



## IDEAL Teams with CMI Structural Solutions to Underpin a 100-Year-Old Community Center in Pittsford, NY

Winter, 2018



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<b>Project Name &amp; Location:</b>	Community Center - Pittsford, NY
<b>Project Date:</b>	Winter 2018
<b>Project Type:</b>	Helical Piles for Underpinning and Shoring
<b>Helical Pile Installation Contractor:</b>	CMI Structural Solutions - <a href="https://www.cmistructural.com/">https://www.cmistructural.com/</a>
<b>Civil &amp; Structural Engineer:</b>	Jenson BRV Engineering, PLLC - <a href="http://jensenbrv.com/">http://jensenbrv.com/</a>
<b>General Contractor:</b>	LeChase Construction Services, LLC - <a href="https://www.lechase.com/">https://www.lechase.com/</a>
<b>Helical Piles Specifications:</b>	(14) 7.00" x 0.408" Wall with 16"-18" Helix Bearing Plates and (14) 4.50" x .337" Wall with 14"-16" Helical Bearing Plates - Non-Galvanized
<b>Soils &amp; Loads:</b>	Clay with Bedrock Ranging from 20-25 ft. Across Site; Avg Installation Depth 30-40 ft.
<b>Project Timeline:</b>	(8) Days
<b>Helical Pile Manufacturer:</b>	IDEAL Foundation Systems - Webster, NY

### Project Overview Summary

The Spiegel Community Center is housed in a historic building in the village of Pittsford. The community center had outgrown the existing building and after several years of research and planning, it was decided that the existing historic building would be preserved and added on to.

### Key Challenge Points

The large addition required the excavation for the new foundation to go deeper than the existing foundations which border the addition on two sides. This required that a system be put in place to not only stabilize the existing building but ensure to ensure the existing foundations were not undermined by the excavation. In addition, any excessive vibrations would cause damage to the historic building.

### Key Solution Points

CMI Structural Solutions proposed a solution for the retrofit, underpinning, and shoring of the 100-year-old community center. This included the use of helical piles and Counterforce underpinning brackets from Ideal. To stabilize the structure, CMI installed fourteen 7" OD. x 408" WT and 4.5" OD x 337" WT helical piles. The piles were installed to 20-foot and 30-foot depths. Counterforce underpinning brackets were used at each pile location. Once all of the piles were installed, timber lagging was attached to the face of the piles as the excavation continued. A unique feature and advantage of this temporary shoring is that the timber lagging can be removed as the excavation is backfilled, and re-used elsewhere in the future.

### Installation Timeframe

Project was successfully completed in (8) days.

