

ORDINANCE NO. 2018-15

AN ORDINANCE UPDATING THE FLOODPLAIN MANAGEMENT AND PROTECTION REGULATIONS OF THE CITY OF ORMOND BEACH, *LAND DEVELOPMENT CODE*, BY AMENDING CHAPTER 1, GENERAL ADMINISTRATION, ARTICLE III DEFINITIONS AND ACRONYMS, SECTION 1-22, DEFINITIONS OF TERMS AND WORDS; CHAPTER 3, PERFORMANCE STANDARDS, ARTICLE II ENVIRONMENTAL PROTECTION STANDARDS, SECTION 3-18, SURFACE WATER AND RUNOFF CONTROL; AND REPEALING AND REPLACING CHAPTER 3, PERFORMANCE STANDARDS, ARTICLE II, ENVIRONMENTAL PROTECTION STANDARDS, SECTION 3-20 FLOODPLAIN MANAGEMENT AND PROTECTION; REPEALING ALL INCONSISTENT ORDINANCES OR PARTS THEREOF; PROVIDING FOR APPLICABILITY; SEVERABILITY; AND AN EFFECTIVE DATE.

WHEREAS, this is an administrative amendment to the City of Ormond Beach *Land Development Code* (“the *LDC*”), of the City of Ormond Beach, by updating the floodplain management and protection regulations amending the criteria for architectural standards for detached garages, and

WHEREAS, the Legislature of the State of Florida has, in Chapter 166, Municipalities, *Florida Statutes*, conferred upon local governments the authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry; and

WHEREAS, the Federal Emergency Management Agency has identified special flood hazard areas within the boundaries of the City of Ormond Beach and such areas may be subject to periodic inundation which may result 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, and

WHEREAS, the City of Ormond Beach was accepted for participation in the National Flood Insurance Program on September 7, 1973 and the City Commission desires to continue to meet the requirements of Title 44 Code of Federal Regulations, Sections 59 and 60, necessary for such participation, and

WHEREAS, the local planning agency, being the Planning Board of the City of Ormond Beach, conducted a public hearing on April 12, 2018 and after hearing no objection on the requested amendment has made a recommendation thereon to the City Commission, and

WHEREAS, for purposes of this Ordinance text with underlined (underlined) type shall constitute additions to the original text and text with strike-through (~~strike-through~~) type shall constitute deletions to the original text, and

WHEREAS, the City of Ormond Beach has determined that it is in the public interest to adopt the proposed floodplain management regulations that are coordinated with the *Florida Building Code.*, and

WHEREAS, the City Commission finds the requested amendment to be consistent with the provisions of the Comprehensive Plan of the City of Ormond Beach, and in the overall best interest of the public health, safety and welfare, now therefore,

BE IT ENACTED BY THE PEOPLE OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. Section 1-22, Definition of Terms and Words, Article III

Definitions and Acronyms, of Chapter 1, General Administration, of the *LDC* is hereby amended to read as follows:

Apiary...(No change in existing text)...

Appeal, for the purpose of floodplain management, means a request for a review of the floodplain manager's administrator's interpretation of any provision of Sec. 3-20 ~~this ordinance or a request for a variance.~~

Applicant...(No change in existing text)...

Architectural features...(No change in existing text)...

Area of special flood hazard means the greater of the following two areas:

- ~~(1) The area within a floodplain subject to a 1 percent or greater chance of flooding in any year.~~
- ~~(2) The area designated as a flood hazard area on the community's flood hazard map, or otherwise legally designated.~~

~~The term "area of special flood hazard" is synonymous with the term "special flood hazard area."~~

Areas of influence (sea turtle protection)...(No change in existing text)...

Bowling center...(No change in existing text)...

~~*Breakaway walls* 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. This is associated with V-zone construction.~~

Buffer/bufferyard...(No change in existing text)...

Consistent...(No change in existing text)...

Construction, start of, means the date of issuance of permits for new construction and substantial improvements, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement is within 180 days of the date of the issuance. The actual start of construction means either the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of slab or footings, the installation of piles, or the construction of columns. Permanent construction

~~does not include land preparation (such as clearing, grading, or filling), the installation of streets or walkways, excavation for a basement, footings, piers, or foundations, the erection of temporary forms or the installation of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main buildings. For a substantial improvement, the actual "start of construction" means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building. the permanent placing of construction materials in position and fastened in a permanent manner; except that when demolition, excavation, or removal of an existing structure has been substantially begun preparatory to new construction, such excavation, demolition, or removal shall be deemed to be the start of construction provided that work shall be continuously carried on until the completion of the new construction involved. The term "start of construction" includes only work begun under a valid building permit. The term "start of construction" also includes the term "erected."~~

Construction and home improvement...(No change in existing text)...

Crematory...(No change in existing text)...

Critical facility means a facility including, but not limited to, designated public shelters, schools, nursing homes, hospitals, police, fire and emergency response installations, and installations which produce, use or store hazardous materials or hazardous waste. The term includes facilities that are assigned Flood Design Class 3 and Flood Design Class 4 pursuant to the Florida Building Code.

Crown of road means the elevation of the highest surface of street pavement within the right-of-way abutting the property or the elevation approved by the city engineer.

Cul-de-sac...(No change in existing text)...

Development ...(No change in existing text)...

Development means, for floodplain management purposes, means any man-made change to improved or unimproved real estate, including but not limited to, buildings or other structures, tanks, temporary structures, temporary or permanent storage of equipment or materials, mining, dredging, filling, grading, paving, excavations, drilling operations or any other land disturbing activities.

Development activity...(No change in existing text)...

Development permit...(No change in existing text)...

Development permit or approval, for floodplain management purposes, means any official city document or certificate issued by the city or other evidence of approval or concurrence, which authorizes performance of specific development local in flood hazard areas and that are determined to comply with LDC Section 3-20.

Diameter at breast height (DBH) ...(No change in existing text)...

Eaves...(No change in existing text)...

~~Elevated building means a building that has no basement and has its lowest elevated floor raised above the ground level by foundation walls, shear walls, posts, piers, pilings or columns. Solid perimeter foundations walls are not an acceptable means of elevating buildings in the V and VE zones.~~

Elevation certificate...(No change in existing text)...

Exempt tree...(No change in existing text)...

Existing building and existing structure, for floodplain management purposes, means any buildings and structures for which the “start of construction” commenced before September 7, 1973.

Existing condition...(No change in existing text)...

Existing manufactured home park or subdivision, for floodplain management purposes 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 September 7, 1973.

Expansion to 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).

Facade, building...(No change in existing text)...

Flood or flooding...(No change in existing text)...

~~Flood boundary and floodway map (FBFM) means the official map on which the Federal Emergency Management Agency (FEMA) or Federal Insurance Administration (FIA) has delineated the areas of special flood hazard and regulatory floodway.~~

Flood damage-resistant material... (No change in existing text)...

Flood hazard area means the greater of the following two areas:

- (1) The area within a floodplain subject to a 1-percent or greater chance of flooding in any year.
- (2) The area designated as a flood hazard area on the community's flood hazard map, or otherwise legally designated.

Flood insurance rate map (FIRM) ... (No change in existing text)...

Floodplain... (No change in existing text)...

~~Floodplain management means the operation of an overall program of corrective and preventive measures for reducing flood damage including, but not limited to, emergency preparedness plans, flood control works, floodplain management regulations and open space plans.~~

~~Floodplain management regulations means any zoning ordinance, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain management ordinance, grading ordinance and erosion control ordinance) and other applications of police powers which control development in flood prone areas. The term "floodplain management regulations" means federal, state or local regulations, in any combination thereof, which provide standards for preventing and reducing flood loss and damage.~~

Floodplain manager... (No change in existing text)...

Floodplain tidal... (No change in existing text)...

~~Floodproofing means any combination of structural and nonstructural additions, changes or adjustments to structures, which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.~~

~~Floodproofing certificate means documentation of a certification by a registered professional engineer or architect that the design and methods of construction of a nonresidential building are in accordance with accepted practices for meeting the floodproofing requirements in the community's floodplain management ordinance. This documentation is required for both floodplain management requirements and insurance rating purposes.~~

Floodway... (No change in existing text)...

Floodway encroachment analysis means an engineering analysis of the impact that a proposed encroachment into a floodway is expected to have on the floodway boundaries and

base flood elevations; the evaluation shall be prepared by a qualified Florida licensed engineer using standard engineering methods and models.

~~*Floodway fringe* means that area of the floodplain on either side of the regulatory floodway, where encroachment may be permitted without additional hydraulic and/or hydrologic analysis.~~

Floor...(No change in existing text)...

Freeboard ...(No change in existing text)...

Functionally dependent use means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water, including only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities; the term does not include long-term storage or related manufacturing facilities.

Funeral home ...(No change in existing text)...

Historic preservation, mixed-use...(No change in existing text)...

Historic structure, for the purposes of flood management, means any structure that is determined eligible for the exception to the flood hazard area requirements of the Florida Building Code, Existing Building, Chapter 12 ~~11~~ Historic Buildings.

~~*Increased cost of compliance (ICC)* means the cost to repair a substantially flood damaged building that exceeds the minimal repair cost and that is required to bring a substantially damaged building into compliance with this Code.~~

Historic Tree ...(No change in existing text)...

Level of service ...(No change in existing text)...

Light-duty truck, as defined in 40 C.F.R. 86.082-2, means any motor vehicle rated at 8,500 pounds Gross Vehicular Weight Rating or less which has a vehicular curb weight of 6,000 pounds or less and which has a basic vehicle frontal area of 45 square feet or less, which is:

- (1) Designed primarily for purposes of transportation of property or is a derivation of such a vehicle, or
- (2) Designed primarily for transportation of persons and has a capacity of more than 12 persons; or
- (3) Available with special features enabling off-street or off-highway operation and use.

