

CASESTUDY

DEC 2021



HELICAL PILES SAVE HILLSIDE HOME IN SAN CLEMENTE WITH 16" OF SETTLEMENT

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NEVERSETTLE



SAN CLEMENTE HILLSIDE HOME SPLITS IN HALF AFTER 16" OF SETTLEMENT & LATERAL MOVEMENT TOWARDS SLOPE

PROJECT BACKGROUND

A San Clemente community weaving through a golf course has been plagued with settlement & lateral movement issues for many of its hillside home residents. This particular home is the worst of the bunch with over 16 inches of settlement measured, with 1.5 of those inches occurring in 2021. Towards the end of 2020 one of our long-time investor clients decided to purchase the home and move forward with a remodel after addressing the home's structural issues.

PROJECT DESIGN PHASE

Our Project Design Specialist, Mark Cook, performed the initial foundation evaluation on this property and worked with **ENGINEERING - SERVICES & DESIGN SOCAL** to design a repair plan that would address the massive amounts of settling while also addressing the lateral movement the structure had experienced. In fact, the home split in half with a 6"+ wide crack running parallel to the slope throughout the foundation, walls, and ceiling!

DALINGHAUS SOLUTION

The repair plan would consist of two phases, with 27 vertical helical piles and 5 helical tiebacks being installed in phase 1 to address the main structure of the home, with an additional 9 helical piles and 3 tiebacks in a new construction application that would allow for a deck to be installed in the backyard. Over the course of 3 weeks our team installed the vertical helical piles to an average depth of almost 61' before attempting to lift the home and recover the 16" of settlement. With so much recovery, the team decided to split the lift into two phases... recovering 8 inches on the first day and an additional 6 inches on the second day. In the near future the Dalinghaus Construction team will begin phase two of the project to allow for the installation of deck to expand the useable space in the backyard.

INSTALLATION OVERVIEW

TOTAL HELICAL PIERS

27

HELICAL PRODUCT

TAF-288

PRODUCT MANUFACTURER

EARTH CONTACT PRODUCTS
(ECP)

