

Title IX LAND DEVELOPMENT REGULATIONS

**ATTACHMENT E – AMENDMENTS TO THE INDIAN RIVER COUNTY CODE OF ORDINANCES, TITLE IX, LAND DEVELOPMENT REGULATIONS, CHAPTER 930, STORMWATER MANAGEMENT AND FLOOD PROTECTION.**

**CHAPTER 930. STORMWATER MANAGEMENT AND FLOOD PROTECTION**

Sec. 930.01.	Short title.
Sec. 930.02.	Purpose and scope.
Sec. 930.03.	Rules of construction; applicability.
Sec. 930.04.	Definitions.
Sec. 930.05.	Prohibited activity.
Sec. 930.06.	Exemptions.
Sec. 930.07.	Review criteria for all development projects.
Sec. 930.071.	Drainage basin maximum discharge rates.
Sec. 930.08.	Permit requirements.
Sec. 930.09.	Required information to be submitted by Type B and C permit applicants after issuance of permit.
Sec. 930.10.	Permit application and review procedures.
Sec. 930.11.	Floodplain development inspections.
Sec. 930.12.	Administrative duties.
Sec. 930.13.	Variances and appeals.
Sec. 930.14.	Violations and notice.
Sec. 930.15.	Vested rights.

Title IX LAND DEVELOPMENT REGULATIONS

Sec. 930.16.	Disclaimer of liability.
--------------	--------------------------

[Section 930.01. Short title.](#)

[Section 930.02. Purpose and scope.](#)

[Section 930.03. Rules of construction; applicability.](#)

[Section 930.04. Definitions.](#)

[Section 930.05. Prohibited activity.](#)

[Section 930.06. Exemptions.](#)

[Section 930.07. Review criteria for all development projects.](#)

[Section 930.071. Drainage basin maximum discharge rates.](#)

[Section 930.08. Permit requirements.](#)

[Section 930.09. Required information to be submitted by Type B and C permit applicants after issuance of permit.](#)

[Section 930.10. Permit application and review procedures.](#)

[Section 930.11. Floodplain development inspections.](#)

[Section 930.12. Administrative duties.](#)

[Section 930.13. Variances and appeals.](#)

[Section 930.14. Violations and notice.](#)

[Section 930.15. Vested rights.](#)

[Section 930.16. Disclaimer of liability.](#)

**Section 930.01. Short title.**

This chapter shall be known as the "Indian River County Stormwater Management and Flood Protection Ordinance."

(Ord. No. 90-16, § 1, 9-11-90)

**Section 930.02. Purpose and scope.**

- (1) The purpose of this chapter is to protect the health, safety, and welfare of the citizens of Indian River County; to implement those policies and objectives found in the drainage sub-element of the county's comprehensive plan; to ensure protection of land and improvements together with natural resources through the use of responsible stormwater management and flood protection practices; to ensure replenishment of the county's aquifer systems to provide a continuing usable water supply; to reduce stormwater pollutant loading of the Indian River Lagoon; and to provide proper floodplain management.

Title IX LAND DEVELOPMENT REGULATIONS

- (2) The provisions of the floodplain regulations in this chapter shall apply to all development, 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, in the unincorporated area of Indian River County that is wholly within or partially within any flood hazard area.
- (3) The purpose of the floodplain regulations in this chapter and the flood load and flood resistant construction requirements of the Florida Building Code is 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:
1. Minimize unnecessary disruption of commerce, access and public service during times of flooding;
  2. Require the use of appropriate construction practices in order to prevent or minimize future flood damage;
  3. Manage filling, grading, dredging, mining, paving, excavating, and drilling operations, storage of equipment or materials, and other development which may increase flood damage or erosion potential;
  4. 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;
  5. Minimize damage to public and private facilities and utilities;
  6. Maintain a stable tax base by providing for the sound use and development of flood hazard areas;
  7. Minimize the need for future expenditure of public funds for flood control projects and response to and recovery from flood events; and
  8. Meet the requirements of the National Flood Insurance Program for community participation as set forth in the Title 44 Code of Federal Regulations, Section 59.22.
- (4) The floodplain regulations in this chapter are 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) The degree of flood protection required by these regulations 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 manmade or natural causes. These floodplain regulations do 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 those 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 chapter ordinance.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 2012-036, § 3, 11-6-12)

**Editor's note**— Section 3 of Ord. No. 2012-036, adopted Nov. 6, 2012, changed the title of § 930.02 from "Purpose" to "Purpose and scope."

Title IX LAND DEVELOPMENT REGULATIONS

**Section 930.03. Rules of construction; applicability.**

- (1) *Applicability.* The requirements of this chapter are intended to implement regulations of the Federal Emergency Management Agency set out as Title 44, CFR, the National Flood Insurance Program Regulations, and all subsequent FEMA policy guidance on the use of flood hazard information statements that may be issued by on a periodic basis. The requirements of this chapter are intended to complement regulations of the Florida Department of Environmental Protection (FDEP) including but not limited to those found in Florida Administrative Code, Chapter 16-25, Regulation of Stormwater Discharge, Chapter 62-3, Water Quality Standards, and Chapter 62-4, Permits, Chapter 62-330, Environmental Resource Permitting, Chapter 62-312, Dredge and Fill Activities, and the Stormwater Rules of the St. Johns River Water Management District, all as adopted or as may be amended from time to time. Approval of a stormwater management system under this chapter shall not relieve any applicant of the necessity to obtain required permits or approvals from other state, regional, or local agencies, including specifically, but not limited to, observance of FDEP permitting requirements for use of the "landward extent of waters of the state," as that term is defined by Florida Administrative Code, Chapter 62-301.200(4). In the event of a conflict between this chapter and any other law or regulations, this chapter shall be interpreted to avoid the conflict when possible. If there is an irreconcilable conflict, the agency rule shall prevail. If this chapter is more restrictive, the provisions hereunder shall prevail, and no conflict will be considered to exist.
- (2) *Areas to which the floodplain regulations in this chapter apply.* The floodplain regulations in this chapter shall apply to all flood hazard areas within unincorporated Indian River County, as established in section 930.03(3) and (4) of these regulations.
- (3) *Adoption of flood insurance rate maps.* The flood insurance study for Indian River County dated December 4, 2012, and all subsequent amendments and revisions, and the accompanying flood insurance rate maps (FIRM), and all subsequent amendments and revisions to such maps including all subsequent FEMA policy guidance on the use of flood hazard information statements that may be issued by on a periodic basis, are adopted by reference as a part of these floodplain regulations 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 Indian River County Public Works Department~~Community Development Department~~.
- (4) *Submission of additional data to establish flood hazard areas.* Pursuant to section 930.07(2)(a) of the floodplain regulations in this chapter, the floodplain administrator may require submission of additional data in order to establish flood hazard areas and base flood elevations. Where field surveyed topography prepared by a Florida licensed professional surveyor or digital topography accepted by the community indicates that ground elevations:
  1. 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 a special flood hazard area and subject to the requirements of this ~~ordinance~~chapter and, as applicable, the requirements of the Florida Building Code.
  2. Are above the closest applicable base flood elevation while being located in a mapped special flood hazard area, the area shall be regulated as a 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 these floodplain regulations shall not be deemed to nullify any provisions of local, state or federal law.
- (6) *Abrogation and greater restrictions.* These floodplain regulations supersede any ordinance in effect for management of development in flood hazard areas. These regulations are not, however, 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 these floodplain regulations and any other regulations, the more

Title IX LAND DEVELOPMENT REGULATIONS

restrictive shall govern. These floodplain regulations shall not impair any deed restriction, covenant or easement, but any land that is subject to such interests shall also be governed by these regulations.

- (7) *Interpretation.* In the interpretation and application of these floodplain regulations, all provisions shall be:
1. Considered as minimum requirements; and
  2. Deemed neither to limit nor repeal any other powers granted under state statutes.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 2005-031, § 1, 9-6-05; Ord. No. 2012-036, § 3, 11-6-12)

**Editor's note**— Section 3 of Ord. No. 2012-036, adopted Nov. 6, 2012, changed the title of § 930.03 from "Rules of construction" to "Rules of construction; applicability."

**Section 930.04. Definitions.**

Refer to Chapter 901 of this Code for definitions applicable to stormwater management and flood protection.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 2012-036, § 3, 11-6-12)

**Section 930.05. Prohibited activity.**

- (1) It shall be illegal and subject to the penalties provided herein for any person to construct, or arrange for, authorize, or participate in the construction of a development project within the unincorporated area of Indian River County without first obtaining a valid permit to construct either a stormwater management system (hereinafter referred to as a Type A permit), a flood protection-stormwater management system, when applicable, (hereinafter referred to as a Type B permit), or a flood management system, when applicable, (hereinafter referred to as a Type "C" permit), pursuant to this chapter.
- (2) It shall be illegal and subject to the penalties provided herein for any person to construct any structure and/or alter any property in such a manner as to impede the functioning of a drainage system that is:
  - (a) Publicly maintained; or
  - (b) Located on private property and is a part of a drainage system serving more than one (1) property owner when such system exists for the benefit of other land owners or has historically provided drainage.
- (3) It shall be illegal and subject to the penalties provided herein for any person, corporation, or association responsible for maintenance of a drainage system or component of a drainage system to fail to maintain that system or component of a drainage system that is:
  - (a) Publicly maintained; or
  - (b) Located on private property and is a part of a drainage system serving more than one (1) property owner when such system exists for the benefit of other land owners or has historically provided drainage; or
  - (c) Constructed as part of an issued Type A or Type B Stormwater Management System Permit or other development order.

Title IX LAND DEVELOPMENT REGULATIONS

- (4) Unless otherwise permitted, it shall be illegal and subject to the penalties provided herein for any person to discharge any fluid discharge from a washing machine or any mechanical device into any stormwater management system.
- (5) It shall be illegal and subject to penalties provided herein for any person to directly or indirectly increase the flow of runoff from a property without attaining the required permits, attaining legal easements over private property or directing flow to established rights of ways or drainage easements as allowed.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 91-48, § 48, 12-4-91; Ord. No. 2005-031, § 1, 9-6-05; Ord. No. 2012-036, § 3, 11-6-12)

**Section 930.06. Exemptions.**

- (1) The following activities shall be exempt from the permitting requirements of this chapter:
  - (a) The construction of an individual detached single-family residence ~~(RSF)~~, duplex, triplex, or quadraplex residences, together with accessory structures, provided that said residences and accessory structures are not located in special flood hazard areas, as identified in section 930.07(1)(s). The provisions of sections 912.08, 930.073 or others as defined, however, will be applicable. When located in a special flood hazard area, the applicant shall be required to obtain a flood management system permit (Type C) which shall be issued upon the applicant demonstrating compliance with section 930.07(2).
  - (b) Agricultural Activities as defined under Florida Statutes 403.927(4)(a) which have established and follow Best Management Practices~~Bona fide agricultural uses~~ except when an artificial drainage system will be used to increase the flow of surface water from the applicant's land to a county maintained drainage system, or when the particular agricultural activity~~use~~ requires site plan approval.
  - (c) Livestock watering or cooling ponds that conform to the following:
    - 1. Shall have a maximum depth of four (4) feet from normal water table elevation and not exceeding 0.25 acres per 10 acres or less of a tract. A 20-acre tract may have two (2) livestock watering ponds. Larger tracts with an agricultural classification may have additional livestock watering or cooling ponds of various sizes as is customarily accepted with Best Management Practices as defined by the Florida Department of Agriculture or St. John's Water Management District.
    - 2. In no case may a livestock watering or cooling pond discharge directly to natural streams or water control district maintained canals or ditches except by overland runoff unless an Environmental Resource Permit is attained or other Best Management Practices implemented and does not increase the flow of surface water to a county maintained drainage system.
    - 3. Excavated material shall be used for the purpose of livestock staging areas for pond access.
    - 4. Larger ponds in a special flood hazard area shall attain a Type C permit in accordance with Chapter 930.
    - 5. Any exempt pond and its placement of fill shall be brought into compliance with these floodplain regulations at such time when a Type B or C Stormwater Management Permit is required for the site.
  - (d)~~(e)~~ Maintenance work performed on existing mosquito control canals or impoundment areas.
  - (e)~~(d)~~ Any maintenance, alteration, renewal, repair, use or improvements of an existing structure which does not change or affect rate or volume of stormwater runoff or the construction of any structure or addition thereto which does not create an impervious surface exceeding ten (10)

Title IX LAND DEVELOPMENT REGULATIONS

percent of the site or five thousand (5,000) square feet, whichever is less, and which is enforceable under Chapter 914 of the Indian River County Code. This threshold is cumulative from the time of the first Stormwater Management System Type A or B permit or from the release of the first Administrative or Minor Site Plan Approval in accordance with Chapter 914 of the Indian River County Code.

~~(f)(e)~~ All activities by a water management district, drainage district, or water control district established under the laws of the State of Florida and all activities undertaken by the State of Florida, Indian River County, or any incorporated municipality within Indian River County, within their respective easements and rights-of-way. Public works department stormwater division shall be notified of any new projects prior to construction.

~~(g)(f)~~ Any activity or development project which can be demonstrated by the applicant, in accordance with section 930.15 hereof, to have vested rights.

- (2) This chapter shall not be construed to prevent any act otherwise lawful and necessary to prevent material harm to or destruction of real or personal property as a result of a present emergency, including but not limited to fire, infestation by pests, or hazards resulting from violent storms or hurricanes or when the property is in eminent peril and the necessity of obtaining a permit is impractical and would cause undue hardship in the protection of the property.

