

ARTICLE V

SITE DESIGN CRITERIA

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Article V

ARTICLE V

SITE DESIGN CRITERIA

SECTION 21-50 - GENERAL PROVISIONS

21-50.01 - Purpose

The purpose of this Section is to establish site design and development criteria for all public/private development and redevelopment. Pursuant to the requirements of Florida Statutes, all plans submitted for review by the City shall be signed and sealed by the appropriate professional person.

In addition to City-wide site design criteria contained in this Article, the City of Edgewater has adopted the Indian River Boulevard Corridor Design Regulations, which are incorporated as Article XVIII in this Land Development Code. Requirements contained in Article XVIII, Indian River Boulevard Corridor Design regulations, are applicable to properties within the Overlay and include site design and architectural design criteria that supercede the requirements set forth in this Article. Properties located within the Indian River Boulevard Corridor Overlay must adhere to the design regulations contained in the Indian River Boulevard Corridor Overlay Design regulations. A copy of these regulations and illustrations for design is available for purchase at City Hall. It is the Developer's responsibility to obtain a copy of the regulations for the Overlay prior to conceptual design layout.

21-50.02 - Minimum Site Dimensions

Table V-1 depicts the minimum lot size, setbacks, height, building coverage and floor area requirements for each zoning category.

Minimum site dimensions may be administratively waived if non-conforming sites are created by eminent domain activities (State, County or City).

**TABLE V-1
SITE DIMENSIONS**

Zoning Category (16)	Min. Lot Sq.Ft. (13)	Min. Lot Width Ft.	Min. Lot Depth Ft.	Min. Front Yard Ft. (1) (4) (16)	Min. Rear Yard Ft. (1) (4)	Min. Side Yard Ft. (1) (4) (9) (11) (12) (16)	Max. Height Ft.	Max % Bldg Coverage	Max. % Imp. Coverage	Min. Floor Area Sq. Ft.
AG, Agriculture (8)	2.5 acres	200	N/A	50	50	25	35	15	N/A	1,200
CN, Conservation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
P/SP, Public/Semi-Public	N/A	N/A	N/A	30	20	10	35	40	60	NA
R T, Rural Transitional (8)	1 acre	100	N/A	40	40	25	35	25	60	1,200
R-1, Single Family Residential	12,000	100	120	40	30	(5) 10	26	30	60	1,300
R-2, Single Family Residential (14)	10,000	80	125	30	20	10	26	30	60	1,200
R-3, Single Family Residential	8,625	75	115	30	20	10	26	30	60	1,000
R-4, Multifamily Residential (10)	N/A	(15)	(15)	(2) 40	(2) 25	(2) 10	35	30	60	1,000
R-5, Multifamily Residential (10)	N/A	(15)	(15)	(2) 35	(2) 25	(2) 10	35	35	60	850
RPUD, Residential PUD – min 15 acres	8,625	75	115	N/A	N/A	N/A	35	N/A	N/A	N/A
RP, Residential Professional	10,000	80	125	N/A	N/A	N/A	26	N/A	60	N/A
MH-1, Mobile Home Park - 5 acres	N/A	N/A	N/A	15	10	10 (between units)	N/A	N/A	60	N/A
MH-2, Manuf. Home Sub.50 acres (8)	N/A	60	110	25 (6)	10	8	15	30	60	N/A
B-2, Neighborhood Business	10,000	80	125	40	20 (3)	10 (3)	26	30	75	N/A
B-3, Highway Commercial	N/A	150	N/A	40	25 (3)	25 (3)	45	30	75	N/A
B-4, Tourist Commercial - 2 acres	N/A	100	N/A	40	40(3)(5)	25	50	40	75	N/A
BPUD, Business PUD– min 15 acres	N/A	N/A	N/A	N/A	N/A	N/A	35	N/A	N/A	N/A
I-1, Light Industrial	N/A	75	N/A	25	20 (3) (7)	10 (3)	45	50	80	N/A
I-2, Heavy Industrial	N/A	N/A	N/A	25	20 (3) (7)	10 (3)	45	60	80	N/A
IPUD, Industrial PUD– min 15 acres	N/A	N/A	N/A	N/A	N/A	N/A	35	N/A	N/A	N/A

