

# Underpinning

## STRUCTURAL STABILIZATION

---

### Load Bearing Transfer

---

An underpinned structure has the foundation resting upon underground steel piers. These steel piers safely and permanently transfer the weight of a structure onto solid bedrock or load bearing strata.

Concrete foundations usually shift because the upper level of soil is loose, or because a sinkhole has occurred within the vicinity. However, there is always a level of stratum deeper within the earth that is capable of bearing the load of the foundation.

### Advantages

---

- Prevent Settling Activity
- Weight Evenly Distributed
- Reach Deep Depths
- Installation to the Inside or Outside of the Structure



### Installation Procedure

---

Underpins are effective for extremely large structures as well as smaller residential dwellings. First, a bracket is installed at each pier location in accordance with the engineer's plan. Then a large steel frame slides onto the bracket and pushes sections of pipe down through the opening in each bracket. The pipes are driven to the bedrock or load bearing strata, well below the depth of the loose or affected area.

After the underpins have been installed to the appropriate load bearing capacity, they are then hydraulically jacked to sufficiently support the structure. Upon completion, all equipment is removed and all of the pier installation areas are filled.

# Underpinning Applications



**Home Foundations**



**Apartment Buildings**



**Warehouse Buildings**



**Retail Buildings**