

Model 288 Push Piers

Project: Affinity Health Group
Location: Menasha, WI
Date: May 2009

Challenge:

The Affinity Health Group Clinic is within a building having both a crawl space and full basement. Construction details include 12-inch-thick poured concrete foundation walls and a full brick facade. The clinic had visual signs and symptoms of foundation settlement, including gaping cracks in the foundation walls and footings, separation between the top of the foundation wall and the framed walls, and interior doors that would not fully close. Settlement ranged from 1 inch to 3 inches. The settlement further threatened to bind and break utility lines and piping that extended through wall penetrations. The settlement likely occurred due to drying and shrinkage of the clay foundation soils.

Solution:

Twenty-two hydraulically-driven push piers were used to stabilize and lift the settled areas of the building. Initially, only 15 piers were proposed for the area of the building with the crawl space. Of the 15 piers, two were installed from within the crawl space, requiring hand excavations and pier installation under low headroom conditions.

Upon excavation of the foundation walls and footings, it became obvious that sections of the full basement foundation walls had settled as well. Seven additional piers were installed to fully support the settled areas and successfully raise the structure back toward its original position, which allowed interior doors to function properly once again. Pier depths ranged from 12 feet to 20 feet and, on average, the piers were driven at a force of about 43,000 pounds.

Project Summary

General Contractor: Affinity Health Construction Manager
Certified Installer: Foundation Supportworks of WI
Products Installed: (22) Foundation Supportworks™ Model 288 Push Piers



Affinity Medical Group Clinic



Foundation excavated



Pier locations marked



Piers driven to stable soils



Building lifted toward original elevation