

# ARTICLE 18

## FLOOD DAMAGE PREVENTION

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# ARTICLE 18

## FLOOD DAMAGE PREVENTION

### CHAPTER A ADMINISTRATION, PERMITTING AND ENFORCEMENT

#### Section 1 General

##### A. Title

These regulations shall be known as the Flood Damage Prevention Ordinance of PBC, Florida.

##### B. Authority

Chapter 125, Florida Statutes, authorizes the legislative and governing body of PBC, Florida, the power to establish and administer programs of flood control; and the BCC of PBC, Florida, has the responsibility to adopt regulations designed to promote the public health, safety and general welfare of its citizens.

##### C. Scope

The provisions of this Article shall apply, within the limits of PBC's jurisdictional authority, to all Development that is wholly within or partially within any Special Flood Hazard Area, as defined in Art. 1, including but not limited to: the subdivision of land; filling, grading, and other site improvements and utility installations; alteration, remodeling, enlargement, improvement, replacement, repair, relocation or demolition of Buildings, Structures and facilities that are exempt from the Florida Building Code, as listed in Art. 18.A.4.C; placement, installation or replacement of Manufactured Homes and Manufactured Buildings; installation or replacement of tanks; placement of Recreational Vehicle parking pads; installation of swimming pools; and any other Development.

##### D. Intent

The purposes of this Article and the flood load and flood resistant construction requirements of the Florida Building Code are to establish minimum requirements to safeguard the public health, safety and general welfare and to minimize public and private losses due to flooding through regulation of Development in Special Flood Hazard Areas to:

1. Minimize unnecessary disruption of commerce, access and public service during times of flooding;
2. Require the use of appropriate construction practices in order to prevent or minimize future flood damage;
3. Manage filling, grading, dredging, mining, paving, excavation, drilling operations, storage of equipment or materials, and other Development which may increase flood damage or erosion potential;
4. Manage the alteration of Special Flood Hazard Areas, watercourses, and shorelines to minimize the adverse impact of Development on the natural and beneficial functions of the floodplain;
5. Minimize damage to public and private facilities and utilities;
6. Help maintain a stable tax base by providing for the sound use and Development of Special Flood Hazard Areas;
7. Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and
8. Meet the requirements of the National Flood Insurance Program for community participation, as set forth in the Title 44 Code of Federal Regulations, Section 59.22.

##### E. Coordination with the Florida Building Code

This Article is intended to be administered and enforced in conjunction with the Florida Building Code. Where cited, ASCE 24 refers to the edition of the standard that is referenced by the Florida Building Code.

##### F. Warning

The degree of flood protection required by this Article and the Florida Building Code, as amended by PBC, is considered the minimum reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur. Flood heights may be increased by man made or natural causes. This Article does not imply that land outside of mapped Special Flood Hazard Areas, or that uses permitted within such Special Flood Hazard Areas, will be free from flooding or flood damage. The Special Flood Hazard Areas and Base Flood Elevations contained in the Flood Insurance Study and shown on Flood Insurance Rate Maps and the requirements of Title 44 Code of Federal Regulations, Sections 59 and 60, may be revised by the Federal Emergency Management Agency, requiring PBC to revise these regulations to remain eligible for participation in the National Flood

Insurance Program. No guarantee of vested use, existing use, or future use is implied or expressed by compliance with this Article.

**G. Disclaimer of Liability**

This Article shall not create liability on the part of the PBC BCC or by any officer or employee hereof for any flood damage that results from reliance on this Article or any administrative decision lawfully made thereunder.

**Section 2 Applicability**

**A. General**

Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

**B. Areas to which this Article Applies**

This Article shall apply to all Flood Hazard Areas and Special Flood Hazard Areas in unincorporated PBC, as defined in Art. 1 and established in Art.18.A.2.C below.

**C. Special Flood Hazard Areas**

The United States Department of Housing and Urban Development, Flood Insurance Study for PBC, Florida, Unincorporated Areas dated October 5, 2017 and all subsequent amendments and revisions to such studies, and the accompanying Flood Insurance Rates Maps and all subsequent amendments and revisions to such maps, shall serve as the minimum basis for establishing Flood Hazard Areas and Special Flood Hazard Areas, including those areas developed into lots or Building sites without minimum floor elevations engineered from a master stormwater drainage network. Studies and maps that establish Flood Hazard Areas are on file at the PBC Department of Planning, Zoning and Building located at 2300 North Jog Road, West Palm Beach, Florida 33411.

**D. Submission of Additional Data to Establish Special Flood Hazard Areas**

The Floodplain Administrator may require the submission of additional data to establish Special Flood Hazard Areas and Base Flood Elevations, pursuant to Art. 18.A.5. Where field-surveyed topography prepared by a Florida-licensed professional surveyor or digital topography accepted by PBC indicates that ground elevations are either:

1. at or below the closest applicable Base Flood Elevation, even in areas not delineated as a Special Flood Hazard Area on a FIRM, the area shall be considered as Special Flood Hazard Area and subject to the requirements of this Article and, as applicable, the requirements of the Florida Building Code; or
2. above the closest applicable Base Flood Elevation, the area shall be regulated as Special Flood Hazard Area unless the applicant obtains a Letter of Map Change that removes the area from the Special Flood Hazard Area.

**E. Other Laws**

The provisions of this Article shall not be deemed to nullify any provisions of local, state or federal law.

**F. Abrogation and Greater Restrictions**

This Article supersedes any ordinance in effect for management of Development in Special Flood Hazard Areas. However, it is not intended to repeal or abrogate any existing ordinances including but not limited to land development regulations, zoning ordinances, stormwater management regulations, or the Florida Building Code. In the event of a conflict between this Article and any other regulations, the more restrictive shall govern. This Article shall not impair any deed restriction, covenant or easement, but any land that is subject to such interests shall also be governed by this Article.

**G. Interpretation**

In the interpretation and application of this Article, all provisions shall be:

1. considered as minimum requirements;
2. liberally construed in favor of the governing body; and
3. deemed neither to limit nor repeal any other powers granted under state statutes.

**Section 3 Duties and Powers of the Floodplain Administrator and the Flood Damage Prevention Board**

**A. Designation**

1. The Building Official is designated as the Floodplain Administrator. The Floodplain Administrator may delegate performance of certain duties to other employees.
2. The BCC of PBC hereby designates the 11 members of the Construction Board of Adjustment and Appeals to act as the Flood Damage Prevention Board. The Flood Damage Prevention Board shall

hear and decide Appeals when it is alleged an error in any requirement, decision, or determination is made by the Floodplain Administrator in the enforcement or administration of this Article and shall decide any Variance request following procedures in Art.18.A.7.

**B. General**

The Floodplain Administrator is authorized and directed to administer and enforce the provisions of this Article. The Floodplain Administrator shall have the authority to render interpretations of this Article consistent with the intent and purpose of this Article, and may establish policies and procedures in order to clarify the application of its provisions. Such interpretations, policies, and procedures shall not have the effect of waiving requirements specifically provided in this Article without the granting of a Variance by the Flood Damage Prevention Board, pursuant to Art. 18.A.7.

