

BUILDINGS BULLETIN 2014-018, DATED SEPTEMBER 30, 2014

SUPERSEDED BY:

NYC Buildings Department 280 Broadway, New York, NY 10007





BUILDINGS BULLETIN 2014-012 OTCR

Supersedes: None

Related

Bulletin(s): 2010-005 dated March 5, 2010 and 2009-009 dated October 20, 2009

Issuer: Alan D. Price, P.E.

Director, Office of Technical Certification and Research

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Purpose: This document establishes alternative acceptance criteria for post-installed expansion, undercut and

adhesive anchors installed in concrete elements as prescribed in the NYC Construction Codes.

Related Code BC 1912 Section(s): BC 1704.32

Subject(s): Concrete, anchors, expansion anchors; Concrete, anchors, undercut anchors; Concrete, post-

installed anchors

Background:

Post-installed expansion, undercut and adhesive anchors installed in concrete elements are designed in accordance with ACI 318¹ Appendix D as modified by sections BC 1908.1.9 and 1908.1.10. Subsequently Appendix D requires post-installed expansion, and undercut anchors to be qualified in accordance with ACI 355.2² and adhesive anchors to be qualified in accordance with ACI 355.4³. This bulletin establishes alternative qualification criteria for post-installed expansion and undercut anchors in concrete.

Description: Expansion, undercut and adhesive anchors are defined in ACI 318 Appendix D Section D.1.

Evaluation Scope: NYC Construction Codes

Evaluation Pursuant to section AC 28-113, the Office of Technical Certification and Research (OTCR) **Criteria:** recognizes:

- Expansion and undercut anchors tested and evaluated in accordance with ICC-ES AC193 "Acceptance Criteria for Mechanical Anchors in Concrete Elements".
- Adhesive anchors tested and evaluated in accordance with ICC-ES AC 308 "Post-installed Adhesive Anchors in Concrete Elements"⁵.

Acceptable expansion, undercut and adhesive anchors shall have an evaluation report issued in accordance applicable ICC-ES Acceptance Criteria and shall comply with the conditions of this bulletin.

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Uses:

Expansion, undercut and adhesive anchors are used to transmit structural loads from one connected element to the other. The evaluation report issued in accordance with ICC-ES AC193 or AC 308 (as applicable) provides qualification criteria for each loading condition.

Conditions of Acceptance:

Expansion, undercut and adhesive anchors evaluated in accordance with this bulletin shall be designed and installed in accordance with the NYC Construction Codes and the following:

A. Design

1. Expansion, undercut and adhesive anchors shall be designed in accordance with ACI 318 Appendix D.

B. Installation Requirements

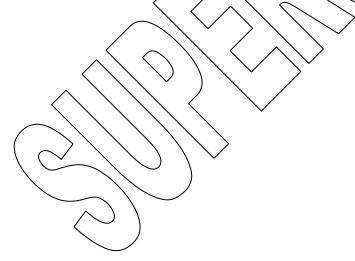
- Expansion, undercut and adhesive anchors shall be installed in accordance with ACI 318
 Appendix D Section D.9, the manufacturer's instructions, the evaluation report issued in
 accordance with ICC-ES AC 193 or AC 308 (as applicable), and the conditions of this
 bulletin
- 2. Expansion, undercut and adhesive anchors shall be labeled in accordance with 28-113.4 and ICC-ES AC193 Section 2.1.3.

C. Special Inspection

1. The installation of expansion, undercut and adhesive anchors shall be subject to special inspection pursuant to section BC 1704 32, 1 RCNY Section 101-96, ACI 318 Appendix D Section D.9 and the evaluation report issued in accordance with ICC-ES AC 193 or AC 308 (as applicable).

Reference Standards:

- Reference 1. ACI 318–11 "Building Code Requirements for Structural Concrete" (www.concrete.org)
 - 2. ACI 355.2 "Qualification of Post-installed Mechanical Anchors in Concrete (www.concrete.org)
 - 3. ACI 355.4 "Qualification of Adhesive Anchors in Concrete" (www.concrete.org)
 - 4. ICC-ES AC 193 "Acceptance Criteria for Mechanical Archors in Concrete Elements" (www.icc-es.org)
 - 5. ICC-ES AC/308 "Pøst-installed Adhesive Anchors in Concrete Elements" (www.icc-es.org)



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