



2015 CASE STUDY

Type: Commercial | Issue: AR201501



**New Construction
Helical Piles Provide
Stable Foundations
for Rack Mount
Solar Panels**

RAM JACK LOCATION:

Ram Jack Oklahoma & Arkansas

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Ada, OK

BERRYVILLE SOLAR FIELD | NEW CONSTRUCTION

Berryville, Arkansas

CASE STUDY 2015



As with any investment in a structure, ensuring the foundations of solar panels can withstand loads is paramount to their longevity. Helical piles have been commonly used as an efficient alternative for ground mount solar panels which are designed with their own support system extending to the ground.

Proven Engineered Solutions.

SITUATION

A series of Tenk Solar Panels were to be installed in Berryville, Arkansas. Tenk Solar Panels are rack mount, rather than ground mount, meaning a series of foundations support a singular monorail or rack to which an array of panels are then attached. Additionally, the foundations were to be installed at a remote field where access with a concrete truck proved difficult.

PROPOSED SOLUTION

Based on load requirements from Tenk and the soil information from the site, an engineer developed a plan utilizing (16) 2 7/8" helical piles that would be torqued 6 ft. into the soil and extend up to 4 ft. out of the soil. The piles had to be installed within 1 in. of the plan both vertically and horizontally. Once installed, they could be trimmed to match site grade and then have the cap installed.



OUTCOME

During installation several pile locations encountered a layer of rock which had to be drilled through in order for installation to be complete. Overcoming the unforeseen obstacle, all piles were installed within required parameters, taking only half a day, and were ready for the solar panels to be installed immediately.



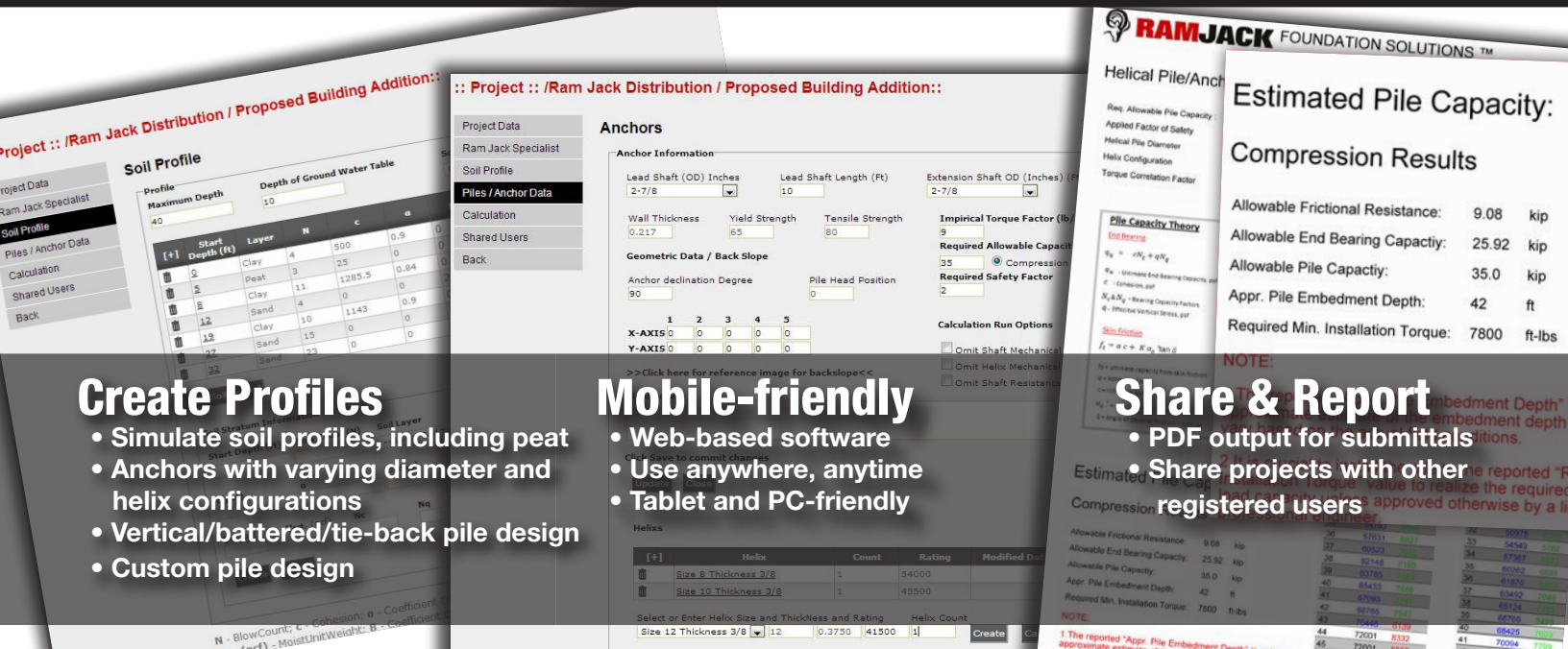
- Engineered Foundation Solutions
- Products Manufactured in the USA
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Recognized as Code Compliant to Meet International Building Codes



HELICAL PILE DESIGN SOFTWARE: FOUNDATION SOLUTIONS™



Create Profiles

- Simulate soil profiles, including peat
- Anchors with varying diameter and helix configurations
- Vertical/battered/tie-back pile design
- Custom pile design

Mobile-friendly

- Web-based software
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