**C. Applications and Permits**

The Floodplain Administrator, in coordination with other pertinent offices of PBC, shall:

1. Review applications and plans to determine whether proposed new Development will be located in Special Flood Hazard Areas;
2. Review applications for modification of any existing Development in Special Flood Hazard Areas for compliance with the requirements of this Article;
3. Interpret Special Flood Hazard Area boundaries where such interpretation is necessary to determine the exact location of boundaries; a person contesting the determination shall have the opportunity to Appeal the interpretation;
4. Provide available flood elevation and flood hazard information;
5. Determine whether additional flood hazard data shall be obtained from other sources or shall be developed by an applicant;
6. Review applications to determine whether proposed Development will be reasonably safe from flooding;
7. Issue floodplain Development permits or approvals for Development other than Buildings and Structures that are subject to the Florida Building Code, including Buildings, Structures and facilities exempt from the Florida Building Code, as listed in Art. 18.A.4.C, when compliance with this Article is demonstrated, or disapprove the same in the event of noncompliance; and
8. Coordinate with and provide comments to assure that applications, plan reviews, and inspections for Buildings and Structures in Special Flood Hazard Areas comply with the applicable provisions of this Article.

**D. Substantial Improvement and Substantial Damage Determinations**

For applications for building permits to improve Buildings and Structures, including alterations, relocation, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, Substantial Improvements, repairs of Substantial Damage, and any other improvement of or work on such Buildings and Structures, the Floodplain Administrator, acting as the Building Official, shall:

1. Estimate the Market Value, or require the applicant to obtain an appraisal of the Market Value prepared by a qualified independent appraiser, of the Building or Structure before the Start of Construction of the proposed work; in the case of repair, the Market Value of the Building or Structure shall be the Market Value before the damage occurred and before any repairs are made;
2. Compare the cost to perform the improvement, the cost to repair a damaged Building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the Market Value of the Building or Structure;
3. Determine and document whether the proposed work constitutes Substantial Improvement or repair of Substantial Damage; the determination requires evaluation of previous permits issued for improvements and repairs, as specified in the definition of "Substantial Improvement"; for proposed work to repair damage caused by flooding, the determination requires evaluation of previous permits issued to repair flood-related damage, as specified in the definition of "Substantial Damage"; and
4. Notify the applicant if it is determined that the work constitutes Substantial Improvement or repair of Substantial Damage and that compliance with the flood resistant construction requirements of the Florida Building Code and this Article is required.

**E. Modifications of the Strict Application of the Requirements of the Florida Building Code**

The Floodplain Administrator shall review requests submitted to the Building Official that seek approval to modify the strict application of the flood load and flood resistant construction requirements of the Florida Building Code to determine whether such requests require the granting of a Variance pursuant to Art. 18.A.7.

**F. Notices and Orders**

The Floodplain Administrator shall coordinate with appropriate local agencies for the issuance of all necessary notices or orders to ensure compliance with this Article.

## **G. Inspections**

The Floodplain Administrator or designee shall make the required inspections, as specified in Art. 18.A.6, for Development that is exempt from the Florida Building Code, as listed in Art. 18.A.4.C. The Floodplain Administrator or designee shall inspect Special Flood Hazard Areas to determine if Development is undertaken without issuance of a permit.

## **H. Other Duties of the Floodplain Administrator**

The Floodplain Administrator shall have other duties, including but not limited to:

1. Establish procedures for administering and documenting determinations of Substantial Improvement and Substantial Damage made pursuant to Art. 18.A.3.D;
2. Require that applicants proposing Alteration of a Watercourse notify adjacent communities and the Florida Division of Emergency Management, State Floodplain Management Office, and submit copies of such notifications to the Federal Emergency Management Agency (FEMA);
3. Require applicants who submit hydrologic and hydraulic engineering analyses in support of permit applications to submit to FEMA the data and information necessary to maintain the Flood Insurance Rate Maps if the analyses propose to change Base Flood Elevations, Special Flood Hazard Area boundaries, or Floodway designations; such submissions shall be made within six months of such data becoming available;
4. Review required design certifications and documentation of elevations specified by this Article and the Florida Building Code to determine that such certifications and documentations are complete;
5. Notify FEMA when the boundaries of unincorporated PBC are modified; and
6. Advise applicants for New Buildings and Structures, including Substantial Improvements, that are located in any unit of the Coastal Barrier Resources System established by the Coastal Barrier Resources Act (Public Law 97-348) and the Coastal Barrier Improvement Act of 1990 (Public Law 101-591) that federal flood insurance is not available on such construction; areas subject to this limitation are identified on Flood Insurance Rate Maps as "Coastal Barrier Resource System Areas" and "Otherwise Protected Areas."

## **I. Floodplain Management Records**

Regardless of any limitation on the period required for retention of public records, the Floodplain Administrator shall maintain and permanently keep and make available for public inspection all records that are necessary for the administration of this Article and the flood resistant construction requirements of the Florida Building Code, including Flood Insurance Rate Maps; Letters of Map Change; records of issuance of permits and denial of permits; determinations of whether proposed work constitutes Substantial Improvement or repair of Substantial Damage; required design certifications and documentation of elevations specified by the Florida Building Code and this Article; notifications to adjacent communities, FEMA, and the state related to alterations of watercourses; assurances that the flood-carrying capacity of altered watercourses will be maintained; documentation related to Appeals and Variances, including justification for issuance or denial; and records of enforcement actions taken pursuant to this Article and the flood resistant construction requirements of the Florida Building Code. These records are available for public inspection at the PBC Department of Planning, Zoning and Building at 2300 North Jog Road, West Palm Beach, FL 33411.

## **Section 4 Permits**

### **A. Permits Required**

Any owner or owner's authorized agent (hereinafter "applicant") who intends to undertake any Development activity within the scope of this Article, including Buildings, Structures and facilities exempt from the Florida Building Code, as listed in Art. 18.A.4.C, which is wholly within or partially within any Special Flood Hazard Area shall first make application to the Floodplain Administrator and the Building Official, if applicable, and shall obtain the required permit(s) and approval(s). No such permit or approval shall be issued until compliance with the requirements of this Article has been satisfied.

### **B. Floodplain Development Permits or Approvals**

Floodplain Development Permits or Approvals shall be issued pursuant to this Article for any Development activities exempt from the Florida Building Code, as listed in Art. 18.A.4.C. Depending on the nature and extent of proposed Development that includes a Building or Structure, the Floodplain Administrator may determine that a Floodplain Development Permit or Approval is required in addition to a building permit.

