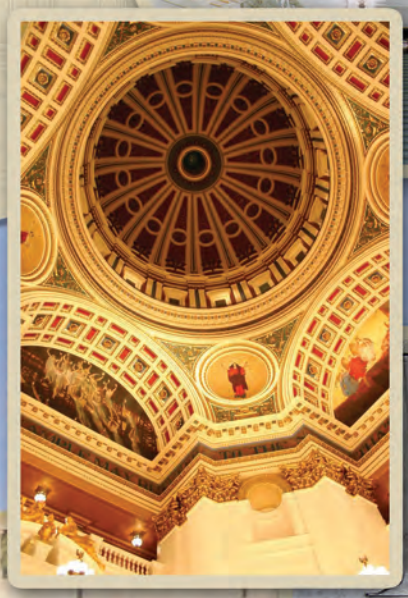
PERISTYLE DECK RESTORATION

Preserving an Architectural & Artistic Treasure







Pennsylvania State Capitol
Harrisburg, Pennsylvania

MPS
MASONRY PRESERVATION SERVICES, INC.
TRADITION ◆ TECHNOLOGY ◆ INTEGRITY

Protecting the Priceless While Ensuring the Future of a National Landmark

Pennsylvania State Capitol

Peristyle Deck Restoration

PROJECT BACKGROUND

- Italian Renaissance-style statehouse described by President Teddy Roosevelt as "the handsomest State Capitol I ever saw"
- Capitol's vaulted dome rises 272 feet and weighs 52 million pounds
- Building contains a large collection of priceless historical artwork
- Leaks through the building's peristyle decks had been documented as early as the 1950s
- MPS was commissioned to determine where water was entering the building and what should be done to stop the water infiltration; MPS then implemented a pilot phase to set the quality standard for the repairs and prove the efficacy of the preservation approach

PROJECT CHALLENGES

- Asphalt membrane below the decks' massive granite pavers was keeping water trapped in the system
- Granite pavers needed to be removed and reinstalled in order to access and remove the brick masonry and asphalt membrane; areas had to remain watertight throughout this process
- Significant structural modifications were required to stabilize the large granite deck and facade stone panels and the concrete and masonry sub-structure, including the use of custom stainless steel and Cintec grouted anchors
- Building needed to remain fully operational during restoration process; work area was extremely confined, limiting project progress

PROJECT APPROACH

- Extensive scaffolding and netting/protection was installed to safely access work areas and protect lower Ludowici tile roofs
- Granite pavers were moved out of the work area, and new reinforced concrete beams and curbs were installed
- A new lead-coated copper roof was installed over the pavers; roof had to mimic the decorative profiles of existing stone walls and column bases
- The new anchorage system was used to structurally bolster the masonry wall assemblies and prevent overturning
- The ornamental granite balustrades just above the pavers were also disassembled and restored as part of the peristyle deck restoration

"MPS delivers value during every stage of a project, be it during project conception or during construction. At the Pennsylvania State Capitol they developed a carefully thought-out waterproofing design solution. During a subsequent pilot program, they successfully implemented the work as conceived by the design team. Their decades of experience, creativity, and problem-solving make them a truly invaluable part of the team."

Niklas W. Vigener
Senior Principal
Simpson Gumpertz & Heger













Crafting a higher standard for preservation, Masonry Preservation Services is recognized throughout America for our unique approach to masonry preservation and building envelope diagnostics. MPS has been specializing in architectural maintenance and restoration since 1985.

MPS
MASONRY PRESERVATION SERVICES, INC.
TRADITION ◆ TECHNOLOGY ◆ INTEGRITY

14 Craftsmanship Lane ◆ Bloomsburg, PA 17815
(570) 752-3607 ◆ **masonry**preservation.com