

# CASE STUDY

## POWER

TorcSill is the premier provider of engineered Helical Pile and Anchor solutions to clients in a broad range of industries

**Project Type**  
Lattice Tower

**Location**  
Texas Gulf Coast

### Executive Summary

With incredibly tight clearance between existing underground pipelines and the property boundary, lattice tower foundation construction seemed very difficult. TorcSill designed and installed a helical pile and an all-steel connection detail to allow for ease of installation around buried pipes and without requiring additional property easement.

### Challenges

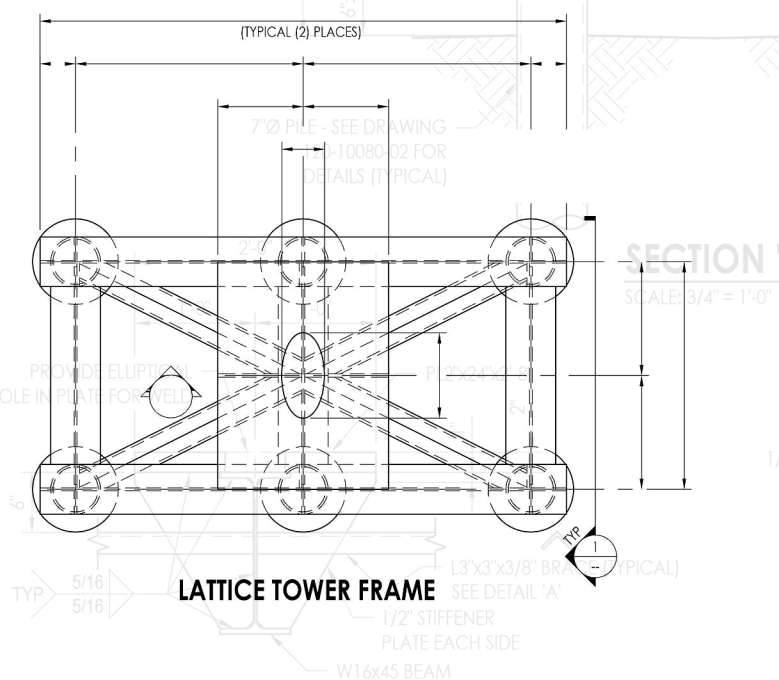
A lattice tower serving a new facility substation was to be installed along an existing right-of-way consisting of several underground pipelines and adjacent to the right-of-way boundary. The Engineer of Record initially designed a multi-pier foundation to straddle the exiting pipes. Rejecting the design, the owner was faced with purchasing additional easement from the landowner, which would have added significant time and cost to the Project.

### What We Did

TorcSill Engineering designed a multiple-pile solution per each tower column, terminated with a steel frame to tie in each of the piles. Pile design, calling for multiple, smaller-diameter helices, accounted for both the subgrade piping and the property boundary to ensure safe constructability.

The steel frame, which connected the six-pile configuration, was fabricated in TorcSill's ISO 9001:2015 manufacturing facility just minutes from the Project site.

Relying on its local Construction Services crews, TorcSill's Operations TEAM performed pile installation work, allowing for all foundation work to be safely completed in less than four days.



### Solution

In a tight construction area with subgrade piping obstacles, TorcSill redesigned a multiple-pile and steel frame connection to save from costly and timely easement acquisition. Further, installation around buried pipelines with purposely designed small helical plates allowed for safe, timely installation on owner's behalf.



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800.731.8672



12000 Aerospace Ave. Ste. 115 Houston, Texas 77034 USA