Lighting, beachfront...(No change in existing text)...

Manufactured home park or subdivision...(No change in existing text)...

Manufactured home/mobile home means a structure, transportable in one (1) or more sections, which is eight (8) feet or more in width and greater than four hundred (400) square feet, which is built on a permanent, integral chassis, and designed to be used as a dwelling unit with or without a permanent foundation when ~~connected~~ attached to the required utilities ~~and includes the plumbing, heating, air conditioning, and electrical systems contained therein.~~ The term "manufactured home/mobile home" does not include "recreational vehicle or park trailer."

Marina...(No change in existing text)...

Market value means the price at which a property will change hands between a willing buyer and a willing seller, neither party being under compulsion to buy or sell and both having reasonable knowledge of relevant facts. As used in Sec. 3-20 ~~this ordinance~~, the term refers to the market value of buildings and structures, excluding the land and other improvements on the parcel. Market value may be established by a qualified independent appraiser, actual cash value (replacement cost depreciated for age and quality of construction), or tax assessment value adjusted to approximate market value by a factor provided by the property appraiser.

Marquee...(No change in existing text)...

Mean high-water line...(No change in existing text)...

Mean sea level (MSL) means ~~the average height of the sea for all stages of the tide. It is used as a reference for establishing varying elevations within the floodplain. The term "means sea level" is synonymous with National Geodetic Vertical Datum (NGVD) of 1929, and North American Vertical Datum (NAVD) of 1988, to which base flood elevations shown on flood insurance rate maps are referenced~~ level of the surface of the sea especially at its mean position midway between mean high and low water.

Marina...(No change in existing text)...

Neighborhood Commercial...(No change in existing text)...

New construction means, for the purposes of administration of Sec. 3-20 and the flood resistant construction requirements of the *Florida Building Code*, structures for which the "start of construction" commenced on or after September 7, 1973 and includes any subsequent improvements to such structures.

New manufactured home park or subdivision mean 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 September 7, 1973.

Nightclub...(No change in existing text)...

Park and recreation facilities, public...(No change in existing text)...

Park trailer means a transportable unit which has a body width not exceeding fourteen (14) feet and which is built on a single chassis and is designed to provide seasonal or temporary living quarters when connected to utilities necessary for operation of installed fixtures and appliances.

Parking...(No change in existing text)...

Recreational vehicle (RV) park...(No change in existing text)...

~~*Regulatory flood*. See Base flood.~~

~~*Regulatory floodway*. See Floodway.~~

Remove or removal...(No change in existing text)...

~~*Repetitive loss* means flood related damage sustained by a structure on two (2) separate occasions during a ten year (10) period for which the cost of repairs at the time of each such flood event, on the average, equaled or exceeded twenty five percent (25%) of the market value of the structure before the damage occurred.~~

Replat...(No change in existing text)...

Special Exception...(No change in existing text)...

Special flood hazard area (SFHA) means an area in the floodplain subject to a 1 percent or greater chance of flooding in any given year. Special flood hazard areas are shown on FIRMs as Zone A, AO, A1-A30, AE, A99, AH, V1-V30, VE or V. See Area of special flood hazard.

Special Exception...(No change in existing text)...

Subdivision...(No change in existing text)...

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred. The term also includes

flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on average, equals or exceeds 25 percent of the market value of the structure before the damage occurred. This term "substantial damage" also includes repetitive loss structures as defined herein.

Substantial improvement means any combination of repair, reconstruction, rehabilitation, alteration, addition, or other improvement of a building or structure taking place during a five-year period, the cumulative cost of which equals or exceeds fifty (50) percent of the market value of the building or structure before the improvement or repair is started. For each building or structures, the 5-year period begins on the date of the first permit issued for improvement or repair of that building or structure subsequent to March 16, 2010. If the structure has incurred "substantial damage," any repairs are considered substantial improvement regardless of the actual repair work performed. The term does not, however, include either:

- (1) Any project for improvement of a structure required to correct existing violations of state or local health, sanitary or safety code specifications which have been identified and which are solely necessary to ensure safe living conditions; or
- (2) Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as an historic structure.

Sufficient management capabilities...(No change in existing text)...

SECTION TWO. Section 3-18, Surface water and runoff control of Article II, Environmental Protection Standards, of Chapter 3, Performance Standards, of the LDC and is hereby amended to read as follows:

(f) Performance standards. Surface water management plans must demonstrate that the proposed development or activity has been planned and designed and will be constructed and maintained to meet each of the following standards:

(1) – (6) ...*(No change in existing text)...*

(7) Prevent increased flood damage outside of special flood hazard areas by elevating the lowest floor of new principal buildings at least eighteen inches (18") above the crown of road, unless the city engineer approves a lower height based on site-specific conditions.

~~(7)~~(8) ...*(No change in existing text)...*

~~(8)~~(9) ...*(No change in existing text)...*

~~(9)~~(10) ...*(No change in existing text)...*

~~(10)~~(11) ...*(No change in existing text)...*

~~(11)~~(12) ...*(No change in existing text)...*

SECTION THREE. Section 3-20 Floodplain management and protection of Article II, Environmental Protection Standards, of Chapter 3, Performance Standards, of the *LDC* and is hereby amended to read as follows:

Sec. 3-20. - Floodplain management and protection.

~~(a) Findings of fact; statement of purpose; methods of reducing flood losses.~~

~~(1) Findings of fact.~~

- ~~a. The flood hazard areas of the city are subject to periodic inundation, which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, increased 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 of flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, floodproofed or that are otherwise unprotected from flood damages.~~

~~(2) Statement of purpose. The purpose of this section is 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:~~

- ~~a. Protect human life and health;~~
- ~~b. Minimize or eliminate property damage;~~
- ~~c. Minimize expenditure of public money for costly flood control projects;~~
- ~~d. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;~~
- ~~e. Minimize prolonged business interruptions;~~
- ~~f. Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone and sewer lines, and streets, bridges and culverts located in areas of special flood hazard;~~
- ~~g. 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;~~
- ~~h. Ensure that potential buyers are notified that property is in an area of special flood hazard; and~~
- ~~i. Ensure that those who occupy areas of special flood hazard assume responsibility for their actions.~~

~~(3) *Methods of reducing flood losses.* In order to accomplish the purpose and intent of this section, the following methods provide for reductions in flood losses:~~

- ~~a. Restricting or prohibiting 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;~~
- ~~b. Requiring that uses vulnerable to floods, including facilities which serve such uses, are protected against flood damage at the time of initial construction;~~
- ~~c. Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel floodwaters;~~
- ~~d. Controlling filling, grading, dredging and other development which may increase flood damage; and~~
- ~~e. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazard in other areas.~~

~~(b) *General provisions.*~~

~~(1) *Lands to which this section applies.* This section shall apply to all areas of special flood hazard within the jurisdiction of the city.~~

~~(2) *Basis for establishing the areas of special flood hazard.* The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA) in the flood insurance study (FIS) for basis for establishing the areas of special flood hazard. The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA) in "The Flood Insurance Study (FIS) for Volusia County and Incorporated Areas," dated February 19, 2014, with the accompanying flood insurance rate maps (FIRMs) and other supporting data, and any subsequent revisions thereto, are hereby adopted and incorporated herein by reference and declared to be a part of this section.~~

~~(3) *Development permit required.* A development permit shall be required pursuant to section 1-14, development orders and building permits, prior to the commencement of any development activities in areas of special flood hazard.~~

~~(4) *Compliance.* No structure or land shall hereafter be located, constructed, extended, converted or structurally altered without full compliance with the terms of this section and all other applicable regulations.~~

~~(5) *Abrogation and greater restrictions.* This section is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this section and another ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.~~

~~(6) *Interpretation.* In the interpretation and application of this section, all provisions shall be:~~

- a. ~~Considered as minimum requirements;~~
- b. ~~Liberal construed in favor of the governing body; and~~
- c. ~~Deemed neither to limit nor repeal any other powers granted under state statutes.~~

~~(7) *Warning and disclaimer of liability.* The degree of flood protection required by this section is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This section 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 damages. This section shall not create liability on the part of the city or any officer or employee thereof for any flood damages that result from reliance on this section or any administrative decision lawfully made thereunder.~~

~~(8) *Penalties for violation.*~~

- a. ~~Violation of the provisions of this section or failure to comply with any of its requirements, including violations of conditions and safeguards established in connection with a grant of variance shall constitute a noncriminal violation. Any person who violates this section or fails to comply with any of its requirements shall, upon conviction thereof, be subject to section 2-262 of the Code of Ordinances, schedule of civil fines, 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 herein contained shall prevent the city from taking such other lawful action as is necessary to prevent or remedy any violation.~~
- b. ~~Upon the finding that a structure is deemed in violation of this section and the violator has refused to bring the violation into compliance, the city shall request that FEMA initiate section 1316 of the National Flood Insurance Act of 1968. If the violation is remedied, the city shall notify FEMA of the remedy and request that the section 1316 be rescinded.~~

~~(e) *Administration.*~~

~~(1) *Designation of floodplain manager.* The chief building official is hereby appointed to administer and implement the provisions of this section and is herein referred to as the floodplain manager.~~

~~(2) *Duties and responsibilities of the floodplain manager.* The floodplain manager is hereby authorized and directed to enforce the provisions of this section which shall include, but is not limited to, the following duties and responsibilities:~~

