



**CANTSINK**  
SUPPORTING INNOVATION

Case Study

Volusia County, Florida

# WILBURN BY THE SEA FOUNDATION SUPPORT

Cantsink helical piles supporting a pool and lanai in Wilbur by the Sea, Florida.

## SITUATION

In 2014, the new owners of a stunning beachfront residence decided to take their property to the next level and build an inviting pool with a lanai that overlooked the glorious Atlantic Ocean. However, they ran into two challenges when designing engineering plans for this project: it was impossible to get around traditional auger cast drill units on one side of their home; plus building codes mandated all construction be supported by pile systems. That's where Cantsink stepped in! Our local representative quickly came up with an innovative solution - helical piles- providing strong support while fitting perfectly within budget and code restrictions.

## Scope of Work

The Cantsink Florida Manager was key in seeing the project through, synonymous with connecting all of the elements. He worked to coordinate with a certified local installer and pool company to ensure one shared goal: a successful finish. The initial plan couldn't have been easier: using the skid steer, and excavating the pool area meant prepping for the following installation of piles around the lanai footings.

## Anchor System:

The Engineer's design consisted of 15 helical piles with a design load of 30kips. The lanai was designed for 6 piles with the same 30kip requirement. A 2 7/8" O.D. galvanized Cantsink patented helical pile with a single 14" helix was selected to be installed. A pile layout was carefully drawn up by the Engineer showing pile locations and most importantly that some piles were to be installed at a 10-15 degree angle or batter to increase the lateral loads..

## Result:

Installed to precise requirements, the piles were primed for whatever Mother Nature could throw at them. When Hurricanes Ian and Nicole thundered through Wilbur by the Sea and Daytona Beach a mere 8 years later they brought fury like never seen before – evading erosion that threatened homes in its wake. Luckily these disaster ready piles proved themselves up to task: The home was left standing with its pool still aloft unperturbed more than 10 feet in the air despite sand having been completely washed away beneath it! The houses on either side of this residence suffered major damage to their residence and pools, a complete loss whereas the residence with the pool and lanai piles can easily be restored. The unique vertical and angled pile design by the engineer coupled with the patented Cantsink helical piling system withstood the most devastating hurricanes to hit the Florida east coast in the last 100 years and undoubtedly gave this homeowner an opportunity to repair their home rather than suffering a complete loss.

