design 12 to 14 feet of Geofoam under the riverfront so it wouldn't continually settle. It could even support the heaviest military vehicle GM makes."

The water feature there, now beloved by joggers, cyclists, and kids, was another innovation. "That became the first splash pad where people could actually interact with the water as intended," White said. "We engineered and filtered it as if it were a swimming pool. Kids were drinking it, running through it, cyclists were washing their bikes."

Mechanical engineering played a huge role across the riverfront, said Filza Waters, Director of Mechanical Engineering. "Mechanical, electrical, civil, structural, IT, we are all involved," she said. "The systems underneath the RiverWalk are extremely complex. There are power requirements, pumps, filtration systems, lighting systems, and



The redesigned Mount Elliott Park.



An aerial view of the Promenade along the Detroit River.

drainage—all engineered to work in an environment that wants to move and flood."

Fighting the River—and Working With It

Detroit sits at the outer edge of a powerful bend in the river. The current surges south from Lake Huron, through Lake St. Clair, and then whips around the curve that forms Detroit's shoreline. "You're fighting nature," White said. "There's nothing more natural than a stream meandering. The Detroit River wants the land to move with it. And we're trying to hold it still."

Climate change and fluctuating water levels only intensify the challenge. "There's never truly a separation between land and water in this environment," White said. "You build something permanent, and the water tries to make it fluid."

Mitigation now involves not just steel bulkheads, but "living edges" or naturalized revetments, plantings, and stormwater strategies that mimic more natural shoreline conditions.

Technology also makes a difference. "Photogrammetry, drones, bathymetric sonar; these have changed how we analyze waterfronts," White said. "It's much easier now to understand what's under the water before you start digging."

Reconnecting People to the Water

Beyond engineering, the project required cultural and community work. "There's no point in building a beautiful waterfront if it's not used by the community living around it," Meiers said. "Public engagement was critical."

The firm learned early that the most important voices weren't always the loudest. "You must engage the right communities," Meiers said. "Not just business groups, but the neighborhoods, the church pastors, the people who actually live there. It builds trust."

White added a story that still makes him smile: "On the very first phase, every morning the construction crew had to ask the fishermen to move so they wouldn't get hurt," he said. "The second the fence came down, people claimed the riverfront. That ownership helped keep it safe. You don't see a lot of graffiti down there. People protect it."

Once the Atwater Marina was renovated, he said, boaters made the riverfront their game-day destination.

"On Tigers or Lions game days, you cannot get a transient slip unless you book ahead," he said. "People spend the night at the marina now. That didn't exist 30 years ago."

A Myriad of Projects Create a Continuous Experience

Over three decades, Kahn led or contributed to a long list of interconnected riverfront nodes:

- The Civic Center Promenade near Huntington Place
- The Underground Railroad Memorial integration
- Bates Street Outfall and infrastructure
- GM Riverfront Plaza and Promenade
- Atwater Street improvements
- Multiple "garden rooms"
- The Aretha Franklin Amphitheater Plaza restoration
- Mount Elliott Park redesign (twice in 30 years)
- Gabriel Richard Park improvements
- Sustainable car park
- The Uniroyal Promenade and shoreline remediation

Each project opened more of the water's edge, turning fenced-off fragments into a seamless, walkable experience. "It's become a destination before the city even fully did," White said. "People came downtown for the riverfront first."

Lessons for Other Great Lakes Cities

Kahn's team has since advised waterfront revitalization in Windsor, Port Huron, and Erie, Pennsylvania, cities where industrial legacies still shape access.

Asked about the biggest lessons learned, White doesn't hesitate: "Double or triple your budget," he said. "There are always unknowns underground." Meiers adds another: "Listen to the people who live closest to the water. They need to be part of it from the beginning."

A Vision Still Expanding

The Detroit Riverfront Conservancy recently opened the expansive Ralph C. Wilson Jr. Centennial Park on the west side. Connecting the riverwalk to the Ambassador Bridge, and eventually to the new Gordie Howe International Bridge, will require unlocking segments still under private ownership.

"That's the biggest barrier now, ownership," White said. "But the beauty is that the greenways now all connect to the river. You can bike from the Dequindre Cut to the river, then all the way to the Gordie Howe Bridge, cross into Canada, and keep going."

For a firm celebrating 130 years in Detroit, the symbolism is not lost. Helping reconnect the city to its river reflects more than a single project. It represents decades of technical knowledge, collaboration, and long-term stewardship applied in service of public life. "Helping Detroit reconnect with its river," White said, "has been one of the most meaningful things we've ever done, and it continues to shape how we approach waterfronts and civic spaces everywhere."