- a. ~~Review all development permits to ensure sites are reasonably safe from flooding and that the permit requirements of this section have been satisfied.~~

- ~~b. Advise permittee that additional federal, state or local permits may be required and, if such additional permits are known, require that copies of such permits be provided and maintained on file with the development permit.~~
- ~~c. Notify adjacent communities, FEMA, the state National Flood Insurance Program (NFIP) coordinator, the department of community affairs, the St. Johns River Water Management District, and other federal and state agencies with statutory or regulatory authority, prior to any alteration or relocation of a watercourse.~~
- ~~d. Ensure that maintenance is provided within the altered or relocated portion of said watercourse, for the purpose of ensuring that flood-carrying capacity is maintained.~~
- ~~e. Prohibit encroachments within floodways unless the certification and flood hazard reduction standards of this section are met.~~
- ~~f. Verify and record the actual elevation, in relation to mean sea level, of the lowest floor (A zones) or bottom of the lowest horizontal structural member of the lowest floor (V zones) of all new or substantially improved structures.~~
- ~~g. Verify and record the actual elevation, in relation to mean sea level, to which new or substantially improved nonresidential structures have been floodproofed.~~
- ~~h. Review certified plans and specifications for compliance with the flood hazard reduction standards of this section.~~
- ~~i. When there appears to be a conflict between a mapped boundary and actual field conditions, require that the developer or other agent on behalf of the property owner make the necessary determination, and provide to the city documentation supporting said determination.~~
- ~~j. Where base flood elevation data or floodway data have not been provided, obtain, review and reasonably utilize any data available from federal, state or other source, in order to administer the provisions of this section.~~
- ~~k. Verify that the developer or applicant notify FEMA of changes in the base flood elevation, no later than six months after the date such information becomes available, by submitting technical or scientific data so risk premium rates and floodplain management can be based on current data.~~
- ~~l. Review all development permits in coastal high hazard areas to determine if the proposed development would alter mangrove stands or sand dunes so as to increase potential flood damage.~~
- ~~m. Coordinate all letters of map change to the FIS and FIRM with the requester, FEMA and the state.~~
- ~~n. Perform on-site inspections and, if necessary, serve notices of violation, issue stop-work orders, revoke permits and require that corrective actions be made.~~

~~o. When damage occurs to a structure:~~

- ~~1. Determine whether the damaged structure is located within an area of special flood hazard;~~
- ~~2. Conduct a damage assessment for the structure determined to be within an area of special flood hazard, using FEMA's residential substantial damage estimator (RSDE) software, or other recognized software accepted by FEMA for this purpose, to determine if the damage equals or exceeds fifty percent (50%) of the market value of the structure before the damage occurred;~~
- ~~3. Notify property owners of the requirement to obtain a development permit prior to repair, rehabilitation or reconstruction;~~
- ~~4. Perform an assessment of permit applications for improvements or repairs to determine if the improvements or repairs equal to or exceed fifty percent (50%) of the market value prior to the improvements or repairs. Cost of work counted for determining if and when substantial improvement to a structure occurs shall be cumulative for a period of ten (10) years. If the improvement project is conducted in phases, the total of all cost associated with each phase, beginning with the issuance of the first permit, shall be utilized to determine whether substantial improvement will occur;~~
- ~~5. Advise property owner that the market value of a structure shall be determined by any of the following methods:
 - ~~(i) The current assessed building value as determined by the county property appraiser's office, or the value of an appraisal performed by a licensed appraiser at the expense of the owner;~~
 - ~~(ii) One (1) or more certified appraisals from registered professional licensed appraisers in accordance with state statutes, with said appraisal indicating actual replacement value of the structure in its preimprovement condition, less depreciation for functionality and obsolescence and site improvements; or~~
 - ~~(iii) A real estate purchase contract within the period twelve (12) months prior to the date of the application for permit.~~~~

~~p. Maintain all records pertaining to the administration of this section.~~

- ~~(3) *Permit procedures.* Application for development permit shall be made on forms furnished by the floodplain manager and may require, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, earthen fill, storage of materials, drainage facilities; and the location of the foregoing. In addition, the following information shall be required:~~

a. ~~Application stage.~~

- ~~1. A plan delineating the one hundred year (100-year) floodplain contour or a statement that the entire lot is within, or appears to be within, a floodplain as mapped by FEMA. The plan must be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. The plan must also show the floodway, if any, as identified by FEMA.~~
- ~~2. Where base flood elevation data is provided, the application for development permit shall include:
 - ~~(i) Elevation, in relation to mean sea level, of the lowest floor (including basement) of all new or substantially improved structures;~~
 - ~~(ii) If the structures will be floodproofed in accordance with the nonresidential construction requirements set forth in this section, the elevation, in relation to mean sea level, to which the structures will be floodproofed;~~
 - ~~(iii) In a coastal high hazard area, the elevation, in relation to mean sea level, of the bottom of the lowest horizontal structural member of the lowest floor. Certification shall be provided from a registered engineer or architect indicating that the structural designs, specifications and plans of construction are in accordance with accepted standards of practice in coastal high hazard areas.~~~~
- ~~3. When any watercourse will be altered or relocated as a result of proposed development, the application for development permit shall include:
 - ~~(i) A description of the extent of watercourse alteration or relocation;~~
 - ~~(ii) An engineering report on the effects of the proposed project on the flood-carrying capacity of the watercourse;~~
 - ~~(iii) The effects to properties located both upstream and downstream; and~~
 - ~~(v) A map showing the location of the proposed watercourse alteration or relocation.~~~~

b. ~~Construction stage.~~

- ~~1. Upon placement of the lowest floor or bottom of the lowest horizontal structural member, or floodproofing by whatever construction means, it shall be the duty of the permit holder to submit to the floodplain manager a certification of the National Geodetic Vertical Datum of 1929 (NGVD) or North American Vertical Datum of 1988 (NAVD) elevation of the lowest floor or floodproofed elevation, or bottom of the lowest horizontal structural member 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 floodproofing is utilized for a particular structure, said certification shall be prepared by, or under the direct supervision of, a professional engineer or architect and certified by same.~~

- ~~2. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The floodplain manager shall review the lowest floor and floodproofing elevation survey data submitted. The permit holder immediately and prior to further progressive work being permitted, shall correct deficiencies detected by such review. 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 until said deficiencies have been corrected.~~
- ~~3. Upon completion of the development, the applicant shall provide certification from a registered, professional engineer, registered land surveyor or architect that the structure is built in accordance with the approved plans and previous required certifications.~~

~~(d) Flood hazard reduction standards.~~

- ~~(1) General standards. In all areas of special flood hazard, the following provisions are required:~~
 - ~~a. Anchoring. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.~~
 - ~~b. Flood resistant materials and equipment. All new construction and substantial improvements shall be constructed with flood resistant materials and utility equipment resistant to flood damage.~~
 - ~~c. Minimize flood damage. All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damage.~~
 - ~~d. Utilities. Electrical, heating, ventilation, plumbing and air conditioning equipment (including ductwork) 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 the base flood, plus one foot (1'). This requirement does not preclude the installation of outdoor faucets for shower heads, sinks, hoses, etc., as long as cutoff and backflow devices are installed to prevent contamination to the service components and thereby minimize any flood damage to the structure.~~
 - ~~e. Water supply systems. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems.~~
 - ~~f. Sanitary sewage systems. New and replacement sanitary sewerage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.~~
 - ~~g. Waste disposal systems. On site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.~~

- ~~h. *Gas or liquid storage tanks.* All gas or liquid storage tanks, either located above ground or buried, shall be anchored to prevent flotation or lateral movement resulting from hydrostatic and hydrodynamic loads.~~
- ~~i. *Alteration, repair, reconstruction or improvements.* Any alteration, repair, reconstruction or improvements to a structure that is in compliance with this section shall meet the requirements of new construction as contained herein.~~
- ~~j. *Nonconforming structures or uses.* Any alteration, repair, reconstruction or improvements to a structure that is not in compliance with this section shall be undertaken only if said nonconformity is not furthered, extended or replaced.~~
- ~~k. *Required permits.* All applicable federal, state and local permits shall be obtained and submitted to the city. Copies of such permits shall be maintained on file with the development permit.~~
- ~~l. *Required elevation.* New construction and substantial improvement of any structure shall have the lowest floor (including basement) elevated no lower than eighteen inches (18") above the centerline of the designated street, unless the topography of the property does not allow for strict adherence as determined by the city engineer.~~
- ~~m. *Placement on fill.* New construction and substantial improvements placed on fill shall be constructed on properly designed and compacted fill that extends beyond the structure's walls before dropping below the base flood elevation, and shall have appropriate protection from erosion and scour.~~
- ~~n. *Americans with Disabilities Act (ADA).* New construction or substantial improvements of a structure shall meet this section, as well as any applicable ADA requirements. The ADA is not justification for issuing a variance or otherwise waiving these requirements. Also, the cost of improvements required to meet the ADA provisions shall be included in the costs of the improvements for calculating substantial improvements.~~
- ~~o. *Applicable permits.* All applicable additional federal, state and local permits shall be obtained and submitted to the floodplain manager along with the application for development permit. Copies of such permits shall be maintained on file with the development permit. State permits may include, but not limited to, the following:
 - ~~1. St. Johns River Water Management District, in accordance with F.S. § 373.036(2)(a), flood protection and floodplain management;~~
 - ~~2. Department of community affairs, in accordance with F.S. § 380.05 and F.S. ch. 553, part IV, state building code;~~
 - ~~3. Department of health, in accordance with F.S. § 381.0065, on site sewage treatment and disposal systems; and~~~~

