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Published by
WESTERN CONSTRUCTION GROUPAmerica's Master Craftsmen in
Building Restoration and Preservation

Rochester Revels in Plummer Building Restoration

When the credits roll on the revival of Rochester's beloved Plummer Building, the names will include librarians and historians as well as artisans and craftsmen. It's a creative collaboration to bring the city's most prized landmark back to its 1929 beauty. The goal is to spend four careful years restoring what 75 years of extreme Minnesota weather — and some unfortunate "remodeling" — has diminished.

Western Waterproofing's work began in 2002 on the north and south faces of the building's lower portions. Mortar was removed from the brick and terra cotta and repointing completed.

At the same time, samples of terra cotta were removed and shipped to Boston Valley Terra Cotta where molds were made and replacement pieces — more than 400, in all — crafted to match the original. The removal of terra cotta


also allowed inspection and repair of the building's steel structure for the first time in three-quarters of a century.

Key to the building's renaissance is the replacement of the original terra cotta cupola (lantern) structure at the top of the bell tower, site of a 56-bell carillon. The cupola had been replaced with a stainless steel structure in 1938 to accommodate an aircraft beacon. With the original drawings and assistance from Mayo Clinic research librarians, the signature element has been returned.

As interesting as the project is by nature, repair logistics have made it even more so, notes Western's project manager Al Nelson. "Mayo has confirmed that Rochester is the third windiest city in the United States, and we agree. We've had winds up to 40 miles per hour some days — enough that we couldn't work."

There's also the Plummer Building's downtown location, making pedestrian safety strategies as critical as those for workers 20 floors above. The site does not allow for the typical project trailer, so a small 10 by 12 foot shed has been constructed in the adjacent alley. Moreover, given project constraints, material had to be hoisted with a material hoist from the alley.

In 2005, the work agenda included repairs to the east and west faces of the lower portion, along with some balcony repair. New terra cotta pieces were installed on the parapet walls. In November of 2005, the final touches were added.

And an entire city celebrated. 



More than 400 replacement pieces of terra cotta were crafted using molds made to match the originals. Removal of damaged terra cotta allowed the first structural inspection in 75 years.



Owner: Mayo Foundation
Engineer: Building Consulting Group, Inc.
Keith Pashina, Principal Engineer
Steve Talafous, Associate Engineer
Ryan Riley, Structural Engineer

Mayo Clinic Project Manager: Steve Grosland
Mayo Clinic Construction Manager: Dave Eide



Proving a Key Point:

expert scheduling can keep garage traffic moving during restoration



Climbing 947 feet from its gray granite base to its stainless steel crown, Key Tower dominates Cleveland's skyline. It holds tallest-structure honors in both The Forest City and the Buckeye State, and can be seen 20 miles and more outside the downtown area.

Far less visible is Key Center's two-level, underground parking structure. Memorial Plaza Parking Garage, the ever-busy facility serving both Key Tower tenants and visitors to historic Public Square, is open around the clock, 365 days a year. So it's not surprising owners wanted to keep the garage operational during a major dual-deck restoration.




Harry S. Peterson Company did it by the numbers: installing 180,000 square-feet of urethane deck coating, maintaining 24/7 facility operation, achieving 100% client satisfaction.

Nor is it surprising the Cleveland branch of Western Construction Group's Harry S. Peterson Company (HSP) made it happen.

"We have a lot of experience with larger projects in high-traffic areas," says branch manager John Burger. "That allows us to analyze the most effective plan for staging each facet of the restoration process with minimal impact on tenants and guests."

In this case, that expertise was evidenced in an eight-phase plan, a seven-person crew and a schedule that called for coating installation on weekends only. The HSP team met all deadlines, including working over the Memorial Day weekend, to install the 180,000 square-feet of Lyntal urethane deck coating.

"The owner was very pleased with both the work and the coordination," Burger states. "We met their goal of keeping the garage operational and safe." 



Owner: Key Center Properties





Close collaboration among Thomas Properties Group, Engineering Diagnostics and Western yielded positive structural and aesthetic returns for Brookhollow II and III. A striking silver and glass theme transformed the 1970s complex into a 21st century beauty.



Owner: Thomas Properties Group
Engineer: Engineering Diagnostics, Inc.

Brookhollow II & III *Houston, Texas*

One of the busiest intersections in all northwest Houston is the point where Loop 610 and US 290 cross. This prime business district hosts many high-rise commercial structures, but none more visible than the shining triad called Brookhollow Central.