### **C. Buildings, Structures and Facilities Exempt from the Florida Building Code**

Pursuant to the requirements of federal regulation for participation in the National Flood Insurance Program (44 CFR, Sections 59 and 60), Floodplain Development Permits or Approvals shall be required



for the following Buildings, Structures and facilities that are exempt from the Florida Building Code and any further exemptions provided by law, which are subject to the requirements of this Article:

1. Railroads and ancillary facilities associated with the railroad.
2. Nonresidential farm Buildings on farms, as provided in section 604.50, F.S.
3. Temporary Buildings or sheds used exclusively for construction purposes.
4. Mobile or modular Structures used as temporary offices.
5. Those Structures or facilities of electric utilities, as defined in section 366.02, F.S., which are directly involved in the generation, transmission, or distribution of electricity.
6. Chickees constructed by the Miccosukee Tribe of Indians of Florida or the Seminole Tribe of Florida. As used in this paragraph, the term "chickee" means an open-sided wooden hut that has a thatched roof of palm or palmetto or other traditional materials, and that does not incorporate any electrical, plumbing, or other non-wood features.
7. Family mausoleums, not exceeding 250 square feet in area, which are prefabricated and assembled on site or preassembled and delivered on site and have walls, roofs and a floor constructed of granite, marble or reinforced concrete.
8. Temporary housing provided by the Florida Department of Corrections to any prisoner in the state correctional system.
9. Structures identified in section 553.73(10)(k), F.S., are not exempt from the Florida Building Code if such Structures are located in Special Flood Hazard Areas established on Flood Insurance Rate Maps.

**D. Application for a Permit or Approval**

To obtain a Floodplain Development Permit or Approval outside of the building permit process, the applicant shall first file an application in writing on a form furnished by PBC. The information provided shall:

1. Identify and describe the Development to be covered by the permit or approval.
2. Describe the land on which the proposed Development is to be conducted by legal description, street address or similar description that will readily identify and definitively locate the site.
3. Indicate the use and occupancy for which the proposed Development is intended.
4. Be accompanied by a site plan or construction documents, as specified in Art.18.A.5.
5. State the valuation of the proposed work.
6. Be signed by the applicant or the applicant's authorized agent.
7. Give such other data and information as required by the Floodplain Administrator.

**E. Validity of Permit or Approval**

The issuance of a Floodplain Development Permit or Approval pursuant to this Article shall not be construed to be a permit for, or approval of, any Violation of this Article, the Florida Building Code, or any other ordinance of PBC. The issuance of permits based on submitted applications, construction documents, and information shall not prevent the Floodplain Administrator from requiring the correction of errors and omissions.

**F. Suspension or Revocation**

The Floodplain Administrator is authorized to suspend or revoke a Floodplain Development Permit or Approval if the permit was issued in error, on the basis of incorrect or incomplete information, or in Violation of this Article or any other ordinance, regulation or requirement of PBC.

**G. Expiration**

A Floodplain Development Permit or Approval shall become invalid unless the work authorized by such permit is commenced within six months after its issuance or the issuance of a building permit, whichever comes last, or if the work authorized is suspended or abandoned for a period of six months after the work commences. Extensions for periods of not more than six months each shall be requested in writing prior to expiration and justifiable cause shall be demonstrated. In no case shall the permit remain valid when FIRMs are updated, unless Development is under construction.

**H. Other Permits Required**

Floodplain Development Permits shall include a statement that all other applicable state or federal permits shall be obtained before commencement of the permitted Development, including, but not limited to, the following:

1. The South Florida Water Management District; section 373.036, F.S.
2. Florida Department of Health for onsite sewage treatment and disposal systems; section 381.0065, F.S., and Chapter 64E-6, FAC.
3. PBC Department of Environmental Resources Management, as applies.

4. Florida Department of Environmental Protection for construction, reconstruction, changes, or physical activities for shore protection or other activities seaward of the Coastal Construction Control Line; section 161.141, F.S.
5. Florida Department of Environmental Protection for activities subject to the Joint Coastal Permit; section 161.055, F.S.
6. Florida Department of Environmental Protection for activities that affect wetlands and alter surface water flows, in conjunction with the U.S. Army Corps of Engineers; section 404 of the Clean Water Act.
7. Federal permits and approvals.

## **Section 5 Site plans and construction documents**

### **A. Information for Development in Special Flood Hazard Areas**

The site plan or construction documents for any Development subject to the requirements of this Article shall be drawn to scale and shall include, as applicable to the proposed Development:

1. Delineation of Special Flood Hazard Areas, Floodway boundaries and flood zone(s), Base Flood Elevation(s), and ground elevations, if necessary, for review of the proposed Development.
2. Where Base Flood Elevations or Floodway data are not included on the FIRM or in the Flood Insurance Study, they shall be established in accordance with Art. 18.A.5.B.2 or 3 below.
3. Where the parcel on which the proposed Development will take place will have more than 50 lots or is larger than five acres, and the Base Flood Elevations are not included on the FIRM or in the Flood Insurance Study, such elevations shall be established in accordance with Art. 18.A.5.B.1.
4. Location of the proposed activity and proposed Structures, and locations of existing Buildings and Structures; in Coastal High Hazard Areas, New Buildings shall be located landward of the reach of mean high tide.
5. Location, extent, amount, and proposed final grades of any filling, grading, or excavation.
6. Where the placement of fill is proposed, the amount, type, and source of fill material; compaction specifications; a description of the intended purpose of the fill areas; and evidence that the proposed fill areas are the minimum necessary to achieve the intended purpose.
7. Delineation of the Coastal Construction Control Line or notation that the site is seaward of the Coastal Construction Control Line, if applicable.
8. Extent of any proposed alteration of Sand Dunes or mangrove stands, provided such alteration is approved by the Florida Department of Environmental Protection.
9. Existing and proposed alignment of any proposed Alteration of a Watercourse.
10. Subdivisions of more than three lots or greater than ten acres shall provide an electronic subdivision topographic plan.

The Floodplain Administrator is authorized to waive the submission of site plans, construction documents, and other data that are required by this Article, but that are not required to be prepared by a registered design professional, if it is found that the nature of the proposed Development is such that the review of such submissions is not necessary to ascertain compliance with this Article.

### **B. Information in Special Flood Hazard Areas without Base Flood Elevations (approximate Zone A)**

Where Special Flood Hazard Areas are delineated on the FIRM and Base Flood elevation data have not been provided, the Floodplain Administrator shall:

1. Require the applicant to include Base Flood Elevation data prepared in accordance with currently-accepted engineering practices.
2. Obtain, review, and provide to applicants Base Flood Elevation and Floodway data available from a federal or state agency or other source, or require the applicant to obtain and use Base Flood Elevation and Floodway data available from a federal or state agency or other source.
3. Where Base Flood Elevation and Floodway data are not available from another source, where the available data are deemed by the Floodplain Administrator to not reasonably reflect flooding conditions, or where the available data are known to be scientifically or technically incorrect or otherwise inadequate:
  - a. Require the applicant to include Base Flood Elevation data prepared in accordance with currently-accepted engineering practices; or
  - b. Specify that the Base Flood Elevation is two feet above the highest adjacent grade (finished) at the location of the Development, provided there is no evidence indicating flood depths have been or may be greater than two feet.
4. Where the Base Flood Elevation data are to be used to support a Letter of Map Change from FEMA, advise the applicant that the analyses shall be prepared by a Florida-licensed engineer in a format

required by FEMA, and that it shall be the responsibility of the applicant to satisfy the submittal requirements and pay the processing fees.

