Seaworld Electric Eel

San Diego, California

Keller completed the construction of the Electric Eel roller coaster foundations a week ahead of schedule and without causing harm to adjacent sensitive exhibits.

The project

SeaWorld San Diego’s 2018 construction of a new coaster, the Electric Eel, called for a quick solution that would help support the proposed approximately 11,000-square-foot mat foundation of the structure on a 1.2-acre site. Soil conditions consisted of mechanically and hydraulically placed dredge material in the upper 20 feet and old bay deposits of silts and clays below.

The challenge

Construction was completed during operating park hours. The application required Keller to mitigate the liquefaction potential of the subsurface soil and meet the stringent seismic and static settlement criteria. The largest concern was in the mornings due to the proximity of the noisy construction project with existing live animal exhibits and their sleeping inhabitants.

The solution

Keller designed and built a ground improvement solution to stabilize the soft ground, mitigate liquefaction, and reduce permeability, installing over 200 six-foot diameter columns to 40-foot depths. To lessen the disruption to exhibits and guests, Keller used strategic location of batching operations and extensive use of spotters during operations.

> “We were fortunate to have Keller’s assistance on the preconstruction efforts and subsequent ground improvement operations to support the foundation of this new and exciting project. Thank you for being a part of the team and we are hopeful to work together on future projects.
>
> **Nestor Comandante**
> Senior Project Manager, Rudolph and Sletten, Inc.

Project facts

Owner(s)
SeaWorld Parks & Entertainment

Keller business unit(s)
Keller

Main contractor(s)
Rudolph and Sletten, Inc.

Engineer(s)
Christian Wheeler Engineering

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Ground improvement

Markets
Institutional
Sports and entertainment

Techniques
Wet soil mixing

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