TABLE V-1 FOOTNOTES

- (1) 50 feet upland from mean high water line.
- (2) Setbacks for single family homes in multifamily zoning districts shall be the same as the R-2 District.
- (3) 50 feet when adjacent to residential zoning/use.
- (4) 25 feet upland from wetlands vegetation.
- (5) 2 story dwellings shall increase side setback additional 5 feet on river, lakes, golf course & common open space.
- (6) From cartway.
- (7) Zero setback abutting RR.
- (8) Modular homes permitted in these districts only.
- (9) Abandoned/non-developed streets in Florida Shores require a ten (10) feet side corner setback.
- (10) 3 or more units shall comply with density and other requirements for site plan approval.
- (11) Side corner lots shall have two (2) side yard setbacks, no rear.
- (12) Side corner setbacks shall be the same as front yard.
- (13) Minimum lot square footage shall be calculated based on the minimum lot width, minimum lot depth, and/or uplands area.
- (14) All properties located on SR 442 shall have a forty foot (40') setback from the new right-of-way lines.
- (15) Single family or duplex uses in the R-4 and R-5 district shall have a minimum lot size of 75 feet by 115 feet.
- (16) Commercial gasoline pump island canopies setbacks shall be at least 20-feet from the front property line and five (5)-feet from the side property line.

SECTION 21-51 - UTILITIES

21-51.01 - Comprehensive Plan Reference

The provisions of Section 21-51 - Utilities are consistent with and implement the Comprehensive Plan contained in the Future Land Use Element and Utilities Element.

21-51.02 - General Requirements

- a. All development shall comply with the appropriate sections of Article XI (Concurrency Management System).
- b. All new development shall connect to the City's water and sewer system. New package plants and/or on-site treatment systems (septic tanks) are prohibited. Temporary package plants may be permitted if City-owned water and sewer collection and distribution system improvements are planned.
- c. All new development shall be required to connect to the reclaimed water system, if available. Drylines may be required for future reclaimed water system service.
- d. All groundwater used in water-to-air heating and air conditioning systems must be directed to landscape irrigation systems, groundwater injection or exfiltration systems.
- e. All development shall comply with the current SJRWMD water conservation requirements.
- f. All development shall pay the adopted City and County impact and development fees.
- g. All multifamily, commercial and industrial development shall be required to install backflow preventors.
- h. All multifamily, commercial and industrial development shall be required to locate and install fire protection appliances pursuant to the criteria established in Article XVI.
- i. The developer shall obtain approved plans from appropriate electrical utility provider for street light design. All new developments shall be required to create a streetlight assessment district to fund installation and operation/maintenance expenses. The streetlight district will be under the control of the homeowner's association. Streetlights shall be generally provided at all intersections and at intervals of no more than 300 feet apart along each street.
- j. All utility transmission lines in a new subdivision shall be installed underground.
- k. The City may require the oversizing of a utility line to serve future customers. The City shall be responsible for payment of the oversizing of the utility line.
- l. Valves shall be spaced at a maximum of 1,000 feet along all water mains.

- m. All water mains shall be looped to provide adequate pressure and system redundancy.
- n. All water systems designs shall maintain 20 psi residual pressure during maximum demand on the system.
- o. Manholes shall be spaced at all change in pipe slope and direction and at intervals no greater than 250 feet.
- p. Fire hydrants shall be installed only on a water main of six (6) inch and larger.

21-51.03 - Utility Easements

- a. All new electric, telephone, fiber optics, cable television and other such lines (exclusive of transformers or enclosures containing electrical equipment) and gas distribution lines shall be placed underground within easements or public rights-of-way
- b. Lots abutting existing easements or public rights-of-way where overhead electric, telephone or cable television distribution supply lines and service connections have previously been installed may continue to be supplied with such services using the overhead facilities.
- c. When a developer installs or causes the installation of water, sewer, gas, electrical power, telephone or cable television facilities and intends that such facilities shall be owned, operated or maintained by a public utility, the developer shall transfer to such utility the necessary ownership or easement rights to enable the utility or entity to operate and maintain such facilities.