**C. Additional Analyses and Certifications**

As applicable to the location and nature of the proposed Development activity, and in addition to the requirements of this section, the applicant shall have the following analyses signed and sealed by a Florida-licensed engineer for submission with the site plan and construction documents:

1. For Development activities proposed to be located in a regulatory Floodway, a Floodway Encroachment Analysis that demonstrates that the encroachment of the proposed Development will not cause any increase in Base Flood Elevations; where the applicant proposes to undertake Development activities that do increase Base Flood Elevations, the applicant shall submit such analysis to FEMA, as specified in Art. 18.A.5.D, and shall submit the Conditional Letter of Map Revision, if issued by FEMA, with the site plan and construction documents.
2. For Development activities proposed to be located in a riverine Special Flood Hazard Area for which Base Flood Elevations are included in the Flood Insurance Study or on the FIRM and Floodways have not been designated, hydrologic and hydraulic analyses that demonstrate that the cumulative effect of the proposed Development, when combined with all other existing and anticipated Flood Hazard Area encroachments, will not increase the Base Flood Elevation more than one foot at any point within the community. This requirement does not apply in isolated Special Flood Hazard Areas not connected to a riverine Special Flood Hazard Area or in Special Flood Hazard Areas identified as Zone AO or Zone AH.
3. For Alteration of a Watercourse, an engineering analysis prepared in accordance with standard engineering practices which demonstrates that the flood-carrying capacity of the altered or relocated portion of the watercourse will not be decreased, and certification that the altered watercourse shall be maintained in a manner which preserves the channel's flood-carrying capacity; the applicant shall submit the analysis to FEMA as specified in Art. 18.A.5.D.
4. For activities that propose to alter Sand Dunes or mangrove stands in Coastal High Hazard Areas (Zone V), an engineering analysis that demonstrates that the proposed alteration will not increase the potential for flood damage.

**D. Submission of Additional Data**

When additional hydrologic, hydraulic or other engineering data, studies, and additional analyses are submitted to support an application, the applicant has the right to seek a Letter of Map Change from FEMA to change the Base Flood Elevations, change Floodway boundaries, or change boundaries of Special Flood Hazard Areas shown on FIRMs, and to submit such data to FEMA for such purposes. The analyses shall be prepared by a Florida-licensed engineer in a format required by FEMA. Submittal requirements and processing fees shall be the responsibility of the applicant.

**Section 6 Inspections**

**A. General**

Development for which a Floodplain Development Permit or Approval is required shall be subject to inspection.

**B. Development other than Buildings and Structures**

The Floodplain Administrator shall inspect all Development to determine compliance with the requirements of this Article and the conditions of issued Floodplain Development Permits or approvals.

**C. Buildings, Structures and Facilities Exempt from the Florida Building Code**

The Floodplain Administrator shall inspect Buildings, Structures and facilities exempt from the Florida Building Code, as listed in Art. 18.A.4.C, to determine compliance with the requirements of this Article and the conditions of issued Floodplain Development Permits or approvals.

**D. Lowest-floor inspection for Buildings, Structures and Facilities exempt from the Florida Building Code**

Upon placement of the Lowest Floor, including Basement, and prior to further vertical construction, the owner of a Building, Structure or facility exempt from the Florida Building Code, as listed in Art. 18.A.4.C, or the owner's authorized agent, shall submit to the Floodplain Administrator:

1. If a Design Flood Elevation was used to determine the required elevation of the Lowest Floor, the certification of elevation of the Lowest Floor prepared and sealed by a Florida-licensed professional surveyor; or
2. If the elevation used to determine the required elevation of the Lowest Floor was determined in accordance with Art. 18.A.5.B.3.b, the documentation of height of the Lowest Floor above highest adjacent grade, prepared by the owner or the owner's authorized agent.

**E. Final Inspection for Buildings, Structures and Facilities Exempt from the Florida Building Code**

As part of the final inspection for Buildings, Structures and facilities exempt from the Florida Building Code, as listed in Art. 18.A.4.C, the owner or owner's authorized agent shall submit to the Floodplain Administrator a final certification of elevation of the Lowest Floor and/or final documentation of the height of the Lowest Floor above the highest adjacent grade; such certifications and documentations shall be prepared as specified in Art. 18.A.6.D.

**F. Manufactured Homes**

The Floodplain Administrator shall inspect Manufactured Homes that are installed or replaced in Special Flood Hazard Areas to determine compliance with the requirements of this Article and the conditions of the issued permit. Upon placement of a Manufactured Home, certification of the elevation of the Lowest Floor shall be submitted to the Floodplain Administrator.

**Section 7 Appeals and Variances**

**A. General**

The Flood Damage Prevention Board shall hear and decide on all requests for Appeals or Variances from the strict application of this Article.

**B. Appeal procedures**

1. A request for Appeal to the decision of the Floodplain Administrator enforcing the provisions of this Article shall include reference to this Art. 18.A.7, and the applicant's technical basis of contesting the decision of the Floodplain Administrator. The Appeal shall be filed in writing within 30 calendar days after the decision is rendered by the Floodplain Administrator. Failure to timely file an Appeal shall be deemed a waiver of the applicant's ability to seek relief for said decision. An Appeal may be filed whenever any one of the following conditions are claimed to exist:
  - a. The Floodplain Administrator rejected or refused to approve the applicant's request;
  - b. The provisions of this Article do not apply to the applicant's specific case;
  - c. That an equally-good or more-desirable method can be employed and fully meet the intent of this Article, which the Floodplain Administrator has rejected;
  - d. The true intent and meaning of this Article or any of the regulations there under have been misconstrued or incorrectly interpreted.
2. The Flood Damage Prevention Board shall hear Appeal requests at the next available meeting within 60 days of date of Appeal. This 60-day period may be extended upon mutual consent of the Floodplain Administrator and the applicant.
3. At the conclusion of the hearing, the Flood Damage Prevention Board shall orally render a decision based on testimony and evidence entered into the record. An order setting forth findings of fact and conclusion of law shall then be delivered to the appellant.
4. The applicant or PBC may Appeal a decision of the Flood Damage Prevention Board to the Circuit Court of PBC, Florida, by petition for writ of certiorari; any Appeal filed pursuant to this Article shall be considered timely if filed within 30 days of the execution of the order to be Appealed.

**C. Variance procedures**

1. An initial request for a Variance from the provisions of this Article shall be filed in writing by the affected party with the Floodplain Administrator.
2. The Flood Damage Prevention Board shall hear Variance requests at the next available meeting. In acting upon Variance applications, the Flood Damage Prevention Board shall consider all technical evaluations, all relevant factors, and standards specified in other sections of this Article; and
  - a. The danger that materials may be swept onto other lands to the injury of others;
  - b. The danger to life and property due to flooding or erosion damage;
  - c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
  - d. The importance of the services provided by the proposed facility to the community;
  - e. The necessity to the facility of a waterfront location;
  - f. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
  - g. The compatibility of the proposed use with existing and anticipated Development;
  - h. The relationship of the proposed use to the comprehensive plan and flood damage prevention program for that area;
  - i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
  - j. The expected heights, velocity, duration, rate of rise, and sediment of transport of the floodwaters and the effects of wave action, if applicable, expected at the site;

- k. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electric, and water systems, and streets and bridges; and
  - l. The negative effect a Variance may have on the county rating under the FEMA Community Rating System.
3. The applicant or PBC may Appeal a decision of the Flood Damage Prevention Board to the Circuit Court of PBC, Florida, by a petition for writ of certiorari; any Appeal filed pursuant to this Article shall be considered timely if filed within 30 days of the execution of the order to be Appealed.

