

Project Profile



Project

U.S. Capitol Visitor Center
Washington, DC

Owner

U.S. Government

Building Envelope Consultant

Gale Associates, Inc.
Baltimore, MD

Waterproofing Contractor

Prospect Waterproofing Company
Sterling, VA

Waterproofing Systems

Loose Laid System using 80 mil G476 membrane and 80 mil G459 grid membrane

Project Size

205,424 square feet

Completed

February 2005

Sika Sarnafil Waterproofing System Fits the Bill at U.S. Capitol Visitor Center

At 580,000 square feet, the new U.S. Capitol Visitor Center is the largest project in the Capitol's 212-year history and has a footprint larger than the Capitol itself. According to the Center's website, the Visitor Center will "welcome visitors to the seat of American government" and will include an exhibition gallery, orientation theater, 600-seat cafeteria, and gift shops.

For security reasons as well as to avoid detracting from the appearance of the Capitol or upset the grounds designed by Frederick Law Olmsted, the Visitor Center is located underground the Capitol's east side, and also includes a truck entrance tunnel, the Library of Congress tunnel, the Cannon Tunnel (for House access) and the Utility Tunnel. As David J. Matro, Sika Sarnafil's waterproofing project monitor, explained, "The primary intention of the project was to make entrance and egress to the Capitol easier for the public and replace the barricades outside with a more controlled atmo-

sphere that offers better security." Obviously it was crucial to find a proven and durable waterproofing system that would protect these tunnels as well as the visitor center auditorium. Fortunately, Sika Sarnafil's waterproofing system was the perfect candidate for the job.

Heat-welded Seams Give Sika Sarnafil an Edge

According to Steve Kisielnicki, project manager at the Baltimore office of building envelope consultants Gale Associates, Inc., the Sika Sarnafil waterproofing system was chosen because of its heat-welded seams, which form a monolithic sheet that won't deteriorate due to moisture, temperature or stress.

The Sarnafil G476 waterproofing membrane offers several other advantages as well. The thermoplastic membrane is a specially formulated fiberglass reinforced sheet manufactured by a unique coating process, and it remains watertight in sub-grade environments of constant dampness, high alkaline

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and bacterial organisms, as well as varying levels of hydrostatic pressure.

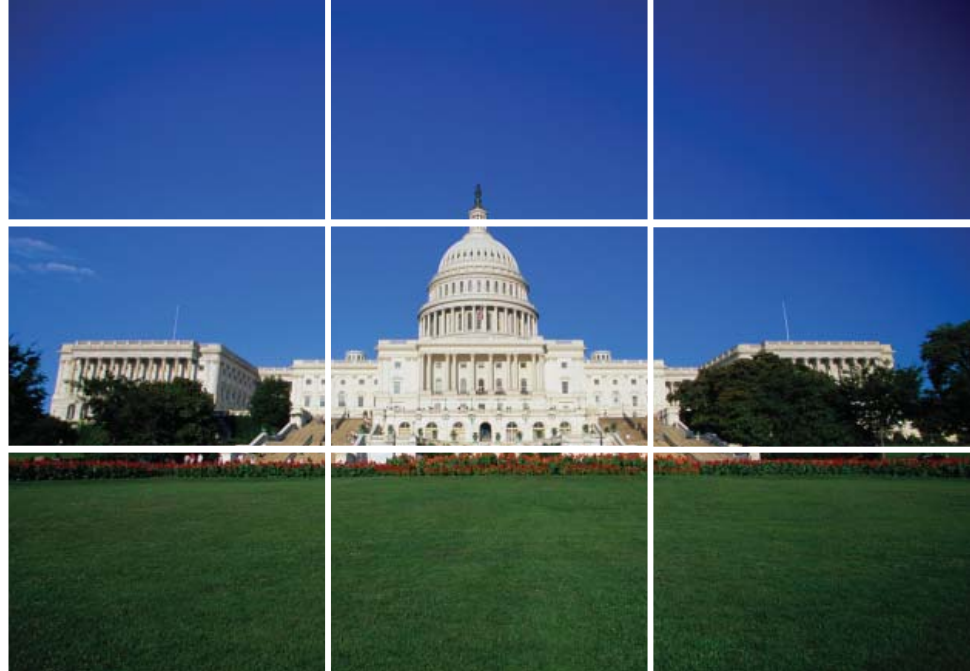
Finally, Sika Sarnafil's waterproofing system has over 40 years of proven performance, and Kisielnicki said Gale Associates has had extensive experience with Sika Sarnafil roofing and waterproofing systems. "We liked Sarnafil's proven track record for quality assurance during the installation process," Kisielnicki stated.

Security, Excavating, and Design Challenges

Installing the tunnels and walls of the auditorium was full of challenges. As might be expected, there was very tight security on the project, which posed some problems. "All personnel had to be screened and badged," said Jon Hillis, project manager at Prospect Waterproofing Company of Sterling, VA. He added, "Shipments, especially from manufacturers, were also delayed for screening."

Matro added that because the project involved working under buildings that were built at various times in the past, the excavations were often "full of surprises." He stated, "The Capitol building was built in phases and often used whatever technology was standard at that time. So whenever we dug a wall we often came across something unexpected. My goal was to adapt Sika Sarnafil's system to the different architectural concepts that we came across. It was really fun."

Fortunately, representatives from Prospect Waterproofing, Gale Associates, Sika Sarnafil and the architectural firm RTKL were able to work together to come up with solutions to the various problems that arose. "All of these design obstacles were dealt with in the field with Prospect's exceptionally gifted field technicians and with the assistance of Sika Sarnafil's on-site technical representatives," Hillis stated. "Needless to say the fluid design of the project as field conditions became known was extremely difficult, but



The U.S. Capitol Visitors Center using Sika Sarnafil Waterproofing System.

we were able to rise to the task."

Matro added that monitoring and testing during the installation were also critical to the project's success. "Some of the tunnel tops were buried below 30 to 50 feet of earth, and some walls go down 60 to 70 feet, so finding a leak after installation is extremely difficult," he explained. "That's why we made sure there was at least one monitor on-site each day to make sure everything was done right and in strict accordance with the approved details and specifications."

Kisielnicki added, "Prospect Waterproofing did a good job and the installation went well. Having a Sika Sarnafil technical representative on-site was also a big help....if there were questions about small detailing things, he was there to answer them."

In Sika Sarnafil They Trust

When it comes to delivering on its promises, Sika Sarnafil didn't disappoint. "Sarnafil is highly technically oriented, which is why I am proud to work with them," Matro said. Kisielnicki added, "We went into this project very aware of what a high-profile job this was going to be, so we put our confidence

in products and manufacturers that we trust. Sarnafil was one of those we trust, and we weren't disappointed."

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