SECTION 21-52 - VEHICLE/PEDESTRIAN CIRCULATION REQUIREMENTS

21-52.01 - Comprehensive Plan Reference

The arrangement, character, extent, width, grade and location of all streets shall be considered in their relation to existing and planned streets, topographical conditions, public convenience and safety and in their appropriate relation to the proposed uses of the land to be served by such streets. The provisions of Section 21-52 - Vehicle/Pedestrian Circulation are consistent with and implement the Comprehensive Plan contained in the Future Land Use Element and Transportation Element.

The regulations and requirements as herein set forth are intended to provide legal access to all parcels of land or development within the City and to control vehicular movements thereof to facilitate safe vehicle and pedestrian patterns.

21-52.02 - Access/Driveways

- a. Prior to issuance of a building permit, all parcels, lots or new development shall have access to an improved public road or private road.
- b. Driveway access to any corner lot located on a local street (City maintained) shall be located or relocated a minimum of forty feet (40') from the intersection of right-of-way lines of other local streets and a minimum of one hundred feet (100') from the intersection of right-of-way lines on all other functionally classified streets.
- c. No driveway shall be located or relocated closer than six hundred sixty feet (660') to an intersection on an arterial roadway (US1, SR 442) and three hundred thirty feet (330') on major collector roadways (Park Avenue, Airpark Road, Old Mission Road, Roberts Road, Volco Road). Driveways shall conform to current FDOT turning radius standards.
- d. The City shall have the authority to require the creation, use and maintenance of common, joint-use driveways or other common ingress/egress facilities which provide access to two (2) or more lots, parcels or developments, when such joint use driveways are needed to protect, maintain or improve public traffic safety (see 21-57.04). Creation of joint use driveways shall be by recorded legal agreement provided that in all cases the agreement must:
 1. Hold the City harmless from any and all claims or potential liability; and
 2. Be recorded in the public records of Volusia County, Florida prior to issuance of a building permit; and
 3. Must run with the lands involved and be binding on the parties to agreement, their successors or assigns.
- e. Adjacent (same side of the roadway) single family and duplex residential driveways shall be paved including the apron and separated by a minimum of ten feet (10') as measured driveway edge to driveway edge. No driveway shall be closer than five feet (5') to any lot line or encroach into any side or rear easement. At a minimum, access driveways to vacant lots shall be paved in the right-of-way from existing pavement to the lot line.
- f. Adjacent nonresidential driveways shall be separated by a minimum of forty feet (40') as measured driveway edge to driveway edge, unless there is a recorded joint access agreement.
- g. To the extent reasonably possible, driveway access to nonresidential land uses shall line up with driveways across the street.
- h. All non-residential parcels shall be limited to one access point per street.
- i. Non-residential land uses or developments (including parking lots) shall not connect to, have access to or primarily use any local residential street, unless:
 1. No other site access (including joint use driveways with other parcels) is possible.

2. All traffic, site, and environmental conditions of the subject site, street, and neighborhood are, or will be suitable and compatible to accommodate the anticipated traffic, environmental and aesthetic impacts of the proposed nonresidential use or development without significant adverse impacts to neighborhood and the City as a whole. The site evaluation/traffic analysis report shall be submitted by the project applicant for the City's review and approval.
- j. The City may require dedication of access rights to the City to control future ingress and egress.
- k. Driveways shall have a minimum width of nine feet (9') for access way serving residential uses, a minimum width of twenty feet (20') for double access ways and twelve feet (12') for single access ways serving multi-family or non-residential areas.
- l. The City shall have the authority to require the reduction of the number of or width of existing driveways for any modifications to an existing structure, parking area or current property uses.

