

CASESTUDY

AUG 2020



27 HELICALS INSTALLED TO
SAVE HILLSIDE BACKYARD IN
DIAMOND BAR



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NEVERSETTLE



HELICAL PIERS & TIE-BACKS HYDRAULICALLY DRIVEN TO SUPPORT SLIDING BACKYARD & POOL

PROJECT BACKGROUND

After purchasing this home in Diamond Bar, CA a new homeowner found himself looking at cracks all over his backyard with several large cracks running parallel with a massive slope that the home sits on. His first call was to an engineer who recommended he find a foundation repair contractor because there were only two options for this pool and backyard... either tear out and replace everything, or install piers to address the incompetent soils and lateral movement. With a soil report in hand the homeowner called the Dalinghaus Construction team to inspect the property and design a repair plan.

PROJECT DESIGN PHASE

Having been familiar with several properties with similar slope conditions in this neighborhood, the owner called us to come out to the home and evaluate the site conditions. During the evaluation Joe and Phil found that the pool had settled over an inch on the side adjacent to the slope. They needed to design a repair plan that properly addressed the settling while also being sure to address the lateral movement the pool was experiencing towards the slope.

DALINGHAUS SOLUTION

With the help of Helfrich and Associates Joe and Phil designed a repair plan consisting of the installation of 24 TAF288 vertical helical piles and 4 TAF150 helical tiebacks around the perimeter of the pool and along the hillside. The piles and tiebacks would be both embedded into new grade beams and mounted to the footings around the pool to lift the areas that had settled. The methodology for the design was to create a structurally sound solution to the slope's previously unsupported crepe characteristics.

Dalinghaus Construction was able to successfully install the 23 piles and 4 tiebacks with the help of two crews in one single phase to help solidify the hillside. The project was installed utilizing our hand held installation equipment. The piles were installed to an average depth of 28' and the tiebacks were installed to an average depth of 22'.

INSTALLATION OVERVIEW

TOTAL HELICAL PIERS

23

TOTAL HELICAL TIE-BACKS

4

PRODUCT MANUFACTURER

EARTH CONTACT PRODUCTS (ECP)

ENGINEERING TEAM

HELFRICH & ASSOCIATES



DALINGHAUS

877-360-9227

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