

CASE STUDY

Tyler, TX



CANTSINK
— SUPPORTING INNOVATION —



Cortex Indoor Heavy Duty Crane Foundation

Keeping Operations Moving While Building A Stronger Foundation

SITUATION

Cortex was preparing to install an overhead crane system inside an existing warehouse facility. The new crane system required additional foundation support to accommodate the structural loads associated with the load requirements for the new overhead crane system. The challenge was not only providing the required foundation capacity—it was doing so inside an active warehouse without interrupting Cortex's ongoing operations.

Cantsink was brought in to provide a deep foundation solution based on the project's engineering plans and geotechnical report.

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SCOPE OF WORK

After reviewing the engineering plans and geotechnical information, Cantsink developed a helical pile solution designed to provide the foundation support required for the new overhead crane system. Based on the column design loads, Cantsink proposed to install two (2) 3.5" OD helical piles at each location to meet the Engineer's design load of 52 Kips per column.

A double 12/14" helix configuration was recommended based on the soil data provided from the two soil borings that revealed dense silyt sand at 15 feet with an "N" value of 46 at boring 1 and poorly graded sand with silt at 20 feet with an "N" value of 22.

ANCHOR SYSTEM

- The project utilized:72 pile installations
- 3.0" Schedule 40 pipe piles
- Double 12/14" helix configuration
- Anticipated installation depth of approximately 21 feet
- Installation within an active warehouse facility

RESULT

Once installation began, actual pile depths ranged from approximately 14 to 21 feet. Because the piles reached the required installation criteria without exceeding the anticipated depth, there was no change order to the project budget for Cortex.The helical pile system allowed Cantsink to install the required foundation support within the existing warehouse while minimizing disruption to the facility's day-to-day operations.