**D. Restrictions in Floodways**

A Variance shall not be issued for any proposed Development in a Floodway if any increase in Base Flood Elevations would result, as evidenced by the applicable analyses and certifications required in Art. 18.A.5.C.

**E. Historic Buildings**

A Variance is authorized to be issued for the repair, improvement, or rehabilitation of a Historic Building that is determined eligible for the exception to the flood resistant construction requirements of the Florida Building Code, Existing Building Volume, Chapter 11, Historic Buildings, upon a determination that the proposed repair, improvement or rehabilitation will not preclude the Building's continued designation as a Historic Building and the Variance is the minimum necessary to preserve the historic character and design of the Building. If the proposed work precludes the Building's continued designation as a Historic Building, a Variance shall not be granted upon this basis and the Building and any repair, improvement and rehabilitation shall be subject to the requirements of the Florida Building Code.

**F. Functionally-Dependent Uses**

A Variance is authorized to be issued for the construction or Substantial Improvement necessary for the conduct of a Functionally-Dependent Use, as defined in Art. 1, provided the Variance is the minimum necessary considering the flood hazard, and all due consideration has been given to use of methods and materials that minimize flood damage during occurrence of the Base Flood.

**G. Conditions for Issuance of Variances**

Variances shall be issued only upon:

- 1. Submission by the applicant of a showing of good and sufficient cause that the unique characteristics of the size, configuration or topography of the site limit compliance with any provision of this Article or the required elevation standards.
- 2. Determination by the Flood Damage Prevention Board that:
  - a. Failure to grant the Variance would result in exceptional hardship due to the physical characteristics of the land that render the lot undevelopable; increased costs to satisfy the requirements or inconvenience do not constitute hardship;
  - b. The granting of a Variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, nor create nuisances, cause fraud on or victimization of the public or conflict with existing local laws and ordinances; and
  - c. The Variance is the minimum necessary, considering the flood hazard, to afford relief.

**H. Limitations on Authority to Grant Variances**

The Flood Damage Prevention Board shall base its decisions on Variances on technical justifications submitted by applicants, the considerations for issuance in Art. 18.A.7.C.2, the conditions of issuance set forth in Art. 18.A.7.G, and the comments and recommendations of the Floodplain Administrator. The Flood Damage Prevention Board has the right to attach such conditions as it deems necessary to further the purposes and objectives of this Article.

**I. Variance Notification**

Any applicant to whom a Variance is granted shall be given a written order, bearing the signature of the Chairperson of the Flood Damage Prevention Board, indicating the difference between the Base Flood Elevation and the proposed elevation of the Lowest Floor, stating the issuance of a Variance to construct a Structure or Substantial Improvement below the required elevation, or otherwise not comply with the requirements of this Article, may result in substantial increase in the cost of federal flood insurance (up to amounts as high as \$25 for \$100 of insurance coverage) and such noncompliance construction increases risks to life and property. A copy of the notice shall be recorded by the Floodplain Administrator in the Office of the PBC Clerk and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land in the Official Records of PBC. The Floodplain Administrator will maintain a record of all Variance actions, including justification for their issuance, and report such Variances issued in its biennial report submitted to FEMA.

**Section 8      Violations**

**A. Violations**

Any Development that is not within the scope of the Florida Building Code, but that is regulated by this Article, as listed in Art. 18.A.4.C, that is performed without an issued permit, that is in conflict with an issued permit, or that does not fully comply with this Article, shall be deemed a Violation of this Article. A Building or Structure without the documentation of elevation of the Lowest Floor, other required design certifications, or other evidence of compliance required by this Article or the Florida Building Code is presumed to be a Violation until such time as that documentation is provided.

**B. Authority**

The Floodplain Administrator is authorized to serve notices of Violation or stop work orders to owners of the property involved, to the owner’s agent, or to the person or persons performing the work for Development that is not within the scope of the Florida Building Code, but that is regulated by this Article, as listed in Art. 18.A.4.C, and that is determined to be a Violation.

**C. Unlawful Continuance**

Any person who shall continue any work after having been served with a notice of Violation or a stop work order, except such work as that person is directed to perform to remove or remedy a Violation or unsafe condition, shall be subject to penalties as prescribed by law.

**D. Penalties for Violation**

Violation of this Article or failure to comply with any of its requirements, including Violation of conditions and safeguards established in connection with grants of Variances shall be enforceable pursuant to the Code Enforcement Procedures established in Chapter 162, Parts I and II, F.S., as amended or replaced, and Article 10, Code Enforcement. Each day such Violation continues shall be considered a separate offense. Nothing herein contained shall prevent the Floodplain Administrator or PBC from taking such other lawful actions as are necessary to prevent or remedy any Violation, including enforcement pursuant to section 125.69, F.S., as amended or replaced. Any person who receives a conviction pursuant to section 125.69, F.S., as amended or replaced, for violating or failing to comply with any of the requirements herein shall, upon conviction hereof, be fined not more than \$500 or imprisoned for not more than 60 days.

**CHAPTER B BUILDINGS AND STRUCTURES**

**Section 1 Design and Construction of Buildings, Structures and Facilities Exempt from the Florida Building Code.**

Pursuant to Art. 18.A.4.C, Buildings, Structures, and facilities that are exempt from the Florida Building Code, including Substantial Improvement or repair of Substantial Damage of such Buildings, Structures and facilities, shall be designed and constructed in accordance with the flood load and flood resistant construction requirements of ASCE 24. Structures exempt from the Florida Building Code that are not walled and roofed Buildings shall comply with the requirements of Art. 18.H.

**Section 2 Buildings and Structures Seaward of the Coastal Construction Control Line.**

If extending, in whole or in part, seaward of the Coastal Construction Control Line and also located, in whole or in part, in a Special Flood Hazard Area:

- A. Buildings and Structures shall be designed and constructed to comply with the more-restrictive applicable requirements of the Florida Building Code, Building Volume, Section 3109 and Section 1612 or Florida Building Code, Residential Volume, Section R322.
- B. Minor Structures and non-habitable major Structures, as defined in section 161.54, F.S., shall be designed and constructed to comply with the intent and applicable provisions of this Article and ASCE 24.

**Section 3 Specific Methods of Construction and Requirements.**

In addition to the requirements of this Article and the Florida Building Code, the following specific methods of construction apply:

**A. Application of Flood Resistant Requirements**

The following “higher standards” shall apply to all properties located within unincorporated PBC, as described in this section.

