

ARTICLE XI. FLOOD DAMAGE PREVENTION*

*Cross references: Waterways, ch. 78.

DIVISION 1. GENERALLY

Sec. 42-966. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Addition (to an existing building) means any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common loadbearing wall other than a firewall. Any walled or roofed addition which is connected by a firewall or is separated by independent perimeter loadbearing walls is new construction.

Appeal means a request for a review of the county's interpretation of any provision of this article or a request for a variance.

Area of shallow flooding means a designated AO or VO zone on a community's flood insurance rate map (FIRM) with base flood depths from one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate and where velocity flow may be evident.

Area of special flood hazard means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year.

Base flood means the flood having a one percent chance of being equaled or exceeded in any given year.

Basement means that portion of a building having its floor subgrade (below ground level) on all sides.

Breakaway wall means a wall that is not part of the structural support of the building and is intended, through its design and construction, to collapse under specific lateral loading forces

without causing damage to the elevated portion of the building or the supporting foundation system.

Building means any structure built for support, shelter or enclosure for any occupancy or storage.

Development means any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavating, drilling operations or permanent storage of materials.

Elevated building means a nonbasement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns (posts and piers), shear walls or breakaway walls.

Existing construction means, for purposes of floodplain management, structures for which "the start of construction" commenced before May 1, 1987. Existing construction, means for the purposes of determining rates structures for which the "start of construction" commenced before November 16, 1983. This term may also be referred to as "existing structures".

Existing manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before May 1, 1987.

Expansion of an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads.

Flood and flooding mean a general and temporary condition of partial or complete inundation of normally dry land areas from the:

- (1) Overflow of inland or tidal waters;
- (2) Unusual and rapid accumulation or runoff of surface waters from any source.

Flood hazard boundary map (FHBM) means an official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the areas of special flood hazard have been defined as zone A.

Flood insurance rate map (FIRM) means an official map of a community, on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

Flood insurance study means the official report provided by the Federal Emergency Management Agency. The report contains flood profiles as well as the flood boundary floodway map and the water surface elevation of the base flood.

Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

Floor means the top surface of an enclosed area in a building, including basement, i.e., top of slab in concrete slab construction or top of wood flooring in wood frame construction. The term does not include the floor of a garage used solely for parking vehicles.

Functionally dependent facility means a facility which cannot be used for its intended purpose unless it is located or carried out in close proximity to water, such as a docking or port facility, necessary for the loading and unloading of cargo or passengers, shipbuilding, ship repair or seafood processing facilities. The term does not include longterm storage, manufacture, sales or service facilities.

Highest adjacent grade means the highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a structure.

Mangrove stand means an assemblage of mangrove trees which is mostly low trees noted for a copious development of interlacing adventitious roots above the ground and which contain one or more of the following species:

- (1) Black mangrove (*Avicennia nitida*);
- (2) Red mangrove (*Phizophora mangle*);
- (3) White mangrove (*Lunguncularia racemosa*); and
- (4) Buttonwood (*Concarpus erecta*).

Manufactured home means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a recreational vehicle.

Mean sea level means the average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For purposes of this article, the term is synonymous with National Geodetic Vertical Datum (NGVD).

National Geodetic Vertical Datum (NGVD), as corrected in 1929, is a vertical control used as a reference for establishing varying elevations within the floodplain.

New construction means, for floodplain management purposes, any structure for which the "start of construction" commenced on or after May 1, 1987. The term also includes any subsequent improvements to such structures. For flood insurance rates, structures for which the start of construction commenced on or after November 16, 1983, and includes any subsequent improvements to such structures.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including, at a minimum, the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads, is completed on or after the effective date of floodplain management regulations adopted by the county.

North American Vertical Datum (NAVD) of 1988 means a vertical control used as a reference for establishing varying elevations within the floodplain.

Recreational vehicle means a vehicle which is:

- (1) Built on a single chassis;
- (2) Four hundred square feet or less when measured at the largest horizontal projection;
- (3) Designed to be self-propelled or permanently towable by a light duty truck; and
- (4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

Sand dunes means naturally occurring accumulations of sand in ridges or mounds landward of the beach.

