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Pool On the Water

Tillett Lighting Design's scheme for a public pool—on a barge floating on New York City's rivers—keeps views open to the surrounding cityscape.

By Aaron Seward

Longitudinal section through pool barge

Beginning just after the Civil War, residents of New York City were availed of a unique recreational opportunity: 15 floating bathhouses moored on piers in the Hudson and East rivers. These baths featured 90-foot-long by 60-foot-wide decks floating on pontoons, in the middle of which were 4½-foot-deep wells filled with river water.

They offered citizens the chance to get closer to nature without falling prey to the waterways' frightening depths and aggressive currents. But the area's rapid industrialization and its consequent environmental degradation took its toll on these aquatic sanctuaries. By the 1940s, they were no longer in existence.

In 2007, the city saw the opening of the Floating Pool Lady, a public pool built on a 260-foot-long decommissioned barge moored in the East River just south of the Brooklyn Bridge in the Brooklyn Heights neighborhood. Donated to the city by the Neptune Foundation—and designed by Jonathan Kirschenfeld Architects with a lighting scheme by Tillett Lighting Design—the pool proved popular, hosting more than 50,000 swimmers in its inaugural season.

Designing a floating pool for the 21st century meant adhering to more-stringent requirements than those imposed on the ci program in essence was given to us by the Department of Health's requirements of public outdoor assembly," explains archi essential requirement was that swimmers had to shower before entering the pool. In addition, the barge's size—20,800 squa determined the number of people who could legally occupy the facility at one time. That number led to the quantity of show changing rooms.

There also had to be a reception area and a manager's office. In addition to all of this, Kirschenfeld added a snack bar. "We enjoyed incorporating the Health Department's sequential requirements," he says. "They allowed us to do something pi the facility."

Visitors board the barge via two gangways that lead to an area known as the "entry porch." This includes reception, the offices, the changing rooms and showers, the snack bar, and a dining area. The entirety of the entry porch is raised above the pool deck on concrete pavers and is shaded by a corrugated, galvanized steel roof. Visitors have to pass through this area to descend to the pool, which is sunk into the steel deck of the barge. At 25 meters, the pool is standard high school competition length.

While it first opened in Brooklyn Heights, the pool's mobile nature meant that it could be moved to any underserved waterfront neighborhood in the city to provide recreational swimming services. It was also programmed for night use, for swimming or for fundraising events. All of these programmatic requirements became considerations for the lighting scheme.

"Because it moved and would be put in different contexts, the lighting had to be self-contained," says Linnaea Tillett of Tillett Lighting Design. "We also thought about how to match the lighting to the emotional states of the people using the facility. There was the explosive joy of kids running around and swimming, but also the more mellow environment of people walking around with cocktails during fundraising events."

The goal was to create an airy, festive feel to the nighttime lighting scheme while maintaining views of the skyline. This meant using low-hung, shielded sources and not over-illuminating the space, a plan that required some negotiating with the Department of Health. “Their typical requirements call for an amount of lumens that would be equal to center court at the U.S. Open,” Kirschenfeld says. “That seemed like a lot of light. But they agreed that if we provided more than was required inside the pool itself, we could go with an amount required for emergency exits elsewhere.”

In service of this plan, the designers integrated 32W fluorescent-tube fixtures into the handrails of the gangways. A similar system of 17W T5 fluorescent fixtures bracket-mounted to the perimeter railing light the pool deck. The changing rooms are lit by 20W MR16 metal halide in-grade uplights that graze the concrete plank walls. Special care was taken to make sure that these sources did not get so hot that they would burn the wet feet of children.

Surface-mounted 50W MR16 halogen fixtures, mounted high enough that they can't be reached, uplight the corrugated roof, providing indirect illumination for the dining and reception areas. The steps that lead between the raised platform and the pool deck are lit by 4W LED steplights outfitted with louver shields recessed into the risers. All in all, the floating pool only uses 0.25W per square foot. Lighting manufacturer Targetti donated nearly all of the fixtures, which allowed this low-budget project to achieve such high standards.

For the past three years, the Floating Pool Lady has been moored in the Bronx at Baretto Point Park. There, it has become a catalyst for social change. “Architects have a political subtext,” Kirschenfeld says. “The pool has become a vehicle for the mothers of kids in the area to form a group to demand that the city not extend the lease of a fertilizer factory whose stench was making swimming a challenging activity. We feel proud that the project has been helpful for attaining some social and environmental equality.” •

Details Project: The Floating Pool Lady, New York
Clients: New York City Parks Department and The Neptune Foundation, New York
Architect: Jonathan Kirschenfeld Architect, New York
Lighting Designer: Tillett Lighting Design, Brooklyn, N.Y.
Naval Architect/MEP Engineer: C.R. Cushing & Co., New York
Structural Engineer: Robert Silman Associates, New York
Marine Engineer: McLaren Engineering Group, Baltimore, Md.
Pool Consultant: Joel Trace, New York
Fire and Life-Safety Consultant: Paragon Building Consultants, New York
Project Cost: $3.8 million (including cost of barge); $183/square foot
Lighting Cost: The majority of light fixtures were donated by Targetti.
Project Size: 20,800 square feet
Watts Per Square Foot: 0.25 watts
Energy Code Compliance: Not applicable for temporary floating structure and outdoor assembly. Waiver received from the Department of Health for high-lumen nighttime lighting requirements due to neighborhood issues.
Manufacturers / Applications: Pentair (recessed submersible pool light with white LED lamps. Fixtures were installed in Louisiana because the hole had to be precut during the fit-out of the pool); **Phoenix** (recessed 4W LED steplight with a louver shield at stair risers); **SPI Lighting** (linear T5 fluorescent above perimeter railings to downlight circulation path along pool deck); **Targetti** (in-grade 20W metal halide MR16 uplight grazing vertical walls and surface-mounted 50W MR16 halogen accent light illuminating underside of gazebo canopy) ; **Waldmann Lighting** (linear T5 fluorescent fixture encased in acrylic tubing illuminating interior cabanas)

Photo and Video Links For a behind-the-scene's look at the Floating Pool Lady's project history, go to floatingpool.org.

ABOUT THE AUTHOR

Aaron Seward