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Lucas Lagoons Project

HELICAL PIERS PROJECT

Project

The project consisted of a deep foundation system for a luxury residential pool. Installation of thirty-six (36) helical piers consisting of helix diameters of 12-14-14-inch and 8-10-12-inch to support the foundation system of the proposed pool. All helical piers were installed to competent cemented shell or limestone layers to depths ranging from 12 to 59 feet below ground surface.

Challenge

The challenges encountered during helical pier installation were minimal:

- Critical path construction schedule
- Limited space to operate machinery

Solution

All helical piers were installed to competent limestone layers with torque ranging from 799 to 4,510 ft-lbs. Based on the installation torque or spinning on competent cemented shell or limestone layers, all helical piers have satisfied and exceeded an allowable load bearing capacity of 13 kips and ultimate load bearing capacity of 26 kips. Work was successfully completed in just (5) days and finished on-time and within budget.

Contractor: Lucas Lagoons
Engineer: BTL Engineering
Market: Residential
Solution: Deep Foundation
Services: Helical Piers