



BUILDINGS BULLETIN 2014-020

OTCR

Supersedes: Buildings Bulletin 2014-014 dated September 1, 2014

Related Bulletin(s): 2011-011 dated April 15, 2011 and OTCR Technical Bulletin number BC 18.01.08 issued 3/24/2008 titled "The use of Helical Piles per the 1968 and 2008 NYC Building Code"

Issuer: Alan D. Price, P.E.
Director, Office of Technical Certification and Research

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Purpose: This bulletin establishes acceptance criteria for the use of helical pile foundation systems in accordance with the New York City Construction Codes.

Related Code Section(s):

BC 1704.1.2	BC 1801.3	BC 1812.11	1	RCNY 101-06
BC 1704.3	BC 1812.1	BC 1812.12		
BC 1704.8	BC 1812.2			

Subject(s): Foundation, helical pile foundation system; Pile, helical; Foundations, piers, helical piles

Background: The NYC Construction Codes recognize helical piles as a deep foundation element however section BC 1812.1 requires helical piles to be approved. This bulletin establishes acceptance criteria for helical piles used as foundations systems.

Description: Helical piles are defined in section BC 1801.3.

Uses: Helical piles may be used to support axial compression, or resist axial tension and lateral loads.

Evaluation Scope: NYC Construction Codes

Evaluation Criteria: Pursuant to section AC 28-113, the Office of Technical Certification and Research (OTCR) recognizes helical pile foundation systems tested and evaluated in accordance with ICC-ES AC 358, "Acceptance Criteria for Helical Foundation Systems and Devices"¹. Acceptable helical piles shall have an evaluation report issued in accordance with ICC-ES AC 358 and the design, inspection and installation shall comply with the additional requirements of this bulletin.

Conditions of Acceptance: Helical piles shall have an evaluation report issued in accordance with ICC-ES AC 358. The design, installation and inspection of helical piles shall be in accordance with the NYC Construction Codes and the following:

A. Design

1. Design of helical piles shall be in accordance with section BC 1812.2.

B. Installation Requirements:

1. The installation of helical piles shall be in accordance with section BC 1812.11.
2. The installer of any helical pile shall be as recommended by the helical pile manufacturer and possess a minimum of three years of experience in the installation of helical piles.

C. Special Inspection

1. The installation of helical piles shall be subject to the special inspection requirements pursuant to sections BC 1704.8 and BC 1812.12, 1 RCNY Section 101-06, and applicable special inspection requirements published the evaluation report issued in accordance with ICC-ES AC 358.
2. The special inspector shall verify and document on the Helical Pile Installation Form "TR5H Form" that all helical piles have been issued an evaluation report in accordance with ICC-ES AC358 prior to installation.
3. After satisfactory completion of the helical pile inspections the special inspector shall submit a TR5H in accordance with section BC 1704.1.2 and 1 RCNY Section 101-06 (b)(4)(ii).
4. Field welds performed in the installation of a helical pile foundation system are subject to the special inspection requirements of section BC 1704.3.

Referenced Standards

1. ICC-ES AC358 "*Acceptance Criteria for Helical Foundations Systems and Devices*" (www.icc-es.org).