Chance Helical Piles Save Waterfront Home from Hurricane

During Construction:

The Mazenko residence is a bay front home in the Pensacola area that took the brunt of Hurricane Ivan in September of 2004. The home underwent a major renovation and expansion in late 2000. The original home stood on a shallow foundation. In order to obtain a permit for the renovation the structure had to have a pile foundation to bring it in compliance with the current building codes. James J. Mallett, P.E., chose Chance helical piles to underpin the existing turndown slab construction and existing column footings. The ability to work in low overhead situations allowed the installation of helical piles while keeping the floor above intact.

The use of helical piles as new construction piles for the addition to the house allowed a deep foundation system to be installed with small, readily available equipment without worrying about noise or vibration damage to nearby homes. There was also no time and expense of cleaning up and disposing of augered spoils from an augercast operation. At the time, helical piles were the best solution to a difficult construction problem.

After the storm:

Now, after taking a direct hit from a Category 4 hurricane, the Chance helical piles were tested and proved to be the best solution. The Mazenko residence came through the storm intact without major structural damage while most neighbors are left wondering how to rebuild. The massive storm surge undermined the slab and footings of the renovated structure but the helical piles held the structure up and kept the damage to a minimum. After a backfilling and grouting operation to fill the voids left by the storm surge, this residence will soon be occupied long before other structures will be rebuilt.

If you have a need for underpinning structures, new construction piles, installing piling for structures in limited access/limited overhead situations, or tying back new or existing seawalls, Chance helical piles and tiebacks can work for you. Please contact us if we can be of assistance on your next project.

Photographs courtesy of James J. Mallett, P.E., a consulting engineer in Pensacola, FL.

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