Start of construction (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (PL 97-348)), includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction or improvement was within 180 days of the permit date. The actual start means the first placement of permanent construction of a structure, including a manufactured home, on a site, such as the pouring of slabs or footings, installation of piles, construction of columns or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

Structure means a walled and roofed building that is principally above ground, a manufactured home, a gas or liquid storage tank or other manmade facilities or infrastructures.

Substantial improvement means any combination of repairs, reconstruction, rehabilitation or improvement to a structure, the cost of which equals or exceeds, over a five-year period, a cumulative total of 50 percent of the market value of the structure either:

- (1) Before the improvement or repair is started; or
- (2) If the structure is damaged and is being restored, before the damage occurred.

For the purposes of this definition, substantial improvement is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include either any project of the improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to ensure safe living conditions or any alteration of a structure listed on the National Register of Historic Places or the state inventory of historic places.

Variance means a grant of relief from the requirements of this article which permits construction in a manner otherwise prohibited by this article where specific enforcement would result in unnecessary hardship.

Velocity zone means the area subject to high velocity waters caused by, but not limited to, hurricane wave wash. The area is designated on a FIRM as Zone V1—30, VE or V.

(Ord. No. 87-4, art. 2, 4-21-1987; Ord. No. 90-5, § I, 7-3-1990; Ord. No. 93-7, § 1, 4-5-1993; Ord. No. 2009-09, § 1, 6-16-2009)

Cross reference— Definitions generally, § 1-2.

Sec. 42-967. - Violation; penalties.

Violation of the provisions of this article or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a misdemeanor. Any person who violates this article or fails to comply with any of its requirements shall, upon conviction thereof, be fined not more than \$500.00 and/or imprisoned for not more than 60 days, and in addition, shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense. Nothing contained in this article shall prevent the board of county commissioners from taking such other lawful action as is necessary to prevent or remedy any violation.

(Ord. No. 87-4, art. 3, § H, 4-21-1987)

Sec. 42-968. - Statutory authorization.

The state legislature has in F.S. chs. 125, 163 and 166 delegated the responsibility to local governmental units to adopt regulations designated to promote the public health, safety and general welfare of its citizenry. Therefore, the board of county commissioners does ordain as provided in this article.

(Ord. No. 87-4, art. 1, § A, 4-21-1987)

Sec. 42-969. - Findings of fact.

(a) The flood hazard areas of the county are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

(b) These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, floodproofed or otherwise unprotected from flood damage.

(Ord. No. 87-4, art. 1, § B, 4-21-1987)

Sec. 42-970. - Statement of purpose.

It is the purpose of this article to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

(1) Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities;

(2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

(3) Control the alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of floodwater;

(4) Control filling, grading, dredging and other development which may increase erosion or flood damage; and

(5) Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

(Ord. No. 87-4, art. 1, § C, 4-21-1987)

Sec. 42-971. - Objectives.

The objectives of this article are to:

- (1) Protect human life and health;
- (2) Minimize expenditure of public money for costly flood control projects;
- (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) Minimize prolonged business interruptions;
- (5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;
- (6) Help maintain a stable tax base by providing for the sound use and development of floodprone areas in such a manner as to minimize flood blight areas; and
- (7) Ensure that potential home buyers are notified that property is in a flood area.

(Ord. No. 87-4, art. 1, § D, 4-21-1987)

Sec. 42-972. - Applicability.

This article shall apply to all areas of special flood hazard within the unincorporated areas of the county.

(Ord. No. 87-4, art. 3, § A, 4-21-1987)

Sec. 42-973. - Compliance.

No structure or land shall be located, extended, converted or structurally altered without full compliance with the terms of this article and other applicable regulations.

(Ord. No. 87-4, art. 3, § D, 4-21-1987)

Sec. 42-974. - Basis for establishing the areas of special flood hazard.

The areas of special flood hazard identified by the Federal Emergency Management Agency in its flood study dated November 16, 1983, with accompanying maps and other supporting data, and any revision thereto, are adopted by reference and declared to be a part of this article.