**B. Additional Elevation of Buildings (Freeboard)**

- 1. For New Construction and Substantial Improvements, including electrical systems, equipment and components, heating, ventilating, air conditioning, plumbing appliances and plumbing fixtures, duct systems, and other service equipment, in Zones AE, AH and VE, the minimum elevation requirement

(for the Lowest Floor or lowest horizontal member, as applicable) shall be at least one foot above the Base Flood Elevation. In areas without a master stormwater drainage system, the minimum elevation requirement shall be the higher of one foot above the Base Flood Elevation or 18 inches above the Lowest Adjacent Road Crown (LARC). Flood-proofing, to a minimum of one foot above the Base Flood Elevation, subject to the limitations of applicable provisions of the Florida Building Code, as may be amended, may be used in flood zones other than Coastal High Hazard Areas.

2. For New Construction and Substantial Improvements, including electrical systems, equipment and components, heating, ventilating, air conditioning, plumbing appliances and plumbing fixtures, duct systems, and other service equipment, in approximate Zone A, the minimum elevation requirement (for the Lowest Floor or lowest horizontal member, as applicable) shall be one foot above the Base Flood Elevation, as determined pursuant to Art. 18.A.5.B. In areas without a master stormwater drainage system, the minimum elevation requirement shall be the higher of one foot above the Base Flood Elevation or 18 inches above the LARC. Flood-proofing may be used, subject to the limitations of the applicable provisions of the FBC, as may be amended.
3. For New Construction and Substantial Improvements, including electrical systems, equipment and components, heating, ventilating, air conditioning; plumbing appliances and plumbing fixtures, duct systems, and other service equipment, in Zone AO, the minimum elevation requirement shall be at least one foot greater than the depth specified by FEMA on the Flood Insurance Rate Maps above natural grade. If a depth is not specified, the minimum elevation requirement shall be at least two feet above the highest adjacent grade. In areas without a master stormwater drainage system, the minimum elevation requirement shall be the higher of one foot above the depth number or 18 inches above LARC. Flood-proofing may be used, subject to the limitations of the applicable provisions of the Florida Building Code, as may be amended.
4. For New Construction and Substantial Improvements, including electrical systems, equipment and components, heating, ventilating, air conditioning, plumbing appliances and plumbing fixtures, duct systems, and other service equipment, in Zones X, X500, and areas not studied, without a master stormwater drainage system, the Base Flood Elevation shall be at least 18 inches above the LARC. Flood-proofing may be used, subject to applicable provisions of the Florida Building Code, as may be amended.

**C. Substantial Improvement and Substantial Damage**

For the administration of the flood provisions of the Florida Building Code, Building Volume and Existing Building Volume, the definitions in ULDC Art. 1. I, Section 2, for “Substantial Improvement” and “Substantial Improvement” shall apply.

**D. Critical Facilities**

Construction of new critical facilities shall be, to the extent possible, located outside the limits of SFHAs. Construction of new critical facilities may be permissible within a SFHA if no feasible alternative site is available. If permitted, critical facilities shall be elevated or protected to or above the Base Flood Elevation, plus three feet, or the 500-year (0.2 percent chance) flood elevation, whichever is higher. Flood-proofing may be used, subject to the applicable provisions of the Florida Building Code, as may be amended. Access routes elevated to or above the level of the Base Flood Elevation shall be provided to all critical facilities.

**CHAPTER C SUBDIVISIONS**

**Section 1 Minimum Requirements**

Subdivision proposals, including proposals for Manufactured Home Parks and Subdivisions, shall be reviewed to determine that:

- A. Such proposals are consistent with the need to minimize flood damage and will be reasonably safe from flooding;
- B. All public utilities and facilities such as sewer, gas, electric, communications, and water systems are located and constructed to minimize or eliminate flood damage; and
- C. Adequate drainage is provided to reduce exposure to flood hazards; in Zones AH and AO, adequate drainage paths shall be provided to guide floodwaters around and away from proposed Structures.

**Section 2 Subdivision Plats**

Where any portion of proposed subdivisions, including Manufactured Home Parks and Subdivisions, lies within a Special Flood Hazard Area, the following shall be required:

- A. Delineation of Special Flood Hazard Areas, Floodway boundaries and flood zones, and Design Flood Elevations, as appropriate, shall be shown on a separate exhibit submitted with a Technical Compliance Application for platting, pursuant to Art. 11, Subdivision, Platting, and Required Improvements;
- B. Where the subdivision has more than 50 lots or is larger than five acres and Base Flood Elevations are not included on the FIRM, the Base Flood Elevations determined in accordance with Art. 18.A.5.B.1; and
- C. Compliance with the site improvement and utilities requirements of Art. 18.D.

## **CHAPTER D SITE IMPROVEMENTS, UTILITIES AND LIMITATIONS**

### **Section 1 Minimum Requirements**

All proposed new Development shall be reviewed to determine that:

- A. Such proposals are consistent with the need to minimize flood damage and will be reasonably safe from flooding;
- B. All public utilities and facilities, such as sewer, gas, electric, communications and water systems, are located and constructed to minimize or eliminate flood damage; and
- C. Adequate drainage is provided to reduce exposure to flood hazards; in Zones AH and AO, adequate drainage paths shall be provided to guide floodwaters around and away from proposed Structures.

### **Section 2 Sanitary-Sewage Facilities**

All new and replacement sanitary-sewage facilities, private sewage treatment plants (including all pumping stations and collector systems), and on-site waste disposal systems shall be designed in accordance with the standards for onsite sewage treatment and disposal systems in Chapter 64E-6, FAC, and ASCE 24, Chapter 7, to minimize or eliminate infiltration of floodwaters into the facilities and discharge from the facilities into flood waters, and impairment of the facilities and systems.

### **Section 3 Water-Supply Facilities**

All new and replacement water-supply facilities shall be designed in accordance with the water well construction standards in Art. 15, ULDC, Section 62-532.500, FAC, and ASCE 24, Chapter 7, to minimize or eliminate infiltration of floodwaters into the systems.

### **Section 4 Limitations on Sites in Regulatory Floodways**

No Development, including but not limited to site improvements and land-disturbing activity involving fill or regrading, shall be authorized in the regulatory Floodway, unless the Floodway Encroachment Analysis required in Art. 18.A.5.C demonstrates that the proposed Development or land-disturbing activity will not result in any increase in the Base Flood Elevation.

### **Section 5 Limitations on Placement of Fill**

Subject to the limitations of this Article, fill shall be designed to be stable under conditions of flooding including rapid rise and rapid drawdown of floodwaters, prolonged inundation, and protection against flood-related erosion and scour. In addition to these requirements, if intended to support Buildings and Structures (Zone A only), fill shall comply with the requirements of the Florida Building Code.

#### **A. Grading and Earth Fill**

##### **1. Grading**

On all new, permitted construction, regardless of flood-zone designation, grading shall keep all rainfall and runoff flow on the Building site, until discharged into the roadway drainage system or to public drainage ways adjacent to the property lines. Berms shall be constructed along lot lines, if necessary, to prevent stormwater flow directly onto adjacent properties. Erosion sedimentation off the Building site shall be controlled until vegetative cover is established. The Floodplain Administrator may require grading plans showing pre-construction and proposed finish earth grades.

