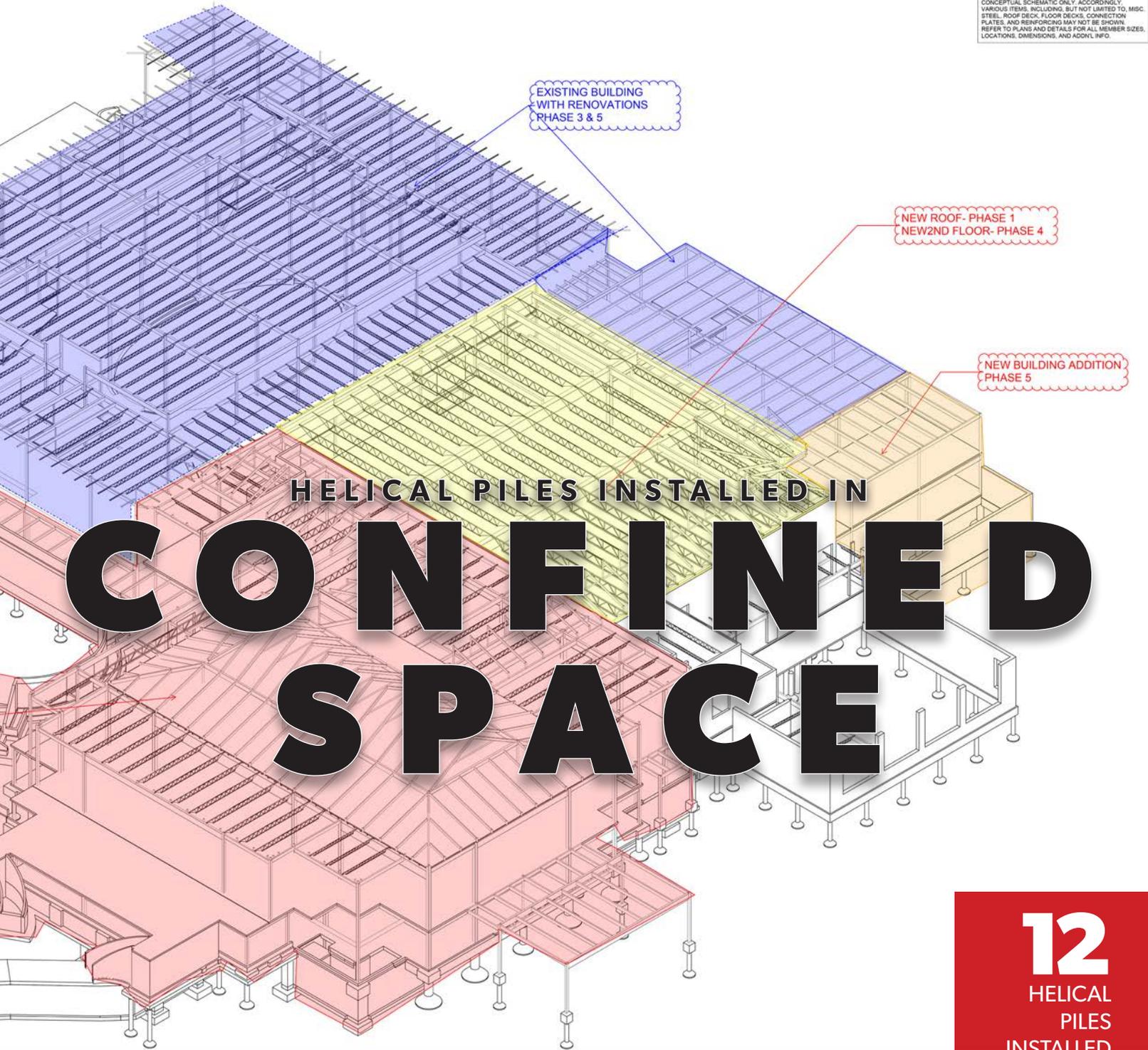


NOTE:  
THIS 3D DIMENSIONAL VIEW IS PROVIDED AS A  
CONCEPTUAL SCHEMATIC ONLY. ACCORDINGLY,  
VARIOUS ITEMS, INCLUDING, BUT NOT LIMITED TO,  
MISC. STEEL, ROOF DECK, FLOOR BEAMS, CONNECTION  
PLATES, AND REINFORCING MAY NOT BE SHOWN.  
REFER TO PLANS AND DETAILS FOR ALL MEMBER SIZES,  
LOCATIONS, DIMENSIONS, AND ADDITIONAL INFO.