(Ord. No. 87-4, art. 3, § B, 4-21-1987)

Sec. 42-975. - Abrogation and greater restrictions.

This article is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions; however, where this article and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(Ord. No. 87-4, art. 3, § E, 4-21-1987)

Sec. 42-976. - 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 board of county commissioners; and
- (3) Deemed neither to limit nor repeal any other powers granted under state statutes.

(Ord. No. 87-4, art. 3, § F, 4-21-1987)

Sec. 42-977. - Warning and disclaimer of liability.

The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This article does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damage. This article shall not create liability on the part of the board of county commissioners or by any officer or employee thereof for any flood damage that results from reliance on this article or any administrative decision lawfully made under this article.

(Ord. No. 87-4, art. 3, § G, 4-21-1987)

Secs. 42-978—42-1000. - Reserved.

DIVISION 2. ADMINISTRATION AND ENFORCEMENT*

***Cross references:** Administration, ch. 2.

Sec. 42-1001. - Adoption of rules and regulations.

It is the policy of the county that all rules and regulations adopted for the Federal Emergency Management Agency as it applies to the flood insurance program and which are required to be adopted by the board of county commissioners shall become effective upon the dates set forth in the Federal Register.

(Ord. No. 90-5, § II, 7-3-1990)

Sec. 42-1002. - Building official.

- (a) The building official is appointed to administer and implement the provisions of this article.
- (b) Duties of the building official shall include, but not be limited to:
 - (1) Review all development permits to ensure that the permit requirements of this article have been satisfied.
 - (2) Advise permittee that additional federal or state permits may be required, and if specific federal or state permit requirements are known, require that copies of such permits be provided and maintained on file with the development permit.
 - (3) Notify adjacent communities, the Florida Department of Community Affairs - Division of Emergency Management - NFIP Coordinating Office, the Suwannee River Water Management District, the Federal Emergency Management Agency, and other federal and/or State of Florida agencies with statutory or regulatory authority prior to any alteration or relocation of a watercourse.
 - (4) Ensure that maintenance is provided within the altered or relocated portion of such watercourse so that the flood-carrying capacity is not diminished.
 - (5) Verify and record the actual elevation, in relation to mean sea level, of the lowest floor, including basement, of all new or substantially improved structures, in accordance with subsection 42-1003(b)(2).
 - (6) Verify and record the actual elevation, in relation to mean sea level, to which the new or substantially improved structures have been floodproofed, in accordance with subsection 42-1003(b)(2).
 - (7) In velocity zones, certification shall be obtained from a registered professional engineer or architect that the structure is designed to be securely anchored to adequately anchored pilings or columns in order to withstand velocity waters and hurricane wave wash.
 - (8) In velocity zones, the building official shall review plans for adequacy of breakaway walls in accordance with subsection 42-1027(5)h.
 - (9) When floodproofing is utilized for a particular structure, the building official shall obtain certification from a registered professional engineer or architect, in accordance with section 42-1027(2).

- (10) Where interpretation is needed as to the exact location of boundaries of the areas of special flood hazard, for example, where there appears to be a conflict between a mapped boundary and actual field conditions, the building official shall make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this article.
- (11) When base flood elevation data or floodway data have not been provided in accordance with section 42-974, then the building official shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer the provisions of division 3 of this article.
- (12) All records pertaining to the provisions of this article shall be maintained in the office of the building official and shall be open for public inspection.

(Ord. No. 87-4, art. 4, §§ C, D, 4-21-1987; Ord. No. 2009-09, § 2, 6-16-2009)

Sec. 42-1003. - Development permit.

(a) A development permit shall be required in conformance with the provisions of this article prior to the commencement of any development activities.

