

BBS Official Interpretations No. 2014_06

Date: December 09, 2014
Subject: 8th Edition 780 CMR Chapter 34 Existing Structures (2009 IEBC Amended)
Wall Anchors for Concrete and Masonry Buildings, Sections 303.7.1 & 807.5.1

Background/Discussion:

Buildings with structural systems of unreinforced masonry or concrete walls are known to pose some level of seismic risk. In recognition of this the BBS, since the 6th edition of the building code, has regulated the construction of these types of buildings by including seismic hazards provisions. The 8th edition requirements are found in the Prescriptive and Work Area compliance methods of the *International Existing Building Code 2009* (IEBC). The code language in Sections 303.7 and 303 7.1 is identical to that in Sections 807.5 and 807.5.1, respectively, and copied below is the language of MA amendment Section 303.7.1 of the Prescriptive method:

303.7 Seismic Hazards: Compliance with this section is required where the *work area* exceeds 50% of the aggregate area of the building.

303.7.1 Wall Anchors for Concrete and Masonry Buildings. For any building assigned to Seismic Design Category B, C, D, E or F with a structural system consisting of concrete or reinforced masonry walls with flexible roof or floor diaphragms or unreinforced masonry walls with any type of roof or floor diaphragm, the alteration work shall include installation of wall anchors at the roof and floor levels to resist the reduced IBC-level seismic forces specified in section 101.5.4.2, unless an evaluation demonstrates compliance of existing wall anchorage.

The purpose of this official interpretation is to provide clarity on this wall anchor requirement.

QUESTION 1: For a building assigned to Seismic Design Category B, C, D, E or F that includes nonstructural walls constructed of concrete or reinforced masonry or unreinforced masonry, which carry no design vertical or lateral loads, and which are not required by the design to be part of the lateral-force resisting system, does 780 CMR 34 (MA amendments sections 303.7.1 or 807.5.1) require the installation of wall anchors at the floor and/or roof levels?

ANSWER 1: No. The provisions of 780 CMR 34 (MA amendments sections 303.7.1 and 807.5.1) do not apply to the nonstructural walls in existing concrete and masonry buildings identified in question 1. Furthermore, this interpretation also covers other types of existing buildings (for example, structural steel systems with moment-resisting or braced frames) with nonstructural walls (such as unreinforced masonry partitions) which carry no design vertical or lateral loads.