CASE HISTORY 1840 N. Highland Ave. Los Angeles

"EPRO was with us every step of the way."

David Frymer
President
Frymer Construction

Property on earthquake fault line utilizes E.Series products as below-grade solution.

EPRO Services, Inc. (EPRO), an innovator of composite waterproofing, methane mitigation, and vapor intrusion systems, provided blindside waterproofing and building envelope protection for 1840 N. Highland Ave. — a new, luxury multifamily complex in the heart of Hollywood, CA, steps away from the world famous Hollywood Bowl and Hollywood Boulevard. The 118-unit complex will sit on an 8,144 square-foot lot, and presented several challenges, which 70,000 square feet of EPRO's E.Protect+ and E.Proformance below-grade solutions were able to mitigate.

The lot is zoned for a multi-family housing project, and the Alquist-Priolo Earthquake Fault Zone runs through the property boundary. Subsequently, the team had to install a 2' thick layer of Geofoam between the shoring system and below-grade shotcrete walls, which were put in place to reduce and eliminate seismic movement impact on the building's structure. Three stories of the structure sit below grade.

E.Protect+ Underslab was implemented to protect the building foundation and blindside vertical walls for water intrusion considerations. In addition, E.Protect+ transitioned to E.Proformance Shoring system above the design water table. Complexity increased as EPRO's negative side waterproofing systems were applied directly to the Geofoam layers for below-grade waterproofing purposes. The transition between E.Protect+ (hydrostatic) and E.Proformance (non-hydrostatic) was at 2'-0" above the high historical water table level and extended to grade.

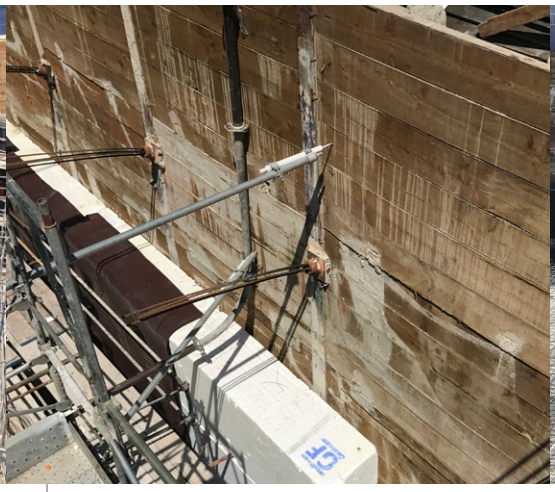
"EPRO helped us and the geotechnical consultant work through the issue regarding the north face of the building where the fault line divided the water table across the north and south sides," says architect Ronald Rosell, AIA, with the project architect, Arquitectonica. "The fault acted like a subterranean waterfall, and EPRO gave us recommendations for how best to prevent that hydrostatic pressure and constant flow of water from impacting the structure."

The waterproofing system was carefully detailed around many pipe penetrations and several pits for both elevators and utilities.

"We collaborated with Terra-Petra, the waterproofing consultant, regarding the usual qualifications, review of transitions, and fastening and drainage considerations," says David Frymer, President, Frymer Construction, the project's general contractor. "EPRO was with us every step of the way."

"There were some real twists to the project, including two fault lines under the cantilever of the building and the water table, which sat at

Internal bracing done with rakers increases the complexity of the detailing



E.Proformance Shoring applied over geofoam blocks with horizontal penetrations and tie-backs

E.Protect+ extending up from under the slab and up the vertical wall past the design water table

"My experience with EPRO has been outstanding," says Mostafa Sobhi, President of BM Builders and BMG Roofing, and Certified EPRO Applicator. "Their quick turnaround in answering any concerns and providing details due to changing field conditions has been a huge factor on how jobs like this can be successful, while also maintaining schedules. The EPRO team has always been there to support us from day one."

different levels. EPRO saved us a lot of work and was on the site a great deal of the time," says Josh Heidt, CP, with Terra-Petra, who was contracted to provide waterproofing consulting. "EPRO was deeply involved with this, responded promptly, and have the kind of case history we were looking for from a manufacturer on a multi-faceted project like this."

EPRO's E.Proformance Shoring blindside waterproofing system was used for the non-hydrostatic waterproofing system. E.Proformance was also selected as a solution at grade level where it was transitioned to a hot rubber horizontal waterproofing system, a landscaping area for planters, and a stucco wall system.

Despite the high level of complexity and the presence of hydrostatic conditions, working closely with the project team enabled EPRO to provide an industry-leading 15 year no-dollar-limit warranty to the developer. Providing such a robust warranty encouraged the entire project team to collaborate with EPRO to anticipate and overcome challenges in the field.

EPRO's E.Series systems features built-in layers of redundancy. This redundancy is achieved by combining different types of waterproofing materials to leverage the positive attributes of each and eliminate a continuous seam. EPRO calls this Redundant Field-Installed Composite Design.

EPRO's Redundant Field-Installed Composite Design philosophy represents the evolution of its products over the past 20 years. It is now easier than ever for developers, designers, and contractors to determine the ideal waterproofing system for their project.

The 1840 N. Highland Ave. apartments will be completed in 2019. The project team included general contractor Frymer Construction, architect Arquitectonica, waterproofing consultant Terra-Petra, and certified EPRO applicator BMG.

EPRO makes building products to keep structures dry and safe. Founded on the belief that redundant systems provide the best protection, EPRO provides composite waterproofing and vapor intrusion systems for all types of performance needs and project conditions. For more information, call 800-882-1896 or visit www.eproinc.com.