- ~~4. Department of environmental protection, coastal construction control line, in accordance with F.S. § 161.053, coastal construction and excavation.~~
- ~~p. *When partially located in special flood hazard areas.* 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.~~
- ~~q. *When located in multiple risk zones.* 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.~~
- ~~(2) *Specific standards.* In all areas of special flood hazard where base flood elevation data has been provided, the following provisions are required:~~
- ~~a. *Residential construction.*~~
- ~~1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated no lower than one foot (1') above the base flood elevation or eighteen inches (18") above the crown of the road, whichever is higher.~~
 - ~~2. The city engineer may allow a lowest floor elevation less than eighteen inches (18") above the crown of the road based upon site specific conditions as long as the one foot (1') above the BFE is maintained.~~
 - ~~3. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate automatic equalization of flood hydrostatic forces on both sides of the exterior walls shall be provided in accordance with this section.~~
- ~~b. *Nonresidential construction.*~~
- ~~1. New construction or substantial improvement of any commercial, industrial, nonresidential structure or manufactured home shall have the lowest floor, including basement, elevated no lower than one foot (1') above the base flood elevation or eighteen inches (18") above the crown of the road, whichever is higher.~~
 - ~~2. The city engineer may allow a lowest floor elevation less than eighteen inches (18") above the crown of the road based upon site specific conditions as long as the one foot (1') above the BFE is maintained.~~
 - ~~3. Structures located in all A zones may be floodproofed to no lower than one foot (1') above base flood elevation, in lieu of being elevated, provided that all areas of the structure below the required elevation are watertight with walls substantially impermeable to the passage of water, and use structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. A registered professional engineer or architect shall certify that the~~

~~standards of this section are satisfied using the FEMA floodproofing certificate. A copy of such certification, along with the corresponding engineering data, and the operational and maintenance plans shall be submitted to the city.~~

~~c. *Elevated structures.* New construction or substantial improvements of elevated structures 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.~~

~~1. Designs for complying with this requirement must either be certified by a professional engineer or architect to meet the following minimum criteria:~~

~~(i) Provide a minimum of two (2) openings on different sides of each enclosed area having a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area subject to flooding;~~

~~(ii) The bottom of all openings shall be no higher than one foot (1') above foundation interior grade (which must be equal to or higher in elevation than the adjacent exterior grade);~~

~~(iii) Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions;~~

~~(iv) Limited in use to parking, storage and building access; and~~

~~(v) Limited to less than two hundred ninety nine (299) square feet in size.~~

~~A. Access to the enclosed area shall be 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).~~

~~B. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, except to enclose a single storage area, and must be void of utilities, except those required for essential lighting as required, and cannot be temperature controlled.~~

~~C. One (1) wet location switch and/or outlet connected to a ground fault interrupt breaker may be installed below the required lowest floor elevation.~~

~~D. All construction materials below the required lowest floor elevation should be of flood resistant types.~~

~~E. Property owners shall be required to execute a floodplain venting affidavit acknowledging that all openings will be maintained as flood vents, and that the elimination or alteration of the openings in any way will violate the requirements of this section.~~

~~F. Property owners shall be required to execute and record with the structure's deed a nonconversion agreement declaring that the area below the lowest floor, or the detached accessory structure shall not be improved, finished or otherwise converted, and that the city shall have the right to inspect the enclosed area at any time.~~

~~d. Accessory structures.~~

- ~~1. A detached accessory structure or garage, the cost of which is greater than \$3,000.00, shall comply with the wet floodproofing requirements outlined in FEMA technical bulletin 7-93 or be elevated or dry floodproofed accordingly.~~
- ~~2. When accessory structures of \$3,000.00 or less are to be placed in the floodplain without elevating the floor to or above the base flood elevation, the following criteria shall be met:
 - ~~(i) Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);~~
 - ~~(ii) Accessory structures shall be designed to have low flood damage potential (wet floodproofing);~~
 - ~~(iii) Accessory structures shall be constructed using flood-resistant materials below the base flood elevation;~~
 - ~~(iv) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;~~
 - ~~(v) Accessory structures shall be firmly anchored to prevent flotation, collapse or lateral movement of the structure;~~
 - ~~(vi) Service facilities such as electrical and heating equipment shall be elevated above base flood elevation or be floodproofed; and~~
 - ~~(vii) Openings to relieve hydrostatic pressure during a flood shall be provided below base flood elevation in accordance with this section.~~~~

~~e. Manufactured homes and recreational vehicles.~~

- ~~1. Manufactured homes shall be anchored to prevent flotation, collapse or lateral movement. Methods of anchoring may include, but 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 federal manufactured home construction and safety standards and applicable state requirements.~~
- ~~2. Where base flood elevations are available, all manufactured homes placed, or substantially improved, on individual lots or parcels outside of an existing manufactured home community, in a new manufactured home community, in an expansion to an existing manufactured home community or in an existing~~

- ~~manufactured home community on which a manufactured home has incurred substantial damage, shall have the lowest floor elevated on a permanent foundation no lower than one foot (1') above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.~~
- ~~3. Where base flood elevations are unavailable, all manufactured homes to be placed, or substantially improved, in an existing manufactured home community shall be elevated so that the chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than forty eight inches (48") in height above the highest adjacent grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.~~
 - ~~4. A plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home communities located within areas of special flood hazard. This plan shall be filed with and approved by the city.~~
 - ~~5. All recreational vehicles placed on sites must:
 - ~~(i) Be on site for fewer than one hundred eighty (180) consecutive days;~~
 - ~~(ii) Be fully licensed and ready for highway use (a recreational vehicle is ready for highway use, if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions); or~~
 - ~~(iii) Meet all requirements for new construction, including anchoring and elevation of this section.~~~~
- ~~f. *Swimming pool utility equipment rooms.* Swimming pool utility equipment rooms should be built at or above the base flood elevation. If the structure cannot be built at or above the base flood elevation because of equipment functionality, the structure may be built below the base flood elevation provided:
 - ~~(1) The structure meets the requirements for accessory structures; and~~
 - ~~(2) The utilities must be anchored to prevent flotation and shall be designed to prevent water from entering or accumulating within the components during conditions of the base flood.~~~~
- ~~g. *Elevators.*~~
- ~~1. All elevator installations shall comply with the requirements of FEMA technical bulletin 4-93, elevator installation for buildings located in special flood hazard areas;~~
 - ~~2. A float switch system or other system that provides the same level of safety is necessary for all elevators where there is a potential for the elevator cab to descend below the base flood elevation during a flood; and~~

- ~~3. All equipment that is installed below the base flood elevation such as counter weight roller guides, compensating cable and pulleys and oil buffers for traction elevators and the jack assembly for a hydraulic elevation shall be constructed using flood-resistant materials, where possible.~~
- ~~h. *Temporary development.* Certain types of temporary development may be situated temporarily on floodprone property without having to comply with elevation or floodproofing requirements, provided that the following criteria are met:
 - ~~1. All applicants must submit to the city, prior to the issuance of the development permit, a written plan for the removal of any temporary structures or development in the event of a hurricane or flash flood warning notification. The plan shall be reviewed and approved in writing, and must include the following details:
 - ~~(i) A specified time period for which the temporary uses will be permitted;~~
 - ~~(ii) The name, address and phone number of the individual responsible for the removal of the structure or development;~~
 - ~~(iii) The timeframe, prior to the event, at which the structure or development will be removed. The minimum time shall be seventy-two (72) hours before landfall or immediately upon flood warning notification;~~
 - ~~(iv) A copy of the contract or other suitable instrument with a trucking company to ensure the availability of removal equipment when needed;~~
 - ~~(v) Designation, accompanied by documentation, of a location outside the floodplain to which any temporary structure will be moved;~~
 - ~~(vi) A determination of permanent structures which would be adversely affected by increased flooding upstream or downstream, and a method of covering this liability, such as a performance bond; and~~
 - ~~(vii) A plan to restore the area to its natural condition once the temporary permit expired or the temporary use is terminated, whichever is first.~~~~
 - ~~2. The structure is mobile, or can be made so, and is capable of being removed from the site with a maximum of four (4) hours warning.~~
 - ~~3. The structure will not remain on the property for more than one hundred eighty (180) days.~~~~
- ~~i. *Floodways.* Located within areas of special flood hazard are areas designated as floodways. Since the floodway is a hazardous area due to the velocity of floodwaters which carry debris and potential projectiles, and has erosion potential, the following provisions are required:
 - ~~1. No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless certification, with supporting technical~~~~

~~data, by a registered professional engineer is provided, demonstrating that said encroachment shall not result in any increase in flood levels during occurrence of the base flood discharge;~~

- ~~2. If, said certification is provided and a development permit is granted, all new construction and substantial improvements shall comply with all applicable standards in this section;~~
- ~~3. No manufactured homes shall be permitted, except in an existing manufactured home community. A replacement manufactured home may be placed on a lot in an existing manufactured home community, provided the anchoring and elevation standards of this section are satisfied.~~

~~j. *Streams without established base flood elevations and/or floodways.* Located within areas of special flood hazard, where flood sources exist but where no base flood data has been provided or where no floodways have been identified, 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 five (5) times the width of the stream at the top of bank or twenty feet (20') each side from top of 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 and substantial improvements of structures shall be elevated or floodproofed to elevations established by a registered professional engineer or surveyor in accordance with this section.~~

~~k. *Subdivision proposals.*~~

- ~~1. All subdivision proposals shall be consistent with the need to minimize flood damage;~~
- ~~2. All subdivision proposals shall have utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;~~
- ~~3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards; and~~
- ~~4. All subdivision proposals and other proposed development, including proposals for manufactured home parks and subdivisions, greater than twenty-five (25) lots or five (5) acres, whichever is lesser, shall provide a hydrologic and hydraulic engineering analysis that generates base flood elevations.~~