A report of any such emergency action shall be made to the ~~department of public works~~ department by the owner or person in control of the property upon which emergency action was taken as soon as practicable, but not more than ten (10) days following such action. Remedial action may be required by the ~~director of public works~~ director subject to appeal to the board of county commissioners in the event of dispute.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 92-39, § 24, 9-29-92; Ord. No. 2005-031, § 1, 9-6-05; Ord. No. 2012-036, § 3, 11-6-12)

**Section 930.07. Review criteria for all development projects.**

- (1) *Stormwater management system permit (Type A).* When a development project is determined not to be within a flood hazard area, a Type A stormwater management system (SWMS) permit shall be required, and the project shall meet the following criteria:

(a) The design of the on-site stormwater management system and of any off-site stormwater management system improvements shall be based at a minimum on the impact of a twenty-five-year frequency, twenty-four-hour (25/24) duration storm event on the development project as proposed. ~~The modified Type II SCS rainfall distribution shall be used. Post development runoff shall not exceed pre-development runoff unless a maximum discharge rate has been adopted for the applicable drainage basin and the discharge does not exceed that rate. Maximum discharge rates for each basin shall be adopted by an ordinance amendment to section 930.071 herein.~~ Twenty-four-hour duration designs shall use the modified Type II SCS rainfall distribution (FLMOD). Seventy-two-hour duration designs shall use the South Florida Water Management District (SFWMD72) rainfall distribution. Ninety-six-hour duration designs shall use the St. Johns River Water Management District (SJRWMD96) rainfall distribution. Post development runoff shall not exceed pre-development runoff unless a maximum discharge rate has been adopted for the applicable drainage basin and the discharge does not exceed that rate. When located in a Water Control District or other Authority, a permit must be granted by that District allowing the predevelopment runoff to be exceeded. The pre-development discharge shall be traced and any limiting conveyance facilities shall be identified and included in the determination of the allowed runoff rate. Sites that have no downstream conveyance connections shall be designed at a minimum to retain the twenty-five-year frequency, twenty-four-hour duration (25/24) storm event.

Title IX LAND DEVELOPMENT REGULATIONS

Maximum discharge rates for each basin shall be adopted by an ordinance amendment to section 930.071 herein.

A stormwater report with an Engineer defined drainage basin Summary Table shall be provided with all Stormwater Type A and Type B Permit applications. The Summary Table shall identify at a minimum:

1. Comparison of the pre-development and post development twenty-five-year frequency, twenty-four-hour duration (25/24) or other applicable design storm event discharge;
2. Comparison of the Special Control District and post development twenty-five-year frequency, twenty-four-hour duration (25/24) or other applicable design storm event volumetric discharge (if applicable);
3. Minimum perimeter elevation;
4. Post development twenty-five-year frequency, twenty-four-hour duration (25/24) or other applicable design storm event elevation;
5. Post development one-hundred-year frequency, twenty-four-hour duration (100/24) storm event elevation.

For developments with proposed building construction, the Summary Table shall also identify for comparison:

1. Flood Insurance Study, Flood Insurance Rate Map or other hydraulic report defining design or base flood elevation;
2. Post development one-hundred-year frequency, seventy-two-hour duration (100/72) storm event elevation;
3. Proposed or existing elevation of the crown of road;
4. Minimum proposed finished floor elevation or lowest floor elevation, as applicable, determination aided by using the Finished Floor Elevation Criteria Worksheet, Tables 930.1A, 930.1B and 930.1C.

For developments with greater than one-half (0.5) cumulative acres of wet detention/retention ponds, the Summary Table shall also identify:

1. Minimum wet detention/retention pond maintenance area elevation.

For new subdivisions, the Summary Table shall also identify for comparison:

1. Post development ten-year frequency, twenty-four-hour duration (10/24) storm event elevation;
2. Proposed maximum lot percentage below the ten-year frequency, twenty-four-hour duration (10/24) storm event elevation.

For developments including or utilizing existing drainage easements and/or right-of-ways, the Summary Table shall also identify for comparison:

1. Minimum existing drainage easement and/or right-of-way elevation(s);
2. Post development three-year frequency, twenty-four-hour duration (3/24) storm event elevation.

(b) Stormwater Calculation reference design standards include:

1. Florida Department of Transportation (FDOT) Drainage Manual (latest edition)
2. St. Johns River Water Management District (SJRWMD) Environmental Resource Permit (ERP) Applicant Handbook (latest edition)
3. South Florida Water Management District (SFWMD) Environmental Resource Permit Applicant Handbook (latest edition)
4. United States Department of Agriculture; Natural Resources Conservation Service "National Engineering Handbook" (latest edition), and any associated cross references.



Title IX LAND DEVELOPMENT REGULATIONS

- ~~(b) The hydrologic computations for the stormwater management system shall be based on full hydrograph generation for the development project and contributory area utilizing such methods as published by the Soil Conservation Service (USDA, SCS, "National Engineering Handbook", Section 4, Hydrology: 1985 and "Urban Hydrology for Small Watersheds", Technical Release No. 55: 1986). For projects of less than twelve (12.0) acres, the rational method of runoff computation is satisfactory. The rainfall intensity duration frequency curves provided in Volume 2 Procedures Florida Department of Transportation (FDOT) Drainage Manual are hereby incorporated as a part of this chapter and shall be used in making all required hydrologic computations.~~
- (c) All projects shall meet applicable stormwater quality treatment requirements of the SJRWMD. Retention or detention with filtration of the runoff from a minimum of the first one (1) inch of rainfall shall be provided on-site. Credit for soil storage shall be given in retention of the first one (1) inch of rainfall. Detention with filtration or retention shall be provided on-site for the initial one (1) inch of rainfall plus additional stormwater runoff generated by the development project over and above that generated by the site prior to the proposed development unless there is a legal positive outfall available that has sufficient capacity to accept the additional runoff. All discharges from non-residential sites within one (1) mile of the Indian River Lagoon shall be designed to retain the first one and one-half (1½) inches of rainfall on-site before discharge into a legal positive outfall, or the Indian River Lagoon except when SJRWMD has more stringent requirements.
- (d) Retention or detention facilities shall be constructed in such a manner as to maximize utilization of available percolation capabilities on the site for recharge enhancement and to minimize mosquito breeding by being shallow, and easy to maintain. Such facilities shall have a skimmer mechanism ~~if required by the SJRWMD. All discharges to conservation areas, wetlands or a Municipal Separate Storm System (MS4) shall have a skimmer or baffle mechanism to reduce offsite discharge of sediment and debris during design discharge.~~ Stormwater management facilities which are to be dedicated to the county shall not penetrate the groundwater table. Private wet retention/detention systems shall also meet the following criteria:
- ~~1. The applicant shall provide an Environmental Resource Permit from the SJRWMD, Florida DEP or other applicable agency that the direct connection to the groundwater table, as proposed, be allowed. Self-certification is not acceptable; The applicant shall provide a water quality certification from the SJRWMD or Florida DEP that the direct connection to the groundwater table, as proposed, will not significantly detract from the quality of the groundwater. If the size of the development project is below SJRWMD or DEP thresholds, this certification may be waived;~~
  2. The site shall not be located on the primary sand ridge or in designated shallow aquifer recharge areas as delineated on ~~Figure 3.D.2 of the natural groundwater aquifer recharge sub-element of the county's comprehensive plan as reviewed and enforced by County Environmental.~~
  3. Littoral zones shall be provided in accordance with Chapter 934 of this Code.
  4. Where private wet retention/detention systems have a surface water area greater than one (1) acre at normal pool elevation the stormwater run-off contained in such ponds may be used for irrigation purposes. Systems having a surface area less than one (1) acre at normal pool elevation may not be used for irrigation purposes unless permitted by the County, SJRWMD and local Water Control District as a stormwater harvesting pond. ~~Where ponds are greater than one (1) acre in area at normal pool elevation, the stormwater run-off contained in such ponds may be used for irrigation purposes.~~
  5. When~~As~~ the SJRWMD requirements for treatment are equal to or more stringent than the county's, the issuance to the applicant of an Environmental Resource Permit from SJRWMD, Florida DEP or other applicable agency appropriate SJRWMD permit, exemption, or waiver for the subject development shall be sufficient and conclusive to show that all water quality treatment standards contained in this code are satisfied. For issuance of a Type A, B or C

Title IX LAND DEVELOPMENT REGULATIONS

permit, the applicant must show adherence to other sections of this code related to flood regulation, water rate and quantity discharge regulation and other appropriate regulations contained herein.

- (e) Discharges from the development project shall be conveyed to a point of legal positive outfall. Tailwater stages of receiving waters ~~shall~~must be taken into account in design, and off-site conveyance improvements, cleaning, clearing or enlargement of existing downstream facilities may be required.
- (f) Dry detention and dry retention criteria:
  - 1. A dry detention area shall have an outlet device, and the elevation of that device shall not be lower than the elevation of the off-site receiving channel or water body unless protected by a suitably designed flap gate. If the project site has direct outfall to an agency system, the use of a flap gate must be approved by that agency.
  - 2. The bottom elevation of a dry detention/~~retention~~ ~~or system or area~~ used for storage, must be a minimum of one (1) foot above the established wet season water table.
  - 3. The model used to design the dry detention/~~retention~~ system must be capable of providing a graphic depiction of the vertical and horizontal dimensions of the groundwater mound.
  - 4. The groundwater mound model must consider the boundaries of the property that is being developed. Dry detention/~~retention~~ system must be situated such that a minimum of two thirds of the mound does not encroach beyond the boundary of the property being developed.
  - 5. If soil replacement is required in order for the dry detention/~~retention~~ system to meet the intended design performance criteria and the groundwater mound extends beyond the soil exchange the area outside of the soil exchange must be calculated using hydraulic conductivities based on soil borings.
  - 6. The drawdown for the dry detention system must be accomplished by flood routing the design storm event hydrograph thru the dry detention system. The flood routed system must drawdown to an elevation that is below the bottom of the dry detention area within 72 hours after the end of the twenty-five-year frequency, twenty-four-hour duration (25/24) storm event [i.e. hour 96 of the entire storm event].
  - 6. The drawdown for the dry retention system must be accomplished by flood routing the design storm event hydrograph thru the dry retention system. The flood routed system must drawdown to an elevation that is below the bottom of the dry retention area within 72 hours after the end of the twenty-five-year frequency, twenty-four-hour duration (25/24) storm event [i.e. hour 96 of the entire storm event].
  - 7. Soil exchanges: require calculations, from an accepted empirical formula, or through laboratory analysis by a Geotechnical engineer, to estimate the hydraulic conductivity and other critical characteristics of a commercially available granular soil.
  - 8. Soil exchanges: Prior to certification provide a minimum of two soil borings. One of the borings must be in the dry detention/~~retention~~ system and one of the borings must be at a random location within the groundwater mounding area to confirm that the soil exchange meets the design criteria.

Title IX LAND DEVELOPMENT REGULATIONS

- (g) Where permitted, open drainage-ways shall retain natural design characteristics and be so designed and protected that they do not present a hazard to life or property. The design shall include measures to protect against scour and erosion and provide for stable side slopes. Whenever possible, such waterways shall provide for adequate flushing action by prevailing winds and currents to ensure the prevention of stagnant water and debris accumulation.
- (h) Disposition of stormwater runoff. The stormwater management system for developments located predominantly on excessively drained soils shall maximize stormwater infiltration. This shall be accomplished through the use of bottomless inlets, perforated pipes, under drains, grading to retard runoff, natural or artificial retention or detention basins, or other methods, depending on the characteristics of the land area. Specific guidelines are as follows:
1. Areas and lots shall be developed to maximize the amount of rainfall ~~that~~ which is percolated into the soil and to minimize direct overland runoff into adjoining streets and water courses. Stormwater runoff from roofs and other impervious surfaces shall be diverted into swales, or terraces on the lot.
  2. Street drainage shall be by grassed swales, where allowed, or curb and gutter in accordance with county specifications. All curb and gutter systems shall discharge or direct water into a central stormwater tract or across a grassed swale area or other filtering medium.
  3. Whenever practical, as indicated by soil characteristics, water table elevation, and topography, the overflow from any swale used shall be diverted to percolation areas, ponding areas or natural or artificial seepage basins of sufficient capacity to retain and provide for the maximum infiltration of stormwater runoff from each drainage area for the design storm. Temporary inundation of parking areas is permissible.
  4. Whenever practical, ~~except in those development projects where temporary ponding is allowable pursuant to section 930.07(1)(k),~~ each percolation or retention area shall include positive drainage facilities which provide for drainage to a public outfall, a lake, or a watercourse to handle the runoff from storms of longer duration and severity than the design storm.
  5. The area surrounding retention or detention basins is recommended to be used as public or private open space and shall be grassed.
  6. ~~Soil classification shall be by Table 7-1, "Criteria for assignment of hydrologic soil group (HSG)" found in Chapter 7 of the National Engineering Handbook (latest edition). The Soil Survey of Indian River County, Florida, published by the US Department of Agriculture: 1987, shall be the document to determine soil classification in this chapter. Such soil classification shall be modified by on-site testing and engineering evaluation.~~
  7. ~~Flood routing analysis for all new local road facilities shall show that the water elevation shall at no time during the design storm duration exceed an elevation that would:~~
    - a. ~~Permit floodwater encroachment outside existing drainage easements, or right-of-way for a three-year/twenty-four-hour duration storm;~~
    - b. ~~Place more than twenty (20) percent of the front or rear yard area below the flood water elevation at any time during the ten-year/twenty-four-hour duration storm;~~
    - c. ~~Be two (2) inches or more above the lowest the roadway for a twenty-five-year/ twenty-four-hour duration storm;~~
    - d. ~~Be six (6) inches or less below the finished floor elevation of any structure for either a twenty-five-year, twenty-four-hour (25/24) duration storm or a one-hundred-year, three-day (100/72) duration storm, based on which such storm has the higher water elevation.~~

