

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

# Fairfield High School



**PROJECT:**

New 3 story addition to Fairfield High School to include four new science classrooms, a new auto shop and wrestling room, common areas, stairwells, and an elevator for ADA accessibility. Built in 1939, the school enrolls more than 550 students.

**PROBLEM:**

The soil under the school and the addition was mostly clay and sand. “They are building on to the High School and the engineer found out that the soils did not have enough load bearing capacity for the addition. He felt that helical piers were the best solution--considering time and budget constraints,” explains Chad Stumpf, Vice President, Stumpf Construction Services, in Riverside, Iowa.

The design engineer for the school project contacted Structural Anchor Supply in Osseo, Minnesota and requested a proposal. Structural Anchor Supply is a CHANCE Distributor of Helical Piers and they recommended Stumpf Construction, one of their Certified CHANCE Installers.

Stumpf continues, “There was a lot of construction activity going on around the site, making the work area tight, but we have equipment that can get into those spaces. It would have been difficult and significantly more expensive to pour a foundation--and it would’ve taken longer. Also, the design engineer wanted to minimize vibration, considering that the new footer had to go right against the existing structure. Helical pile technology is a preferred deep foundation solution when adding on to an existing structure as driven piles may cause damage due to vibration during installation.

*continued*

CHANCE® DISTRIBUTOR  
**STRUCTURAL ANCHOR SUPPLY, LLC**  
 Osseo, MN

CERTIFIED CHANCE®  
INSTALLER  
**STUMPF CONSTRUCTION SERVICES**  
 Riverside, IA

PROFESSIONAL ENGINEER  
**APEX STRUCTURAL, LLC**  
 Cedar Rapids, IA

GENERAL CONTRACTOR  
**NORTHEAST HOME ELEVATIONS**  
 Point Pleasant, IA

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.



**THE SOLUTION:**

The Stumpf crew installed twenty two, SS5 Helical Piers® with a 10-12-14 helix configuration in an ‘L’ shape along the existing buildings. Extensions were added in order to reach the required torque of 40 kips at depths between 18 to 21 feet.

“We used a small track excavator to drive the helical piles in at a slight angle next to the existing footing. The design called for a grade beam so we cut off the extension rods and put bearing caps on them,” explains Stumpf.

The project began in Jun 2014 and completed in time for the new school year.

**KEY BENEFITS:**

Helical piles allowed the project to remain on schedule with no vibration to impact the existing structure, immediate loading without waiting for concrete to cure, use of small equipment for limited access areas, and local installer to mobilize quickly. “Sometimes commercial projects--can be challenging with multiple trades working in tight areas but this project went smoothly and completed on time” points out Stumpf.

“ There was a lot of construction activity going on around the site, making the work area tight, but we have equipment that can get into those spaces. It would have been difficult and significantly more expensive to pour a foundation--and it would’ve taken longer. ”

-CHAD STUMPF, VICE PRESIDENT,  
STUMPF CONSTRUCTION SERVICES

