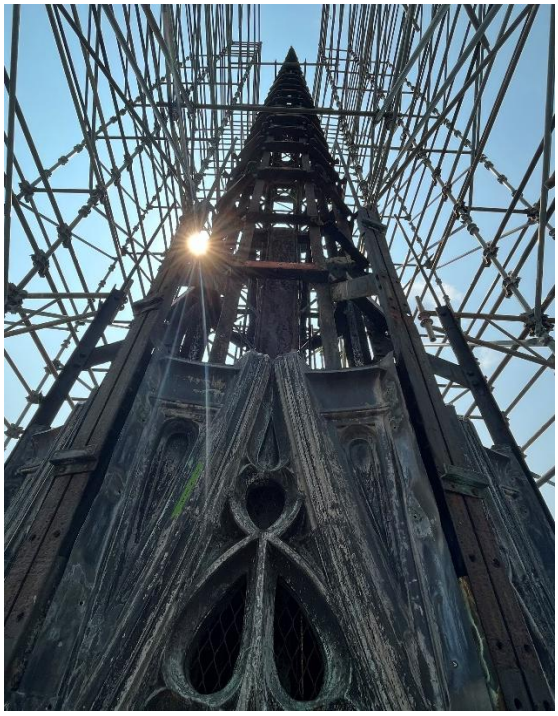
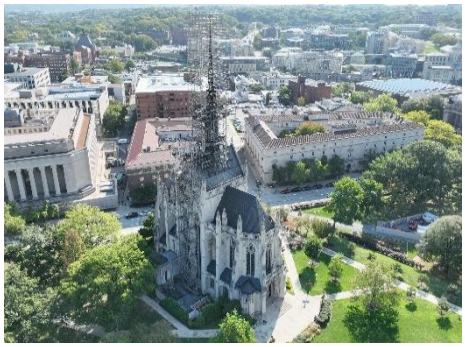
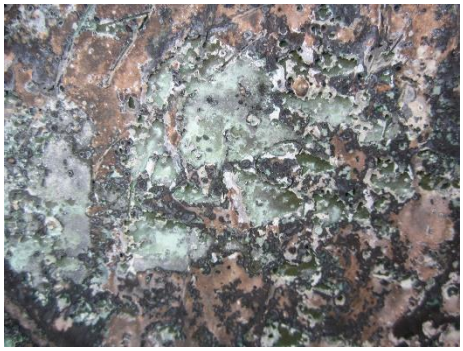
PROJECT PROFILE

University of Pittsburgh, Heinz Chapel

Fleche Restoration | Pittsburgh, PA







CLIENT

University of Pittsburgh

BACKGROUND

Heinz Chapel was dedicated in 1938 as a gift from Henry John Heinz. The building was designed by Charles Klauder and is a contributing property to the Schenley Farms Historic District.

The neo-Gothic chapel is clad with grey Indiana limestone. The high roof is approximately 100 feet above ground and is covered with slate tiles. The lead-coated, copper-clad fleche extends approximately 120 feet above the ridge of the high roof.

Multiple decorative grotesques had dislodged from the fleche, prompting WJE to access the full height of the structure from the interior as part of our facade ordinance inspection. Steel corrosion was found throughout the structure, including significant section loss at access platforms, panel connections, and structural gusset plates. In addition, panels were observed to have open seams, tears, and holes.

SOLUTION

Following the identification of corrosion at the supporting steel armature of the fleche, WJE performed an extensive condition assessment of the structural system and the ornamental sheet metal cladding it supports. Full height scaffolding was installed to provide access, requiring the installation of new structural steel to reinforce the existing roof structure.

After considering the historical, performance, and economic impacts of various repair approaches developed by us, the client elected to remove all the cladding panels and send them off-site to repair pinholes and other deterioration.

The exposed steel armature was abrasive-blasted and repainted with a multilayer, high-performance coating system. Existing steel was repaired or replaced as warranted. Reinstallation of the ornamental cladding is underway.

We provided detailed repair documents and assisted the University with their selection for construction manager at-risk services. Construction administration included regular site visits, shop visits, reviewing submittals, and project correspondence.

WJE ENGINEERS ARCHITECTS MATERIALS SCIENTISTS