



City of Palo Alto

Public Works Engineering

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Special Building Requirements for Residential Structures in a Special Flood Hazard Area

New construction and “substantial improvements” in the Special Flood Hazard Area (SFHA) must comply with the following requirements. The information provided is a brief summary of the City’s flood zone regulations. For specific detailed requirements, please see the ordinance language contained in the referenced section of the Palo Alto Municipal Code.

- The lowest floor of residential structures must be built at a level at or above the Base Flood Elevation (BFE) published on the Flood Insurance Rate Map. This requirement effectively prohibits the construction of basements as part of these structures in the SFHA. For substantial improvements, the floor elevation requirement extends to the entire structure, which means that existing floors also have to be raised if they are below the minimum elevation, and any existing basements will have to be filled in.

Palo Alto Municipal Code Section 16.52.130(c)

- Structures must be constructed with flood-resistant materials (such as concrete, steel, pressure-treated wood, etc.) below the BFE. Electrical, heating, ventilation, plumbing, and air conditioning equipment must be elevated above the BFE and/or be designed to prevent water from entering or accumulating within the components during a flood event.

Palo Alto Municipal Code Section 16.52.130(b)

- The crawl space beneath a structure must be graded so that the elevation of the finished surface within the crawl space area is equal to or higher than the adjacent grade outside the building footprint on at least one side of the structure. If the crawl space grade is lower than the adjacent grade outside the building footprint on all four sides of the structure, then the crawl space is considered to be a basement, which is prohibited.

Palo Alto Municipal Code Section 16.52.040(a)(5), 16.52.040(a)(21)(B)

- Garage walls and building stem walls must be constructed with a number of openings sufficient to allow passage of floodwaters and equalize hydrostatic pressure during flood events. At a minimum, there shall be openings (located on at least two sides of the structure) with a total net area of at least one square inch for every square foot of enclosed area subject to flooding. The bottom of the openings must be no higher than one foot above grade.

Palo Alto Municipal Code Section 16.52.130(c)(3)

- Prior to final City approval of the structure, a registered professional engineer or surveyor must submit a completed FEMA Elevation Certificate certifying the elevation of the lowest floor, flood vent area, crawl space elevation, and other information documented on the certificate. This completed FEMA Elevation Certificate must be submitted to the Public Works Inspector.

Palo Alto Municipal Code Section 16.52.130(c)(1)

This publication is intended to be an informal means of informing the public about a City process. Although it is assumed the information provided is accurate, the sheet is not intended to create any sort of legal obligation on the City's part. The actual process is governed by City ordinances, regulations and procedures, and the reader should make specific inquiry to the City for specific cases.