~~l. *Critical facilities.*~~

- ~~1. New or substantially improved critical facilities shall be, to the extent possible, located outside of areas of special flood hazard. Construction of new critical facilities~~

~~shall be permissible within an area of special flood hazard if no feasible alternative is available.~~

- ~~2. When no feasible alternative site is available, critical facilities constructed within areas of special flood hazard shall have the lowest floor elevated above the level of the five hundred year (500 year) flood elevation.~~
- ~~3. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters.~~
- ~~4. Access routes to the critical facility should be elevated to or above the level of the base flood elevation should be provided to all critical facilities to the extent possible.~~

~~m. *Fill.*~~

- ~~1. Applicants shall demonstrate that fill is the only alternative to raising the building to meet the residential and nonresidential construction requirements of this section, and that the amount of fill used will not affect the flood storage capacity or adversely affect adjacent properties.~~
- ~~2. Fill may not be placed in the floodway, unless it is done so in accordance with the requirements for floodways.~~
- ~~3. Any filling or clearing of wetland systems shall be prohibited except where a wetlands protection permit has been issued in accordance with the requirements of this article.~~
- ~~4. Fill must consist of soil and rock materials only. A registered professional geotechnical engineer may use dredged materials as fill only upon certification of suitability.~~
- ~~5. Fill used to support structures must comply with ASTM standards D-698 and D-2487, and its suitability to support structures should be certified by a professional engineer.~~
- ~~6. Fill slopes shall be no greater than a ratio of two to one (2:1) (horizontal to vertical). Flatter slopes may be required where velocities may result in erosion.~~
- ~~7. The use of fill shall not increase flooding or cause drainage problems to, or otherwise adversely affect, neighboring properties.~~
- ~~8. The use of fill shall comply with FEMA technical bulletin 10-01, ensuring that structures built on fill in or near special flood hazard areas are reasonably safe from flooding.~~
- ~~9. No fill shall be permitted below the two foot (2') elevation.~~
- ~~10. A letter of map revision (LOMR) should be submitted prior to recording of the final plat.~~

~~n. *Compensatory storage.*~~

1. ~~Floodways and floodplains, and levels of flood flows or velocities of adjacent streams, impoundments or other watercourses shall not be altered so as to adversely impact the on-site and off-site storage of the water resource. To compensate for any loss of flood storage capacity during development, compensatory storage is hereby required.~~
2. ~~Compensatory storage is limited to one foot (1') minimum above the water table (seasonal high).~~
3. ~~The storage should be located adjacent to or opposite the placement of the fill and maintain an unimpeded connection to an adjoining floodplain. If the storage is proposed to be off-site, said site must be considered hydrologically equivalent. Documentation providing evidence of this equivalency shall be submitted to the city.~~
4. ~~Calculations for floodplain volume shall be submitted in tabular form showing calculations by cross section and shall indicate no net loss of storage capacity. The volume of floodplain storage under the without project conditions and the with project conditions should be determined using the average end area method with plotted cross sections at a horizontal to vertical ratio of between five to one (5:1) and ten to one (10:1), with ten-year (10-year) through one hundred-year (100-year) flood elevations noted on each cross section. The scale chosen should be large enough to show the intent of proposed grading. Cross sections should reflect both the existing and proposed conditions on the same plot. The location and extent of the compensatory storage area as well as the location and orientation of cross sections should be shown on the grading plan or a separate floodplain exhibit. This table should be presented as follows:~~

Cross Section	Fill Area (sq. ft.)	Cut Area (sq. ft.)	Distance Between Sections (ft.)	Volume of Fill (cu. ft.)	Cumulative Fill (cu. ft.)	Volume of Cut (cu. ft.)	Cumulative Cut (cu. ft.)
A							

~~(3) Coastal high hazard areas. Located within areas of special flood hazard are coastal high hazard areas. These areas have special flood hazards associated with high velocity waters from surges and hurricane wave wash, and therefore, in addition to meeting all provisions in this section, the following provisions shall also apply:~~

- a. ~~All structures shall be located landward of the reach of the mean high tide.~~
- b. ~~All new construction and substantial improvements in V zones shall be elevated on pilings and columns so that:~~

- ~~1. The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated no lower than one foot (1') above the base flood elevation; and~~
 - ~~2. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects 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 shall each have a one percent (1%) chance of being equaled or exceeded in a given year (one hundred year (100 year) mean recurrence interval).~~
- ~~c. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for coastal high hazard areas.~~
- ~~d. New construction and substantial improvements shall have the space below the lowest floor either free of obstruction or constructed with nonsupported breakaway walls, open wood latticework or insect screening intended to collapse under wind and water loads without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than ten pounds (10 lbs.) and no more than twenty pounds (20 lbs.) per square foot. Solid breakaway wall enclosures shall not exceed two hundred ninety nine (299) square feet. Use of breakaway walls which exceed a design safe loading resistance of twenty pounds (20 lbs.) per square foot may be permitted only if a registered professional engineer or architect certifies that the design proposed meets the following conditions:~~
- ~~1. Breakaway wall collapse shall result from water load less than that which would occur during the base flood; and~~
 - ~~2. 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 (structural and nonstructural). Maximum wind and water loading values to be used in this determination shall each have a one percent (1%) chance of being equaled or exceeded in a given year (one hundred year (100 year) mean recurrence interval).~~
- ~~e. If breakaway walls are utilized, such enclosed space shall be useable solely for the parking of vehicles, building access or storage. Such space shall not be finished, partitioned into multiple rooms, temperature controlled or otherwise used for human habitation.~~
- ~~f. The use of fill for structural support of structures is prohibited. Under the structure, no fill may be used, except for minor landscaping and site grading for drainage purposes,~~

~~provided the fill does not interfere with the free passage of floodwaters and debris underneath the structure or cause changes in flow direction during coastal storms such so as to cause additional damage to structures on the site or to any adjacent structures.~~

~~g. Manmade alteration of sand dunes and mangrove stands that would increase potential flood damage is prohibited.~~

~~h. All manufactured homes and recreational vehicles to be placed or substantially improved within coastal high hazard areas shall meet the elevation and anchoring standards previously set forth in this section for manufactured homes and recreational vehicles.~~

~~(e) Variance procedures.~~

~~(1) The board of adjustment and appeals, as established by the city, shall hear and decide appeals and requests for variance from the requirements of this section.~~

~~(2) The board of adjustment and appeals shall hear and decide appeals when it is alleged an error in any requirement, decision or determination is made by the floodplain manager in the enforcement or administration of this section. In deciding appeals of the decision of the floodplain manager, the board shall consider all relevant factors, standards specified in other subsections of this section, and the following:~~

~~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, where applicable;~~

~~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 floodplain management program of the city;~~

~~i. The safety of access to the property in time of flood for ordinary and emergency vehicles;~~

~~j. The 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~~

~~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, electrical and water systems, and streets and bridges.~~

- ~~(3) Upon consideration of these factors, the board of adjustment and appeals may attach such conditions to the granting of variances as it deems necessary to further the purpose of this section.~~
- ~~(4) Variances shall not be issued within any designated floodway if any impact in flood conditions or increase in flood levels would result during a base flood discharge.~~
- ~~(5) Variances shall only be issued when there is:
 - ~~a. A showing of good and sufficient cause;~~
 - ~~b. A determination that failure to grant the variance would result in exceptional hardship; and~~
 - ~~c. A determination that granting of variance will not result in increased flood heights, additional threats to public safety, create extraordinary public expense, create nuisance, cause fraud on or victimization of the public or conflict with the comprehensive plan, this Land Development Code or other existing local laws and ordinances.~~~~
- ~~(6) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazards, to afford relief; and in the instance of an historic structure, a determination that a variance is the minimum necessary so as not to destroy the historic character and design of the structure.~~
- ~~(7) Variances shall not be granted after the fact.~~
- ~~(8) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as an historic structure and the variance is the minimum to preserve the historic character and design of the structure.~~
- ~~(9) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation to which the lowest floor 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. A copy of the notice shall be recorded by the city in the county clerk of court, and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.~~
- ~~(10) Any person aggrieved by the decision of the board of adjustment and appeals may use the procedure established in section 1-19(b)(4), appeal of actions by the board of adjustment and appeals.~~
- ~~(11) The floodplain manager shall maintain the records of all variance and appeal actions, including justification for their issuance or denial, supporting technical information, and be available for public inspection.~~

(a) General.

