

CHANCE[®] UNDERPINNING ANCHORING REPORT

A CASE HISTORY

Project: Arena Grandstands, Illinois State Fairgrounds, Springfield, IL	General Contractor: Siciliano, Inc., Springfield, IL	Engineering: Rice, Berry, Uzman Springfield, IL; and ABS Consulting St. Louis, MO	Architect: Bruce Ferry, Ferry and Associates, Springfield, IL	Anchoring Sub-Contractor: HELITECH [®] Belleville, IL
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Problem:

Only a year after the Illinois State Fairgrounds arena opened, the Grandstands began to show signs of structural damage. Settling of the concrete-block partition walls at the west end was attributed to organic subsoil conditions. Part of the structure was on landfill not competent to support the loads.



Solution:

Of several available systems, the Illinois Department of Agriculture, project architects and engineers selected Chance HELICAL PULLDOWN[™] Micropiles to meet the requirements of 50 Kips per pile. This system's advantages include installation in most soil conditions, accessibility to confined work spaces and high axial capacity developed by its grouted shaft.

Helitech[®], a certified installer of Chance Foundation Systems, placed some 57 HELICAL PULLDOWN Micropiles to help prevent further settling. Founda-

tion anchors reached a 42-ft. depth with a maximum 5,500 ft-lb installation torque. The anchor configuration was a 1½"-square shaft SS5 with a double helix (8" and 10" diameters) lead section plus 3-ft. and 7-ft. extension shafts with a 5"-diameter grout column. After the system stabilized the arena, cracks in the structure were repaired.

Result:

Not only a cost-effective foundation repair, the timesaving anchor system was installed in only 10 days. Consequently, the Fairgrounds event schedule was not disrupted for the State Fair and National High School Rodeo.



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NOTE: Because Hubbell has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.

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