Title IX LAND DEVELOPMENT REGULATIONS

78. All new storm sewers discharging into any canal or receiving water body shall be designed to convey the permitted discharge after tailwater conditions are considered.
- ~~9.~~ ~~All bridges will be designed with the lowest member above the twenty-five year, twenty-four-hour (25/24) and one hundred year, three day storm (100/72) events, or as otherwise directed by the governing water body agency.~~
840. All proposed culverts or structures within all F.S. Chapter 298 Water Control Districts' rights-of-way or easements shall be approved by the applicable water control district. Those proposed culverts or structures or shall be designed according to the water control districts' published requirements prior to issuance of a stormwater management system or right-of-way permit. In the event standards differ, the more stringent shall apply.
942. Open channels and swales
- a. In all subdivisions not having a centralized stormwater management system, all side lot and rear lot drainage swales shall be a minimum of twenty (20) feet wide, ten (10) feet on each side of side lot lines. The approval of this type of system is at the discretion of the county public works director and shall be considered only when the following criteria are met:
- 1) The depth of the surface layer is a minimum of seven (7) feet.
  - 2) The groundwater table is unconfined within the entire seven (7) foot depth of the soil column.
  - 3) The soils throughout the seven (7) foot layer is all classified as: Unified Classification of SP, SP-SM; AASHTO A-3 throughout the entire seven (7) foot depth. The AASHTO A-3 designation is modified as follows:
    - a) The percentage of the soil passing through the US Standard No. 4 sieve, nominal size of 4.75 mm or less, is 100%
    - b) The percentage of the soil passing through the US Standard No.10 sieve, nominal size of 2.0 mm or less, is 100%
    - c) The percentage of the soil passing through the US Standard No.40 sieve, nominal size of .425 mm or less, is 80-100%.
    - d) The percentage of the soil passing through the US Standard No. 4 sieve, nominal size of 4.75 mm or less, is 100%
    - e) The percentage of the soil passing through the US Standard No. 200 sieve, nominal size of .075 mm or less, is 1-4.5%
  - 4) The Seasonal High Groundwater Table (SHGWT) is at least 24 inches below the surface.
  - 6) The permeability saturation value is greater than 25 feet per day.
  - 7) Landscaping and vegetation:
    - a) New landscaping is not placed in drainage easements or tracts containing the swales.
    - b) Existing trees may be allowed if clear from five (5) feet of swale center and limited in quantity.
    - c) Scrub vegetation is not allowed unless the area is used as retention/detention and considered in the stormwater management calculations as lost surface storage.
  - 8) No above ground utilities is placed in drainage easements.
- b. New subdivisions with lots smaller than sixty-five thousand (65,000) square feet, shall not use front, rear or side lot swales as a method for stormwater runoff treatment or storage unless all of the criteria in 930.07(1)(h)9.a. is met and a ten (10) foot setback to drainage easement line from buildings, driveways, parking areas, pools and porches is provided.

Title IX LAND DEVELOPMENT REGULATIONS

- c. Open Channels and swales for runoff transference (conveyance) are allowed and shall be designed to maintain a minimum elevation above the twenty-five-year, twenty-four-hour storm event (one (1) foot above twenty-five-year, twenty-four-hour storm is recommended) and contain positive flow with a (minimum slope of three-tenths (0.3) percent. Open channels and swales serving more than one property owner shall be located within easements that are a minimum of fifteen (15) feet wide for access and maintenance.
  - d. Open channels or swales established for perimeter conveyance of historical flow, which are wholly located within a new development, shall be located within easements that are a minimum of fifteen (15) feet wide for access and maintenance. When historical conveyance is shared between adjacent property owners, the easement may be reduced to a minimum of ten (10) feet wide for access and maintenance. Public works director may authorize changes to historical discharge easements only when other recorded agreements made between adjacent property owners meet the intent of the code. Calculations for the design storm event are required to show historical discharge is maintained. The 100 Year event shall be used for the protection of existing structures when the structure is reliant on historical discharge.
  - e. Open channels or swales not used for side lot drainage shall meet side slope requirements of the county and any other agency that may employ such criteria. Side slopes shall be three-foot horizontal to one-foot (3:1) vertical. Walls or other slope reinforcement may be utilized if designed for safety, maintenance access, and permitted by the County. Reinforcement shall not allow for the reduction of easement widths.
  - f. Swales if allowed to be used for infiltration of runoff shall include infiltration rates determined in accordance with Double-Ring Infiltrometer (DRI) test (ASTM D3385), or latest acceptable ASTM standard to prove preliminary design and to meet post development construction requirements.
11. ~~In all subdivisions not having a centralized stormwater management system, all side lot and rear lot drainage swales shall be a minimum of twenty (20) feet wide, ten (10) feet on each side of side lot lines. The approval of this type of system is at the discretion of the county public works director and shall be considered only along the crest of the one-mile Atlantic coastal ridge or barrier island where excessive soil permeability exists.~~
12. ~~New subdivisions located in flood hazard areas or with lots smaller than sixty-five thousand (65,000) square feet, shall not use front, rear or side lot swales as a method for stormwater runoff treatment, except as provided for below. Swales for runoff transference (conveyance) are allowed and shall be designed to maintain a minimum elevation above the twenty-five-year, twenty-four-hour storm event (one (1) foot above twenty-five-year, twenty-four-hour storm is recommended) and contain positive flow (minimum slope of three-tenths (0.3) percent. At the discretion of the public works director, subdivisions not located in a special flood hazard area and having lots less than sixty-five thousand (65,000) square feet in size may obtain a waiver from these swale prohibitions and restrictions, in part or whole, based on site and soil conditions. Waivers will be limited to sites located on the barrier island and the Atlantic coastal ridge running just west of U.S. Highway 1.~~

Title IX LAND DEVELOPMENT REGULATIONS

1013. All new developments located in the shallow aquifer recharge areas delineated on identified in Figure 3.D.2 of the natural groundwater aquifer recharge sub element of the county's comprehensive plan as determined by County Environmental shall retain the increase in run-off volume resulting from a twenty-five-year, twenty-four-hour storm event.

1144. All slopes greater than six (6) horizontal to one (1) vertical shall be stabilized with sod seeded. Flatter slopes, depending on site-specific design, may also be required to be stabilized with sod seeded as part of the stormwater management system permit. The public works director, through the county stormwater permit process, may require sodding of flatter slopes if warranted by site or design characteristics.

~~(i) Material specifications for culverts and storm sewers. The following pipe materials are acceptable:~~

- ~~1. Reinforced concrete pipe, fiber reinforced concrete pipe, bituminous coated corrugated steel pipe, aluminum pipe, aluminum pipe arch, bituminous coated structural plate steel pipe, bituminous coated steel pipe arch, and HDPE N-12. Other pipe materials may be used, if approved for the intended use by the Florida Department of Transportation. The minimum diameter of single family residential driveway or stormwater management system discharge culverts shall be twelve (12) inches or its cross-sectional equivalent;~~
- ~~2. Workmanship and pipe materials shall conform to FDOT Standard Specifications, latest edition;~~
- ~~3. FDOT approved pipe material shall be used under county right-of-way pavement and into salt water outfalls. Concrete for reinforced concrete box culverts shall conform to FDOT Standard Specifications, latest edition;~~
- ~~4. Design and spacing of inlets shall be in accordance with FDOT Standard Specifications, latest edition, or Indian River County Specifications.~~

~~(j) Drainage structures. All cross drains and storm sewers shall have headwalls, flared end sections, or terminating structures in accordance with Indian River County Specifications or FDOT Standards Specifications, latest edition. Endwalls, inlets, or other appropriate terminating and intermediate structures and backflow devices may be required where necessary. Exfiltration systems shall be equipped with clean outs at all terminating points.~~

~~(i)(k) Parking lots shall have no more than two (2) inches of ponding above the lowest adjacent catch basin (inlet) elevation for a ten-year, twenty-four-hour (10/24) duration storm. Temporary ponding is allowable in areas specifically designed with high percolation rates (such as east of SR A-1 A on the Barrier Island). The design shall be such that ponding does not last more than eight (8) hours. Temporary ponding in parking lots is permissible, if of shallow depth.~~

~~(l) Materials used in drainage facilities which cross, traverse, or encroach upon major roads as depicted on the Indian River County Thoroughfare Plan shall be of FDOT approved materials, acceptable to the Indian River Public Works Director and designed for a minimum fifty year life.~~

~~(j)(m) 1.(4) All stormwater facilities shall be established in dedicated stormwater management tracts, easements, or specified common areas. All new residential lots shall be graded in such a manner that runoff is directed toward the master stormwater management system unless an alternate plan is approved by the public works director. For subdivisions, the plat and any homeowners' association documents, property owners' association documents, condominium documents, deed restrictions, or other legally binding instruments shall describe the location of such areas, shall specifically define the mechanism for preservation and maintenance of any private drainage systems, and shall identify an entity responsible for perpetual maintenance and preservation.~~

2.(2) All stormwater management tracts shall be designed to consider ease of maintenance.

(a) All wet retention/detention stormwater management tracts (not including swales) greater than one-half (0.5) cumulative acres at control elevation, shall include a maintenance area

Title IX LAND DEVELOPMENT REGULATIONS

free of obstructions except as otherwise provided below. The maintenance area shall have a slope not steeper than eight-foot horizontal to one-foot vertical (8:1) and shall be a minimum of fifteen (15) feet wide, completely around and outside the area submerged by the twenty-five-year, twenty-four-hour design stormwater elevation. Within residential developments, the maintenance area shall be located entirely within the stormwater management tract and shall not be part of any lot. If proposed lots or tracts are to be under separate ownership, then the maintenance area shall be connected to an ingress-egress or other appropriate easement, or public right-of-way, having a minimum width of fifteen (15) feet. ~~Open channels and swales in single-family residential developments shall be located within easements that are a minimum of fifteen (15) feet wide for access and maintenance.~~

(b) All stormwater management areas not meeting the threshold in 930.07(m)(2)(a) and designed to hold greater than two-feet of water during the twenty-five-year frequency, twenty-four-hour duration (25/24) design storm shall have accessible maintenance pathways which are free of obstruction. Drainage calculations shall consider all proposed plant materials at full maturity for stormwater treatment and storage.

(c) No plant material shall be located within swales from the top of bank to top of bank unless specifically permitted.

~~3.(3)~~ The requirement of a maintenance easement area and the prohibition of obstructions in subsection ~~(k)(2)(a)(m)(2)~~ may be waived in part or in whole by the public works director based on site and design characteristics, which may include the following:

~~a~~4. The ability to maneuver and operate maintenance equipment as necessary;

~~b~~2. Preservation of existing trees and native vegetation; and

~~c~~3. Proposed landscaping improvements. Generally, landscaping within the maintenance area must be designed using groups of plantings not exceeding fifty (50) feet in length with a minimum separation of one hundred (100) feet between planting groups. Between such groupings a ten-foot wide access path shall be maintained. The county shall not be responsible for restoration of any damage to the landscaping that may occur in the event the county performs maintenance within the maintenance area.

~~4.(4)~~ The design of retention or detention facilities ~~within a single-family residential development~~ shall meet slope requirements of the county and any other agency that may employ such criteria. ~~Wet retention or wet detention facilities~~ Such retention or detention facilities designed to impound more than two (2) feet of water shall be graded to slopes no steeper than four-foot horizontal to one-foot vertical (4:1) to a minimum depth of two (2) feet below the control elevation, or a properly designed retaining wall shall be used. Dry retention or dry detention facilities ~~Drainage systems that will not impound more than two (2) feet of water shall not exceed slopes of three-foot horizontal to one-foot vertical (3:1) provided the underlying soils are well drained and the system is designed for ease of maintenance, unless otherwise approved by the county or provided for under specific design criteria by other sections of the land development regulations. Walls or other slope reinforcement may be utilized in dry retention or detention facilities if that area is not considered in an infiltration analysis, is designed for safety and permitted by the County.~~

~~(5)~~ ~~Drainage systems, in all developments other than single-family residential developments, shall maintain maximum slopes of two (2) horizontal to one (1) vertical for swales less than or equal to two (2) feet deep and three (3) horizontal to one (1) vertical for all swales more than two (2) feet deep.~~

~~5.(6)~~ All retention/detention pond Dry retention slopes and wet retention slopes above the design normal or control water elevation shall be grassed or otherwise stabilized with hardscapes. Dry pond bottoms are preferred to be seeded or covered with sandy grown sod however they may be designed to remain barren for infiltration purposes if the effect of windblown erosion and clogging of outfall structures are considered. Stormwater facilities

Title IX LAND DEVELOPMENT REGULATIONS

used for water quantity or quality storage Retention or detention ponds with any area having more than two (2) feet of water at the twenty-five-year frequency, twenty-four-hour duration (25/24) design storm or permanent pool, with the exception of ponds or lakes in golf courses, public parks or in developments in which the pond or lake is designed to serve as an aesthetic amenity to the development, shall be fenced with a minimum four-foot high fence as determined by the public works director.

