

WALDO WATER TOWER

Like something out of a fairy tale, a deteriorating castle-like tower in the Waldo neighborhood of Kansas City, Missouri, experienced a happy ending after an extensive restoration that included the use of an exterior masonry coating system from Tnemec.

“The Waldo Water Tower is maintained by the Kansas City Parks & Recreation Department,” according to Scott Keilbey of Midwest Coating Consultants, Inc. “It was taken out of service as a functioning water storage tank many years ago and had since deteriorated to the point that it needed to be restored to avoid becoming a safety issue.”

Constructed in 1920, the 1-million gallon standpipe was one of the largest reinforced concrete standpipes of its time, providing water to thousands of homes until 1957 when it was retired from service by the Kansas City Water Services Department. The historic structure is the centerpiece of Waldo’s Tower Park.

In 2010, a condition assessment and restoration study of the tower identified needed repairs that included a new roof, concrete patching and exterior painting. The painting work was divided into two phases with different coating contractors designated for each phase. Phase 1 restoration involved painting the tower’s upper balcony level, while the remainder of the structure was completed under Phase 2.

The tower’s exterior substrate was power-washed and given a primer coat of Series 151-1051 Elasto-Grip FC, a waterborne polyamine epoxy, which is excellent as a tie-coat over existing coatings. Elasto-Grip FC was roller-applied at 0.7 to 1.5 mils dry film thickness (DFT).

Two white finish coats of Series 156 Enviro-Crete, a premium waterborne acrylate, were applied at 4.0 to 6.0 mils DFT per coat. In addition to filling and bridging minor hairline cracks, Enviro-Crete provides excellent elastomeric protection against driving rain, alternate freezing-thawing and ultraviolet (UV) light.

“The project’s structural engineer was involved with the recommendation to use Series 156 Enviro-Crete,” Keilbey noted. “The tower is a landmark, so they wanted a coating system that would perform well and last a long time. Series 156 Enviro-Crete is a premier exterior concrete and masonry finish coating that is ideal for restoration projects such as Waldo Tower.”

With its parapets and arched windows, the 12-sided tower was named an American Water Landmark by the American Water Works Association in 1975. Two years later, the tower was designated a National Historic Landmark in 1977.

FEATURED PRODUCTS

Series 151-1051 Elasto-Grip FC
Series 156 Enviro-Crete



PROJECT INFORMATION

Project Location

Kansas City, Missouri

Project Completion Date

2015

Owner

Kansas City Parks & Recreation

Architect

Treanor Architects
Kansas City, Missouri

Structural Engineer

Structural Engineering Associates
Kansas City, Missouri

Applicators

Genesis Environmental Solutions
Blue Springs, Missouri

Dayco Painting, Inc.
Grandview, Missouri

The castle-like water tower and centerpiece of Kansas City’s Tower Park was renovated in 2015 utilizing a time-tested Tnemec coating system.