##### **2. Earth Fill**

On all New Construction, earth fill brought onto the site of construction from another site shall be minimized to maximize existing floodwater storage capacity. Maximum volume of imported fill shall be limited to that necessary to raise an earth pad to elevate the slab-on-grade not more than six inches above minimum floor elevation set in this Article, with side slopes of the pad of 1:5 to 1:3 starting ten feet from the slab edges.



### **3. Fill in Zone V**

Structural fill shall not be utilized in Coastal High Hazard Areas (Zone V).

### **4. Lot and Building Site Drainage**

Site grading immediately adjacent to the perimeter of each Building constructed as slab-on-grade shall be sloped so as to drain or direct water away from the Structure.

### **5. Exceptions from the Requirements in this Section**

- a. Only on Building sites requiring raised septic mounds to PBC Health Department minimum elevations, will additional volume of fill be allowed to construct the mound;
- b. Earth fill dug from an on-site excavation shall be unregulated if in accordance with the regulations in the ULDC, and provided finish grade directs lot drainage back into the excavation;
- c. Any volume of fill for placement inside the perimeter foundation walls to raise an interior concrete slab to any higher elevation shall be allowed;
- d. Fill shall be permitted to raise earthen berms on side property lines to prevent drainage onto adjacent lots, provided said berms have side slopes of 1:5 to 1:3, with a triangular cross section;
- e. Fill shall be allowed inside retaining walls for Building access ramps or driveway ramps required by the American Disabilities Act (ADA);
- f. Fill necessary to direct on-site drainage to the public roadway or drainage system shall also be permitted;
- g. Minimum fill for sites that have sloping topography that do not store floodwater shall be permitted. Any fill in excess of this minimum grading requirement shall be subject to approval of the Flood Damage Prevention Board as a Variance;
- h. Fill necessary for critical facilities and public service Buildings; and
- i. Areas included within a South Florida Water Management District permit shall be filled and graded in accordance with the fill and grading design conditions identified in said permit even when elevations are more than six inches above the minimum floor elevation set in Art. 18.D.5.A.2.

## **Section 6 Limitations on Sites in Coastal High Hazard Areas (Zone V)**

In Coastal High Hazard Areas, alteration of Sand Dunes and mangrove stands shall be permitted only if such alteration is approved by the Florida Department of Environmental Protection and only if the engineering analysis required by Art. 18.A.5.C.4 demonstrates that the proposed alteration will not increase the potential for flood damage. Construction or restoration of dunes under or around elevated Buildings and Structures shall comply with Art. 18.H.8.C.

## **CHAPTER E MANUFACTURED HOMES**

### **Section 1 General**

All Manufactured Homes installed in Special Flood Hazard Areas shall be installed by an installer that is licensed pursuant to section 320.8249, F.S., and shall comply with the requirements of Chapter 15C-1, FAC, and the requirements of this Article. Manufactured Homes shall not be allowed seaward of the Coastal Construction Control Line.

### **Section 2 Foundations**

All new Manufactured Homes and replacement Manufactured Homes installed in Special Flood Hazard Areas shall be installed on permanent, reinforced foundations that:

- A. In Special Flood Hazard Areas (Zone A) other than Coastal High Hazard Areas, are designed in accordance with the foundation requirements of the Florida Building Code, Residential Volume, Section R322.2, and this Article. Foundations for Manufactured Homes, subject to Art. 18.E.4.B, are permitted to be reinforced piers or other foundation elements of at least equivalent strength.
- B. In Coastal High Hazard Areas (Zone V), are designed in accordance with the foundation requirements of the Florida Building Code, Residential Volume, Section R322.3, and this Article.

### **Section 3 Anchoring**

All new Manufactured Homes and replacement Manufactured Homes shall be installed using methods and practices which minimize flood damage and shall be securely anchored to an adequately-anchored foundation system to resist flotation, collapse or lateral movement. Methods of anchoring include, but are not limited to, use

of over-the-top or frame ties to ground anchors. This anchoring requirement is in addition to applicable state and local anchoring requirements for wind resistance.

#### **Section 4 Elevation**

Manufactured Homes that are placed, replaced or substantially improved shall comply with Art. 18.E.4.A or Art. 18.E.4.B, as applicable.

##### **A. General Elevation Requirement**

Unless subject to the requirements of Art. 18.E.4.B, all Manufactured Homes that are placed, replaced, or substantially improved on sites located: (a) outside of a Manufactured Home Park or Subdivision; (b) in a new Manufactured Home park or subdivision; (c) in an expansion to an Existing Manufactured Home Park or Subdivision; or (d) in an Existing Manufactured Home Park or Subdivision upon which a Manufactured Home has incurred "Substantial Damage" as the result of a flood, shall be elevated such that the bottom of the frame is at or above the elevation required, as applicable to the Special Flood Hazard Area, in the Florida Building Code, Residential Volume, Section R322.2 (Zone A) or Section R322.3 (Zone V).

##### **B. Elevation Requirement for Certain Existing Manufactured Home Parks and Subdivisions**

Manufactured Homes that are not subject to Art. 18.E.4.A, including Manufactured Homes that are placed, replaced, or substantially improved on sites located in an Existing Manufactured Home Park or Subdivision, unless on a site where Substantial Damage as result of flooding has occurred, shall be elevated such that either the:

1. Bottom of the frame of the Manufactured Home is at or above the elevation required, as applicable to the Special Flood Hazard Area, in the Florida Building Code, Residential Volume, Section R322.2 (Zone A) or Section R322.3 (Zone V); or
2. Bottom of the frame is supported by reinforced piers or other foundation elements of at least equivalent strength that are not less than 36 inches in height above grade.

#### **Section 5 Enclosures**

Enclosed areas below elevated Manufactured Homes shall comply with the requirements of the Florida Building Code, Residential Volume, Section R322.2 or R322.3, for such enclosed areas, as applicable to the Special Flood Hazard Area.

#### **Section 6 Utility Equipment**

Utility equipment that serves Manufactured Homes, including electric, heating, ventilation, plumbing, and air conditioning equipment and other service facilities, shall comply with the requirements of the Florida Building Code, Residential Volume, Section R322, as applicable to the Special Flood Hazard Area.

### **CHAPTER F RECREATIONAL VEHICLES AND PARK TRAILERS**

#### **Section 1 Temporary Placement**

Recreational Vehicles and Park Trailers placed temporarily in Special Flood Hazard Areas shall:

- A. Be on the site for fewer than 180 consecutive days; or
- B. Be fully licensed and ready for highway use, which means the Recreational Vehicle or Park Trailer is on wheels or jacking system, is attached to the site only by quick-disconnect type utilities and security devices, and has no permanent attachments such as additions, rooms, stairs, decks and porches.

#### **Section 2 Permanent Placement**

Recreational Vehicles and Park Trailers that do not meet the limitations in Art. 18.F.1 above for temporary placement shall meet the requirements of Art. 18.E for Manufactured Homes.

