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WEATHERVANE

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America's Master Craftsmen in Building Restoration and Preservation

Reflection Pool Mirrors Expertise of Brisk's D.C. Branch

On Memorial Day 2004, more than 140,000 people attended the dedication of the World War II Memorial on the National Mall in Washington, D.C. The monument, with its soaring arches, granite pillars and Freedom Wall, took 17 years of planning and nearly three years of construction to complete. The joint venture of Tompkins Builders and Grunley-Walsh Construction served as general contractor for the project.

In addition to the immense effort that went into constructing the memorial itself, the nearby Reflection Pool was leaking and required significant repairs. The Washington, D.C. branch of Brisk Waterproofing, a member of The Western Group, won the contract to waterproof the pool, which is over one-third of a mile long. But work could not begin until January 2004, allowing just four months to complete the repairs.

"The timeframe was tight, but the weather was really our biggest challenge," said Floyd Parks, division superintendent and manager of the project. "Concrete and sealants cannot cure properly in near-freezing temperatures. And we had 30 days when the thermometer didn't rise above 30 degrees."

To stay on schedule, the crew did prep work on cold days. Chipping hammers and wet-cut saws were used to cut out the joints where the granite coping stone and the sides of the pool met. When temperatures permitted, the joints were recaulked with a combination of urethane grout and silicone sealant. The control joints of the concrete floor of the 18-inch-deep pool were also cut out and repaired.

The contract for the job called for completion in four months. Working 10-hour days, seven days a week, the Brisk crew completed the task in three months.

"I was proud of the way it all came together," commented Parks, who also advised the general contractor on treating stone that had been inadvertently stained. "There were only four days when the crew was not on the job, and working conditions were downright miserable at times. But we just couldn't take the chance of not meeting the project schedule."

AP/Wide World Photos

Owner: *National Park Service/G.S.A.*
General Contractors: *Tompkins Builders & Grunley-Walsh Construction*

PROJECT TEAM

Branch Manager: *Jason Jaillet*
Project Manager: *Floyd Parks*
Superintendent: *Jim Babbish*

Western Conducts "Summer Session" at Florida Schools

The summer months are usually quiet at the elementary schools in Volusia County, Florida. But a problem with water intrusion at Blue Lake and Osteen Elementary Schools meant the summer of 2003 would be a busy one at the two multi-building campuses.

"Water intrusion had been occurring at the base of the buildings for some time," explained George McManus, project manager for Western's Orlando, Fla. branch. "The school board called in A/R/C Associates to determine the cause."

The architectural consulting firm, also located in Orlando, discovered that the structures had been built without through-wall flashing. Moisture condensed in the cavity between the brick building skin and the interior wall, and then pooled at the base of the wall, causing significant damage to the schools' interiors.

In June 2003, Western's Orlando branch began work to remedy the problem. Crews removed the bottom six courses of brick, replaced the wall sheathing and installed laminated through-wall flashing, as well as stainless steel counter-flashing. New brick, matched to the existing masonry, was used to reconstruct the exterior wall over the new flashing system. The crews also installed stainless steel caps and coated the block columns.

After removing the bottom six courses of brick, Western replaced the wall sheathing and installed laminated through-wall flashing and stainless steel counter-flashing. More than 4,000 linear feet of flashing and 40,000 replacement bricks were used in the project.

The absence of through-wall flashing was responsible for repeated water intrusion at two elementary schools in Volusia County, Florida.

In completing the job, Western faced challenging weather and a tight timeframe.

"Summer is the rainy season in Florida, and we used sand bags, plastic sheeting and quite a bit of ingenuity to keep the interiors of the buildings dry," explained McManus.

"We worked on multiple buildings at both school campuses, which are 30 miles apart," he continued. "And we had to complete the job in just 90 days."

Over 4,000 linear feet of flashing and 40,000 replacement bricks were used in the project.

"It was a big project for us, but we managed to complete it under budget and within the 90-day timeframe," McManus said. "Not only did we resolve the water intrusion, we got it done before the kids came back to school, which was a huge relief for us and the school board. I don't think anyone wanted young students around a job site and buildings with holes in the walls. That would not have been a good situation."

Owner: *School Board of Volusia County*
Architect/Consultant: *A/R/C Associates Inc.*

PROJECT TEAM
Branch Manager: *John Meyer*
Project Manager: *George McManus*
Superintendent: *Dan Mitchell*

Major Surgery Performed on Hospital Parking Deck

The Barnes-Jewish Hospital complex in St. Louis is one of the largest healthcare facilities in the Midwest. Like most large medical centers, its parking structures see heavy use, year in and year out, which makes scheduling maintenance and repairs a difficult task. Such was the case with the four-level garage adjacent to Queeny Tower, a landmark 19-story building on the Barnes-Jewish campus.