6.(7) Maintenance areas shall not be required along shorelines adjacent to littoral zones, provided that maintenance access is not inhibited to the remainder of the stormwater management tract. Such access may be provided by means of an easement around the littoral zone, an ingress--egress easement of a minimum width of fifteen (15) feet, a turn-around area within the maintenance area, or as otherwise approved by the public works director or his designee.

(k)(n) In watershed areas where the county has adopted a stormwater management master plan, all proposed facilities shall be in conformance with the adopted plan.

(l)(o) Stormwater systems connected to F.S. Chapter 298 Water Control Districts' facilities shall be designed to discharge no more than the maximum discharge rate for each respective basin and shall be compatible with the objectives of each district.

(m)(p) Rainfall runoff from roads, parking lots, roofs, and other impervious surfaces shall be directed to areas where percolation into the soil can be accomplished prior to introduction into any off-site receiving facilities. Pervious areas in the drainage path shall be covered with grass or suitable ground cover which act as effective filtering characteristics.

(n)(q) The stormwater management system shall handle all stormwater that flows into, through and from the project without creating adverse impacts on other lands served by the stormwater management system or by the receiving waters relative to flooding, erosion hazards, or water quality and quantity. Major site plans and subdivisions shall be designed to consider perimeter drainage by providing topographic information a minimum of 50 feet beyond site property boundaries or further to determine contributing runoff unless other information is provided and accepted by the public works director. A minimum of one elevation shall be provided at each adjacent offsite perimeter property corner or every 75 feet, whichever is less.

(o)(r) No permit required by this chapter shall be issued for any development project which is designed to discharge directly into or through an outfall discharging into "Outstanding Florida Waters" designated by Florida Statute 403.061(27), unless the system is designed in accordance with the following criteria and the criteria of the St. Johns River Water Management District, in addition to all criteria otherwise stated by this section:

1. Runoff from roads, parking lots, roofs, and other impervious surfaces shall be directed to grass swales prior to entering a detention system unless off--line treatment or central treatment is provided;
2. The system shall be designed in a manner complying with the requirements of Florida Administrative Code Chapter 62-4.242, as amended from time to time, and the applicant shall provide the Florida Department of Environmental Protection (FDEP) or other applicable regulating agency documentation and proof of such compliance.

(p)(s) The applicant shall demonstrate that the development project is not being treated as a special flood hazard area in accordance with Chapter 930. ~~in a special flood hazard area, as defined in Chapter 904.~~

(q)(t) Provisions applying to re-development of existing development.

1. When existing paved local roads are being resurfaced or rebuilt, the lowest edge crown of the road shall be raised to a minimum elevation of the five-year frequency, twenty-four-hour duration (5/24) storm event. ~~two-year/twenty-four-hour storm event.~~ The center two (2) lanes



Title IX LAND DEVELOPMENT REGULATIONS

of rebuilt arterial and collector roads shall be at the minimum elevation of the twenty-five-year frequency, twenty-four-hour duration (25/24) storm event. ~~ten-year/twenty-four-hour storm event.~~

2. An applicant who is redeveloping a currently developed site and who is required for any reason to get a major site plan approval or a major modification of an existing land development permit must demonstrate that the site has or will have a stormwater management system conforming to section 930.07(1)(a) and will meet the water quality level of service as required in section 930.07(1) for the area being re-developed. Stormwater treatment shall be provided for the increase of all proposed new impervious area and fifty (50) percent of the site's impervious area for which no runoff treatment has been previously provided. The removal of and replacement of impervious area will be treated as new impervious area for water quality treatment purposes.
3. An applicant who is redeveloping a currently developed site and who is required for any reason to get a minor site plan or administrative approval must provide stormwater treatment for the first inch of runoff for the area being re-developed. The public works director may modify this requirement based on site or design characteristics.

(r) Building and structure protection requirements.

1. The minimum finished floor elevation of new buildings and structures shall be at or above the Final Floor Design Finished Floor Elevation determined in accordance with the Finished Floor Elevation Criteria Worksheets included as Table 930.1A, Table 930.1B, or Table 930.1C, as applicable to the occupancy and flood zone.
2. Residential lots outside the floodplain (Zone X) that do not have a master drainage system, shall have no more than two (2) feet of fill proposed for foundation support unless structure setback is greater than 50 feet. A waiver of this requirement can be obtained from the public works director based on the water table, the installation of a septic drain field requiring a higher finished floor and mitigative efforts being proposed and accepted.
3. Residential lots without a master stormwater management system where the proposed finished floor elevation is greater than one foot above the surrounding existing homes shall have the property line swales located onsite with flatter than four-foot horizontal to one-foot (4:1) vertical slopes below existing property line grade. No trees or large vegetation shall be planted in the swale.
4. Retaining walls when used to raise the elevation of a residential lot more than sixteen (16) inches shall be no nearer than 10 feet to the property line unless perimeter drainage has been previously established via drainage easements, rights-of-ways or other means. The public works director may waive this requirement upon being provided technical information signed and sealed by a Professional Engineer that there will be zero impacts to neighboring properties, easements and rights-of-ways.

(s) Exfiltration and Underground Retention Systems:

1. Shall be designed with a factor of safety of 2;
2. Shall be installed in accordance with the manufacturers requirements;
3. Shall be designed a minimum of one foot above the wet season water table or control elevation if part of a combined detention/retention system;
4. Shall include skimmers, pollutant retardant baffles or other trash and sediment settling structure prior to entrance into the system;
5. Shall meet all SJRWMD requirements or design manuals;
6. Shall not account for more than 50% of design storm volumetric storage when a stormwater management system permit is required.

- (t) Dumpster pads shall be sloped to pervious areas to allow for treatment and a means of trash collection prior to ultimate discharge. When a commercial dumpster pad is proposed to be sloped over an impervious surface to a catch basin, that catch basin shall have a pollutant retardant

Title IX LAND DEVELOPMENT REGULATIONS

baffle or other structural means installed preventing discharge of debris into any stormwater management system, swale, ditch or other surface water body or means of stormwater conveyance unless requested and permitted by the County. Meeting of other state or federal regulations and guidelines are required.

(u) Stormwater Management Harvesting Systems:

1. Shall be in accordance with 930.07(1)(d)4. of this chapter;
2. Shall meet SJRWMD or other regulatory agency requirements if more stringent;
3. Shall include a twenty-five-year frequency, twenty-four-hour duration (25/24) hydraulic analysis commencing at the wet season water table elevation to show meeting of discharge, road elevations and perimeter grade requirements;
4. Shall include a twenty-five-year frequency, twenty-four-hour duration (25/24) hydraulic analysis commencing at the lowest discharge invert elevation to show road and perimeter grade requirements are met.

(2) *Flood protection requirements.* When a development project, building or structure is determined to be within a special flood hazard area as defined in County Code Chapter 901, the development, building or structure shall be subject to the requirements of this section.

(a) *Site plans and construction documents.*

1. *Information for development in special flood hazard areas (Zones A, AE, AO, AH, A1 thru A30).* The site plan or construction documents for any development subject to the requirements of these floodplain regulations shall be drawn to scale and shall include, as applicable to the proposed development:
  - a. Delineation of special flood hazard areas, floodway boundaries and flood zones, base flood elevations, and ground elevations if necessary for review of the proposed development.
    - i. ~~Where flood hazard areas,~~ 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 section 930.07(2)(a)2. b. or c. of these floodplain regulations.
    - ii. Where the parcel on which a proposed development will take place will have more than ~~ten~~ fifty (10)(50) lots or is larger than one five (1)(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 section 930.07(2)(a)2. ~~a. or b.~~ of these floodplain regulations.
  - b. Location of the proposed activity and proposed structures, and locations of existing buildings and structures; in coastal high hazard areas and Coastal A Zones, new buildings shall be located landward of the reach of mean high tide.
  - c. Location, extent, amount, and proposed final grades of any filling, grading, or excavation.
  - d. Where the placement of fill is proposed, the amount, type, and source of fill material; compaction specifications; a description of the intended purpose of the fill areas; and evidence that the proposed fill areas are the minimum necessary to achieve the intended purpose.
  - e. Delineation of the coastal construction control line or notation that the site is seaward of the coastal construction control line, if applicable.
  - f. Extent of any proposed alteration of sand dunes or mangrove stands, provided such alteration is approved by the Florida Department of Environmental Protection.
  - g. Existing and proposed alignment of any proposed alteration of a watercourse.

Title IX LAND DEVELOPMENT REGULATIONS

The floodplain administrator is authorized to waive the submission of site plans, construction documents, and other data that are required by these floodplain regulations but 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 these regulations.

2. *Information in special 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 administrator shall:
  - a. Require the applicant to include base flood elevation data prepared in accordance with currently accepted engineering practices.
  - ~~b.a.~~ 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; or
  - ~~c.b.~~ Where base flood elevation and floodway data are not available from another source, where the available data are deemed by the floodplain administrator to not reasonably reflect flooding conditions, or where the available data are known to be scientifically or technically incorrect or otherwise inadequate:
    - i. Require the applicant to ~~include develop~~ base flood elevation data prepared in accordance with currently accepted engineering practices; or
    - ii. Specify that the base flood elevation is three (3) 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 three (3) feet.
  - ~~d.e.~~ Where the base flood elevation data are to be used to support a letter of map change from FEMA, advise the applicant that the analysis shall be prepared by a Florida licensed engineer in ~~the~~ 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 site plans 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 section 930.07(2)(a)4. of these floodplain regulations and shall submit the Conditional Letter of Map Revision (CLOMR), if issued by FEMA, with the site plan and construction documents. No Stormwater Management System Permit may be released without FEMA issued CLOMR.
  - 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 a floodway encroachment analysis ~~encroachment analysis~~ which demonstrates 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

Title IX LAND DEVELOPMENT REGULATIONS

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 section 930.07(2)(a)4. of these floodplain regulations.
  - d. For activities that propose to alter sand dunes or mangrove stands in coastal high hazard areas (~~Zone V~~) and Coastal A Zone, an engineering analysis that demonstrates that the proposed alteration will not increase the potential for flood damage.
  - e. Copies of analyses and correspondence submitted to FEMA shall be provided to the floodplain administrator.
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.
- (b) *Buildings and structures.*
1. *Design and construction of buildings, structures and facilities exempt from the Florida Building Code.* Pursuant to section 930.08(2)(b) of these floodplain regulations, 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 section 930.07(2)(h) of these floodplain regulations.
  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 these floodplain regulations and ASCE 24.
  3. *Minimum elevation requirements for buildings.* Minimum elevation requirements for buildings shall be determined by completion of the Finished Floor Elevation Criteria Worksheets included as Table 930.1A, Table 930.1B, and Table 930.1C, as applicable to the flood hazard area. For the purposes of the Finished Floor Elevation Criterial Worksheets, the Regulatory Flood Elevation is the highest water elevation specified in the Worksheets. Where studies approved by the County indicate base flood elevations are:
    - a. Higher than base flood elevations in the Flood Insurance Study or on FIRMs, the higher base flood elevations shall be used considered as the Regulatory Base Flood Elevation.

Title IX LAND DEVELOPMENT REGULATIONS

- b. Lower than the base flood elevations in the Flood Insurance Study or on FIRMs, the lower elevations shall not be used unless the applicant has obtained a Letter of Map Change from FEMA.
  - 4. Accessory structures. Accessory structures are permitted below the base flood elevation provided the accessory structures are used only for parking or storage and:
    - a. If located in special flood hazard areas other than coastal high hazard areas and Coastal A Zones, are one-story and not larger than 600 sq. ft. and have flood openings in accordance with Section R322.2 of the Florida Building Code, Residential.
    - b. If located in coastal high hazard areas and Coastal A Zones, are not located below elevated buildings and are not larger than 100 sq. ft.
    - c. Are anchored to resist flotation, collapse or lateral movement resulting from flood loads.
    - d. Have flood damage-resistant materials used below the base flood elevation plus 18 inches.
    - e. Have mechanical, plumbing and electrical systems, including plumbing fixtures, elevated to or above the base flood elevation plus 18 inches.
  - 5. Critical facilities. New critical facilities shall, to the extent feasible, be located outside of the special flood hazard area and outside of the 0.2% annual chance flood hazard area (500-year floodplain). If documentation is provided that feasible sites which satisfy the objectives of a proposed critical facility and are outside of the special flood hazard area and outside of the 500-year floodplain are not available, then the critical facility shall be elevated or dry floodproofed to the 500 year flood elevation or base flood elevation plus three (3) feet, whichever is higher.
  - 6. Any new Major Site Plans which propose changing the boundary of a Special Flood Hazard Area shall have submitted an application to FEMA for a LOMA, LOMR or LOMR-F prior to release of either a Certificate of Completion, Certificate of Occupancy or Certificate of Compliance by the County.
  - 7. Residential site plans or residential lots in site planned plat-over projects with five units or lots and greater shall provide an evacuation plan during the site plan process.
- (c) *Subdivisions.*
- 1. *Minimum requirements.* Subdivision proposals, including proposals for manufactured home parks, 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.
    - d. Residential subdivisions with five lots and greater shall provide an evacuation plan during the preliminary plat process.