(b) Application for a development permit shall be made to the building official on forms furnished by him prior to any development activities, and may include, but not be limited to, the following plans in duplicate, drawn to scale, showing the nature, location, dimensions and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities and their location. The following information is required:

- (1) Application stage.
 - a. Elevation in relation to mean sea level of the proposed lowest floor, including basement, of all structures;
 - b. Elevation in relation to mean sea level to which any nonresidential structure will be floodproofed;
 - c. Certificate from a registered professional engineer or architect that the nonresidential floodproofed structure will meet the floodproofing criteria in section 42-1027(2);
 - d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

- (2) Construction stage. Provide a floor elevation or flood-proofing certification after the lowest floor is completed, or in instances where the structure is subject to the regulations applicable to velocity zones, after placement of the horizontal structural members of the lowest floor. Upon placement of the lowest floor, or flood-proofing by whatever construction means, or upon placement of the horizontal structural members of the lowest floor, whichever is applicable. It shall be the duty of the permit holder to submit to the building official a certification of the lowest elevation of the lowest floor, flood-proofed elevation, or the elevation of the lowest portion of the horizontal structural members of the lowest floor, whichever is applicable, as built, in relation to mean sea level. Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When flood-proofing is utilized for a particular building, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The building official shall review the floor elevation survey data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make said corrections required hereby, shall be cause to issue a stop-work order for the project.

(Ord. No. 87-4, art. 3, § C, art. 4, § B, 4-21-1987; Ord. No. 2009-09, § 2, 6-16-2009)

Sec. 42-1004. - Variance procedures.

- (a) The appeal board, as established by the board of county commissioners, shall hear and decide appeals and requests for variances from the requirements of this article.
- (b) The appeal board shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the building official in the enforcement or administration of this article.
- (c) Any person aggrieved by the decision of the appeal board, or any taxpayer, may appeal such decision to the circuit court, as provided by statute.
- (d) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the state inventory or historic places without regard to the procedures set forth in this section, except for subsections (h)(1) and (2) of this section, and provided the proposed reconstruction, rehabilitation or restoration will not result in the structure losing its historical designation.

(e) In passing upon such applications, the appeal board shall consider all technical evaluations, all relevant factors and all standards specified in other sections of this article, and the:

- (1) Danger that materials may be swept onto other lands to the injury of others;
- (2) Danger to life and property due to flooding or erosion damage;
- (3) Susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
- (4) Importance of the services provided by the proposed facility to the community;
- (5) Necessity of the facility to a waterfront location, in the case of a functionally dependent facility;
- (6) Availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
- (7) Compatibility of the proposed use with existing and anticipated development;
- (8) Relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
- (9) Safety of access to the property in times of flood for ordinary and emergency vehicles;
- (10) Expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
- (11) Costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

(f) Upon consideration of the factors set forth in subsection (e) of this section and the purposes of this article, the appeal board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this article.

(g) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(h) Conditions for variances shall be as follows:

- (1) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief; and in the instance of an historical building, a determination that the variance is the

minimum necessary so as not to destroy the historic character and design of the building.

- (2) Variances shall only be issued upon a:
 - a. Showing of good and sufficient cause;
 - b. Determination that failure to grant the variance would result in an exceptional hardship; and
 - c. Determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create a nuisance, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.
- (3) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation and the elevation to which the structure is to be built and stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
- (4) The building official shall maintain the records of all appeal actions and report any variance to the Federal Emergency Management Agency, upon request.

(Ord. No. 87-4, art. 4, § D, 4-21-1987)

Secs. 42-1005—42-1025. - Reserved.

FOOTNOTE(S):

(46) Cross reference— Administration, ch. 2. (Back)

DIVISION 3. FLOOD HAZARD REDUCTION

Sec. 42-1026. Generally.

