

site. (NOTE: Require the lowest floor to be elevated 3 feet above the estimated base flood elevation in A-Zone areas where a Limited Detail Study has been completed). Openings sufficient to facilitate the unimpeded movements of floodwaters shall be provided in accordance with standards of Sec. 1130(a)(4) "Elevated Buildings."

- a. All heating and air conditioning equipment and components (including ductwork), all electrical, ventilation, plumbing, and other service facilities shall be elevated no less than 3 feet above the highest adjacent grade at the building site.
- (4) The Floodplain Administrator shall certify the lowest floor elevation level and the record shall become a permanent part of the permit file.

(d) Standards for areas of shallow flooding (AO zones)

Areas of special flood hazard established in [§ Sec.1130 \(b\)](#) may include designated "AO" shallow flooding areas. These areas have base flood depths of 1 to 3 feet above ground, with no clearly defined channel. The following provisions apply:

- (1) All new construction and substantial improvements of residential and non-residential structures shall have the lowest floor, including basement, elevated to the flood depth number specified on the Flood Insurance Rate Map (FIRM), above the highest adjacent grade. If no flood depth number is specified, the lowest floor, including basement, shall be elevated at least 3 feet above the highest adjacent grade. Openings sufficient to facilitate the unimpeded movements of flood waters shall be provided in accordance with standards of Sec. 1130(a)(4), "Elevated Buildings."

The Planning Director shall certify the lowest floor elevation level and the record shall become a permanent part of the permit file.

- (2) New construction or the substantial improvement of a nonresidential structure may be flood-proofed in lieu of elevation. The structure, together with attendant utility and sanitary facilities, must be designed to be water tight to the specified FIRM flood level plus 1 foot, above highest adjacent grade, with walls substantially impermeable to the passage of water, and structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. A registered professional engineer or architect shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions above, and shall provide such certification to the official as set forth above and as required in Sec. 1129(c)(1)a.4 and Sec. 1129(c)(1)b.1.
- (3) Drainage paths shall be provided to guide floodwater around and away from any proposed structure.

(e) Coastal High Hazard Areas (V-Zones and Coastal A (LiMWA))

Located within the areas of special flood hazard established in Sec. 1130(b) are areas designated as Coastal High Hazard Areas (V-Zones [and coastal A zones](#)). These areas have special flood hazards associated with wave action and storm surge; therefore, the following provisions shall apply:

- (1) All new construction and substantial improvements of existing structures shall be located landward of the reach of mean high tide.
- (2) All new construction and substantial improvements of existing structures shall be elevated on piles, columns, or shear walls parallel to the flow of water so that the bottom of the lowest supporting horizontal structural member (excluding pilings or columns) is located no lower than **3 feet** above the base flood elevation level. All space below the lowest supporting member shall remain free of obstruction. Open lattice work or decorative screening may be permitted for aesthetic purposes only and must be designed to wash away in the event of abnormal wave action and in accordance with Sec. 1130(e)(7) below.
- (3) All new construction and substantial improvements of existing structures shall be securely anchored on pilings, columns, or shear walls.

- (4) Wood framed construction shall not be allowed as a structure's foundation system below the BFE, plus 3 foot.
- (5) All pile and column foundations and the structures attached thereto shall be anchored to resist flotation, collapse, and lateral movement due to the combined effects of wind and water loads acting simultaneously on all building components, both (non-structural and structural). Water loading values shall equal or exceed those of the base flood. Wind loading values shall be in accordance with the most current edition of the Standard Building Code.
- (6) A registered professional engineer or architect shall certify that the design, specifications and plans for construction are in compliance with the provisions contained in the above paragraphs (2) & (3) of this Subsection.
- (7) All space below the lowest horizontal supporting member must remain free of obstruction. Open lattice work or decorative screening may be permitted for aesthetic purposes only and must be designed to wash away in the event of abnormal wave action without causing structural damage to the supporting foundation or elevated portion of the structure. The following design specifications are allowed:
 - a. No solid walls shall be allowed.
 - b. Material shall consist of lattice or mesh screening only.
 - c. If aesthetic lattice work or screening is utilized, any enclosed space shall not be used for human habitation, but shall be designed to be used only for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises.
 - d. Any enclosure formed by meeting the above criteria must be certified to show 40% openness based on the square footage of the structure.
 - e. The enclosure must not exceed 299 square feet.
- (8) Prior to construction, plans for any structures having latticework or decorative screening must be submitted to the Floodplain Administrator or it's designee for approval.
- (9) Any alteration, repair, reconstruction or improvement to any structure shall not enclose the space below the lowest floor except with latticework or decorative screening, as provided in this Section.
- (10) There shall be no fill used as structural support. Non-compacted fill may be used around the perimeter of a building for landscaping/aesthetic purposes provided the fill will wash out from storm surge, (thereby rendering the building free of obstruction) prior to generating excessive loading forces, ramping effects, or wave deflection. The Planning Director shall approve design plans for landscaping/aesthetic fill only after the applicant has provided an analysis by an engineer, architect, and/or soil scientist, which demonstrates that the following factors have been fully considered:
 - a. Particle composition of fill material does not have a tendency for excessive natural compaction.
 - b. Volume and distribution of fill will not cause wave deflection to adjacent properties.
 - c. Slope of fill will not cause wave run-up or ramping.
- (11) There shall be no alteration of sand dunes or mangrove stands, which would increase potential flood damage;
- (12) Prohibit the placement of manufactured homes (mobile homes), except in an existing manufactured homes park or subdivision. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring standards of Sec. 1130(a)(6) are met.

(f) **Standards for subdivisions**