The National Museum of African American History and Culture Project Spotlight

Background

The National Museum of African American History and Culture (NMAAHC) is a Smithsonian Institution museum established in December 2003. The museum’s building, designed by David Adjaye, is on the National Mall in Washington, D.C. It has close to 37,000 objects in its collection related to such subjects as community, family, the visual and performing arts, religion, civil rights, slavery, and segregation.

Early efforts to establish a federally owned museum featuring African-American history and culture can be traced to 1915, although the modern push for such an organization did not begin until the 1970s. After years of little success, a much more serious legislative push began in 1988 that led to authorization of the museum in 2003. A site was selected in 2006. The museum opened September 24, 2016, in a ceremony led by U.S. President Barack Obama.

Situation

This building is yet another of the Washington, DC architectural marvels being built along the sweeping grass Mall that runs from the US Capitol down to the Potomac River. This museum is a massive structure with five levels totaling 330,000 ft² (30,658 m²) Some huge artifacts such as a railroad car had to be placed, protected and constructed into the building.

Challenges

East Coast Poured Floors were called into the project by Clark Concrete to provide leveling in some of the lower levels, below grade where large format ceramic tile was being installed in the cafeteria as well as other locations. Some of the areas in the lower level had been poured to the wrong elevation and needed as much as 3” (76 mm) of underlayment to meet proper elevation. Also moisture readings in all of the areas that needed underlayment had RH readings in the mid 90’s, so a moisture vapor mitigation system had to be installed. Mike Schilling, Jr. of East Coast Poured Floors, said about 33,000 ft² (3,066 m²) had to be shot blasted, coated with LATICRETE® SUPERCAP® Moisture Vapor Control (MVC), and then primed and poured with SUPERCAP self-leveling SC500. There was also a lobby outside the elevators on the lower level that required a wear surface, so approximately 3,000 ft² (279 m²) of the lobby had to be poured with LATICRETE® DURAFLOOR HP™ at 1” (25 mm) thick.
The LATICRETE® SUPERCAP® System Solution

Although the total square footage of LATICRETE® SUPERCAP® was limited to less than 25% of the entire building, the depth in some areas warranted many truckloads to be delivered to the job site. Everything was mixed outside using the pump truck and delivered using many lengths of 3” (76 mm) heavy duty hoses to the areas in need of underlayment.

Outcome

The unmatched volume that the pump truck could deliver to the specific areas in the building meant the job could be finished in a third of the time it took for standard small pump/small bag operations. Clark Concrete needed the high moisture content in the slab mitigated and they needed time put back on their schedule. They turned to local SUPERCAP Applicator, East Coast Poured Floors for solutions, and they delivered.