Title IX LAND DEVELOPMENT REGULATIONS

2. *Subdivision plats.* Where any portion of a proposed subdivision, including a manufactured home park, lies within a flood hazard area, the following shall be required:
  - a. Preliminary plats ~~and final plats~~ shall delineate flood hazard areas, floodway boundaries, flood zones, and design flood elevations, as appropriate. Where a subdivision has more than ~~ten (10)~~~~fifty (50)~~ lots or is larger than ~~one (1)~~~~five (5)~~ acres and base flood elevations are not included on the FIRM, the base flood elevations shall be determined in accordance with section 930.07(2)(a)2.a. ~~or b.~~ of these floodplain regulations.
  - b. Preliminary plats and final plats shall be in compliance with the site improvement and utilities requirements of section 930.07(2)(d) of these floodplain regulations.
  - c. Each lot depicted on a preliminary plat and final plat must include a site suitable for constructing a residential building in conformity with the standards of this chapter.
  - d. ~~Two (2) or more elevation benchmarks must be established on actual exterior plat corners and indicated on the final plat. Said elevations must be referenced to the North American Vertical Datum 1988 (NAVD88) and shall be calculated to within one-hundredth (0.01) foot. A note shall be placed on the final plat, stating the published origin of the datum and elevations.~~
  - ~~(d)~~(e). Preliminary plats and final plats with a lot or lots within a flood hazard area shall have the following flood hazard warning prominently displayed on all pages of the document in bold 40 point font:

FLOOD HAZARD WARNING

"~~This~~At time of Final Plat, this property may be subject to flooding during a one hundred-year base flood event. You should contact local building and zoning officials and obtain the latest information regarding flood elevations and restrictions on development before making plans for the use of this property."
  - f. ~~Final plats shall include the following information, as applicable: boundaries of flood zones; base flood elevations; the date and panel number of the applicable current flood insurance rate map; and a notation, if applicable, that a letter of map revision had been applied for prior to final plat approval, but has not yet been granted~~
3. Any property proposed to be newly platted which changes the boundary of a Special Flood Hazard Area shall:
  - a. Have submitted application to FEMA for a CLOMR or CLOMR-F prior to release of the County Stormwater Management System Permit. Any FEMA issued CLOMR or CLOMR-F which does not meet the intended flood zone boundary changes shall require a modification to the County Stormwater Management System Permit. Properties located in a regulatory floodway shall have a FEMA issued CLOMR prior to release of a Stormwater Management System Permit as described in 930.07(2)(a)3.
  - b. Have received acceptance by FEMA of the CLOMR or CLOMR-F applied for in 3.a. above prior to release of either a Certificate of Completion, Certificate of Occupancy or Certificate of Compliance by the County.
  - c. Have submitted application to FEMA for a LOMA, LOMR or LOMR-F prior to release of either a Certificate of Completion, Certificate of Occupancy or Certificate of Compliance by the County. Elevation certificates filed for release of a Certificate of Occupancy shall meet the criteria of the underlying flood hazard area.

(d) *Site improvements, utilities and limitations.*

1. *Minimum requirements.* All proposed new development shall be reviewed to determine that:

Title IX LAND DEVELOPMENT REGULATIONS

- 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. wastewater facilities and activities in Chapter 62-620, 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. Review and permitting is the responsibility of the Florida Department of Health in Indian River County and Indian River County Department of Utility Services or other municipal utility service as the case may be.
  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., drinking water systems in Chapter 64E-8, F.A.C and ASCE 24 Chapter 7 to minimize or eliminate infiltration of floodwaters into the systems. Review and permitting is the responsibility of the Florida Department of Health in Indian River County and Indian River County Department of Utility Services, or other municipal utility service as the case may be.
  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 section 930.07(2)(a)3.a. of these floodplain regulations demonstrates that the proposed development or land disturbing activity will not result in any increase (Zero-Rise) in the base flood elevation.
  5. *Limitations on placement of fill.* Subject to the limitations of these floodplain regulations and the applicable cut and fill requirements of section 930.07(2)(i)1 of these regulations, 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. If intended to support buildings and structures (Zone A only), fill shall comply with the requirements of the Florida Building Code in addition to these requirements.
  6. *Limitations on sites in coastal high hazard areas and Coastal A Zones(~~Zone V~~).* In coastal high hazard areas and Coastal A Zones, 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 section 930.07(2)(a)3.d. of these floodplain regulations 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 section 930.07(2)(h)8. of these floodplain regulations.
- (e) *Manufactured homes.*
1. *General.* 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 these floodplain regulations. If located seaward of the coastal construction control line, all manufactured homes shall comply with the more restrictive of the applicable requirements.

Title IX LAND DEVELOPMENT REGULATIONS

2. *Foundations.* All new manufactured homes and replacement manufactured homes installed in flood hazard areas, coastal high-hazard areas, and Coastal A Zones shall be installed on permanent, reinforced foundations in accordance with the Florida Building Code, Residential Section R322 and these floodplain regulations.~~that:~~
  - a. ~~In flood hazards 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 these floodplain regulations.~~
  - 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 these floodplain regulations.~~
3. *Anchoring.* All new manufactured homes and replacement manufactured homes shall be installed using methods and practices to which minimize flood damage. Manufactured homes 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 that are located in a flood hazard area, coastal high-hazard areas and Coastal A Zones 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.~~shall comply with section 930.07(2)(e)5. or 930.07(2)(e)6. of these floodplain regulations, as applicable.~~
5. ~~*General elevation requirement.* Unless subject to the requirements of section 930.07(2)(e)6. of these floodplain regulations, 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 requirements for certain existing manufactured home parks and subdivisions.* Manufactured homes that are not subject to section 930.07(2)(e)5. of these floodplain regulations, 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 thirty-six (36) inches in height above grade.~~
- 5.7. *Enclosures.* ~~Fully enclosed~~Enclosed areas below elevated manufactured homes shall comply with the requirements of the Florida Building Code, Residential Section R322 for such enclosed areas, as applicable to the flood hazard area.
- 6.8. *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.



Title IX LAND DEVELOPMENT REGULATIONS

(f) *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 one hundred eighty (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 section 930.07(2)(f)1. of these floodplain regulations for temporary placement shall meet the requirements of section 930.07(2)(e) of these regulations for manufactured homes.

(g) *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 section 930.07(2)(g)3. of these floodplain regulations shall:
  - a. Be permitted in flood hazard areas (~~Zone A~~) other than coastal high hazard areas and Coastal A Zones, 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 and Coastal A Zones(~~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.

(h) *Other development.*

1. *General requirements for other development.* All development, including manmade changes to improved or unimproved real estate for which specific provisions are not specified in these floodplain regulations or the Florida Building Code, shall:
  - a. Be located and constructed to minimize flood damage;
  - b. Meet the limitations of section 930.07(2)(d)4. of these floodplain regulations 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;

Title IX LAND DEVELOPMENT REGULATIONS

- d. Be constructed of flood damage-resistant materials; and
  - e. Have mechanical, plumbing, and electrical systems above the design flood elevation, 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, such as stockade fences and wire mesh fences, that have the potential to block the passage of floodwaters shall meet the limitations of section 930.07(2)(d)4. of these floodplain regulations.
  3. *Retaining walls, sidewalks and driveways in regulated floodways.* Retaining walls, sidewalks and driveways that involve the placement of fill in regulated floodways shall meet the limitations of section 930.07(2)(d)4. of these floodplain regulations.
  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 (1) side of a watercourse to the other side, that encroach into regulated floodways, shall meet the limitations of section 930.07(2)(d)4. of these floodplain regulations. Alteration of a watercourse that is part of a road or watercourse crossing shall meet the requirements of section 930.07(2)(a)3.c.930.12(2)(b)3. of these floodplain regulations.
  5. *Concrete slabs used as parking pads, enclosure floors, landings, decks, walkways, patios and similar nonstructural uses in coastal high hazard areas and Coastal A Zones(~~Zone V~~).* In coastal high hazard areas and Coastal A Zones, 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 and Coastal A Zones(~~Zone V~~).* In addition to the requirements of the Florida Building Code, decks and patios in coastal high hazard areas and Coastal A Zones 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~~Final Floor Design FFE 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~~Final Floor Design FFE 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

Title IX LAND DEVELOPMENT REGULATIONS

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 and Coastal A Zones*~~(Zone V)~~. In coastal high hazard areas and Coastal A Zones, 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 and Coastal A Zones*~~(Zone V)~~. In coastal high hazard areas and Coastal A Zones:
- a. Minor grading and the placement of minor quantities of nonstructural fill (no more than one (1) foot thick) shall be permitted for landscaping and for drainage purposes under and around buildings.
  - b. Nonstructural fill with finished slopes that are steeper than one (1) unit vertical to five (5) 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.
- (i) *Additional requirements.*
1. *Cut and fill.* An equal volume of storage capacity must be created for any volume of the base flood that would be displaced by fill or structures except for the following instances:
    - a. ~~Those development projects within the special flood hazard area along the Indian River Lagoon when granted a waiver from the cut and fill balance requirements by the board of county commissioners. In the special flood hazard area of the Indian River Lagoon, an equal volume of storage capacity must be created for any volume of the base flood that would be displaced by fill or structures below elevation two and one half (2.5) feet NAVD88, or the ten-year flood elevation which has been determined in the flood insurance study, whichever is greater. The board of county commissioners may, in its~~

Title IX LAND DEVELOPMENT REGULATIONS

~~discretion, grant a waiver from the provisions of this subsection upon the affirmative showing of the applicant, by means of a competent engineering study, that the development project is situated in an estuarine environment and that the development project, as designed, will meet all other requirements of the stormwater management and flood protection chapter and will not create a material adverse impact on flood protection on other lands in the estuarine environment.~~

- ~~b. Subdivided lots of less than one (1) acre in area that existed prior to July 1, 1990. At such time as the county may create or cause to be brought into existence a stormwater utility or other entity charged with managing drainage concerns, the requirements of this section will apply for lots less than one (1) acre in area existing prior to July 1, 1990, if the utility or entity has the authority to compensate for fill added in special flood hazard areas by administering a program that causes compensation for fill added on individual lots to be mitigated by contribution to an off-site mitigation fund for a central facility or facilities, owned by the county, the stormwater utility, or other entity.~~
- ~~c. Those development projects, located in the St. John's Marsh and within either the Terra Ceia, Holopaw, Delray, Canova, Gator, or Floridian soil types (as described in the United States Department of Agriculture Soil Conservation Service Soil Survey of Indian River County, latest edition) for which a cut and fill waiver has been granted by the board of county commissioners. The board of county commissioners may, in its discretion, grant a waiver from the provisions of this subsection upon the affirmative showing of the applicant, by means of a competent engineering study, that the development project, as designed, will meet all other requirements of the stormwater management and flood protection chapter and will not create a material adverse impact on flood protection.~~
- ~~a.d. Development located within the Vero Lake Estates Municipal Services Taxing Unit as referenced in Ordinance No. 84-81, for which a cut and fill waiver has been granted by the board of county commissioners. The board of county commissioners may, in its discretion, grant a waiver from the provisions of this subsection upon the affirmative showing of the applicant, by means of a competent engineering study, that the development project, as designed, will meet all other requirements of the stormwater management and flood protection chapter and will not create a material adverse impact on flood protection.~~
- ~~b. No structure or fill shall be permitted within the limits of the floodway of the St. Sebastian River, South Prong except as provided by [section] 930.07(2)(a)3.a.~~
- ~~c. Compensatory floodplain storage may be provided at a location outside the limits of a proposed development if the location is hydraulically connected to the same floodplain basin as determined by the Floodplain Administrator. Except for passive uses, which do not alter the compensatory location, further development of the location is prohibited. The development and compensatory location shall be included in the site plan, subdivision or other applicable development approval or order. The applicant shall prepare all deed restrictions and legal binding agreements. The County Attorney shall review and record the agreements. Applicant is subject to the costs required for the review and recording by the County Attorney's standard fee schedule and procedure. A CLOMR shall be approved by FEMA prior to site plan or land development permit release. The appropriate LOMR shall be approved by FEMA prior to either final plat recording, final project certification or suspension of a project certification, whichever may come first.~~
- 2. No development will be allowed that poses a significant threat of releasing harmful quantities of pollutants to surface waters or groundwaters during flooding.