EXISTING BUILDING  
WITH RENOVATIONS  
PHASE 3 & 5

NEW ROOF- PHASE 1  
NEW 2ND FLOOR- PHASE 4

NEW BUILDING ADDITION  
PHASE 5

HELICAL PILES INSTALLED IN

# CONFINED SPACE

**12**  
HELICAL  
PILES  
INSTALLED

**COMMERCIAL**

1 CLUBHOUSE - 3D PERSPECTIVE - COMPLETED PROJECT  
SCALE:

**RAM JACK TEXAS**

www.ramjacksystems.com | 800-969-2255  
Houston, TX

# CONFINED SPACE LIMITS OPTIONS | RAM JACK PROVIDES A WAY

HOUSTON, TEXAS

Plans for Houston Country Club's main building—a two-story structure that contains the dining room, restrooms, kitchen, locker rooms and meeting room—renovation and roof replacement hit a snag, but with the help of Fortified Engineering and Ram Jack, plans were adjusted and the project continued.

## PROBLEM

Phase I of the multi-phase project originally called for conventional concrete bell-bottomed piers to support new loads for upward expansion and replacement of the roof; however, the confined space of the existing structure did not allow for drilling and pouring of the concrete. The engineer of record with Matrix Engineering suggested the use of Ram Jack helical piles.

## PROPOSED SOLUTION

Fortified Engineering used structural drawings and geo reports to design a 7' x 7' pile cap to accommodate a 100 kip load using four (4) 2 7/8" threaded-connection Ram Jack helical piles with a quad-helix configuration of 8"-10"-12"-12" using new construction brackets for each of three (3) original pile locations. The piles would be installed by hand with a 7K driver with torque bar using a pump cart.



## OUTCOME

With the country club closed for only one business day--from 11 p.m. Sunday through 6 a.m. on Tuesday (31 hours)--Ram Jack worked throughout the night Sunday into Monday to install all 12 interior piles by hand, so the general contractor could pour the pile caps prior to Tuesday morning's opening.



**DON'T DO IT TWICE.™**  
**DO IT RIGHT.**

## RAM JACK TEXAS

www.ramjacksystems.com  
800-969-2255  
Houston, Texas

## INSTALLATION OVERVIEW

### COMMERCIAL INSTALLATION

RAM JACK TEXAS

### PRODUCTS USED

2 7/8" HELICAL PILES

### PRODUCT TYPE

NEW-CONSTRUCTION HELICAL PILES

### TYPICAL APPLICATIONS

Ram Jack's 2 7/8" threaded-connection helical piles are typically used in compression and tension applications.



Proudly Made in America

ISO 9001:2015  
CERTIFIED



ICC-ES RECOGNIZED



CCMC RECOGNIZED

# Custom Engineered Solutions Rooted in Quality.



CCMC RECOGNIZED

ISO  
9001:2015  
CERTIFIED



ICC-ES RECOGNIZED

At Ram Jack®, we are focused on providing custom-engineered solutions that meet the unique needs of our commercial clients. You can move forward with confidence knowing we maintain code compliance, providing piles and brackets that reach the highest rating among competitors' products recognized by ESR-1854. Our company has the most products recognized by the ICC and boast an ISO 9001:2015 certified manufacturing facility.

We have the facility to design and fabricate custom products—we are the one-stop solution for engineers and even offer our own in-house engineers for assistance with your project. If you need assistance with foundation designs, we also provide engineer tools and resources and our engineers can work with the project's EOR to develop a custom-designed solution.



## Everything an Engineer Needs

The Ram Jack Technical Manual provides engineers with the information that you will need to understand, design, and specify Ram Jack's helical and driven piles. It also provides information verifying compliance with current building codes and ICC-approved acceptance criteria.

Everything an engineer could ever want and need to know about Ram Jack Helicals and Driven Piles in one book. If you or your firm would be interested in a Ram Jack Technical Manual, please contact your local Ram Jack dealer by emailing [info@ramjack.com](mailto:info@ramjack.com).



**DON'T DO IT TWICE.  
DO IT RIGHT.**

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