

Installer: Ram Jack of Tennessee • 866 735-3085

Situation:

Ram Jack of Tennessee was contacted in early March 2016 by the owner of a boathouse presenting significant signs of foundation and structural distress. The boat house was constructed in such a manner as to place only the wall and roof loads on the footer while the boat, boatlift, and other live loads were supported by a separate foundation system. Complicating the remediation was the very short window in which the TVA would be lowering the water level in the lake. This several day period would expose a portion of the building footer and provide the only reasonable window for pile installation.



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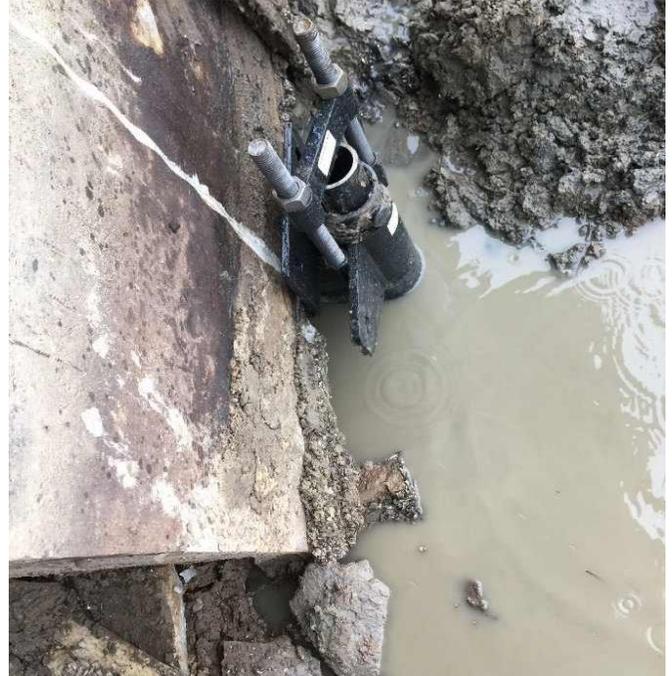
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Solution:

Ram Jack consultants developed a repair plan to make use of thirteen (13) helical piles with a two-flight design of 8” and 10” helices on a 2 7/8 pile shaft. The design included the use of an external steel guide sleeve and “side-load” type footer brackets. The piling plan was approved with the ambiguous installation window as the only unknown.

Conclusion:

The water in Lake Melton Hill was lowered over a several day period ending on March 22, 2016. Ram Jack installation technicians arrived on-site early the next day and completed installation two days later. The helical piles were driven to an average depth of just over 20’ where they reached a target installation torque of 2,500 lb/ft. The hydraulic systems were then synchronized to achieve maximum practical recovery of the structure and the brackets secured to permanently underpin the structure. The water level was allowed to return to its normal level several days later and the boat lift and boathouse returned to their operational state with a strong and stable foundation ensuring many additional years of trouble free service.



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