In all areas of special flood hazard, the following provisions are required:

- (1) New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure;
- (2) Manufactured homes shall be anchored to prevent flotation, collapse or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to

ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces;

- (3) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;
- (4) New construction or substantial improvements shall be constructed by methods and practices that maintain flood damage;
- (5) Electrical, heating, ventilation, plumbing, air conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
- (6) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
- (7) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into floodwaters;
- (8) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding; and
- (9) Any alteration, repair, reconstruction or improvements to a structure which is in compliance with the provisions of this article shall meet the requirements of new construction as contained in this article.
- (10) All applicable additional federal, State of Florida, and local permits shall be obtained and submitted to the building official along with the application for development permit. Copies of such permits shall be maintained on file with the development permit. State of Florida permits may include, but not be limited to, the following:
 - a. Suwannee River Water Management District: In accordance with F.S. § 373.036, Section (2)(a), flood protection and floodplain management;
 - b. Department of Community Affairs: In accordance with F.S. § 380.05, areas of critical state concern, and F.S. ch. 553, pt. IV, Florida Building Code;
 - c. Department of Health: In accordance with F.S. § 381.0065, onsite sewage treatment and disposal systems; and
 - d. Department of Environmental Protection, Coastal Construction Control Line: In accordance with F.S. § 161.053, coastal construction and excavation.
- (11) When proposed new construction and substantial improvements are partially located in an area of special flood hazard, the entire structure shall meet the standards for new construction.

(12) When proposed new construction and substantial improvements are located in multiple flood hazard risk zones or in a flood hazard risk zone with multiple base flood elevations, the entire structure shall meet the standards for the most hazardous flood hazard risk zone and the highest base flood elevation.

(Ord. No. 87-4, art. 5, § A, 4-21-1987; Ord. No. 2009-09, § 3, 6-16-2009)

Sec. 42-1027. - Specific standards.

In all areas of special flood hazard where base flood elevation data has been provided as set forth in subsection 42-1002(b)(11), the following provisions are required:

(1) *Residential construction.* New construction or substantial improvement of any residential structure shall have the lowest floor, including basement, elevated no lower than one foot above the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movements of flood waters shall be provided in accordance with standards of subsection (3) of this section.

(2) *Nonresidential construction.* New construction or substantial improvement of any commercial, industrial, or nonresidential structure shall have the lowest floor, including basement, elevated no lower than one foot above the level of the base flood elevation. Structures located in all A-zones may be flood-proofed in lieu of being elevated provided that all areas of the structure below the required elevation are water tight with walls substantially impermeable to the passage of water, and use 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 standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in section 42-1003(3).

(3) *Elevated buildings.* New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation shall be designed to preclude finished living space and designed to allow for the entry and exit of floodwaters to automatically equalize hydrostatic flood forces on exterior walls.

a. Designs for complying with the requirement of this subsection must either be certified by a professional engineer or architect or meet the following minimum criteria:

1. Provide a minimum of two openings on different sides of each enclosed area having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
2. The bottom of all openings shall be no higher than one foot above grade; and

3. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.
- b. Electrical, plumbing and other utility connections are prohibited below the base flood elevation;
- c. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator); and
- d. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.

(4) Floodways. Located within areas of special flood hazard established in section 42-974 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and has erosion potential, the following provisions shall apply:

- a. Prohibit encroachments, including fill, new construction, substantial improvements and other developments unless certification, with supporting technical data, by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood discharge;
- b. Notify, in riverine situations, adjacent communities, the Florida Department of Community Affairs - NFIP Coordinating Office, and the Suwannee River Water Management District prior to any alteration or relocation of a watercourse, and submit copies of such notifications to FEMA.

(5) Velocity zones (V zones). Located within the areas of special flood hazard established in section 42-974, are areas designated as "velocity zones". These areas have special flood hazards associated with wave wash; therefore, the following provisions shall apply:

- a. All buildings or structures shall be located landward of the reach of the mean high tide.
- b. All buildings or structures shall be elevated so that the bottom of the lowest supporting horizontal member (excluding pilings or columns) is located no lower than one foot above the base flood elevation level, with all space below the lowest supporting member open so as not to impede the flow of water. Breakaway walls may be permitted and must be designed to wash away in the event of abnormal wave action and in accordance with this subsection.

