



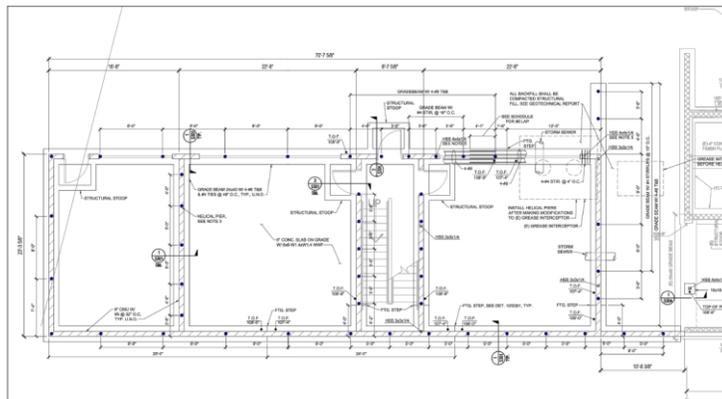
CASE HISTORY

SAFEBASE™ STANDARD DUTY HELICAL PIERS

BOXCAR 10 ADDITION - OMAHA, NE - HELICAL PIERS



CLS was contacted regarding the installation of helical piers to support the grade beams for the addition to the Boxcar 10 building in Omaha, Nebraska. A total of 48 SafeBase Standard Duty Helical Piers with 10-12-14" flights were to be used to support the foundation. Each pier was to be installed to a torque of 7,086 ft-lbs to correlate to an ultimate bearing capacity of 60 kips.



1 HELICAL PIER PLAN
Scale: N.A.

| | | | | | |
|--|--|--|--|--|--|
| | PROJECT LOCATION BOXCAR 10 ADDITION 1108 South 10th St Omaha, NE | | CLS FOUNDATION REPAIR 8712 DODGE STREET OMAHA, NE 68114 402-415-0284 | | HELICAL PIER DESIGN CRITERIA THE DESIGN LOAD IS 30 KIPS PER PIER. THE SAFEBASE HELICAL PIER HAS AN ALLOWABLE CAPACITY OF 60 KIPS. EACH PIER MUST BE INSTALLED TO A MINIMUM TORQUE OF 8,000 FT-LBS SUCH THAT THE BEARING CAPACITIES 60 KIPS RESULTING IN THE BEARING CAPACITY HAVING A MINIMUM FACTOR OF SAFETY OF 2. |
|--|--|--|--|--|--|



Before installation of the piers a load test was performed to verify the capacity of the piers and the estimated depth. The soil borings indicated an increase in the soils unconfined compressive strength near 45' in the Kansan till which would allow for the helical pier to achieve the desired bearing capacity. Five piers were installed to perform the load test. The piers torqued up at depths ranging from 42-49 feet. The load test frame was set up and the test was successfully completed verifying the piers capacity with a maximum displacement near $\frac{3}{4}$ " at a load of 60 kips. The 48 production piers could now be installed knowing the final installation depth would allow the helical pier to bear the required load.



CLS FOUNDATION REPAIR
8712 DODGE STREET
OMAHA, NE 68114
402-415-0294



www.clsfoundationrepairandwaterproofing.com

www.safebasementsinc.com

SafeBasements, Inc.

28272 Minnie Street, Paynesville, MN 56362

1-888-963-6892