



# CASE HISTORY

*SAFEBASE™ STANDARD DUTY HELICAL PIERS AND  
SAFEBASE™ 3.5# POLYURETHANE*

## HELICAL PIERS, TIEBACKS AND CONCRETE LIFTING



SafeBasements of Minnesota was contacted regarding several issues with the foundation at the Wagner Greenhouse in Minneapolis. A large portion of the foundation walls were tipping outwards and settling. Some of the concrete on the interior was also sloping downwards towards the foundation wall, exacerbating the issues by causing water from the green house to flow away from the drains and erode soil out from near the wall. A plan was made to install helical piers beneath a portion of the foundation that was settling and helical tiebacks on the portions of the foundation walls that were tipping outwards. After the piers were installed, the slab on the interior was to be lifted and brought back to the proper slope using SafeBase™ polyurethane foam jacking.



A total of 62 Helical Tiebacks were installed. First, 10" holes were core drilled into the face of the wall, then helicals were screwed in through the wall to the specified torque. After the helicals were installed a tieback adapter was attached to the pier shaft with threaded rod extending out beyond the wall. The hole in the wall was patched and plates were installed on the exterior.



22 SafeBase™ Helical Piers were installed along the footing on a settling portion of the foundation. SafeBase™ SaberTooth™ pier brackets were installed beneath to footing attached to the helical piers to prevent further settlement. 1,992 pounds of SafeBase™ 3.5# Polyurethane foam was then injected beneath the slab on the interior to lift and level the floor and provide proper drainage. The project was completed in September of 2021.



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