Built in 1965, the structure sustained significant concrete deterioration from freeze-thaw damage and exposure to road salts.

An asphalt overlay masked the degree of damage to the garage, which required over 15,000 sq. ft. of full depth concrete repairs.

Over the years, metal plates were used to cover the most severely damaged areas. Also, asphalt was laid over the concrete in an attempt to repair the surface. In the survey phase of the restoration project, the asphalt overlay complicated assessing the damage.

"The asphalt made it nearly impossible to gauge accurately the extent of the deterioration," explained Larry Mrazek, P.E. of LGM Engineers. Mrazek was called in by hospital administration to survey the condition of the structure and prepare specifications to repair it.

"It also undoubtedly contributed to the damage, by encapsulating the moisture and de-icing agents," he continued.

When the extent of the damage was revealed, the decision was made to close the structure while repairs took place.

"Originally, we'd planned to keep the garage open," said David Economon, branch manager for Western's St. Louis concrete restoration branch, which handled the job. "But once we peeled back that asphalt and saw the amount of repairs required, we knew it just wasn't possible. It wouldn't have been safe."

Top: After extensive concrete repairs, a deck coating was applied. Western also painted the interior and installed new drains and lighting.

Bottom: Over 2,600 sq. ft. of vertical laminations were patched.

The location of the parking deck also proved challenging. The top deck of the garage was directly below a surgery center. Work was scheduled around surgeries, and the crew sealed off the ceiling of the deck to prevent dust or vapors from getting into the surgery rooms.

In all, the Western crew performed over 15,000 sq. ft. of full-depth slab repairs and patched 2,600 sq. ft. of vertical laminations. After concrete repairs were complete, a deck coating was applied to protect against water intrusion. The crew also painted the interior and installed new drains and lighting. The project was begun in July 2002 and completed in May 2003.

"It was a big job and a challenging one," Mrazek said. "But the garage looks great and it's well-lit. I think everyone is pleased with the outcome."

Owner: *Barnes-Jewish Hospital*
Engineer: *LGM Engineers, LLC*

PROJECT TEAM
Branch Manager: *David Economon*
Superintendent: *Jim Rechtin, Jr.*
General Foreman: *Charlie Alles, Jr.*
Foreman: *Clay Frenzel*

Western Keeps the Climate Dry in Southern California Buildings

Los Angeles and the surrounding area are noted for their dry, sunny climate. But even in a region that averages only about 15" of rainfall per year, structures can be plagued with water intrusion that causes damage to the buildings and headaches for building owners, managers and tenants.

The Los Angeles branch of Western Waterproofing has resolved persistent water intrusion problems for a range of clients in Southern California.

Fashion Institute of Design and Merchandising

The Fashion Institute of Design and Merchandising (FIDM) is a private college located in downtown Los Angeles, adjacent to Grand Hope Park. Built in the late 1980s, the structure had been troubled by recurring leaks through its window perimeters and stucco exterior.

Western recaulked the window perimeters and glass-to-metal joints and retrofitted the flashing at all window heads. In the process of making the repairs, the crew chipped out the stucco around the windows, installed new end dams and flashing, then patched and blended in the repaired areas.

"FIDM teaches fashion, interior design and visual arts, so it's not too surprising that appearance as well as the functionality was important to school officials," said Dan Tyler, manager of Western's Los Angeles branch.

Aesthetics also played a role in material selection for recoating the exterior of the structure. On the lower two stories, an elastomeric coating was used to give the exterior the look of granite. The water-borne-urethane material was specified by Wiss Janney Elstner Associates, architect for the project. The appearance of stone was achieved by carefully mixing colored chips into the coating at the job site.

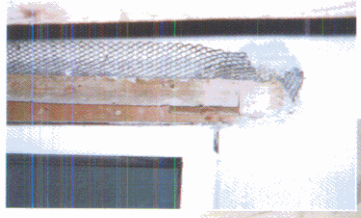
The project also included the application of an anti-graffiti coating, the installation of approximately 5,000 sq. ft. of deck coating on exterior balconies, and repairs to the structure's tile dome.

The lower two stories of the building were coated with a water-borne urethane coating that gave the exterior the appearance of granite.

Owner: *FIDM Realty Group*
Architect: *Wiss Janney Elstner Associates*

PROJECT TEAM
Branch Manager: *Dan Tyler*
Superintendent: *Ralph Sellars*
Project Foreman: *Bob Sellars*

Western recaulked and retrofitted window perimeters to address recurring leaks at the private Los Angeles college.



Roybal U.S. Courthouse

The 21-story Roybal U.S. Courthouse is located in central Los Angeles. Completed in 1990, it is part of the Federal Center, which also includes the Los Angeles Metropolitan Detention Center and the VA Outpatient Center.