Title IX LAND DEVELOPMENT REGULATIONS

3. If fill is used for foundation support, the elevation of the soil support shall not be greater than that which would result from the erosion reasonably anticipated as a result of the design storm conditions.
  4. ~~All roads shall be set at or above the ten-year flood elevation, but in no case shall a road be constructed at an elevation below five (5) feet above sea level. All roads shall be designed to maintain drainage flow beneath the road bed so that equalization may occur.~~
  - 4.5- ~~Development projects inlf a development project is in a special flood hazard areas shall comply with, it must be demonstrated, in addition to compliance with section 930.07(2) and shall include documentation demonstrating, that:~~
    - a. The elevation or velocity of the base flood will not be increased as a result of any obstruction or displacement of flood waters.
    - b. ~~There is no significant threat of releasing quantities of pollutants which have the effect of degrading water quality below standards established in Florida Administrative Code Chapter 17-3, as amended from time to time, to surface or groundwater during the base flood.~~
    - b.e. The capacity of the special flood hazard area~~critical flood zone~~ to store and convey surface waters or perform other significant water management functions will not be impaired.
  5. Area required to be compensated for is based on the volume of proposed fill between the existing ground (or the wet season water table) and the 100-year flood elevation. Compensating storage is based on the volume of cut between the existing ground and either the wet season water table or the normal water elevation if a discharge structure provides a bleed down opening sized for water quality treatment. Compensating storage calculations may be based on 100 Year elevation studies accepted by the public works department.
- (3) *Type B stormwater management system-flood protection permit (SWMS Type B).* A Type "B" stormwater conveyance, treatment and discharge associated with development activities, other than construction of an individual detached single-family residential building or structure, on property that is partially or wholly encumbered by a special flood hazard area, ~~or~~ coastal high hazard area or Coastal A Zone. The Type "B" permit shall be issued upon the applicant demonstrating compliance with applicable criteria of section 930.07(2).
- (4) *Stormwater management and flood protection permit (Type C).* A Type "C" permit or flood protection permit is required prior to the construction of an individual detached single-family residence, duplex residence or accessory structure which is located in a special flood hazard area, coastal high hazard area or Coastal A Zone as defined in County Code Chapter 901 or for non-exempt filling and excavation. The Type "C" permit shall be issued upon the applicant demonstrating compliance with applicable criteria of section 930.07(2).

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 91-7, § 22, 2-27-91; Ord. No. 91-48, §§ 45—47, 49, 87, 12-4-91; Ord. No. 92-29, § 25, 9-3-92; Ord. No. 94-25, § 18(A)—(E), 8-31-94; Ord. No. 96-6, § 17, 2-27-96; Ord. No. 2003-006, § 1, 2-18-03; Ord. No. 2005-031, § 1, 9-6-05; Ord. No. 2007-012, § 1, 3-20-07; Ord. No. 2012-023, §§ 4—6, 7-10-12; Ord. No. 2012-036, § 3, 11-6-12)

Title IX LAND DEVELOPMENT REGULATIONS

**Section 930.071. Drainage basin maximum discharge rates.**

- (1) *Procedure.* No maximum discharge rate shall be adopted for any drainage basin over which Indian River County has jurisdiction except by ordinance. The proposed maximum discharge rate for each basin shall be workshopped prior to the scheduling of the adoption public hearings.
- (2) *Basin maximum discharge rates.* Basin maximum discharge rates shall be based on a twenty-five-year frequency, twenty-four-hour duration (25/24) storm event over a seventy-two-hour period.
- (3) *Adopted basin maximum discharge rates.* The flowing maximum discharge rates are hereby adopted:

<b>Drainage Basin</b>	<b>Maximum Discharge Rate</b>
B-1 (Beach)	
B-2 (Beach)	
B-3 (Beach)	
B-4 (Beach)	
B-5 (Beach)	
R-1 (Indian River)	
R-2 (Indian River)	
R-3 (Indian River)	
R-4 (Indian River)	
R-5 (Indian River)	
R-6 (Indian River)	
R-7 (Indian River)	
M-1 (Indian River Farms WCD)	2"/24 hours
M-2 (Sebastian River WCD)	2"/24 hours

Title IX LAND DEVELOPMENT REGULATIONS

M-3 (Sebastian/Roseland /Fleming Grant)	
M-4 (Corrigan Ranch/ Vero Lake Estates)	
M-5 (Fellsmeøre WCD)	2"/24 hours
SJ-1 (St. Johns <del>ID</del> WCD)	
SJ-2 (St. Johns Marsh)	
SJ-3 (Talbot Terrace)	
SJ-4 (Delta Farms WCD)	

- (4) Discharge from any new construction into Indian River County maintained or owned conveyance systems shall meet the following criteria:
- (a) shall not exceed the lower of either 2"/24 hours for the twenty-five-year frequency, twenty-four-hour duration (25/24) storm event over a seventy-two-hour period or
  - (b) the predevelopment discharge rate for the twenty-five-year frequency, twenty-four-hour duration (25/24) storm event over a seventy-two-hours converted to a volumetric rate for a 24 hour period.
  - (c) Individually detached single-family residence, duplex, triplex or quadraplex residences together with accessory structures are exempt when not associated with an issued County Stormwater Management System Type A or B Permit or SJRWMD Permit. Onsite retention/detention may be required at the discretion of the public works director for the protection and safety of downstream impacts when lots discharge into flood prone systems. Right of Way permit may be required.

**Section 930.072. – Roads, Rights of Ways, Materials and Drainage Standards.**

- (1) All new local road facilities shall:
- (a) Not permit floodwater encroachment outside existing drainage easements, or right-of-way for a three-year frequency, twenty-four-hour duration (3/24) storm event elevation;
  - (b) Not place more than twenty (20) percent of the front or rear yard area below the flood water elevation at any time during the ten-year frequency, twenty-four-hour duration (10/24) storm event elevation;
  - (c) Have the edge of road above the twenty-five-year, twenty-four-hour (25/24) duration storm event;
  - (d) Have the finished floor elevation of any structure six (6) inches above the one hundred-year, three-day duration (100/72) storm event.
- (2) New Subdivision Collectors, Collectors, Arterial, and Marginal Access Roadways shall have the edge of pavement above the twenty-five-year frequency, twenty-four-hour duration (25/24) storm event elevation. The public works director may grant a waiver of this requirement to the extent of allowing inundation to the outside edge of the travel lane(s).

Title IX LAND DEVELOPMENT REGULATIONS

- (3) When existing paved roads are being rebuilt, resurfaced to raise the elevation, adding of additional travel lanes or the widening of existing travel lanes:

  - (a) Local roads shall have the edge of pavement above the five-year frequency, twenty-four-hour duration (5/24) storm event.
  - (b) Subdivision Collectors, Collectors and Arterials shall have one lane in each direction above the ten-year frequency, twenty-four-hour duration (10/24) storm event and shall have the edge of pavement above the five-year frequency, twenty-four-hour duration (5/24) storm event.
  - (c) Shall not compromise existing flood protection of roadways and structures.
  - (d) Shall meet water quality treatment standards when new impervious area is constructed and as may be required by another regulatory authority.
- (4) Existing dirt, marl, coquina, rock or loose milled roads when paved or compacted with millings shall:

  - (a) Shall meet water quality treatment standards for new impervious.
  - (b) Shall not compromise existing flood protection of roadways and structures.
  - (c) Shall meet applicable local water control district criteria as agreed upon with the County for discharge.
- (5) All new critical access facilities shall be located where existing roads have or proposed roads shall have one travel lane above the twenty-five-year frequency, twenty-four-hour duration (25/24) storm event elevation.
- (6) All bridges will be designed with the lowest member above the one hundred-year frequency, twenty-four-hour duration (100/24) and one hundred-year frequency, three-day duration (100/72) storm events, or as otherwise directed by the governing water body agency.
- (7) Material specifications for culverts and storm sewers. The following pipe materials are acceptable:

  - (a) Reinforced concrete pipe, fiber reinforced concrete pipe, bituminous coated corrugated steel pipe, aluminum pipe, class 2 poly-propylene, bituminous-coated structural plate steel pipe, and HDPE N-12. Other pipe materials may be used, if approved for the intended use by the Florida Department of Transportation. Stormwater conveyance pipe diameters shall be governed as follows:

    - 1. The minimum diameter for a single-family residential driveway culvert shall be:

      - i. Fifteen (15) inches on local roads unless greater cross section is required by the public works director or designee;
      - ii. Existing twelve (12) inch diameter culverts on local roads may be replaced with twelve (12) inch diameter if allowed by the public works director.
      - iii. Eighteen (18) inches on collector and arterial roadways or its cross-sectional equivalent, unless greater cross section is required by the public works director or designee.
    - 2. Stormwater management discharge culverts shall be a minimum of eighteen (18) inches.
  - (b) Workmanship, drainage structures and pipe materials shall conform to FDOT Standard Plans and FDOT Standard Specifications, latest edition;
  - (c) Reinforced concrete pipe, from an approved FDOT producer, shall be used under public roads or private streets, unless otherwise approved by the public works director.
  - (d) FDOT approved reinforced concrete pipe shall be used under county right-of-way pavement, unless otherwise approved by the public works director. FDOT approved pipe material shall be used into salt water outfalls with a calculated 100-year service life. Due to its buoyancy, plastic pipe is not permitted in tidal areas or below the water table. Plastic pipe under driveways shall have FDOT approved concrete end sections to reduce buoyancy.
  - (e) Drainage structures. All cross drains and storm sewers shall have headwalls, flared-end sections, or terminating structures in accordance with Indian River County Specifications or FDOT Standard Plans, latest edition. Endwalls, inlets, or other appropriate terminating and intermediate structures and backflow devices may be required where necessary.



Title IX LAND DEVELOPMENT REGULATIONS

- (f) Design and spacing of inlets shall be in accordance with FDOT Standard Specifications, latest edition, or Indian River County Specifications.

**Section 930.073. – Any property with a new discharge culvert installation that ultimately connects to receiving waters.**

- (1) Shall treat one inch of runoff through storage facilities prior to discharge
- (a) Discharge culverts from wet ponds shall be set at the twenty-five-year frequency, twenty-four-hour duration (25/24) storm event elevation unless a structure is installed controlling the required treatment at the normal water elevation. Wells recharging ponds that discharge shall have the off function of the shut off valve no higher than the normal water elevation as established by a Professional Geotechnical Engineer or Professional Geologist. Where a wet season water table elevation is determined by the Florida Department of Health, the normal water elevation may be estimated at twelve inches below the wet season water table elevation unless other information shows it to be higher.
  - (b) Properties required to provide treatment from other sections of this code, or that are under other jurisdictional agency permit regulatory requirements which addresses treatment, such as Agricultural Activities which establish and adhere to Best Management Practices as required by the Florida Department of Agricultural and Consumer Services or the United States Department of Agriculture's Natural Resources Conservation Service [930.06(1)(b)], are exempt from 930.073. The county may request a copy of the Best Management Practices used by the property in order to continue to allow the discharge.
  - (c) Receiving waters are defined as stormwater management systems (canals, rivers, lakes, ditches) which do not provide the required treatment prior to discharging to the Indian River Lagoon.

(Ord. No. 91-48, § 88, 12-4-91; Ord. No. 2005-031, § 1, 9-6-05; Ord. No. 2012-036, § 3, 11-6-12)

**Section 930.08. Permit requirements.**

- (1) *Type A permit.* A detailed description and drawing (scale one (1) inch equals fifty (50) feet or larger) of the proposed stormwater management system shall be submitted to the public works director or designee community development director by a Florida registered engineer. ~~or, for any development project constructed on a site of one (1) acre or less, a Florida registered architect, as long as any engineering service involved in the design is purely incidental to the architect's practice, as provided for in Florida Statutes § 481.229(4), as may be amended from time to time.~~ The following information shall be required:
- (a) Hydrologic data including design rainfall, project drainage area, tributary offsite drainage area, percolation tests, existing and proposed impervious area and soil characteristics including depth to wet season high water table. Soil borings spaced no more than four hundred (400) feet apart to a minimum depth of six (6) feet or as applicable to the development shall be provided. Alternative representative soil profiles are allowed if approved in writing by the public works director and if demonstrated to be from a reliable and generally recognized source. A one-foot interval contour topographic map for developments greater than one (1) acre or spot elevations for development area less than one (1) acre and, of the development area, including offsite area of sufficient size to indicate the general neighboring elevations, drainage patterns and transition grades, ~~shall be provided.~~ Justification for normal and wet season water table elevations assumptions shall be provided.
  - (b) Hydrologic calculations for determining existing and proposed stormwater runoff.

