

MacLean Civil Products Teams with Construction Services, Inc. to Install (130) Helical Piles for Large Underpinning Project in Irvine California



MPS Civil Products

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Project Name & Location:	Irvine Company Tilt Up Structure - Irvine, CA
Project Date:	October 2016
Project Type:	Foundation Stabilization Underpinning
Helical Pile Installation Contractor:	Construction Services, Inc. - http://anchorguys.com/
Geotechnical Engineer:	GMU Geotechnical, Inc. - http://www.gmugeo.com/
Structural Engineer:	EJD Engineering, Inc. - http://www.ejdengineering.com/
Helical Pile Distributor:	Advanced Support Technology - http://www.earthscrow.com/
Helical Pile Specifications:	Model D10 1.75" RCS Helical Piles with 10",12" Helix Bearing Plates, Dixie 350 Cast Foundation Repair Bracket, Galvanized
Soils & Embedment Depth:	Clay; Average Pile Embedment 42 ft.
Project Timeline:	(3) Weeks
Helical Pile Manufacturer:	MacLean Power Systems - Civil Products Group - Fort Mill, SC



Marimex, a manufacturer of surfboards, occupied a tilt up structure located in Irvine, California and owned by the Irvine Company. The building was beginning to show signs of distress resulting from long term soil subsidence along a perimeter wall. Irvine Company engineers elected to address the settlement issue at a point where the structure had settled approximately 2.5" and was exhibiting cracks in the panels.

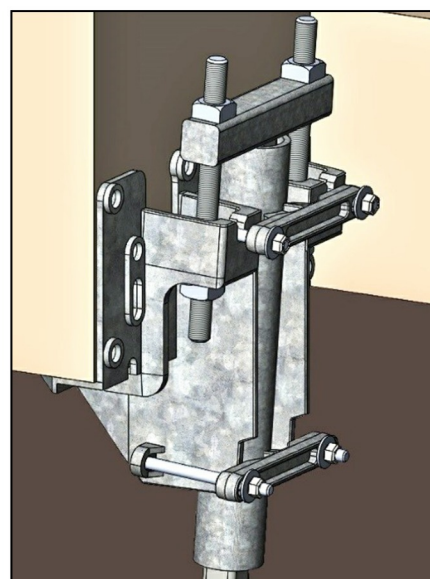


GMU Geotechnical, Inc. a Rancho Santa Margarita, CA based geotechnical firm, performed a subsurface evaluation and offered recommendations that the affected portion of the structure be underpinned using 1.75" RCS (round corner square) helical piles and retrofit brackets. The intent of the repair effort did not include the re-leveling of the settled wall, but the stabilization of the affected area at its current settled elevation only.

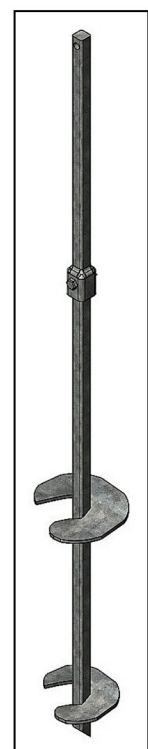


The Irvine Company retained Construction Services, Inc. to work closely with the Structural Engineering firm of EJD Engineering to install the helical pile underpinning system. Mr. Chris Cobb, president of Construction Services Inc., has a long term relationship with the Irvine Company having performed similar repairs on other Irvine Company properties.

MacLean Civil Products (MCP) supplied one hundred thirty(130), 1.75" RCS helical piles with 10",12" helix bearing plates on the lead sections. The helical piles were installed beneath the perimeter panels and columns to a depth of (42) feet. The piles were then pre-loaded to mobilize the pile and locked off. The MacLean model D10 helical piles were installed using a Gehl CTL 80 High Flow skid steer fitted with a ProDig 30K drive head. The piles were terminated using MCP's patented (US 8,777,520B2) Dixie 350 cast foundation repair bracket.



MCP Patented (8,777,520 B2) Dixie 350 Cast Foundation Repair Bracket



1.75" RCS MCP Model D10 Lead with 10" & 12" Helix Bearing Plates and Extension with Square on Square Coupler



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