

# HELICAL FOUNDATION SOLUTIONS

## 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

CERTIFIED INSTALLER  
MASON GRADY FOUNDATIONS

GENERAL CONTRACTOR  
CLAYS CONSTRUCTION

STRUCTURAL ENGINEER  
DEC ENGINEERING

ARCHITECT  
OLSON ARCHITECTS

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.



### PROJECT

Thomasville Landmarks, Inc. is an organization based in the South Georgia town of Thomasville. Their mission is to preserve and protect the architecture and rich history of Thomasville and Thomas County by leading the effort to preserve and restore many of the historical structures throughout this area.

Landmarks had recently purchased a historic warehouse located in downtown Thomasville to serve as their corporate headquarters. Their plan was to completely renovate and modernize the historic structure with the help of Olson Architects. A structural evaluation of the building was performed by DEC Engineering which revealed substantial settlement to the structure's foundation. To determine the cause of settlement a geotechnical investigation was performed by Earthworks Geotechnical.

During this investigation it was discovered that the warehouse had been constructed atop a construction debris pit. The depth of this debris extended to approximately 8 feet below existing grade. Below the layer of debris was a dense layer of sandy clay.

### SOLUTION

DEC Engineering was contracted to design a system to prevent any further settlement to the warehouse's foundation. A CHANCE Helical Underpinning system was chosen by the owner, architect, and engineer as the desired method to stabilize the perimeter foundation of the structure. Engineered for dependability and long-term stability, CHANCE® Helical Underpinning systems provide high-capacity piles to stop settling and cracking of residential, commercial and industrial structures. The system was installed by Mason Grady Foundations (MGF), a Certified Installer of CHANCE Helical Foundations Systems. Located in Cairo, GA, their service area includes North Florida, South Georgia, and Southeast Alabama.

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## CASE HISTORY

### THE WORK:

The underpinning system consisted of thirty-five (35) CHANCE 2-7/8" Round Shaft Pipe Piles. Lead sections consisted of a 10", 12" helix configuration, installed to depths ranging from 12 to 20 feet. The piles were installed using a John Deere 35G Mini-Excavator equipped with an Eskridge 8k Drive Head. Piles were equipped with 40 kip underpinning brackets to allow for connection to the existing footing. Each pile was installed to support an allowable capacity of 20 kips with a factor of safety of two (2). Installation torque was monitored throughout pile installation using a CHANCE Digital Torque Indicator. A calibrated hydraulic jack with PSI gauge was used to set each bracket at the allowable capacity of 20 kips. Once the system was installed benchmarks were set at each pier location so that MGF can easily monitor the structure to verify that no future settlement occurs. The entire underpinning system was installed in two weeks.



Advancing helical lead section



Completed underpinning system



Setting each bracket to the design load



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*CHANCE CERTIFICATION*  
#1912-0009-3630

Mason Grady Foundations specializes in CHANCE Helical Pile Systems primarily for foundations and retaining walls. The company is a certified CHANCE installer, we are family owned and operated, and we are a member of the CHANCE Alliance Network.