

Bringing Back History at Baldwin Wallace

University partners with American International to restore key structures across campus

By Lou Kren | Photos courtesy of American International Construction

Founded in 1845, Baldwin Wallace University has inherited or built numerous facilities over the years. The Berea campus exudes traditional small-college charm with its mix of old and new structures nestled among the trees and greenery. Maintaining that setting is no simple task, especially when it comes to ensuring that the historic buildings continue to meet the needs of students and staff in an economical and aesthetically pleasing way.

Hence the university's long-time relationship with American International Construction of Berea. As a restoration contractor, American International has worked closely with Baldwin Wallace on projects across the campus. Its latest efforts, exterior restoration of Marting Hall, including its iconic cupola, as well restoration of an historic stone stairway near Kulas Hall, exhibit the capability of American International as well as the commitment of Baldwin Wallace to preserve its rich past.

American International's Michael Petrasek, president, and Bill Perry, vice president, recently provided *Properties Magazine* with a detailed tour of the restorations. They described the painstaking attention to detail and the close partnership with Baldwin Wallace, via Bill Kerbusch, the university's director of buildings and grounds, so necessary for successful completion.

Cupola faithfully restored

The construction of Marting Hall in 1897 predated the merger of Baldwin University and German Wallace College to create Baldwin-Wallace College in 1913. With more than a century under her belt, Marting Hall was in desperate need of attention beyond prior piecemeal renovations. Following an earlier interior rescue after a major flood, American International got the call to address the exterior. Four years ago, the company began this project under the guidance of Kerbusch.

Work on the original cupola that dated to the building's construction proceeded in earnest over the winter of 2012-2013, with scaffolding in place and a plastic-sheeting enclosure allowing protection



BUILT TO LAST Restoration of Marting Hall's iconic cupola entailed rebuilding intricate moldings and spires with PVC, which should last for decades with little maintenance required.

of workers as well as workspace heating. The university sought completion of restoration in time for the 2013 Bach Festival in April, when the cupola would be occupied and form a focal point for

the musical celebration. Save for copper caps on the spires, the difficult cupola restoration met the date.

Inspection during the initial portion of restoration yielded numerous sur-



RISING TO THE CHALLENGE Kulas Gate (left), a stairway that was built in 1890 near Kulas Hall with ornate stonework and symmetrical winding steps as well as intricate retaining walls, had worn over the years. In 2013, a painstaking restoration (right) included finishing of stonework to match the original design, with new stones hand-chiseled and hand-finished.

prises. Most notably, metal sheathed the cupola, with five layers of sheet comprising some of the moldings. Solder and long nails held the metal cladding in place. Initial plans called for repainting of sheetmetal sections, but a closer look revealed rust and water damage to the interior. Removing the flat sheetmetal yielded other surprises. In prior restorations, the spires' barber-shop-pole designs had been covered by workers looking for a quick fix. American International sought to return the spires to their original ornate appearance, and with an okay from Kerbusch and Baldwin Wallace, the company could proceed.

Via assistance from American International's small network of expert suppliers, the company essentially rebuilt the intricate moldings and spires, in fact most of the cupola, with PVC. Tough and long lasting, PVC was an ideal solution. The trick was measuring, calculating, designing and fabricating the PVC into sections that mimicked the original look.

To rebuild the spires, Perry and American International had to locate two-foot-diameter Schedule 40 (about ¾ inches thick) PVC pipe – no easy task – then figure out how to cut and shape the pipe to intersect longitudinally with the square corners of the

cupola. That meant cutting a quarter of the pipe lengthwise as well as adding stiffening plates on the inside of the pipe. Pains were taken to hide cut locations and deliver a seamless appearance. Shaping, fitting and adhering all of the PVC sections and moldings for the cupola entailed intricate cutting, heating and fastening procedures. Perry estimates that each piece created and fastened for the cupola involved a four- to five-step process.

The PVC should last for decades with

Old photos provided the layout of the original [Kulas Gate] structure and the team set about to return the structure to its 19th-century glory.

little maintenance, and bottom sections of the cupola have been designed for simple removal for future roofing work. The cupola work also entailed removal of louvers that had been added during prior restorations as well as reframing and patching of those sections, along with the addition of copper flashing. Also, crews re-sheeted the existing roof with rubber EPDM and increased roof pitch to assist in water runoff. Weep holes were added to let water drain from cupola interior sections. At a secret location in the

cupola – under a copper cap – a time capsule has been buried.

Marting Hall's exterior addressed

Besides the intricate cupola work, American International took aim at the entire Marting Hall exterior. That entailed cleaning of the sandstone façade, block by block, using water spray, gentle cleaners and a lot of elbow grease. Carbon dust had turned most of the exterior jet black, and today the sandstone looks newly quarried. To keep it that way, crews applied a water-repellent coating.

Exterior work also included tuck-pointing as well as resetting and patching of stones and recaulking of windows. Peak elements such as gables and dormers had become loose over the years, so workers braced those sections with concrete block and rebar as well as anchoring systems.

Original stone stairway uncovered

American International has also wrapped up restoration of Kulas Gate, a stairway near Kulas Hall. The stairway, built in 1890, with ornate stonework and symmetrical winding steps as well as intricate retaining walls, had worn over the years. Previous renovations had dismantled original elements and covered up others. Old photos provided Baldwin Wallace and American

International with the layout of the original structure – two stairways at the base curving into a central landing and single staircase to the top, framed by sandstone wall structures – and the team set about to return the structure to its 19th-century glory.