Title IX LAND DEVELOPMENT REGULATIONS

- (c) Hydraulic data including receiving water stages, stage-storage and stage-discharge data for proposed retention and/or detention facilities, ~~and percolation test data as per the following procedure:~~
- ~~1. The test holes shall be located as close as possible to the proposed location of exfiltration trench or other percolation facility (vertical and horizontal) and, if critical, to a depth two (2) feet below the water table at the time of the test.~~
  - ~~2. A hole for each test of approximately twelve (12) inches diameter (or as required for a maximum clearance of one half (1/2) inch between the hole and test casing) is excavated to the required depth and the casing is lowered into the hole with a minimum of twelve (12) inches extending above the surface of the grade.~~
  - ~~3. The test casing shall consist of a pipe that is a least eight (8) inches in diameter with perforations in approximately the bottom seventy five (75) percent of the length as measured from the surface. The bottom of the casing shall be pointed. Exfiltration increments shall be measured with a suitable gauging device.~~
  - ~~4. Fill the test bore to six (6) inches above the surface of the existing grade and run the test no later than two (2) hours after the level has exfiltrated to below surface of existing grade. In all cases test runs are to start only after the first two (2) inches have exfiltrated. If a dry season condition exists, the test shall begin when the soil is moist and a wet season is simulated.~~
  - ~~5. Run tests for at least thirty (30) minutes and record at least the date, weather, project name, name of person conducting test, test number, location on site, sketch of hole and casing, groundwater conditions, incremental drop and time, and subsurface soil information. Information shall be tabulated and attested to by a registered professional engineer, licensed to practice in the State of Florida. The county public works department reserves the right to witness the test procedure. Exfiltration rates for designing the site drainage facilities shall be determined by the developer's engineer from these tests based on percolation rate experienced at the elevation of the proposed system using a safety factor of two (2) or greater. Alternate percolation or permeability tests procedures may be used if approved in writing by the public works department prior to their use.~~
- (d) Hydraulic calculations for sizing channels, culverts, inlets, retention/detention ponds, pond discharge structures, and determining discharge rates and maximum water surface elevations.
- (e) Erosion and sedimentation control plans, during and after construction.
- (f) Statement of all assumptions and reference sources used in conduct of the study.
- (g) If soils are to be removed, a plan showing the removal and replacement of unsatisfactory soils ~~for approval.~~
- (h) Where percolation is proposed, at the following are required: (a) At least one (1) boring per basin. Said borings shall be to a depth of twenty (20) feet below the invert of the basin or to a depth sufficient to locate the groundwater table and/or impervious soil layer. (b) If the stormwater management system utilizes percolation in the design, a minimum of one (1) field and one (1) laboratory soil permeability analysis per stormwater tract or area, with a maximum spacing of two hundred (200) feet between percolation test sites, must be provided by a soil testing company and clearly demonstrated in the soil investigation report. (c) Soil investigation report shall be signed and sealed by a Professional Geotechnical Engineer or Profession Geologist. Recommendations of further exploration shall be adhered to as it relates to the proposed project design. (d) Field test shall utilize Usual Condition Test (Open Hole Test) procedure outlined in the SFWMD Handbook. Laboratory tests shall utilize ASTM D2434 and D5084 as the standard. (e) Safety factor of two shall be used either in the percolation rates or in the hydraulic analysis. (f) Laboratory samples shall be taken at varying depths with sample height or length generally between 12" and 24" and shall be a minimum of 24" below the normal water season elevation

Title IX LAND DEVELOPMENT REGULATIONS

and proposed pond bottom. (g) If the proposed stormwater tract or area is impacted for any reason, post construction percolation data shall be provided. (h) If soil replacement is proposed, the public works director or designee may waive the preliminary testing requirement with an acceptable design that incorporates future post construction rate testing along with modeling and mounding barrier analysis.

- (i) A general description of the manner in which the stormwater management system is to be maintained, indicating who or what entity shall be responsible and by what method the responsibility shall be created and documented.
  - (j) A list of all agencies (state, federal or local) having permit jurisdiction for the project. A copy of all state, local, SJRWMD, and federal permits shall be submitted prior to issuance of a building permit. In cases where a surface water management permit is required from the SJRWMD, identical plans and calculations shall be submitted for review and coordination between the county and the SJRWMD.
  - (k) Stormwater Management System Type A permits shall expire concurrently with the initial Subdivision, Site Plan, Planned Development or other development approvals as provided in County Code Chapters 913, 914 and 915. Request for an extension shall be made once a year thereafter. If no inspections have occurred over a six-month period, the request for extension may be denied.
  - (l) Suspension or revocation. The public works director is authorized to suspend or revoke a Stormwater Management System permit if the permit was issued in error, on the basis of incorrect, inaccurate or incomplete information, or in violation of other regulation or ordinance.
  - (m) Be signed by the applicant or the applicant's authorized agent.
- (2) *Type B permit and Type C permit.* Any owner or owner's authorized agent (hereinafter "applicant") who intends to undertake any development activity within the scope of the floodplain regulations in this chapter, 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 either the public works director or designee, or the building official on behalf of the floodplain administrator and the building official, as if applicable, and shall obtain the required Type B or Type C permit(s) and approval(s). No such permit or other approval authorizing construction shall be issued until compliance with the requirements of these floodplain regulations and all other applicable codes and regulations has been satisfied.
- (a) ~~Floodplain development permits or approvals.~~ Type B and Type C permits ~~or approvals~~ shall be issued pursuant to the floodplain regulations in this chapter for any development activities within a special flood hazard area, irrespective of whether or not the development activity is 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 administrator may determine that a floodplain development permit ~~or approval~~ is required in addition to or in lieu of a building permit.
  - (b) *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 these floodplain regulations:
    - 1. Railroads and ancillary facilities associated with the railroad.
    - 2. Nonresidential farm buildings on farms, as provided in Section 604.50, F.S.
    - 3. Temporary buildings or sheds used exclusively for construction purposes.
    - 4. Mobile or modular structures used as temporary offices.

Title IX LAND DEVELOPMENT REGULATIONS

5. Those structures or facilities of electric utilities, as defined in Section 366.02, F.S., which are directly involved in the generation, transmission, or distribution of electricity.
  6. Chickees constructed by the Miccosukee Tribe of Indians of Florida or the Seminole Tribe of Florida. As used in this paragraph, the term "chickee" means an open-sided wooden hut that has a thatched roof of palm or palmetto or other traditional materials, and that does not incorporate any electrical, plumbing, or other non-wood features.
  7. Family mausoleums not exceeding two hundred fifty (250) square feet in area which are prefabricated and assembled on site or preassembled and delivered on site and have walls, roofs, and a floor constructed of granite, marble, or reinforced concrete.
  8. Temporary housing provided by the department of corrections to any prisoner in the state correctional system.
  9. Structures identified in Section 553.73(10)(k), F.S., are not exempt from the Florida Building Code if such structures are located in flood hazard areas established on flood insurance rate maps.
- (c) *Application for a Type B or Type C permit-or approval.* To obtain a floodplain development permit or approval, the applicant shall first file an application and supporting documents in writing on a form furnished by the County community. In addition, the~~The~~ information provided shall:
1. Identify and describe the development to be covered by the ~~permit-or approval~~.
  2. Describe the land on which the proposed development is to be conducted by legal description, street address or similar description that will readily identify and definitively locate the site.
  3. Indicate the use and occupancy for which the proposed development is intended.
  4. Be accompanied by a site plan or construction documents as specified in section 930.07(2)(a) of these floodplain regulations.
  5. State the valuation of the proposed work for structure additions, improvements, and repairs.
  6. For proposed enclosed areas under elevated buildings, a signed Declaration of Land Restriction (Nonconversion Agreement); the agreements shall be recorded on the property deed prior to issuance of the Certificate of Occupancy.
  7. For proposed nonresidential dry floodproofed buildings, an operations and maintenance plan, which 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 prior to issuance of the permit.
- ~~8.6-~~ Be signed by the applicant or the applicant's authorized agent.
- (d) *Additional application information.* In addition to the information required for Type A permits in subsection 930.08(1) of this chapter, an applicant for a Type B permit shall submit to the public works director or designee~~community development director~~ all information showing compliance with section 930.07(2) of this chapter. For Type "C" permits, an applicant shall submit information showing compliance with section 930.07(2) of this chapter and all information required in section 930.08(2)(a) through (c).
- (e) *Validity of permit or approval.* The issuance of a Type B or Type C ~~permit-or approval~~ pursuant to the floodplain regulations in this chapter shall not be construed to be a permit for, or approval of, any violation of these regulations, the Florida Building Codes, or any other regulations of this community. The issuance of permits based on submitted applications, construction documents, and information shall not prevent the floodplain administrator from requiring the correction of errors and omissions.
- (f) *Expiration.* A Type C floodplain development ~~permit-or approval~~ shall become invalid unless the work authorized by such permit is commenced within one hundred eighty (180) days after its

Title IX LAND DEVELOPMENT REGULATIONS

issuance, or if the work authorized is suspended or abandoned for a period of one hundred eighty (180) days after the work commences. Extensions for periods of not more than one hundred eighty (180) days each shall be requested in writing, and justifiable cause shall be demonstrated. Type C permits associated with a structural building permit through the County Building Department shall expire with that permit. Stormwater Management System Type B permits shall expire concurrently with the initial Subdivision, Site Plan, Planned Development and other development approvals as provided in County Code Chapters 913, 914 and 915. Request for an extension shall be made once a year thereafter. If no inspections have occurred over a six-month period, the request for extension may be denied.

- (g) *Suspension or revocation.* The floodplain administrator is authorized to suspend or revoke a floodplain development permit ~~or approval~~ if the permit was issued in error, on the basis of incorrect, inaccurate or incomplete information, or in violation of these floodplain regulations or any other regulation, ordinance, or requirement of this community.
- (h) *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. Such applicable state or federal permits include but are not limited to the following:
1. The St. Johns River Water Management District; Section 373.036, F.S.
  2. Florida Department of Health for onsite sewage treatment and disposal systems; Section 381.0065, F.S. and Chapter 64E-6, F.A.C.
  3. 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.
  4. Florida Department of Environmental Protection for activities subject to the Joint Coastal Permit; Section 161.055, F.S.
  5. 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.
  6. Water Control or Improvement Districts.
  7. Federal permits and approvals.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 95-10, § 10, 5-31-95; Ord. No. 2005-031, § 1, 9-6-05; Ord. No. 2012-036, § 3, 11-6-12)

**Editor's note**— Section 3 of Ord. No. 2012-036, adopted Nov. 6, 2012, changed the title of § 930.08 from "Required information for permit applications" to "Permit requirements."

**Section 930.09. Required information to be submitted by Type B and C permit applicants after issuance of permit.**

Applicants for Type B or Type C permits shall provide to the ~~floodplain administrator~~community development director a flood elevation or flood-proofing certification after the lowest floor is completed, or in instances where the structure is in a coastal high hazard area or Coastal A Zone, after placement of the horizontal structural members of the lowest floor. Within twenty-one (21) calendar days of establishment of the lowest floor elevations, or flood-proofing by whatever construction means, or upon placement of the horizontal structural members of the lowest floor, whichever is applicable, it shall be the duty of the permit

Title IX LAND DEVELOPMENT REGULATIONS

holder to submit to the floodplain administrator~~community development director~~, a certification of the elevation of the lowest floor, flood-proofed elevation, or the elevation of the lowest portion of the horizontal structural members of the lowest floor, whichever is applicable, as built, in relation to mean sea level. Said certification shall be prepared by, or under the direct supervision of, a registered land surveyor or professional engineer and certified by same. When flood-proofing is utilized for a particular building, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work done within the twenty-one (21) calendar day period prior to submission of the certification shall be at the permit holder's risk. The floodplain administrator~~community development director~~ shall review the flood elevations survey data submitted and shall respond promptly as to any deficiencies noted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being permitted to proceed. Failure to submit the survey, or failure to make said corrections required hereby, shall be cause to issue a stop-work order for the project. FEMA issued LOMRs are required in accordance with the appropriate permit as detailed in 930.07(2).

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 2012-036, § 3, 11-6-12)

**Section 930.10. Permit application and review procedures.**

- (1) *Preliminary permit application.* Any person who is in doubt as to whether a proposed activity requires a permit under this chapter may request a review by the public works department~~community development department~~ upon completion of a preliminary application form supplied by the department. No fee shall be charged for a preliminary application. The preliminary application form shall be filed by the owner/applicant and shall contain the following elements:
  - (a) A location map;
  - (b) A statement and sketch expressing the intent and scope of the proposed project;
  - (c) Review. The completed preliminary application shall be submitted to the public works department~~community development director~~ to be reviewed by the community development director and the public works director. Within ten (10) working days after submission of the completed preliminary application, the public works director or designee~~community development director~~ will notify the applicant that either the project is approved, that it is exempt, or that a formal permit application must be filed for the project.
- (2) *Type A or B stormwater management system permit application.* If a Type A or Type B permit is required for the project, the applicant shall furnish all required stormwater management information, together with flood protection information, if applicable, to the public works director or designee~~community development director~~ on forms furnished by the public works department. The permit application shall not be submitted until the project has been approved by TRC, or the project has otherwise been determined acceptable for permitting by the county. The public works department shall review the application and render a decision as to whether the requirements of this chapter are met within fifteen (15) working days.
- (3) *Type C permit application.* If a Type C permit is required for the project, the applicant shall furnish all necessary flood protection information to the public works director or designee~~community development director, or his designee~~, on forms furnished by the department. The application shall be reviewed within ten (10) working days of receipt of the application or at the time of consideration of the request for a zoning permit, whichever first occurs. When not exempt from the Florida Building Code, structures shall be reviewed concurrently with the Building Department application. Application for exempt structures or properties shall be submitted and reviewed through the public works department.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 2005-031, § 1, 9-6-05; Ord. No. 2012-036, § 3, 11-6-12)

Title IX LAND DEVELOPMENT REGULATIONS

**Section 930.11. Floodplain development inspections.**

- (1) *General.* Development for which a Type B or Type C floodplain development permit or approval is required shall be subject to inspection.
- (2) *Development other than buildings and structures.* The floodplain administrator shall inspect all development to determine compliance with the requirements of these floodplain regulations and the conditions of issued floodplain development permits or approvals.
- (3) *Buildings, structures and facilities exempt from the Florida Building Code.* The floodplain administrator shall inspect buildings, structures and facilities exempt from the Florida Building Code to determine compliance with the requirements of these floodplain regulations 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 administrator:
  1. If a design flood elevation was used to determine the required elevation of the lowest floor, the certification of elevation of the lowest floor prepared and sealed by a Florida licensed professional surveyor; or
  2. If the elevation used to determine the required elevation of the lowest floor was determined in accordance with section 930.07(2)(a)2.c.ii of these floodplain regulations, 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 administrator 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 section 930.11(4) of these floodplain regulations.
- (6) *Manufactured homes.* The building official shall inspect manufactured homes that are installed or replaced in flood hazard areas to determine compliance with the requirements of these floodplain regulations 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 building official.