Earlier this year, Western won the contract to seal the exterior of the building. Hernandez Construction Company was the general contractor; Curtain Wall Design Consultants also consulted on the specifications for the project.

"The existing sealant around the windows had softened, and it was staining the granite," Tyler explained. "Our job was to completely seal the exterior façade and make it a closed system."

In all, the Western crew installed over 200,000 linear feet of sealant. The project was completed in June 2004.

Western installed over 200,000 linear feet of sealant around the windows and exterior to seal the building façade.

Owner: *U.S. General Services Administration*
General Contractor: *Hernandez Construction Corporation*
Consultant: *Curtain Wall Design Consultants*

PROJECT TEAM
Branch Manager: *Dan Tyler*
Superintendent: *Ralph Sellars*
Project Foreman: *Tom Lattenhauer*

Hyatt Newporter

To minimize loss of revenue and disruption to hotel guests, chemical grout injection was used to stop water intrusion.

Travelers from around the world come to enjoy the majestic coastline and sophisticated style of Newport Beach. The Hyatt Newporter, which is owned by Sunstone Hotels, is one of the luxury hotels that cater to guests visiting this popular resort area.

When several of the guestrooms showed evidence of water intrusion, hotel management called in Western to take care of the problem.

"To expose the failed membrane in the walls, we would have had to excavate and tear up the surrounding patio," Tyler said. "That would have been a noisy process that put the rooms out of commission for too long. So we opted for injecting the walls with chemical grout."

The Western crew drilled holes, set ports, injected the grout and then patched the repaired areas. Because of the tight timeframe, the project used personnel from both the Kansas City and Los Angeles branches.

The work was completed in 32 days, with minimal disruption to the hotel staff and guests.

Owner: *Sunstone Hotels*

PROJECT TEAM
Branch Manager: *Dan Tyler*
Superintendent: *Ralph Sellars*
Project Foreman: *Christian Bardling*

Western Completes Third Phase of K.C. University Renovation

Cracked terra cotta pieces above windows were removed and replaced with cast stone replicas. The structural steel behind the masonry was repaired or replaced, and flashing was installed.

Budgeting has proven as important as _bricks_ in the ongoing exterior renovation at The Kansas City University of Medicine & Biosciences, formerly the University of Health Sciences.

Built in 1916 as Children's Mercy Hospital, the four-story brick and terra cotta administration building was clearly in need of corrective measures, but the scope of repairs was not initially evident. "Developing a good budget that would cover the unknowns but still allow the University to proceed was critical," confirms branch manager Matt Wagner.

Since 1999, Western has met the challenge not once, but four times—and each time under budget. Working closely with Engineering Diagnostics of Kansas City has contributed to the development of effective solutions at a savings. Remaining project funds have then been applied to other campus repair projects at the owner's requests.

Recent work on the main structure involved repair and replacement of brick and stone, terra cotta, and lintel and structural steel components. Approximately 120 timeworn terra cotta pieces above the third and fourth-story windows were replaced. Cracked and deteriorated units were removed, molds made and new stones cast to match the existing in size and profile. By coating the new stones with an aliphatic urethane coating, the sheen and color of the original materials were closely matched. Concurrently, the structural steel behind the masonry was repaired or replaced as necessary, with areas flashed with a waterproofing membrane prior to stone installation.

Similar steps were employed on the lower windows, where original terra cotta had been replaced by brick. Here, the bricks were removed, lintel replaced, and new cast stones installed.

Wagner recaps, "The University values quality repairs that honor the building's original construction." Repeat engagements reflect the owner's continued satisfaction.

Owner: *Kansas City University of Medicine & Biosciences*
Architect: *Engineering Diagnostics*

PROJECT TEAM
Branch/Project Manager: *Matt Wagner*
Superintendent: *Russell Stevens*
Supervisors: *Jim Barrows and Dave Rehm*

Western Group Tops List of Masonry Contractors

According to *Masonry Construction* magazine, The Western Group is the largest masonry contractor in the repair/renovation/reconstruction market. It is the publication's 3rd annual contractor listing based on masonry sales volume. Western ranked second in overall masonry sales volume, and was one of only two companies whose masonry work involves exclusively repair/renovation/reconstruction work. In all, 77 companies were included in the survey.

Field Experience Critical Factor in Ohio Condo Solution

When the brick veneer on Lake House Condominiums' west wing began to buckle and break, condo owners and city officials needed answers and action fast. The 46-year-old, steel-framed structure stands 10 stories tall, and falling materials posed a serious hazard.

A team from Harry S. Peterson Co. (HSP) and the architectural firm of Barber & Hoffman, Inc. were called in to find and fix the problem areas. Branch manager Mark Sanders' 25-plus years of field experience quickly came into play. "When you have first-hand knowledge of building practices and problems, you go at things differently," Sanders states.

