

# CHANCE

## Civil Construction

### A CASE HISTORY

# WALKWAY ANCHORING REPORT

## In just two days, Instant Foundation® System replaces bridge piles with minimal equipment

— Centralia Country Club, Centralia, MO

### Job Description

Severely deteriorated reinforced-concrete piles of a bridge over a creek presented a hazard for pedestrians, golfcars and maintenance vehicles. Removing the old bridge to No. 9 was the first step.

### Reconstruction Plan

For a fast and long-lasting remedy, the construction plan specified the Chance® Instant Foundation® System. To carry the design

load, High-Strength (HS) Instant Foundation® anchors (3½" O.D. pipe shafts, 11,000 ft.-lb. maximum installation torque rating) were selected for resistance to lateral and compression loads.

To avoid impeding drainage flow through the creek during heavy rains, the plan did not call for mid-span support piles in the main waterway. After bridge reconstruction, embankments were to be graded to resist erosion and reseeded for aesthetics.

The plan also intended to meet the customer's priority requirement for low impact of the work on the

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**CHANCE**  
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CHANGING HISTORY

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Certificate No. 001136

Bulletin 04-0001  
Rev. 11/06

surrounding terrain.

### Installation of Piles and Bridge

At each end of the bridge site, a pair of HS foundation anchors were installed by a digger-derrick truck with a direct-reading electronic torque indicator. The anchor design was a 5-ft. long lead section with one 10- and one 12-inch helix plate, plus a 7-ft. shaft extension.

The foundation anchors were driven approximately 20 ft. deep to achieve the plan's minimum installation torque requirement of 4,000 ft.-lb. This indicated the helix plates were in a soil layer competent to support the design



load with a safety factor of 2:1 with respect to the ultimate foundation capacity.

Because Instant Foundation® anchors can be placed with precision, the two I-beams for the new bridge were mounted directly on these four new piles with locally fabricated steel caps. This was done after the old concrete piles were cut off

so as not to interfere with the new support system.

The job was finished in only two days with attachment of the bridge decking as "sidewalk superintendents" (country club members) waited eagerly for their new and improved crossing, which they considered long overdue. □



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