- (1) Title. These regulations shall be known as the *Floodplain Management Ordinance* of City of Ormond Beach, hereinafter referred to as “this section.”
- (2) Scope. The provisions of this section shall apply to all development that is wholly within or partially within any flood hazard area, including but not limited to the subdivision of land; filling, grading, and other site improvements and utility installations; construction, alteration, remodeling, enlargement, improvement, replacement, repair, relocation or demolition of buildings, structures, and facilities that are exempt from the *Florida Building Code*; placement, installation, or replacement of manufactured homes and manufactured buildings; installation or replacement of tanks; placement of recreational vehicles; installation of swimming pools; and any other development.
- (3) Intent. The purposes of this section 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 flood hazard areas to:
 - a. Minimize unnecessary disruption of commerce, access and public service during times of flooding;
 - b. Require the use of appropriate construction practices in order to prevent or minimize future flood damage;
 - c. 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;
 - d. Manage the alteration of flood hazard areas, watercourses, and shorelines to minimize the impact of development on the natural and beneficial functions of the floodplain;
 - e. Minimize damage to public and private facilities and utilities;
 - f. Help maintain a stable tax base by providing for the sound use and development of flood hazard areas;
 - g. Ensure that potential buyers are notified that property is in special flood hazard areas;
 - h. Ensure those who occupy special flood hazard areas assume responsibility for their actions;
 - i. Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and

- j. Meet the requirements of the National Flood Insurance Program for community participation as set forth in Title 44 Code of Federal Regulations, Section 59.22.
- (4) Coordination with the *Florida Building Code*. This section 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*.
 - (5) *Warning*. The degree of flood protection required by this section and the *Florida Building Code*, as amended by this community, 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 section does not imply that land outside of mapped special flood hazard areas, or that uses permitted within such flood hazard areas, will be free from flooding or flood damage. The 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 this community to revise these regulations to remain eligible for participation in the National Flood Insurance Program. No guaranty of vested use, existing use, or future use is implied or expressed by compliance with this section.
 - (6) *Disclaimer of Liability*. This section shall not create a liability on the part of the City Commission of the City of Ormond Beach or by any officer or employee thereof for any flood damage that results from reliance on this section or any administrative decision lawfully made thereunder.
- (b) *Applicability*.
- (1) *General*. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.
 - (2) *Areas to which this section applies*. This section shall apply to all flood hazard areas within the City of Ormond Beach, as established in subsection (b)(3).
 - (3) *Basis for establishing flood hazard areas*. The Flood Insurance Study for Volusia County, Florida and Incorporated Areas dated September 29, 2017, and all subsequent amendments and revisions, and the accompanying Flood Insurance Rate Maps (FIRM), and all subsequent amendments and revisions to such maps,

are adopted by reference as a part of this section and shall serve as the minimum basis for establishing flood hazard areas. Studies and maps that establish flood hazard areas are on file at the City of Ormond Beach Planning Department.

- (4) Submission of additional data to establish flood hazard areas. To establish flood hazard areas and base flood elevations, pursuant to subsection (e) the Floodplain Manager may require submission of additional data. Where field surveyed topography prepared by a Florida licensed professional surveyor or digital topography accepted by the community indicates that ground elevations:
- a. Are 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 flood hazard area and subject to the requirements of this section and, as applicable, the requirements of the *Florida Building Code*.
 - b. Are 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.
- (5) Other laws. The provisions of this section shall not be deemed to nullify any provisions of local, state or federal law.
- (6) Abrogation and greater restrictions. This section supersedes any ordinance in effect for management of development in 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 section and any other ordinance, the more restrictive shall govern. This section shall not impair any deed restriction, covenant or easement, but any land that is subject to such interests shall also be governed by this section.
- (7) Interpretation. In the interpretation and application of this section, all provisions shall be:
- a. Considered as minimum requirements;
 - b. Liberally construed in favor of the governing body; and
 - c. Deemed neither to limit nor repeal any other powers granted under state statutes.
- (c) Duties and Powers of the Floodplain Manager.

- (1) Designation. The Chief Building Official is designated as the Floodplain Manager. The Floodplain Manager may delegate performance of certain duties to other employees.
- (2) General. The Floodplain Manager is authorized and directed to administer and enforce the provisions of this section. The Floodplain Manager shall have the authority to render interpretations of this section consistent with the intent and purpose of this section 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 section without the granting of a variance pursuant to subsection (g).
- (3) Applications and permits. The Floodplain Manager, in coordination with other pertinent offices of the community, shall:
 - a. Review applications and plans to determine whether proposed new development will be located in flood hazard areas;
 - b. Review applications for modification of any existing development in flood hazard areas for compliance with the requirements of this section;
 - c. Interpret 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;
 - d. Provide available flood elevation and flood hazard information;
 - e. Determine whether additional flood hazard data shall be obtained from other sources or shall be developed by an applicant;
 - f. Review applications to determine whether proposed development will be reasonably safe from flooding;
 - g. 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*, when compliance with this section is demonstrated, or disapprove the same in the event of noncompliance; and
 - h. Coordinate with and provide comments to the Building Official to assure that applications, plan reviews, and inspections for buildings and structures in flood hazard areas comply with the applicable provisions of this section.

- (4) Substantial improvement and substantial damage determinations. For applications for building permits to improve buildings and structures, including alterations, movement, 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 Manager, in coordination with the Building Official, shall:
- a. 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;
 - b. 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; the costs associated with ADA compliance shall be included in the costs of improvements;
 - c. 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; and
 - d. 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 section is required.
- (5) Modifications of the strict application of the requirements of the *Florida Building Code*. The Floodplain Manager 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 subsection (g).
- (6) Notices and orders. The Floodplain Manager shall coordinate with appropriate local agencies for the issuance of all necessary notices or orders to ensure compliance with this section.
- (7) Inspections. The Floodplain Manager shall make the required inspections as specified in subsection (f) for development that is not subject to the *Florida*

Building Code, including buildings, structures and facilities exempt from the Florida Building Code. The Floodplain Manager shall inspect flood hazard areas to determine if development is undertaken without issuance of a permit.

(8) Other duties of the Floodplain Manager. The Floodplain Manager shall have other duties, including but not limited to:

- a. Establish, in coordination with the Building Official, procedures for administering and documenting determinations of substantial improvement and substantial damage made pursuant to subsection (c)(4);
- b. 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);
- c. Require applicants who submit hydrologic and hydraulic engineering analyses to support 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, flood hazard area boundaries, or floodway designations; such submissions shall be made within 6 months of such data becoming available;
- d. Coordinate with requesters submitting Letters of Map Change to FEMA.
- e. Review required design certifications and documentation of elevations specified by this section and the Florida Building Code to determine that such certifications and documentations are complete;
- f. Notify the Federal Emergency Management Agency when the corporate boundaries of City of Ormond Beach are modified; and
- g. 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 (Pub. L. 97-348) and the Coastal Barrier Improvement Act of 1990 (Pub. L. 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.”

(9) Floodplain management records. Regardless of any limitation on the period required for retention of public records, the Floodplain Manager shall maintain and permanently keep and make available for public inspection all records that are

necessary for the administration of this section 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 section; 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 section and the flood resistant construction requirements of the *Florida Building Code*. These records shall be available for public inspection at the City of Ormond Beach Planning Department.

(d) *Permits.*

- (1) *Permits required.* Any owner or owner's authorized agent (hereinafter "applicant") who intends to undertake any development activity within the scope of this section, including buildings, structures and facilities exempt from the *Florida Building Code*, which is wholly within or partially within any flood hazard area shall first make application to the Floodplain Manager, 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 section and all other applicable codes and regulations has been satisfied.
- (2) *Floodplain development permits or approvals.* Floodplain development permits or approvals shall be issued pursuant to this section for any development activities not subject to the requirements of the *Florida Building Code*, including buildings, structures and facilities exempt from the *Florida Building Code*. Depending on the nature and extent of proposed development that includes a building or structure, the Floodplain Manager may determine that a floodplain development permit or approval is required in addition to a building permit.
- (3) *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 C.F.R. 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 section:
 - a. *Railroads and ancillary facilities associated with the railroad.*

- b. Nonresidential farm buildings on farms, as provided in section 604.50, F.S.
- c. Temporary buildings or sheds used exclusively for construction purposes.
- d. Mobile or modular structures used as temporary offices.
- e. 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.
- f. 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.
- g. 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.
- h. Temporary housing provided by the Department of Corrections to any prisoner in the state correctional system.
- i. Structures identified in section 553.73(10)(k), F.S., are not exempt from the Florida Building Code if such structures are located in flood hazard areas established on Flood Insurance Rate Maps

(4) Application for a permit or approval. To obtain a floodplain development permit or approval the applicant shall first file an application in writing on a form furnished by the community. The information provided shall:

- a. Identify and describe the development to be covered by the permit or approval.
- b. 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.
- c. Indicate the use and occupancy for which the proposed development is intended.
- d. Be accompanied by a site plan or construction documents as specified in subsection (e).
- e. State the valuation of the proposed work.
- f. Be signed by the applicant or the applicant's authorized agent.

- g. Give such other data and information as required by the Floodplain Manager.
- (5) Validity of permit or approval. The issuance of a floodplain development permit or approval pursuant to this section shall not be construed to be a permit for, or approval of, any violation of this section, the *Florida Building Codes*, or any other section of this community. The issuance of permits based on submitted applications, construction documents, and information shall not prevent the Floodplain Manager from requiring the correction of errors and omissions.
- (6) Expiration. A floodplain development permit or approval shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized is suspended or abandoned for a period of 180 days after the work commences. Extensions for periods of not more than 180 days each shall be requested in writing and justifiable cause shall be demonstrated.
- (7) Suspension or revocation. The Floodplain Manager is authorized to suspend or revoke a floodplain development permit or approval if the permit was issued in error, on the basis of incorrect, inaccurate or incomplete information, or in violation of this section or any other ordinance, regulation or requirement of this community.
- (8) Other permits required. Floodplain development permits and building permits shall include a condition that all other applicable state or federal permits be obtained before commencement of the permitted development, including but not limited to the following:
- a. The St. Johns River Water Management District; section 373.036, F.S.
 - b. Florida Department of Health for onsite sewage treatment and disposal systems; section 381.0065, F.S. and Chapter 64E-6, F.A.C.
 - c. 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.
 - d. Florida Department of Environmental Protection for activities subject to the Joint Coastal Permit; section 161.055, F.S.
 - e. 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.

f. Federal permits and approvals.

(e) Site Plans and Construction Documents.

