

WOODROW WILSON HOUSE RESTORED

When the decision was made to restore Washington, D.C.'s only presidential museum, it was extremely important that products chosen would not only bring the original beauty to the home, but also protect from future damage.

In order to ensure this, they chose Laticrete products.

The Problem

In 2001, The National Trust For Historic Preservation, the organization responsible for the care of The Woodrow Wilson House, a National Historic Site, realized that they had a problem on their hands. As they explained in the Site's newsletter:

"As any historic homeowner will tell you, old buildings have a remarkable way of succumbing to enemy number one—water. It may all start out with a little leak in the roof. Perhaps a bit of copperflashing has pitted to the point of separating from a wall and is now serving as a conduit for the flow of water instead of a barrier. After eighty-five years, the mix of sand and lime that served as mortar from the time of the Romans begins to break down to its original elements and no longer keeps driving rain and moisture from penetrating into the interiors and manifesting itself as water stains and crumbling plaster. Or even worse, decaying mortar joints can weaken walls and foundations making them structurally

unsound. At Wilson House, we have met the enemy and we are ready to fight with all the preservation forces we can muster!”

The Wilson House was armed with a comprehensive architectural study prepared by Archetype, a Washington D.C. architectural preservation firm led by preservation architect Belinda Reeder. The report provided an analysis of existing conditions, recommendations for repair and estimated construction costs to correct areas of moisture infiltration and structural weakening of the 85-year-old building, attached garage and garden walls.

According to Reeder at the time, “All interior damage and areas of leakage are the result of deteriorated exterior envelope conditions. The building envelope must be made watertight. Until that is accomplished, interior damage will only worsen and grow, increasing the extent of costly repair to original architectural fabric such as the ornamental plaster.”

Water penetration was seriously damaging interior ceilings, walls and the structural integrity of the historic property and threatening the collections in museum rooms and in storage areas. The existing flat roof had reached the end of its natural life and leaked in several areas. Storm water also entered by way of inadequate rain leaders and failed storm drains allowing water to spill onto the brickwork at the corners of the building. The water saturated the brickwork and deteriorated mortar joints, then wicked and seeped into interior spaces, causing severe damage to ornamental plasterwork and walls. Deteriorated copper flashing, loose mortar joints and unseated limestone caps on chimneystacks also allowed water to enter interior spaces. These major moisture problems would have an irreversible effect on the museum environment and collections if they were not corrected. Even the granite front steps, where Woodrow Wilson gave his last public address, weakened and needed to be reset. Finally, steel reinforced concrete retaining walls in the period garden were in jeopardy of

collapsing in several areas where heavy limestone caps and sections of brick veneer facing were unseated and pulling from the face.

The Solution

When The David Allen Company was chosen as the Tile & Stone Subcontractor, they knew that LATICRETE products were the perfect choice for this type of renovation.

“LATICRETE Products offered exactly what was needed for the project,” said Gary Abbots, Project Manager for The David Allen Company. “There was great concern over the freeze/thaw problem.”

The installation occurred during two harsh winter snowstorms and required the construction of a temporary plastic roof to be constructed and the use of propane heaters to maintain the temperature at 60 degrees.

“The installation of exterior tile at the above project consisted of the LATICRETE Plaza & Deck System and Crossville 6 x 6” Flashed Quarry Tile for a roof-top patio above the attached garage,” Gary Abbots, with the David Allen Company. “The roof was initially hotmopped by the roofing sub-contractor, then followed with each stage of the Plaza & Deck System of fortified mortar, waterproofing, and installation with epoxy grout.”

LATICRETE Plaza and Deck Installation provides a thin, lightweight, weather- and frost-resistant installation for ceramic tile, pavers, brick or stone. This system is designed for use over roof waterproofing membranes. An integral subsurface drainage component provides for elimination of infiltrated water. LATICRETE Plaza and Deck Installation System eliminates the dead load problems (501bs/ft² /250 kg/m²) and high haulage/placement costs associated with conventional gravel drain beds.

“The Plaza and Deck System allowed the labor to slope the deck in order to meet with the original features of the home,” said Kurt Weber, LATICRETE representative for Virginia, Maryland and Washington, D.C. “Most importantly, it allowed for proper drainage.”

A Bit of History

Woodrow Wilson is the only American President to select Washington to be his home following his final term in office. Late in 1920, when his second term neared its end, and Mrs. Wilson started to search for an appropriate residence, he presented her with the deed to a house at 2340 S St., NW.

Built by Henry Parker Fairbanks in 1915, the red brick house of Georgian style was designed by the architect Waddy B. Wood. The Wilsons installed an elevator and a billiard room, constructed a brick garage and placed iron gates at the entrance to the drive. Some partitions were changed and shelves were built for Mr. Wilson's 8000-volume library. Wilson, partially paralyzed from a stroke he suffered in 1919, spent his few remaining years in partial seclusion at the house, under the continuous care of his wife and servants. On February 3, 1924, he died in the upstairs bedroom and was laid to rest in Washington National Cathedral. Mrs. Wilson continued to live in the residence until her death in 1961. Prior to that time, she had donated it and many of the furnishings to the National Trust for Historic Preservation, which opened the Woodrow Wilson House to the public in 1963. Included in Mrs. Wilson's gift to the American people are furnishings, portraits, books, autographed photographs of personages identified with events in Wilson's administration, a Gobelin tapestry, commemorative china, and early furniture owned by the Bolling family of Virginia.

Principal Players:

Owner: National Trust for Historic Preservation

Contractor: Grunley Construction, Rockville, Md.

Tile & Stone Subcontractor: The David Allen Co., Washington, D.C.
Architect: Archetype, Washington, D.C.

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