Part of Thomas Properties Group's impressive portfolio, the Brookhollow Central complex totals 806,006 square feet and features an adjoining parking garage with more than 2,700 stalls.

Each of the three buildings is distinctive. Brookhollow I, built in 1972, is an all-glass, 11-story rectangular building. Brookhollow II, constructed in 1979, is a 14-story, elliptical building with an aluminum curtain wall exterior. Brookhollow III, in service since 1981, is a 12-story structure that echoes its predecessor's exterior finish but features a dual-elliptical design.


Western Waterproofing Company of Houston was chosen by Thomas

Properties Group in conjunction with Engineering Diagnostics, Inc. in 2007 to address several exterior façade issues at Brookhollow II and III. Several of the metal panels in the buildings' signature curtain walls were broken and sealants had deteriorated. Moreover, notes Houston branch manager Charlie West, a complete exterior restoration was vital for Brookhollow II & III to complement the new exterior of Brookhollow I.

"Thomas Properties Group had chosen a silver-and-glass theme to keep all three buildings architecturally in sync," West notes. Achieving the desired look involved the selection and use of a specialized, high-performance paint. But before

painting could begin, the surface required extensive preparation.

Western crews overclad broken and cracked metal spandrel panels and installed custom-color preformed seals over the curtain wall butt joints. Panels and windows in the wall system were wet-sealed, snap covers replaced and aluminum covers installed at the accent band joints. Then came the paint—the choice of which had been decided in a Houston downpour with Thomas Properties' team members sheltered by Western umbrellas.

In retrospect, West finds the paint selection event symbolic of the close professional relationship the owner, engineer and Western have developed. "We genuinely enjoy working together," he states, "and it shows in the results." 

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RECENT AWARDS

ENR Magazine - The Top 600 Specialty Contractors — Western Construction Group ranked **Number One** for masonry and 20th for concrete, based on revenue, in the 2010 survey.

Concrete Construction Magazine Top Concrete Contractors — Western Construction Group ranked 27th overall by sales volume, 2010.

APPA — Western Construction Group was awarded the 2010 Strategic Business Partner Award, July 2010.

Western Addresses Unexpected at Eight Sixteen Club Condos



Every St. Louis suburb has a personality all its own, and Clayton is no exception. Among the residences contributing to the community's character are genteel condominiums such as the Eight Sixteen Club on South Hanley. The concrete and masonry structure climbs 16 stories, providing residents a superb view of the cityscape.


In 2003, Western Waterproofing's St. Louis branch was selected by bid to recaulk and seal Eight Sixteen. As soon as crews scaled the high-rise, however, they saw the structure's deficiencies were more than surface deep. The building's agent, Construction Strategies, Inc. (CSI), called upon the structural engineering firm of Heideman/Associates, Inc. to determine the nature and extent of the problem.

Heideman's examination revealed that age and exposure to the elements had caused deterioration of the structure's steel clips and shelf angles. The firm also determined anchors had corroded due to a chemical reaction with the Sarabond design. Without rapid repair, the integrity of the building was at risk. Western was tapped for the more extensive restoration.

CSI's Vice President Dennis Ham was more than satisfied with the selection. His firm had worked alongside Western on the St. Louis Community Project at Forest Park, "...and they have a very good reputation. That was essential here.

"Any time you have a multi-owner residential project such as this, and people learn there is a potential problem in their condos, some panic sets in. Probably the greatest challenge we faced—beyond the initial shock for residents—was performing the work in a fully occupied building. Some of these people are elderly, and some have medical problems, so it was important that we let them know well in advance of our plans. Noise and safety were key issues, and Western's people were very courteous throughout. It was a delight to work with them."

Repairing the Eight Sixteen Club required the removal of existing brick to expose failing angles and clips and installing new angles, clips or galvanized shelf angles in their place. New brick was then installed and sealant applied at the vertical joints.

The project was completed in Fall 2004. 



Engineers traced structural problems at the Eight Sixteen Club Condos to two sources: general deterioration caused by age and elements and chemical reactions between anchors and the Sarabond design. Western removed failed components; installed new angles, clips or galvanized shelf angles; then replaced and sealed exterior brick.



Safety and communication issues were of utmost importance as the highrise condominiums were fully occupied throughout the course of repair. Western won high praise from owners and managers on both counts.



Owner: The Eight Sixteen Club, Inc. Condominiums, Clayton, MO
Construction Manager: Construction Strategies, Inc.
Engineer: Heideman/Associates, Inc.

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