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Josh Osorio
Assistant Project
Manager
McCarthy Building
Companies, Inc

Project Size: 110,000 sq. ft.
Condition: Water table, methane gas, VOC contaminated groundwater
General Contractor: McCarthy
Architect: SPR:a
Waterproofing Consultant: SGH
Environmental Consultant: Methane Specialists
Applicator: Courtney



EPRO provided timely, comprehensive waterproofing and contaminant protection for challenging project, Water’s Edge

The Water’s Edge office complex is located in Playa Vista, California, a relatively new mixed-use community that unites tech companies and professional sports teams, and also houses thousands of residents. The Hughes’ Aircraft Company was once located at this site, and it was also where the legendary Spruce Goose was manufactured. Due to the fact that this formerly industrial land also happens to have both extremely shallow groundwater, and naturally occurring methane gas, it is challenging to build and protect below grade space.

Phase Three of the Water’s Edge project, appropriately called WE3, is one of the final developments in the Playa Vista area. SPR:a is the architecture firm responsible for the design of the six-story creative workspace. The project is situated two levels below grade and into the water table — the overall site is a mile from the Pacific Ocean — and is supported by a pile foundation. It was also determined that due to the presence of methane gas and groundwater,

which is contaminated with chlorinated solvents, the below grade waterproofing system needed to be able to do much more than just keep water out of the structure.

To provide a proper substrate for the waterproofing system, the team had to go down two levels below grade. At this depth, they determined that water was still coming in from different locations across the site.

EPRO E.Protect+ was specified for the site, configured into 91,000 square feet of E.Protect+ Underslab and 30,000 square feet of E.Protect+ Shoring.

“There were a multitude of things at the site that made it complicated, from the logistics of removing the soil to the fact we had to employ the French drain system and pump out water at seven or eight separate locations at the perimeter and at the bottom,” says Josh Osorio, assistant project manager, McCarthy Building Companies, Inc.

Site utilized 91,000 square feet of E.Protect+ Underslab and 30,000 square feet of E.Protect+ Shoring.

e.base 316 pre-fabricated boots which were used to seal auger cast piles.



An additional challenge arose because the foundation was secured in place by auger cast piles.

“There were around 1,000 piles on the site that we had to waterproof and detail around, and the water was still coming up between the concrete and the rebar,” Osorio says, “In some places, we had so much water coming through some piles that we had to apply an additional waterproofing treatment just to stop the water pressure and subsequently apply EPRO.”

Sealing to piles that will be subjected to hydrostatic conditions requires flawless execution. EPRO utilized pre-fabricated boots to speed up installation and provide the extra protection and detailing needed around the piles. EPRO’s redundant field installed composite systems blend together factory-made components with those fabricated in the field, allowing the systems to adapt to many different conditions.

It was clear that EPRO’s triple redundant system was the ideal solution to simultaneously combat the high water table, methane gas, and chlorinated-solvent-impacted groundwater. Additionally, the project team appreciated the peace of mind offered through the support of EPRO’s E.Assurance no-dollar-limit warranty. McCarthy selected EPRO E.Assurance Certified Contractor Courtney Waterproofing to do the install.

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Throughout the project, the EPRO team visited the site on a regular basis to supervise application and installation, and also assist the construction and design team in solving the issues that arose during the project. EPRO’s due diligence ensured that there were no major delays. Ultimately, the overall speed of installation was integral to success.

“It was our goal to help Courtney so the installation ran very smoothly, without a hitch – and this was of particular importance in this high water table environment,” says Brian Miraki, Specified Products, Inc. “The job went well because we all planned well, and during the design process we developed key details with the project team to address the most challenging and critical areas. Then at the preconstruction meeting, we worked through the project with the other trades because we did not want any surprises, and we did want a smooth installation process.”