(Ord. No. 2012-036, § 3, 11-6-12)

**Section 930.12. Administrative duties.**

- (1) *Stormwater management; duties of the public works director.* The public works director shall perform the following specific duties:
  - (a) Make all professional engineering determinations required with respect to analysis of any given application;
  - (b) Approve any changes or amendments to an ~~accepted~~ approved stormwater management plan;
  - ~~(c) Provide courtesy notice as to the general description and location of newly constructed wet or dry retention facilities to the Indian River County Mosquito Control District;~~
  - (c)(d) After the completion of a project, require as-built plans from the owner or applicant and a certificate of completion from the engineer of record;

Title IX LAND DEVELOPMENT REGULATIONS

- ~~(d)~~(e) Any system required by this chapter shall be maintained by the owner, successor owners, or an entity designated by the owner except that the director may accept certain systems for county maintenance. The selection of critical areas or structures to be maintained by the county shall be recommended to the board of county commissioners by the director. All areas or structures to be maintained by the county must be dedicated to the county by plat or separate instrument and expressly accepted by the board of county commissioners. For any system which is to be maintained by a party other than the county, easements shall be established which permit the county to inspect and if necessary, as determined by the county, to take corrective action should the party fail to properly maintain the system. Such easements shall also establish a right of entry for the Indian River County Mosquito Control District for the limited purpose of inspection, prevention, or treatment of mosquito infestations, as allowed by law. Should a party fail to properly maintain a system as required, the director shall give such party written notice of the nature of the corrective action necessary. If the party fails, within thirty (30) days from the date of the notice to take, or commence taking, corrective action to the satisfaction of the director, the county may at its discretion, enter upon lands, take corrective action and the cost of such corrective action shall become a lien on the property or properties benefited.
- (2) *Flood protection management; duties of the ~~public works director~~community development director.* The ~~public works director~~community development director is designated as the floodplain administrator. The floodplain administrator may delegate performance of ~~certain~~duties to other employees.
- (a) The floodplain administrator is authorized and directed to administer and enforce the provisions of these floodplain regulations. The floodplain administrator shall have the authority to render interpretations of these floodplain regulations consistent with the intent and purpose of these regulations 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 these floodplain regulations without the granting of a variance pursuant to section ~~930.13930.07(2)-7~~ of these regulations.
- (b) The floodplain administrator, in coordination with other pertinent offices of the ~~county~~community, shall:
1. Review applications and plans to determine whether proposed new development will be located in flood hazard areas;
  2. Review applications for modification of any existing development in flood hazard areas for compliance with the requirements of these floodplain regulations;
  3. 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;
  4. Provide available flood elevation and flood hazard information;
  5. Determine whether additional flood hazard data shall be obtained from other sources or shall be developed by an applicant;
  6. Review applications to determine whether proposed development will be reasonably safe from flooding;
  7. Issue floodplain development permits ~~or approvals~~ for development other than buildings and structures that are subject to the Florida Building Code, including buildings, structures and facilities exempt from the Florida Building Code, when compliance with these floodplain regulations is demonstrated, or disapprove the same in the event of noncompliance; and
  8. 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 these floodplain regulations.



Title IX LAND DEVELOPMENT REGULATIONS

- (c) Substantial improvement and substantial damage determinations. Determinations for existing buildings and structures. For building permit applications 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 administrator, in coordination with the building official, shall:
1. Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value within six (6) months before the damage occurred and before any repairs are made;
  2. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
  3. Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; the determination requires evaluation of previous permits issued for improvements and repairs as specified in the definition of "substantial improvement"; and
  4. Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the Florida Building Code and these floodplain regulations is required.
- (d) Modifications of the strict application of the requirements of the Florida Building Code. The floodplain administrator shall review requests submitted to the building official that seek approval to modify the strict application of the flood load and flood resistant construction requirements of the Florida Building Code to determine whether such requests require the granting of a variance pursuant to section 930.13 of these floodplain regulations.
- (e) Notices and orders. The floodplain administrator shall coordinate with appropriate local agencies for the issuance of all necessary notices or orders to ensure compliance with these floodplain regulations.
- (f) Inspections. The floodplain administrator shall make the required inspections as specified in section 930.11 of these floodplain regulations for development that is not subject to the Florida Building Code, including buildings, structures and facilities exempt from the Florida Building Code. The floodplain administrator shall inspect flood hazard areas to determine if development is undertaken without issuance of a permit.
- (g) Other duties of the floodplain administrator. The floodplain administrator shall have other duties, including but not limited to:
1. Establish, in coordination with the building official, procedures for administering and documenting determinations of substantial improvement and substantial damage made pursuant to section 930.12(2)(c) of these floodplain regulations;
  2. Require that applicants proposing alteration of a watercourse notify adjacent communities and the Florida Division of Emergency Management, State Floodplain Management Office, and submit copies of such notifications to the Federal Emergency Management Agency (FEMA);
  3. Require applicants who submit hydrologic and hydraulic engineering analyses 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 six (6) months of such data becoming available;

Title IX LAND DEVELOPMENT REGULATIONS

4. Review required design certifications and documentation of elevations specified by these floodplain regulations and the Florida Building Code to determine that such certifications and documentations are complete;
  5. Notify the Federal Emergency Management Agency when the corporate boundaries of Indian River County are modified; and
  6. Advise applicants for new buildings and structures, including substantial improvements, that are located in any unit of the Coastal Barrier Resources System established by the Coastal Barrier Resources Act (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."
- (h) Floodplain management records. Regardless of any limitation on the period required for retention of public records, the floodplain administrator shall maintain and permanently keep and make available for public inspection all records that are necessary for the administration of these floodplain regulations and the flood resistant construction requirements of the Florida Building Code, including flood insurance rate maps; letters of 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 these floodplain regulations; 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 these floodplain regulations and the flood resistant construction requirements of the Florida Building Code. These records shall be available for public inspection at the Indian River County Public Works Director~~Community Development Department~~.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 2005-031, § 1, 9-6-05; Ord. No. 2012-036, § 3, 11-6-12)

**Editor's note**— Section 3 of Ord. No. 2012-036, adopted Nov. 6, 2012, amended and renumbered former § 930.11 as § 930.12

**Section 930.13. Variances and appeals.**

- (1) *General.* The construction board of adjustment and appeals shall hear and decide on requests for appeals and requests for variances from the strict application of these floodplain regulations, including appeals and requests for variances from the strict application of the flood resistant construction requirements of the Florida Building Code (reference Section 553.73(5), F.S.). This section does not apply to Section 3109 of the Florida Building Code, Building.
- (2) *Appeals.* The construction 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 administrator in the administration and enforcement of these floodplain regulations. Any person aggrieved by the decision of the construction board of adjustment and appeals may appeal such decision to the circuit court, as provided by Florida statutes.
- (3) *Limitations on authority to grant variances.* The construction board of adjustment and appeals shall base its decisions on variances on technical justifications submitted by applicants, the considerations for issuance in section 930.13(7) of these floodplain regulations, the conditions of issuance set forth in section 930.13(8) of these regulations, and the comments and recommendations of the floodplain administrator and the building official. The construction board of adjustment and appeals has the right to attach such conditions as it deems necessary to further the purposes and objectives of these floodplain regulations.

Title IX LAND DEVELOPMENT REGULATIONS

- (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 section 930.07(2)(a)3. of these floodplain regulations.
- (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 11 Historic Buildings, upon a determination that the proposed repair, improvement, or rehabilitation will not preclude the building's continued designation as a historic building and the variance is the minimum necessary to preserve the historic character and design of the building. If the proposed work precludes the building's continued designation as a historic building, a variance shall not be granted 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 these floodplain regulations, provided the variance meets the requirements of section 930.13(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) *Considerations for issuance of variances.* In reviewing requests for variances, the construction board of adjustment and appeals shall consider all technical evaluations, all relevant factors, all other applicable provisions of the Florida Building Code, these floodplain regulations, and the following:
  1. The danger that materials and debris may be swept onto other lands resulting in further injury or damage;
  2. The danger to life and property due to flooding or erosion damage;
  3. The susceptibility of the proposed development, including contents, to flood damage and the effect of such damage on current and future owners;
  4. The importance of the services provided by the proposed development to the community;
  5. The availability of alternative locations for the proposed development that are subject to lower risk of flooding or erosion;
  6. The compatibility of the proposed development with existing and anticipated development;
  7. The relationship of the proposed development to the comprehensive plan and floodplain management program for the area;
  8. The safety of access to the property in times of flooding for ordinary and emergency vehicles;
  9. 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
  10. 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.
- (8) *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 these floodplain regulations or the required elevation standards;
  - (b) Determination by the construction board of adjustment and appeals that:
    - a. Failure to grant the variance would result in exceptional hardship due to the physical characteristics of the land that render the lot undevelopable; increased costs to satisfy the requirements or inconvenience do not constitute hardship;

Title IX LAND DEVELOPMENT REGULATIONS

- b. The granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, nor create nuisances, cause fraud on or victimization of the public or conflict with existing local laws and ordinances; and
- c. The variance is the minimum necessary, considering the flood hazard, to afford relief;
- (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 administrator 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 twenty-five dollars (\$25.00) for one hundred dollars (\$100.00) of insurance coverage), and stating that construction below the base flood elevation increases risks to life and property.

(9) Agricultural structures. A variance is authorized to be issued for the construction or substantial improvement of agricultural structures provided the requirements of this section are satisfied and:

(a) A determination has been made that the proposed agricultural structure:

- 1. Is used exclusively in connection with the production, harvesting, storage, raising, or drying of agricultural commodities and livestock, or storage of tools or equipment used in connection with these purposes or uses, and will be restricted to such exclusive uses.
- 2. Has low damage potential (amount of physical damage, contents damage, and loss of function).
- 3. Does not increase risks and pose a danger to public health, safety, and welfare if flooded and contents are released, including but not limited to the effects of flooding on manure storage, livestock confinement operations, liquified natural gas terminals, and production and storage of highly volatile, toxic, or water-reactive materials.
- 4. Complies with the wet floodproofing construction requirements of paragraph (2), below.

(b) Wet floodproofing construction requirements.

- 1. Anchored to resist flotation, collapse, and lateral movement.
- 2. When enclosed by walls, walls have flood openings that comply with the flood opening requirements of ASCE 24, Chapter 2.
- 3. Flood damage-resistant materials are used below the base flood elevation plus 18inches.
- 4. Mechanical, electrical, and utility equipment, including plumbing fixtures, are elevated above the base flood elevation plus 18 inches.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 94-25, § 18(F), 8-31-94; Ord. No. 2012-036, § 3, 11-6-12)

**Editor's note**— Section 3 of Ord. No. 2012-036, adopted Nov. 6, 2012, amended and renumbered former § 930.12, "Appeal procedure," as § 930.13, "Variances and appeals."

Title IX LAND DEVELOPMENT REGULATIONS

**Section 930.14. Violations and notice.**

- (1) *Violations.* Any development that is not within the scope of the Florida Building Code but that is regulated by the floodplain regulations in this chapter that is performed without an issued permit, that is in conflict with an issued permit, or that does not fully comply with these regulations, shall be deemed a violation of these regulations. A building or structure without the documentation of elevation of the lowest floor, other required design certifications, or other evidence of compliance required by these floodplain regulations 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 the floodplain regulations in this chapter and that is determined to be a violation, the floodplain administrator is authorized to serve notices of violation or stop work orders to owners of the property involved, to the owner's agent, or to the person or persons performing the work.
- (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.
- (4) *Notice.* In the event the ~~public works director~~~~community development director~~ determines a violation exists, a written notice of violation shall be issued to the owner of the property. The notice shall contain:
  - (a) The name and address of the owner;
  - (b) The street address when available or a description of the building or land upon which the violation is occurring;
  - (c) A statement specifying the nature of the violation;
  - (d) A description of the remedial actions necessary to bring the development activity into compliance and a time schedule for completion of such remedial action;
  - (e) A statement of the penalty or penalties that may be assessed against the person to whom the notice of violation is directed;
  - (f) A statement that the ~~public works director's~~~~community development director's~~ determination of violation may be appealed to the code enforcement board by filing a written notice of appeal within thirty (30) days of service of notice of violation.
- (5) The notice of violation shall be served upon the person(s) to whom it is directed either personally, in the manner provided for personal service of notices by the court of local jurisdiction, or by mailing a copy of the notice of violation by certified mail, postage prepaid, return receipt requested to such person at his or her last known address.

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 2012-036, § 3, 11-6-12)

**Editor's note**— Section 3 of Ord. No. 2012-036, adopted Nov. 6, 2012, amended and renumbered former § 930.13, "Notice," as § 930.14, "Violations and notice."

**Section 930.15. Vested rights.**

This chapter shall not limit the vested rights of any person to complete any development project for which approval was properly granted based upon prior law, where such previous approval remains in effect. The county commission may acknowledge vested rights in other circumstances where it is equitable and just.

Title IX LAND DEVELOPMENT REGULATIONS

(Ord. No. 90-16, § 1, 9-11-90; Ord. No. 2012-036, § 3, 11-6-12)

**Editor's note**— Section 3 of Ord. No. 2012-036, adopted Nov. 6, 2012, amended and renumbered former § 930.14, as § 930.15.

**Section 930.16. Disclaimer of liability.**

The floodplain regulations in this chapter shall not create liability on the part of the Board of County Commissioners of Indian River County or by any officer or employee thereof for any flood damage that results from reliance on these regulations or any administrative decision lawfully made thereunder.

(Ord. No. 2012-036, § 3, 11-6-12)