

## A CASE HISTORY

**Project:**  
Zecca Plaza  
Gallup, New Mexico

**Foundation Repair Contractor:**  
Vic Peery Construction  
Albuquerque, NM

**Job Description:**

The foundation of the TG&Y store on the east end of this shopping plaza had settled 9" over the years.

**Repair:**

To prevent any further settlement, 40 Chance HELICAL PIER<sup>®</sup> Foundation Systems screw anchors and underpinning brackets were used on the east side and about half way across the north side of the building. The owner decided against trying to raise the foundation with the underpinning brackets because of the possibility of doing further damage to the building's roof.

Every 6' to 8' the foundation was exposed to 1' below the bottom of the footing to allow for the installation of the twin helix (8" & 10") anchors and the underpinning bracket. Using a 6,000 ft.-lb. hydraulic motor mounted on a skid loader, the anchors were installed to depths of 35' to 40' to reach the bedrock material lying below the soft alluvium material.

To provide a 2 to 1 safety factor on the anchors for the 15 KIP working capacity of the underpinning bracket, the anchors were installed to torques averaging 3,000 ft.-lb. After installing the underpinning bracket body under the foundation and the T-pipe onto the anchor's 1 1/2" solid steel square shaft, the 2 nuts on the vertical bolts were tightened down to preload the foundation onto the anchors. The job was completed in less than 2 weeks with no disruption to customer traffic into the store.

For larger loads Chance has an underpinning bracket with a working capacity of 40,000 lb. It is used with 1 3/4" square shaft SS175 anchors.



**Anchor being spotted next to foundation**



**Skid loader driving screw anchor to 40'**