

CHAPTER 8. STRUCTURAL SYSTEMS

PERFORMANCE OBJECTIVES

- 8-1. GENERAL. Structural systems of all buildings, accessory structures and building elements shall be consistent with the MPS and provide the following:
- a. Sufficient strength, stability and rigidity to safely support all anticipated loads with code required safety factors;
 - b. Resistance to fire, corrosion, decay and other destructive forces through adequate protection;
 - c. Reasonable durability for the expected life of the rehabilitated structure; and
 - d. Compliance with relevant health, safety and fire codes.

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SECTION 1: MANDATORY STANDARDS

- 8-2. STRUCTURAL MEMBERS. Structural elements shall be in sound condition and free of all deficiencies that could lead to failures, dislodging or collapse. Structural elements and spaces shall be free of the penetration of water, moisture, infestation or causes leading to decay. Walls, floors, chimneys and stairs shall not have major sag or be out of plumb. Structural elements shall not have been weakened by fire, earthquake, wind or flooding.

NOTE: Major bulging of exterior walls, doors or windows not fitting properly in their frames, or large cracks and major water staining may indicate major structural problems.

Project rehabilitation should not be undertaken prior to the correction of structural deficiencies. When extensive repair or replacement of primary structural elements is necessary to make a building safe and structurally sound, the PHA shall consider the physical and financial feasibility of rehabilitation prior to any further planning.

- 8-3. STRUCTURAL SPACES. The entrance or accumulation of water, moisture or heat that would be conducive to the decay, deterioration or failure of building structure shall not be permitted. Structural spaces shall be ventilated by natural or mechanical means to effectively minimize these conditions. There shall be permanent access to structural spaces, such as attics and crawl spaces, for periodic inspection and maintenance. This access is to be limited to authorized individuals.
- a. Foundations, Basement and Crawl Spaces. Foundations,

basements and crawl spaces shall not permit entrance of water and excessive moisture. Exterior openings in foundations and walls at grade or below grade, including pipe, vent and conduit openings, shall be protected against the passage of rodents or infestation. For technical requirements, see

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paragraph 2-5. Foundations, basements and crawl spaces shall be in sound structural condition, adequately plumb to carry anticipated loads, and free of major holes, cracks, bulging, spalling, decay or moisture penetration. All masonry walls shall be free of efflorescence.

- b. Decay Protection. All habitable, mechanical and structural spaces located below grade shall be protected from the causes of decay by ventilation; waterproofing as required; and drainage of water away from the building.

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SECTION 2: PROJECT SPECIFIC STANDARDS

8-2B. RESERVED.

8-3B. STRUCTURAL SPACES.

- a. Reserved.
- b. Reserved.
- c. Security. In locations where security problems are prevalent, windows and openings on basements and crawl spaces may be protected from unauthorized entry with vandal-resistant grilles or similar systems. Security systems shall not be permanently fixed if the window or opening is a required means of emergency egress from the building. For technical requirements, see paragraph 9-7.

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