(1) Information for development in flood hazard areas. The Floodplain Manager is authorized to waive the submission of site plans, construction documents, and other data that are required by this section 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 section. The site plan or construction documents for any development subject to the requirements of this section shall be drawn to scale and shall include, as applicable to the proposed development:

- a. Delineation of flood hazard areas, floodway boundaries and flood zone(s), base flood elevation(s), and ground elevations if necessary for review of the proposed development.
- b. 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 subsection (e)(2).b or .c.
- c. Where the parcel on which the proposed development will take place will have more than 50 lots or is larger than 5 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 subsection (e)(2).a.
- d. 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.
- e. Location, extent, amount, and proposed final grades of any filling, grading, or excavation.
- f. 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; evidence that the proposed fill areas are the minimum necessary to achieve the intended purpose; and plans and analyses to document compensatory storage in accordance with subsection (k)(7).
- g. Delineation of the Coastal Construction Control Line or notation that the site is seaward of the coastal construction control line, if applicable.
- h. Extent of any proposed alteration of sand dunes or mangrove stands, provided such alteration is approved by the Florida Department of Environmental Protection.

- i. Existing and proposed alignment of any proposed alteration of a watercourse.
- (2) Information in flood hazard areas without base flood elevations (approximate Zone A). Where flood hazard areas are delineated on the FIRM and base flood elevation data have not been provided, the Floodplain Manager shall:

 - a. Require the applicant to include base flood elevation data prepared in accordance with currently accepted engineering practices.
 - b. 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.
 - c. Where base flood elevation and floodway data are not available from another source, where the available data are deemed by the Floodplain Manager to not reasonably reflect flooding conditions, or where the available data are known to be scientifically or technically incorrect or otherwise inadequate:

 - (i) Require the applicant to include base flood elevation data prepared in accordance with currently accepted engineering practices; or
 - (ii) Specify that the base flood elevation is two (2) feet above the highest adjacent grade at the location of the development, provided there is no evidence indicating flood depths have been or may be greater than two (2) feet.
 - d. 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.
- (3) 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:

 - a. 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 subsection (e)(4) and shall submit the Conditional Letter of Map Revision, if issued by FEMA, with the site plan and construction documents.

- b. For development activities proposed to be located in a riverine 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 (1) foot at any point within the community. This requirement does not apply in isolated flood hazard areas not connected to a riverine flood hazard area or in flood hazard areas identified as Zone AO or Zone AH.
- c. 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 subsection (e)(4).
- d. 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.

(4) 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 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.

(f) Inspections.

(1) General. Development for which a floodplain development permit or approval is required shall be subject to inspection.

- (2) Development other than buildings and structures. The Floodplain Manager shall inspect all development to determine compliance with the requirements of this section and the conditions of issued floodplain development permits or approvals.
- (3) Buildings, structures and facilities exempt from the Florida Building Code. The Floodplain Manager shall inspect buildings, structures and facilities exempt from the *Florida Building Code* to determine compliance with the requirements of this section and the conditions of issued floodplain development permits or approvals.
- (4) Buildings, structures and facilities exempt from the Florida Building Code, lowest floor inspection. 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*, or the owner's authorized agent, shall submit to the Floodplain Manager:
- a. 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
 - b. If the elevation used to determine the required elevation of the lowest floor was determined in accordance with subsection (e)(2).c(ii), the documentation of height of the lowest floor above highest adjacent grade, prepared by the owner or the owner's authorized agent.
- (5) Buildings, structures and facilities exempt from the Florida Building Code, final inspection. As part of the final inspection, the owner or owner's authorized agent shall submit to the Floodplain Manager a final certification of elevation of the lowest floor 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 subsection (f)(4).
- (6) Manufactured homes. The Floodplain Manager shall inspect manufactured homes that are installed or replaced in flood hazard areas to determine compliance with the requirements of this section 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 Manager.
- (g) Variances and Appeals.
- (1) General. The Board of Adjustment and Appeals shall hear and decide on requests for appeals and requests for variances from the strict application of this section. Pursuant to section 553.73(5), F.S., the Board of Adjustment and Appeals shall

hear and decide on requests for appeals and requests for variances from the strict application of the flood resistant construction requirements of the *Florida Building Code*. This section does not apply to Section 3109 of the *Florida Building Code, Building*.

- (2) *Appeals*. The Board of Adjustment and Appeals shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Manager in the administration and enforcement of this section. Any person aggrieved by the decision may use the procedure established in section 1-19(b)(4), appeal of actions by the board of adjustment and appeals.
- (3) *Limitations on authority to grant variances*. The Board of Adjustment and Appeals shall base its decisions on variances on technical justifications submitted by applicants, the considerations for issuance in subsection (g)(8), the conditions of issuance set forth in subsection (g)(9), and the comments and recommendations of the Floodplain Manager and the Building Official. Variances shall not be issued after the fact. The Board of Adjustment and Appeals has the right to attach such conditions as it deems necessary to further the purposes and objectives of this section.
- (4) *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 subsection (e)(3).
- (5) *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*, Chapter 12 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 and the building and any repair, improvement, and rehabilitation shall be subject to the requirements of the *Florida Building Code*.
- (6) *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 this section, provided the variance meets the requirements of subsection (g)(4), 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.

(7) Americans with Disabilities Act (ADA). A requirement to comply with the ADA is not sufficient justification for a variance to or waiver of the elevation requirements of the Florida Building Code. The costs associated with ADA compliance shall be included in the costs of improvements for the purpose of determining substantial improvement.

(8) Considerations for issuance of variances. In reviewing requests for variances, the Board of Adjustment and Appeals shall consider all technical evaluations, all relevant factors, all other applicable provisions of the Florida Building Code, this section, and the following:

- a. The danger that materials and debris may be swept onto other lands resulting in further injury or damage;
- b. The danger to life and property due to flooding or erosion damage;
- c. The susceptibility of the proposed development, including contents, to flood damage and the effect of such damage on current and future owners;
- d. The importance of the services provided by the proposed development to the community;
- e. The availability of alternate locations for the proposed development that are subject to lower risk of flooding or erosion;
- f. The compatibility of the proposed development with existing and anticipated development;
- g. The relationship of the proposed development to the comprehensive plan and floodplain management program for the area;
- h. The safety of access to the property in times of flooding for ordinary and emergency vehicles;
- i. The expected heights, velocity, duration, rate of rise and debris and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
- j. The 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, streets and bridges.

(9) Conditions for issuance of variances. Variances shall be issued only upon:

- a. 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 section or the required elevation standards;
- b. Determination by the Board of Adjustment and Appeals that:
 - (i) 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;
 - (ii) 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
 - (iii) The variance is the minimum necessary, considering the flood hazard, to afford relief;
- c. Receipt of a signed statement by the applicant that the variance, if granted, shall be recorded in the Office of the Clerk of the Court in such a manner that it appears in the chain of title of the affected parcel of land; and
- d. If the request is for a variance to allow construction of the lowest floor of a new building, or substantial improvement of a building, below the required elevation, a copy in the record of a written notice from the Floodplain Manager to the applicant for the variance, specifying the difference between the base flood elevation and the proposed elevation of the lowest floor, stating that the cost of federal flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation (up to amounts as high as \$25 for \$100 of insurance coverage), and stating that construction below the base flood elevation increases risks to life and property.

(h) Violations.

- (1) Violations. Any development that is not within the scope of the Florida Building Code but that is regulated by this section that is performed without an issued permit, that is in conflict with an issued permit, or that does not fully comply with this section, shall be deemed a violation of this section. 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 section or the

Florida Building Code is presumed to be a violation until such time as that documentation is provided.

- (2) Authority. For development that is not within the scope of the *Florida Building Code* but that is regulated by this section and that is determined to be a violation, the Floodplain Manager 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.
- (3) 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. Upon a finding that a violator has refused to bring the violation into compliance, the City shall request that FEMA initiate section 1316 of the National Flood Insurance Act of 1968 to withhold federal flood insurance. If a violation subject to section 1316 is remedied, the city shall notify FEMA of the remedy and request the section 1316 citation be rescinded.

(i) Buildings and Structures.

- (1) Design and construction of buildings, structures and facilities exempt from the Florida Building Code. Pursuant to subsection (d)(3), 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 subsection (o).
- (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 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 Section 3109 and Section 1612 or Florida Building Code, Residential 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 section and ASCE 24.