HSP traced the buckling brick to two factors. One was vertical growth of the veneer due to an absence of control joints at the relief angles. The brick facing had been built tight to the undersides of the steel shelf angles at each floor level. This induces pressure and stresses into the face brick. The second cause was the shearing of the header bricks connecting the building's two masonry wythes.

The repair specifications called for reanchoring the face brick using a plate-and-anchor system. However, as workers drilled into the brick to install the five-eighths inch stainless rod critical to the solution, the wall grew increasingly unstable.

HSP reanchored the face brick using a plate-and-anchor system. Because the back-up block was only 4" deep, 6" x 6" metal plates were added to stabilize the walls.

"What we found was that the back-up block was only four inches," Sanders adds. The decision was made to add six-by-six metal plates, but the cost to the client remained the same. "I told them others may say they can do it for less," he continues, "but we would not nickel-and-dime them."

Along with its technical expertise, the Harry S. Peterson team's public relations capabilities proved important. Sanders met with the condo association for a lengthy session, showing photos of the problem and detailing the necessary correction. That dialog and a successful first phase has led to the association's approval of a five-year repair program.

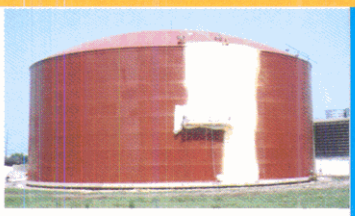
Sanders recaps: "The client is ecstatic. We did what we said we would and more."

Owner: *Lake House Condominiums*
Architect: *Barber & Hoffman, Inc.*

PROJECT TEAM

Branch Manager: *Mark Sanders*
Project Manager: *Jim McCullough*
Superintendent: *Mike Davis*

Timing is Everything in Triad Tank Recommissioning



Repairing and installing new insulation to a 30,000 ton insulated ammonia storage tank in Donaldsonville, La., was key to Triad Nitrogen's Chapter 11 reorganization plan. Triad called on Western Roofing and Insulation Co. to tackle the complex repairs in spring 2004, recognizing the company's turnkey capabilities could significantly speed the process.

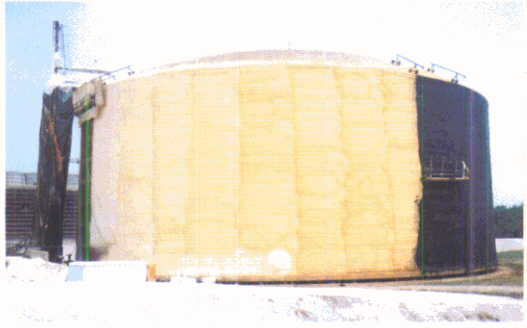
Branch manager Jim Moenning understood the time pressures. "In this industry, taking a tank out of service means you can't move product," he states. "And if you can't move product, you can't make money. The approach we took limited downtime by several days."

The Western team began by removing the Alumiseal insulation, firing strips and clips, then sandblasting and priming the tank. Four inches of polyurethane foam insulation was then sprayed to a point 15 feet above the base. Foam depth was then tapered to three inches, then two inches to cover the entire tank. Tank straps were treated with bond-breaker detail and uniformly covered.

Some 50,000 pounds of foam later, a butyl rubber vapor barrier coating system was applied, followed by an aromatic urethane intermediate coating and an aliphatic urethane finish coating.

"Once we installed the butyl vapor barrier," Moenning continues, "Triad would be able to start filling the tank for the commission procedures. This was actually about Day 20 of the foam and coating process—much faster than most companies could deliver.

"We hit every window."



After sandblasting and priming the 30,000-gallon tank, Western sprayed on polyurethane foam insulation and applied a butyl rubber vapor barrier coating system.

Owner: *Triad Nitrogen, LLC*

PROJECT TEAM

Branch Manager: *Jim Moenning*
Project Manager: *Jim Moenning*
Superintendent: *Jim Krause*

Western Group Services Expand

The addition of Western Roofing and Insulation Co. brings still another dimension to The Western Group's range of services. Leading the St. Louis-based office is Jim Moenning, a former Western team member with more than 25 years in commercial restoration. Prior to rejoining Western, Moenning served as president/CEO of Solar Contracting of St. Louis.

The new branch will specialize in polyurethane foam for commercial/industrial roofing, insulation, air infiltration and building seal; polyurea-coating systems for metal roof and single ply restoration and secondary containment/lining systems; plus offer specialty services such as injection grout and firestop.

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National Headquarters, 1637 N. Warson Rd., St. Louis, MO 63132
Phone (314) 427-6733 or (800) 325-2801
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