

CASESTUDY

AUG 2021



6 NEW CONSTRUCTION
HELICAL PILES INSTALLED
TO SUPPORT A CAR WASH

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NEVERSETTLE



HELICAL PILES USED AS AN ALTERNATIVE TO CONCRETE CAISSONS AT A GAS STATION CAR WASH IN LANCASTER

PROJECT BACKGROUND

A large, well-known gas station chain was getting ready to construct a new location at a very busy intersection in Lancaster, CA. The gas station has a team of in-house engineers who designs their new construction plans and they ran into an issue when designing the foundation of a car wash that was being constructed on the south end of the property. The calcs were showing load values that would require some MASSIVE concrete caissons for proper support. Such massive caissons that their teams wouldn't have the time or resources to install without effecting their go-live timeline.

PROJECT DESIGN PHASE

Having not been familiar with our helical pile systems, the engineering team wasn't sure which system would be a good fit for their situation. Being that they had already calculated the load values that would be required, it was really easy to find a specific model of helical pile to use for this new foundation. In this particular case ECP's TAF-288 was a perfect fit for this use case with their 9,500 ft lbs torque rating and 40,000 lbs min yield strength. In total 6 helical piles would be installed to a depth of at least 28 feet with 4 of the helicals being battered.

DALINGHAUS SOLUTION

Once the plans were designed with a combination of vertical and battered ECP TAF-288 our team was able to mobilize to Lancaster, CA to install the 6 helical piles. This customer lucked out with both Brian and Brad Dalinghaus tag teaming the installation. In a matter of hours they had all 6 helical piles installed to competent, load-bearing strata which turned out to be on average between 28 and 30 feet of depth. After the piers were driven holes were drilled to allow for the installation of new construction caps that would be tied into rebar and eventually encased in the concrete footing.

In half a day our team at Dalinghaus Construction was able to install an alternative to concrete caissons, allowing this international gas station and convenience store chain to stay on track with the rollout of a new location in Lancaster, CA.

INSTALLATION OVERVIEW

TOTAL HELICAL PIERS

6

PRODUCT MANUFACTURER

EARTH CONTACT PRODUCTS (ECP)

ENGINEERING TEAM

CUSTOMER'S IN-HOUSE TEAM