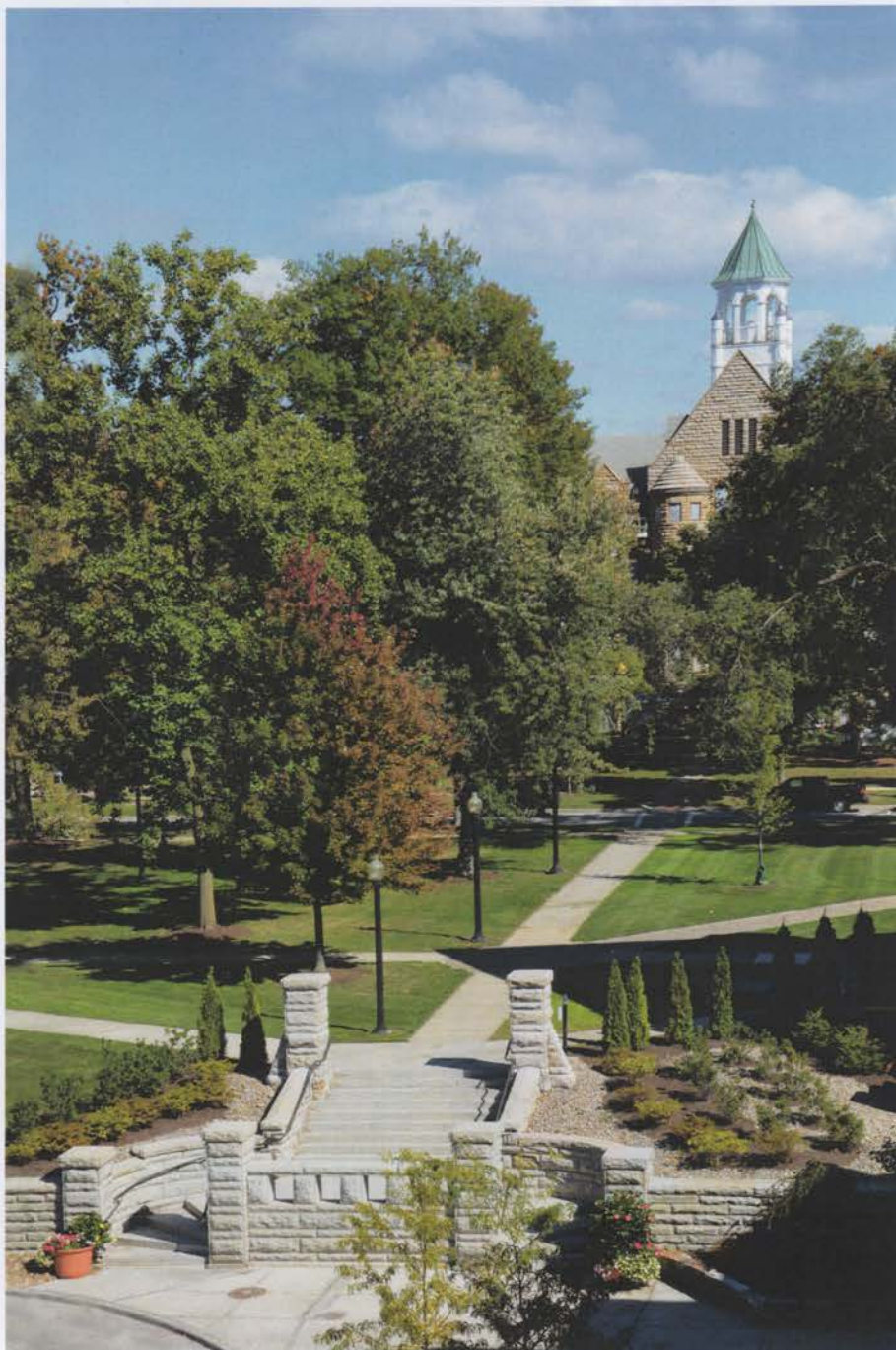
A 1980 reconstruction had covered the old stairway and added practicality but certainly not beauty. The current restoration aimed to accomplish both. Crews began by disassembling the visible sections of the original stairway and numbering the stones for later reconstruction. During demolition, other original sections of the stairway, long buried or hidden, were unearthed. During previous repairs and renovations, original stone had been removed and replaced with concrete, and elevations had been altered.

American International and work crews set about excavating and then pouring footers as well as adding drainage lines and catch basins. Doing so, along with dishing of the stair structure, would provide a stable base and allow proper water runoff.

A wall on the central landing had a major issue, according to Perry. For safety's sake, the wall's height had to increase. One possible solution, a rail, would detract from the stairway's appearance and from efforts to restore the structure to its original state. An alternative plan forwarded by American International and accepted by Baldwin Wallace raised the entire wall by various means, including placement of a 6.5-inch-thick concrete slab at the bottom of the wall, and the addition of 13-inch-high stone to each of the four stairway columns to maintain proportion.

Other height and proportion issues had to be addressed. Various work over the years had altered the landing height as well as the rise and run of stair treads. The construction team took action, which included moving and adding stone blocks, to create a workable, proportionate solution.

The painstaking restoration included finishing of stonework to match the original design, with new stones hand-



PRESERVING THE PAST American International has worked on projects across Baldwin Wallace University's campus, most recently completing the restoration of Marting Hall's exterior, including its iconic cupola, as well as "Kulas Gate," a historic stone stairway near Kulas Hall.

chiseled and hand-finished. The detail in the finishing work speaks to the capability of an able subcontractor and the American International team. Restoration also included new handrails that blend seamlessly into the stone walls. Here, too, the university has placed a time capsule.

Completion of Marting Tower and the stairway near Kulas Hall closes another chapter in American International's relationship with Baldwin Wallace, but the partners are planning other projects across the university's campus, spurred by both parties' dedication to preservation of historical structures. **P**