### **CHAPTER G TANKS**

#### **Section 1 Underground Tanks**

Underground tanks in Special Flood Hazard Areas shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the Design Flood, including the effects of buoyancy assuming the tank is empty.

## **Section 2 Non-Elevated, Above-Ground Tanks**

Above-ground tanks that do not meet the elevation requirements of Art. 18.G.3 below shall:

- A. Be permitted in Special Flood Hazard Areas (Zone A) other than Coastal High Hazard Areas, provided the tanks are anchored or otherwise designed and constructed to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the Design Flood, including the effects of buoyancy assuming the tank is empty and the effects of flood-borne debris.
- B. Not be permitted in Coastal High Hazard Areas (Zone V).

## **Section 3 Elevated, Above-Ground Tanks**

In Special Flood Hazard Areas, above-ground tanks shall be attached to, and elevated to (or above) the Design Flood Elevation of, a supporting Structure designed to prevent flotation, collapse or lateral movement during Design Flood conditions. Tank-supporting Structures shall meet the foundation requirements of the applicable Special Flood Hazard Area.

## **Section 4 Tank Inlets and Vents**

Tank inlets, fill openings, outlets and vents shall be:

- A. At or above the Design Flood Elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the Design Flood; and
- B. Anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the Design Flood.

# **CHAPTER H OTHER DEVELOPMENT**

## **Section 1 General Requirements for Other Development**

All Development subject to this article, including man-made changes to improved or unimproved real estate for which specific provisions are not specified in this Article or the Florida Building Code, shall:

- A. Be located and constructed to minimize flood damage;
- B. Meet the limitations of Art. 18.D.4 if located in a regulated Floodway;
- C. Be anchored to prevent flotation, collapse or lateral movement resulting from hydrostatic loads, including the effects of buoyancy, during conditions of the Design Flood;
- D. Be constructed of Flood Damage Resistant Materials; and
- E. Have mechanical, plumbing, and electrical systems above the Design Flood Elevation or meet the requirements of ASCE 24, except that "minimum" electric service (i.e., service required to address life safety and electric code requirements) is permitted below the Design Flood Elevation provided it conforms to the provisions of the electrical part of the building code for wet locations.

## **Section 2 Fences in Regulated Floodways**

Fences in regulated Floodways that have the potential to block the passage of floodwaters, such as stockade fences and wire mesh fences, shall meet the limitations of Art. 18.D.4.

## **Section 3 Retaining Walls, Sidewalks and Driveways in Regulated Floodways**

Retaining walls, sidewalks and driveways that involve the placement of fill in regulated Floodways shall meet the limitations of Art. 18.D.4.

## **Section 4 Roads and Watercourse Crossings in Regulated Floodways**

Roads and watercourse crossings, including roads, bridges, culverts, low-water crossings and similar means for vehicles or pedestrians to travel from one side of a watercourse to the other side, that encroach into regulated Floodways shall meet the limitations of Art. 18.D.4. Alteration of a Watercourse that is part of a road or watercourse crossing shall meet the requirements of Art. 18.A.5.C.3.

## **Section 5 Concrete Slabs Used as Parking Pads, Enclosure floors, Landings, Decks, Walkways, Patios and Similar Nonstructural Uses in Coastal High Hazard Areas (Zone V)**

In Coastal High Hazard Areas, concrete slabs used as parking pads, enclosure floors, landings, decks, walkways, patios and similar nonstructural uses are permitted beneath or adjacent to Buildings and Structures or beneath Design Flood requirements, provided the concrete slabs are designed and constructed to be:

- A. structurally independent of the foundation system of the Building or Structure;
- B. frangible and not reinforced, so as to minimize debris during flooding that is capable of causing significant damage to any Structure; and
- C. have a maximum slab thickness of not more than four inches.

#### **Section 6 Decks and Patios in Coastal High Hazard Areas (Zone V)**

In addition to the requirements of the Florida Building Code, decks and patios in Coastal High Hazard Areas shall be located, designed, and constructed in compliance with the following:

- A. A deck that is structurally attached to a Building or Structure shall have the bottom of the lowest horizontal structural member at or above the Design Flood Elevation, and any supporting members that extend below the Design Flood Elevation shall comply with the foundation requirements that apply to the Building or Structure, which shall be designed to accommodate any increased loads resulting from the attached deck.
- B. A deck or patio that is located below the Design Flood Elevation shall be structurally independent from Buildings or Structures and their foundation systems, and shall be designed and constructed either to remain intact and in place during Design Flood conditions or to break apart into small pieces to minimize debris during flooding that is capable of causing structural damage to the Building or Structure or to adjacent Buildings and Structures.
- C. A deck or patio that has a vertical thickness of more than 12 inches or that is constructed with more than the minimum amount of fill necessary for site drainage shall not be approved unless an analysis prepared by a qualified, registered design professional demonstrates no harmful diversion of floodwaters or wave runup and wave reflection that would increase damage to the Building or Structure or to adjacent Buildings and Structures.
- D. A deck or patio that has a vertical thickness of 12 inches or less and that is at natural grade or on nonstructural fill material that is similar to and compatible with local soils and is the minimum amount necessary for site drainage may be approved without requiring analysis of the impact on diversion of floodwaters or wave runup and wave reflection.

#### **Section 7 Other Development in Coastal High Hazard Areas (Zone V)**

In Coastal High Hazard Areas, Development activities, other than Buildings and Structures, shall be permitted only if also authorized by the appropriate federal, state or local authority; if located outside the footprint of and not structurally attached to Buildings and Structures; and if analyses prepared by qualified, registered design professionals demonstrate no harmful diversion of floodwaters or wave runup and wave reflection that would increase damage to adjacent Buildings and Structures. Such other Development activities include but are not limited to:

- A. Bulkheads, seawalls, retaining walls, revetments, and similar erosion control Structures;
- B. Solid fences and privacy walls, and fences prone to trapping debris, unless designed and constructed to fail under flood conditions less than the Design Flood or otherwise function to avoid obstruction of floodwaters; and
- C. On-site sewage treatment and disposal systems defined in Section 64E-6.002, FAC, as filled systems or mound systems.

#### **Section 8 Nonstructural Fill in Coastal High Hazard Areas (Zone V). In Coastal High Hazard Areas:**

- A. Minor grading and the placement of minor quantities of nonstructural fill shall be permitted for landscaping and for drainage purposes under and around Buildings.
- B. Nonstructural fill with finished slopes that are steeper than one unit vertical to five units horizontal shall be permitted only if an analysis prepared by a qualified, registered design professional demonstrates no harmful diversion of floodwaters or wave runup and wave reflection that would increase damage to adjacent Buildings and Structures.
- C. Where authorized by the Florida Department of Environmental Protection or applicable local approval, sand dune construction and restoration of Sand Dunes under or around elevated Buildings are permitted without additional engineering analysis or certification of the diversion of floodwater or wave runup and wave reflection if the scale and location of the dune work is consistent with local beach-dune morphology

and the vertical clearance is maintained between the top of the sand dune and the lowest horizontal structural member of the Building.

**AMENDMENT HISTORY: [Ord. 2017-026; October 5, 2017]**