

## SafeBase™ Class 178 Helical Tiebacks Minneapolis, MN



*June 2024*

Back in September of 2021 Wagner Greenhouse first contacted SafeBasements of Minnesota to assess and fix some tipping of the foundation walls on the south and west sides of the building. Wagner greenhouse moved forward with repairs of the west wall in 2021 and continued with repairs of the south wall in 2024. A plan was made to install helical tiebacks on the portions of the foundation walls that were tipping to stop the concrete from moving any further.





A total of 56 Class 178 Helical Tiebacks were installed to support approximately 300 linear feet of 4' tall reinforced concrete foundation wall. 10" holes were core drilled into the wall approximately 6' on center starting 3' from the corner. Leads with single 8" flight was installed and extensions to a minimum torque of 600 ft-lbs. Such that the bearing capacity was 6 kips per tieback.



After the helical tiebacks were torqued up, tieback adapters were attached to threaded rods, the holes were patched, and wall plates installed on the exterior of the retaining wall. The wall is now permanently stabilized against further lateral displacement.

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