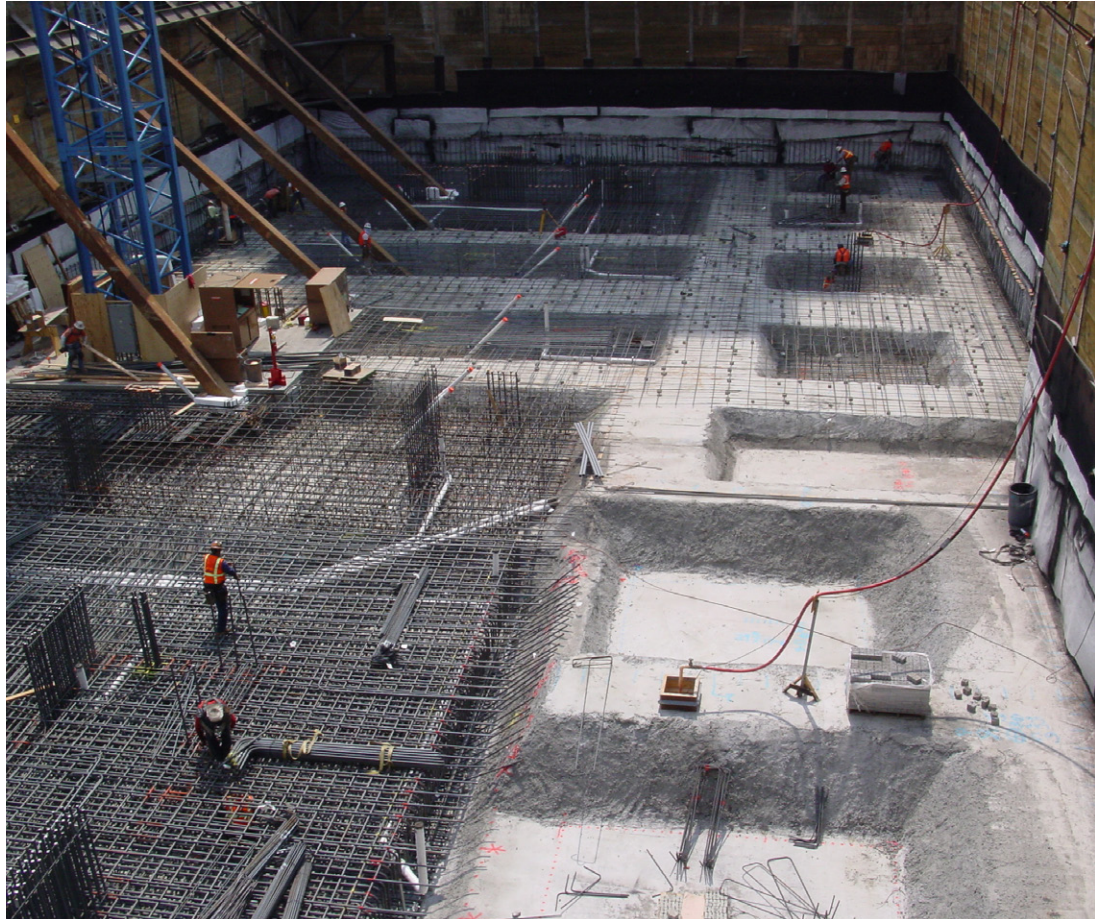




“EPRO was ideal due to its ease of application, its ability to handle inclement weather, and the fact that its application accelerated the project schedule.”

Michael Hyduk of Specified Products, Inc., and product representative for EPRO Services, Inc.



## EPRO Provides Adaptable Below-Grade Protection for Complex Apartment Site

Strata is located in the popular East Village neighborhood of San Diego. The apartment complex consists of two connected towers built over one large below-grade parking structure. One tower stands at six stories tall, while the other reaches 23 stories.

Strata was constructed multiple stories below the water table in close proximity to a former gas station and dry cleaners, according to Michael Hyduk of Specified Products, Inc., – and product representative for EPRO Services, Inc, who are developers of redundant, field-installed composite systems for below-grade waterproofing and contaminant barrier solutions.

The below-grade parking structure extended three stories below-grade in one area, and two stories below grade in the other section. A large

portion of the structure extended 12 feet into the water table. Additionally, downtown San Diego has shallow groundwater, and in the past, there were gas stations and dry cleaners located in close proximity to the project site. With such challenging conditions, the waterproofing consultant needed to address the waterproofing concerns, but also the potential for vapor intrusion.

“Downtown San Diego presents additional challenges, due to its long history with the military and shallow groundwater,” adds Hyduk. “Close proximity to the ocean and to a former gas station increased the complexity. Additionally, the site became more complicated due to the foundation of an existing building and the additional reinforcement required to secure the excavation. The additional reinforcement impacted how the system was installed, and in working with the project team



Internal rakers were used to secure the excavation, thus increasing the complexity



Looking northeast from the southwest corner. A protection slab was applied to the membrane, and the underslab system extended up the vertical wall.



Waterproofing crews providing detailing around rakers near the top of grade.

and consultant, we were able to eliminate any delays to the production schedule.”

At the time, mineral-based bentonite waterproofing products were facing challenges in the downtown area due to groundwater conditions. An alternative had to be sourced. Since the waterproofing team had the right level of expertise and product knowledge, they were able to specify EPRO’s offerings, which were highly adaptable to the site.

“EPRO accommodated both waterproofing and the historic contamination issues,” Hyduk says, “A modified E.Proformance™ Underslab system was installed underneath the entire slab and extended above the design water table. The system then transitioned to E.Proformance Shoring.”

This portion extended from the underslab up above the design water table elevation.

“EPRO was ideal due to its ease of application, its ability to handle inclement weather, and the fact that its application accelerated the project schedule,” Hyduk adds.

In addition, Methane Specialists — a methane and soil-gas consultant and provider of related engineering services — worked with the project team to assist with the design and recommend a system. They worked through intricate detailing of the walers and rakers and provided their expertise to develop the foundation design to maximize the likelihood of success.

“E.Proformance was the best product for the job, although typically not what is used normally in this area with these conditions,” says Chris Conahan, Methane Specialists. “There are a lot of systems out there that are designed only for waterproofing or only for contaminants, yet EPRO could accommodate both in one system.”

The total area that needed to be waterproofed was approximately 60,000 square feet. Architectural services were provided by Perkins and Will, and the General Contractor was Hanover West, Inc. The EPRO certified installer was Alcala.