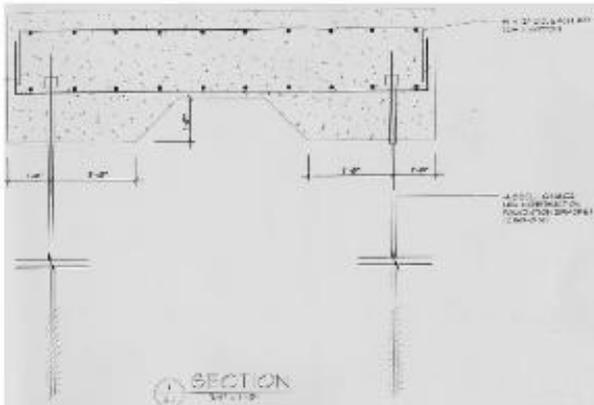
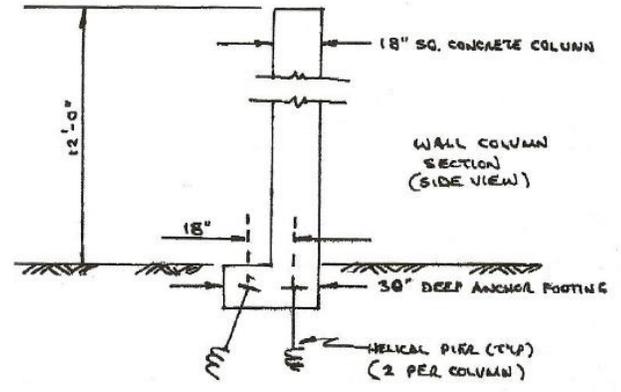

LATERAL STABILITY DESIGN – RETAINING WALL

Yes, it *IS* possible to get lateral stability using helical piles!

We have had several requests in the past for a design that would give a substantial amount of lateral stability to helical piles, in most instances, for privacy walls. It has been argued that a 1-1/2" square galvanized steel shaft on it's own does NOT have enough lateral stability to hold a 4-10 foot wall perpendicular during a Cat 5 hurricane, and that the steel in itself will bend and does not have enough strength to keep the wall from failing under the wind load.

The design shown at right was developed in 2004, and is one solution to this problem. It was developed for an FPL privacy wall, where there was very little access to the FPL property and none of the other side of the wall.

The concept of the two pier per location is ... as the wind load increases the tension on one helical pile, the other opposite pile is in compression, thus neutralizing the load on the wall.



The drawing at left is a variation of the one above. The need for this type of compression/tension design was VERY unique to this project. Then "Mars Music" Amphitheater was involved in litigation With local residents for noise violations During loud concerts. They needed to Install a stand-alone sound deflecting Wall to keep the noise contained. The Footer and piles are designed so that While one end of the footer is in tension, The other is in compression, thus Neutralizing the wind load. The wall, as Seen in the completed picture at right, Is NOT attached to any structure.



Thanks to numerous hurricanes over the past few years, we can safely say that these designs have been rigorously tested with 100% success!

For more information, please contact us.



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