CASE HISTORY

- SITE PREPARATION
- NEW CONSTRUCTION
- REMEDIAL REPAIR
- HELICAL PULLDOWN® MICROPILE
- ATLAS RESISTANCE® PIERS
- HELICAL UNDERPINNING
- EARTH RETENTION
- RETAINING WALLS
- HELICAL TIEBACK
- SOIL SCREW®
- PIPELINE STABILIZATION
- TELECOM/SUBSTATION
- UTILITY/SOLAR

CHANCE® DISTRIBUTOR

PACIFIC HELIX DISTRIBUTING
Santa Fe Springs, CA

CERTIFIED CHANCE® INSTALLER

ARIZONA HELICAL PIER CO.
Cave Creek, AZ

PROFESSIONAL ENGINEER

STEELHEAD ENGINEERING
Freedom, CA

SPEEDIE AND ASSOCIATES
Phoenix, AZ

GENERAL CONTRACTOR

HARDISON / DOWNEY CONSTRUCTION
Phoenix, AZ

Hubbell Power Systems, Inc. is the world's leading helical pile/anchor manufacturer. The CHANCE® brand offers a technically advanced, cost effective solution for the Civil Construction and Electric Utility and Telecommunications markets.

HELICAL FOUNDATION SOLUTIONS

Dormitory Construction

FOUR-STORY STUDENT DORMITORIES FOR NORTHERN ARIZONIA UNIVERISTY

COMPRESSION TESTING

PROJECT

New deep foundations for a pair of four story student dormitories on the campus of Northern Arizona University in Flagstaff.

THE CHALLENGE AND THE SOLUTION

General contractor Hardison / Downey Construction was advised that large settlement concerns indicated the need for a deep foundation system. Highly variable site conditions made foundation construction unpredictable and time consuming. H/D Construction approached Arizona Helical Pier Co., a Certified CHANCE® Installer, and Steelhead Engineering to value engineer the foundation design. Because construction duration was a top priority, a helical pile deep foundation was the obvious choice.

The site was an old drainage course with weathered rock bearing strata overlain by an undocumented fill of sands and boulders varying in thickness from 0 to 40 feet. Excavation and re-compaction, drilled cast in place piers, driven piles and floating mat foundations were all rejected for performance, price or constructability reasons. With time being critical, the helical pile solution minimized required pile-to-pile design revisions that had to be approved by the engineering, contracting and regulatory stakeholders. Representative full-scale compression testing verified the capacity and stiffness of per plan installations and up to 70 piers requiring shallow pre-drilling and post grouting.

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>
> -JEFF MARTIN, P.E., STEELHEAD ENGINNERING

Material distribution of 500 CHANCE SS175 helical pile products and application support was provided by Pacific Helix of Santa Fe Springs, CA. Pile engineering was by Steelhead Engineering of Freedom, CA. Geotechnical engineering was by Speedie and Associates of Phoenix, AZ. Special inspection services were provided by Bingham and Associates of Phoenix, AZ.

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