- (3) Critical facilities. New or substantially improved critical facilities shall be, to the extent possible, located outside of flood hazard areas. New critical facilities shall be permitted in flood hazard areas if there is no feasible alternative location. Where permitted:
- a. The elevation required for the lowest floor, lowest horizontal structural member of the lowest floor, or dry floodproofing, as applicable, shall be at or above the base flood elevation plus 2 feet or the 500-year flood elevation, whichever is higher.
 - b. Floodproofing and sealing measures shall be taken to ensure that toxic substances will be displaced by or released into floodwater.
 - c. Access routes to the facilities should be elevated to or above the base flood elevation, where feasible.
- (4) Accessory structures. Accessory structures not subject to the *Florida Building Code* are permitted without complying with elevation or dry floodproofing requirements provided all of the following criteria are met:
- a. Accessory structures shall be used only for parking and storage and not for human habitation (including working, sleeping, living, cooking or restroom areas);
 - b. Accessory structures shall be designed to have low flood damage potential (wet floodproofing);
 - c. Accessory structures shall be constructed using flood damage-resistant materials below the base flood elevation;
 - d. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
 - e. Accessory structures shall be firmly anchored to prevent flotation, collapse or lateral movement of the structure;
 - f. Service facilities such as electrical and heating equipment shall be elevated above base flood elevation or be floodproofed; and
 - g. Flood openings to relieve hydrostatic pressure during a flood shall be provided in accordance with Section R322.2 of the *Florida Building Code, Residential*.
- (5) Temporary development. Certain types of temporary development may be situated in a flood hazard area for no more than one hundred eighty (180) days without having to comply with elevation or floodproofing requirements, provided that the following criteria are met:

- a. The structure is mobile, or can be made mobile, and is capable of being removed from the site with a maximum of four (4) hours of warning.
- b. All applicants must submit to the city, prior to the issuance of the development permit, a written plan for the removal of any temporary structures or development in the event of a hurricane or flash flood warning notification. The plan shall be reviewed and approved in writing, and must include the following details:
 - (i) A specified time period for which the temporary development will be permitted;
 - (ii) The name, address and phone number of the individual responsible for the removal of the structure or development;
 - (iii) The timeframe, prior to the event, at which the structure or development will be removed. The minimum time shall be seventy-two (72) hours before landfall or immediately upon flood warning notification;
 - (iv) A copy of the contract or other suitable instrument with a trucking company to ensure the availability of removal equipment when needed;
 - (v) Designation, accompanied by documentation, of a location outside the floodplain to which any temporary structure will be moved;
 - (vi) A determination of permanent structures which would be adversely affected by increased flooding upstream or downstream, and a method of covering this liability, such as a performance bond; and
 - (vii) A plan to restore the area to its natural condition once the temporary permit expired or the temporary use is terminated, whichever is first.

(i) Subdivisions.

(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.

(2) Subdivision plats. Where any portion of proposed subdivisions, including manufactured home parks and subdivisions, lies within a flood hazard area, the following shall be required:

- a. Delineation of flood hazard areas, floodway boundaries and flood zones, and design flood elevations, as appropriate, shall be shown on preliminary plats;
- b. Where the subdivision has more than 50 lots or is larger than 5 acres and base flood elevations are not included on the FIRM, the base flood elevations determined in accordance with subsection (e)(2).a; and
- c. Compliance with the site improvement and utilities requirements of subsection (k).

(k) Site Improvements, Utilities and Limitations

(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.

(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, F.A.C. 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.

- (3) Water supply facilities. All new and replacement water supply facilities shall be designed in accordance with the water well construction standards in Chapter 62-532.500, F.A.C. and ASCE 24 Chapter 7 to minimize or eliminate infiltration of floodwaters into the systems.
- (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 subsection (e)(3).a demonstrates that the proposed development or land disturbing activity will not result in any increase in the base flood elevation.
- (5) Limitations on sites in flood hazard areas of streams without base flood elevations and or floodways. No encroachments, including fill or structures, shall be located within a distance of the stream bank equal to five (5) times the width of the stream at the top of bank or twenty (20) feet each side of the top of bank, whichever is greater, unless certification by a registered professional engineer is provided that demonstrates that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- (6) Limitations on placement of fill. Subject to the limitations of this section:
- a. Fill shall not be used to support buildings unless the applicant demonstrates that fill is the only alternative to achieve the required elevation specified in the Florida Building Code, the fill will not cause drainage problems or adversely affect adjacent properties, and the requirements of subsection (k)(7) are satisfied;
 - b. Filling and clearing of wetland systems is not permitted except where a wetlands protection permit has been issued in accordance with this article;
 - c. 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; and
 - d. If intended to support buildings and structures (Zone A only), fill shall comply with the requirements of the Florida Building Code.
- (7) Compensatory storage. In floodways and flood hazard areas, flood elevations or velocities shall not be altered so as to adversely impact the on-side or off-site

storage of floodwaters. Compensatory storage is required to compensate for loss of flood storage capacity. Compensatory storage:

- a. Is limited to one foot (1') minimum above the water table (seasonal high).
- b. Should be located adjacent to or oppose the placement of the fill and should maintain an unimpeded connection to an adjoining floodplain. If off-site storage is proposed, said side must be considered hydrologically equivalent and documentation of equivalency shall be submitted.
- c. Calculations for compensating storage volume shall be submitted in tabular form showing calculations by cross section and shall indicate no net loss of storage capacity. The volume of storage under the without-project conditions and the with-project conditions should be determined using the average-end-area method with plotted cross sections at a horizontal to vertical ratio of between five to one (5:1) and ten to one (10:1), with ten-year (10-year) through one hundred-year (100-year) flood elevations noted on each cross section. The scale chosen should be large enough to show the intent of proposed grading. Cross sections should reflect both the existing and proposed conditions on the same plot. The location and extent of the compensatory storage area as well as the location and orientation of cross sections should be shown on the grading plan or a separate exhibit. This table should be presented as follows:

<u>Cross Section</u>	<u>Fill Area (sq. ft.)</u>	<u>Cut Area (sq. ft.)</u>	<u>Distance Between Sections (ft.)</u>	<u>Volume of Fill (cu. ft.)</u>	<u>Cumulative Fill (cu. ft.)</u>	<u>Volume of Cut (cu. ft.)</u>	<u>Cumulative Cut (cu. ft.)</u>
<u>A</u>							

(8) 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 subsection (e)(3).d 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 subsection (o)(3).d.

(l) Manufactured Homes.

(1) General. New manufactured homes shall not be permitted in floodways except in existing manufactured home parks or subdivisions. All manufactured homes installed in 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, F.A.C. and the requirements of this section. If located seaward of the coastal construction control line, all manufactured homes shall comply with the more restrictive of the applicable requirements.

- (2) Foundations. All new manufactured homes and replacement manufactured homes installed in flood hazard areas shall be installed on permanent, reinforced foundations that:
- a. In 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* Section R322.2 and this section. Foundations for manufactured homes subject to subsection (1)(6) 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* Section R322.3 and this 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.
- (4) Elevation. Manufactured homes that are placed, replaced, or substantially improved shall comply with subsections (1)(5) or (1)(6), as applicable.
- (5) General elevation requirement. Unless subject to the requirements of subsection (1)(6), 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 flood hazard area, in the *Florida Building Code, Residential* Section R322.2 (Zone A) or Section R322.3 (Zone V).

- (6) Elevation requirement for certain existing manufactured home parks and subdivisions. Manufactured homes that are not subject to subsection (1)(5), 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:
- a. Bottom of the frame of the manufactured home is at or above the elevation required, as applicable to the flood hazard area, in the *Florida Building Code, Residential* Section R322.2 (Zone A) or Section R322.3 (Zone V);
or
 - b. Bottom of the frame is supported by reinforced piers or other foundation elements of at least equivalent strength that are not less than 48 inches in height above grade.
- (7) Enclosures. Enclosed areas below elevated manufactured homes shall comply with the requirements of the *Florida Building Code, Residential* Section R322.2 or R322.3 for such enclosed areas, as applicable to the flood hazard area.
- (8) 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* Section R322, as applicable to the flood hazard area.
- (9) Evacuation plan. A plan for notification and evacuation of residents of new manufactured home parks or subdivisions shall be developed and submitted to the city for approval.
- (m) Recreational Vehicles and Park Trailers.
- (1) Temporary placement. Recreational vehicles and park trailers placed temporarily in 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 model 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.

(2) Permanent placement. Recreational vehicles and park trailers that do not meet the limitations in subsection (m)(1) for temporary placement shall meet the requirements of subsection (n) for manufactured homes.

(n) Tanks.

(1) Underground tanks. Underground tanks in 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.

(2) Above-ground tanks, not elevated. Above-ground tanks that do not meet the elevation requirements of subsection (n)(3) shall:

a. Be permitted in 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).

(3) Above-ground tanks, elevated. Above-ground tanks in flood hazard areas shall be attached to and elevated to or above the design flood elevation on a supporting structure that is designed to prevent flotation, collapse or lateral movement during conditions of the design flood. Tank-supporting structures shall meet the foundation requirements of the applicable flood hazard area.

(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.

(o) Other Development.

(1) General requirements for other development. All development, including man-made changes to improved or unimproved real estate for which specific provisions are not specified in this section or the *Florida Building Code*, shall:

- a. Be located and constructed to minimize flood damage;
 - b. Meet the limitations of subsection (k)(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 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 building code for wet locations.
- (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 subsection (k)(4).
- (3) Retaining walls, sidewalks and driveways in regulated floodways. Retaining walls and sidewalks and driveways that involve the placement of fill in regulated floodways shall meet the limitations of subsection (k)(4).
- (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 subsection (k)(4). Alteration of a watercourse that is part of a road or watercourse crossing shall meet the requirements of subsection (e)(3).c.
- (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 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 (4) inches.
- (6) Decks and patios in coastal high hazard areas (Zone V). In addition to the requirements of the Florida Building Code, in coastal high hazard areas decks and patios 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 twelve (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 twelve (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.
- (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 64E-6.002, F.A.C., as filled systems or mound systems.
- (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.

SECTION FOUR. All Ordinances or parts of Ordinances in conflict herewith are hereby repealed to the extent of such conflict


SECTION FIVE. In the event any word, phrase, clause, sentence, paragraph, term, or provision of this Ordinance shall be held to be invalid by a court of competent jurisdiction, such judicial determination shall not affect any other word, clause, phrase, sentence,

paragraph, term or provision, of this Ordinance, and the remainder of this Ordinance shall remain in full force and effect.

SECTION SIX. This Ordinance shall take effect immediately upon its adoption.


PASSED UPON at the first reading of the City Commission, this 15th day of May, 2018.

PASSED UPON at the second and final reading of the City Commission this 5th day of June, 2018.



BILL PARTINGTON
Mayor

ATTEST:



J. SCOTT McKEE
City Clerk