- c. All buildings or structures shall be securely anchored on pilings or columns.
- d. All pilings and columns and the attached structures shall be anchored to resist flotation, collapse and lateral movement due to the effect of wind and water loads acting simultaneously on all building components. The anchoring and support system shall be designed with wind and water loading values which equal or exceed the 100-year mean recurrence intervals (one percent annual chance flood).
- e. A registered professional engineer or architect shall certify that the design, specifications and plans for construction are in compliance with the provisions contained in subsections (5)b, c and d of this section.
- f. There shall be no fill used as structural support. Noncompacted 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 building official 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:
 - 1. Particle composition of fill material does not have a tendency for excessive natural compaction;
 - 2. Volume and distribution of fill will not cause wave deflection to adjacent properties; and
 - 3. Slope of fill will not cause wave run-up or ramping.
- g. There shall be no alteration of sand dunes or mangrove stands which would increase potential flood damage.
- h. Nonsupporting breakaway walls, open latticework or mesh screening shall be allowed below the base flood elevation provided they are not part of the structural support of the building and are designed so as to breakaway under abnormally high tides or wave action without damage to the structural integrity of the building on which they are to be used and provided the following design specifications are met:
 - 1. Design safe loading resistance of each wall shall be not less than ten nor more than 20 pounds per square foot; or
 - 2. If design safe loading resistance of each wall is more than 20 pounds per square foot, a registered professional engineer or architect shall certify that

the design wall collapse would result from a water load less than that which would occur during the base flood event, and the elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement or other structural damage due to the effects of wind and water loads acting simultaneously on all building components during the base flood event. Maximum wind and water loading values to be used in this determination shall each have a one percent chance of being equalled or exceeded in any given year (100-year mean recurrence interval).

- i. If breakaway walls are utilized, such enclosed space shall not be designed to be usable for human habitation but shall be designed to be useable only for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Such space shall not be finished, partitioned into multiple rooms, or temperature controlled.
- j. Prior to construction, plans for any structure that will have breakaway walls must be submitted to the building official for approval.
- k. Any alteration, repair, reconstruction or improvement to a structure shall not enclose the space below the lowest floor except with breakaway walls as provided for in subsections (5)h and i of this section.

(Ord. No. 87-4, art. 5, § B, 4-21-1987; Ord. No. 93-11, §§ 3—5, 9-21-1993; Ord. No. 2009-09, § 3, 6-16-2009)

Sec. 42-1028. - Standards for streams without established base flood elevations and/or floodways.

Located within the areas of special flood hazard established in section 42-974, where small streams exist but where no base flood data has been provided, or where no floodways have been provided, the following provisions shall apply:

- (1) No encroachments, including fill material or structures, shall be located within a distance of the stream bank equal to one times the width of the stream at the top of the bank or 20 feet each side from the top of the bank, whichever is greater, unless certification by a registered professional engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- (2) New construction or substantial improvements of structures shall be elevated or floodproofed to elevations established in accordance with subsection 42-1002(b)(11).

(Ord. No. 87-4, art. 5, § C, 4-21-1987)

Sec. 42-1029. - Subdivision proposals.

- (a) All subdivision proposals shall be consistent with the need to minimize flood damage.
- (b) All subdivision proposals shall have public utilities and facilities such as gas, sewer, electrical and water systems located and constructed to minimize flood damage.
- (c) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards.
- (d) Base flood elevation data shall be provided for subdivision proposals and other proposed development, including manufactured home parks and subdivisions, which is greater than the lesser of 50 lots or five acres.

(Ord. No. 87-4, art. 5, § D, 4-21-1987)

Sec. 42-1030. - Areas of shallow flooding (AO zones).

Located within the areas of special flood hazard established in section 42-974 are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate to which the following provisions apply:

- (1) All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated to the depth number specified on the flood insurance rate map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated at least two feet above the highest adjacent grade.
- (2) All new construction and substantial improvements of nonresidential structures shall:
 - a. Have the lowest floor, including basement, elevated to the depth number specified on the flood insurance rate map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated at least two feet above the highest adjacent grade; or
 - b. Together with attendant utility and sanitary facilities, be completely floodproofed to or above the level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

(Ord. No. 87-4, art. 5, § E, 4-21-1987)

Secs. 42-1031—42-1060. - Reserved.