



MUSIC TO MAIL | A RAM JACK MAKEOVER

MEMPHIS, TENNESSEE

The Gibson guitar building got a makeover when FedEx decided to move its main offices to downtown Memphis. Ram Jack of Tennessee worked with Burr & Cole Engineering to create a custom solution to see the project to its best completion.

PROBLEM

When FedEx purchased a building in downtown Memphis, they soon realized their renovations would need extra help. The old Gibson guitar building was to be made into main offices for FedEx. The renovations included the addition of a new 2nd floor mezzanine on the interior of portions of the building. The new foundations to support the new mezzanine columns load would require a strong foundation to prevent settlement. Burr & Cole Engineering provided a foundation plan that required pile loads of 80 kips allowable with a minimum safety factor of 2.4 (192 kip ultimate capacity).

PROPOSED SOLUTION

After FedEx presented the problem, Ram Jack Tennessee worked with Fortified Engineering Solutions to design the piles. In order to meet the pile load requirements, 6.625-inch piles were designed with a triple 12"/14"/16" helix configuration and installed with a minimum installation torque of 44,000 ft-lbs. In order to prevent elastic shortening of the steel pile under load, the inside of the piles would be fully grouted after they were installed. To verify the pile design, two full scale pile load tests were performed on-site.





OUTCOME

After the test piles passed with flying colors, installation of the piles on the first phase of the project began. The first phase consisted of installing and grouting (37) helical piles. The pile installation on the first phase took 8 days to complete. After approximately a month of waiting, the footing was ready for the second phase of piles. Twelve helicals were installed and grouted in three days. A total of (49) 6.625-inch grouted helical piles were installed on the project to an average embedment depth of 36-feet. Everyone was happy with both the quality of the work and the speed with which the job was performed. FedEx employees now have a newly renovated office building with a secure foundation.

DON'T DO IT TWICE. DO IT RIGHT.

RAM JACK TENNESSEE www.ramjacktn.com 731-686-0370 Milan, Tennessee



INSTALLATION OVERVIEW

COMMERCIAL INSTALLATION

RAM JACK TENNESSEE

PRODUCTS USED 6.625" HELICAL PILES

PRODUCT TYPE

NEW-CONSTRUCTION HELICAL PILES

TYPICAL APPLICATIONS

Ram Jack's 6.625" external connection helical piles are typically used in compression and tension applications.



Custom Engineered Solutions Rooted in Quality.

CCMC RECOGNIZED



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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 <u>info@ramjack.com</u>.

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