## $\triangle SEHISTORY$ Alexandria, VA



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Danny Santos, Installer, Potomac Waterproofing



Project Size: 243,000 SF
Application: Waterproofing and

vapor intrusion

General Contractor: Bozzuto

Construction

**Architect**: SK&I **Installer:** Potomac Waterproofing

System: E.Protect+ Underslab,

E.Protect+ Shoring



## Oakville Triangle Development Protected with 243,000 SF of E.Protect+ Systems

Oakville Triangle, located on the Route 1 corridor and just West of Potomac Yard in Alexandria, VA, is being transformed into a multifaceted, mixed-use development anchored by a new emergency and medical facility. The development, which spans over 12 acres, aims to transform the area, formerly used for industrial activity, into a new, modern neighborhood.

Oakville Triangle is divided into several blocks that form a triangle along Route 1 in between Fannon Street and Calvert Avenue. Blocks A & B are located right on Route 1 and are two separate structures which include two levels of below grade parking. Both of the buildings are supported by heavily reinforced, mat slab foundations that are several feet thick.

As part of the foundation design and existing site conditions, a continuous bathtub waterproofing system was required. It needed to protect against hydrostatic water table conditions and contamination left behind from numerous historic underground storage tanks. Over the years, the chemicals stored in these tanks ultimately contaminated the groundwater and soil with chlorinated volatile organic compounds (VOCs) and petroleum. Subsequently, the team determined EPRO's E.Protect+ contaminant and waterproofing system was the ideal solution for protecting the building against these complex site conditions.

"Alexandria typically has a high water table, and the waterproofing system needed to stand up to this, " says Danny Santos with Potomac Waterproofing, the EPRO





installer. "There was constant rain just about every week which made application challenging, but we were extremely pleased to learn that when the systems were completely installed, the areas of application were bone dry."

At Building A below grade, 123,000 square feet of E.Protect+ Underslab was applied, and an additional 34,000 square feet of vertical blindside E.Protect+ Shoring completed the system. Building B below grade was sealed with 63,000 square feet of E.Protect+ Underslab, and 23,000 square feet was installed vertically to provide a continuous horizontal-to-vertical system.

E.Protect+ is pre-applied horizontal underslab waterproofing and contaminant vapor barrier compatible with all types of building foundations, and it provides paramount protection against hydrostatic conditions, VOCs, methane gas, and radon. The 196 mil E.Protect+ systems combines three effective waterproofing systems into one composite membrane to provide one of the most protective below-grade building protection systems available in the market. With proven efficacy for brownfield projects, E.Protect+ was also submitted as a solution in Virginia's Voluntary Remediation Program (VRP), a plan that encourages hazardous substance cleanups that might not otherwise take place.

"EPRO offered outstanding support throughout installation and went above and beyond," says Santos. "They provided shop drawings from day one, and every time there was a specific condition or detail they created it immediately, and asked for our feedback as well. They reviewed pictures of correct and incorrect conditions to avoid issues with installation and the schedule, and visited the site numerous times to help."

All trades had to work to extremely tight schedules - despite the poor weather - and the EPRO team helped ensure that everything stayed on track with installation and any challenges that came up along the way.

"I know how busy these guys are, and they were basically available 24 hours a day if and when we needed support because they know how important this job was to everyone involved. They stepped up to the challenge and kept us on schedule, as planned."