21-52.03 - Drive-Up Facilities Standards

All facilities providing drive-up or drive-through service shall provide on-site stacking lanes in accordance with the following standards:

- a. The facilities and stacking lanes shall be located and designed to minimize turning movements in adjacent streets and intersections.
- b. The facilities and stacking lanes shall be located and designed to minimize or avoid conflicts between vehicular traffic and pedestrian areas such as sidewalks, crosswalks or other pedestrian access ways.
- c. A by-pass lane shall be provided so that the full aisle width is provided for parking maneuvers.
- d. Stacking lane distance shall be measured from the point of entry nearest the drive-through area to the center of the farthest drive-through services window area.
- e. Minimum stacking lane distance shall be as follows:
 1. Financial institutions shall have a minimum of one stacking lane with a minimum distance of one hundred seventy five feet (175') per lane.
 2. Restaurants, full service car washes and day care facilities shall have minimum stacking distance of two hundred feet (200').
 3. Self service car washes (per bay) and dry cleaners shall have a minimum stacking distance of sixty-five feet (65').
 4. Other uses may require the City to determine the stacking distance on a case-by-case basis.
 5. Facilities not listed above with more than one (1) drive-through lane shall provide

one hundred feet (100') of stacking distance per lane measured from the point of entry to the center of the furthest service window area.

6. Drive-Through Separate From Other Circulation: The drive-through lane shall be a separate lane from the circulation routes and aisles necessary for ingress and egress from the property or access to any off-street parking spaces.
- f. Alleys or driveways in or abutting areas designed, zoned, or developed for residential use shall not be used for circulation of traffic for drive-up facilities.
- g. Where turns are required in the exit lane, the minimum distance from any drive-up station to the beginning point of the curve shall be thirty-four feet (34'). The minimum inside turning radius shall be twenty-five feet (25').

21-52.04 - Sidewalks

A system of sidewalks shall be provided by the developer to provide safe movement of pedestrians separately from motor vehicles.

- a. Sidewalks shall be required on both sides of streets in all new development projects and redevelopment projects. In lieu of sidewalk installation, funds may be paid to the Pedestrian System Development Fund. Installation of the sidewalk or payment into the above referenced Fund shall be at the discretion of the TRC (Technical Review Committee).
- b. The sidewalk shall be constructed in the dedicated right-of-way.
- c. All sidewalks shall have a minimum width of four feet (4') and be separated by at least four feet (4') from the road edge.
- d. As an alternative in residential areas, sidewalks may be provided within rear lot easements or common open space areas as part of an approved development plan.
- e. Sidewalks shall connect to existing pedestrian circulation facilities for all projects within a distance and/or radius of 1,000-feet.

21-52.05 - Street Design Standards

- a. The arrangement, character, extent, width, grade and location of all new and improved streets shall conform to the adopted Comprehensive Plan now in existence or as may hereafter be adopted and shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety and in their appropriate relation to the proposed uses of the land to be served by such streets.

Where such is not shown in the Comprehensive Plan now in existence or as may hereafter be adopted, the arrangement of streets in a subdivision shall either:

1. Provide for the continuation or appropriate projection of existing major streets in

- surrounding areas, or
2. Conform to a plan for the neighborhood or be aligned to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impractical.
- b. All new streets to be established within a subdivision shall meet the following minimum design standards.
1. *Local streets.* Local streets shall be laid out so that use by through traffic will be discouraged.
 2. *Subdivisions on arterial streets.* Where a subdivision abuts or contains an existing or proposed arterial street, the subdivider shall provide reverse frontage lots with a planting screen contained in a non-access reservation along the rear property lines or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic.
 3. *Intersection designs.* Streets shall be laid out and aligned to intersect as nearly as possible at right angles and no street shall intersect at less than sixty (60) degrees. Street jogs and intersections with centerline offsets of less than one hundred fifty feet (150') shall be prohibited. Multiple intersections involving the juncture of more than two (2) streets shall be prohibited. A minimum sight distance of two hundred feet (200') from any intersection shall be maintained on intersecting streets; however, this requirement shall not be construed as requiring an increase in the minimum allowable intersection separation of one hundred fifty feet (150').
 4. Proposed streets shall be designed to provide access to adjoining unsubdivided tracts at logical locations for future subdivisions.
 5. A minimum of two points of access shall be provided into each subdivision of twenty-five (25) lots or more. Where adjoining existing development and code requirements preclude the development of two public street access points, an unobstructed driveable access way may be substituted.
 6. Right-of-way line intersections shall be rounded with a minimum radius of twenty-five feet (25'). A greater radius may be required on collector or arterial roads, or where road construction details require.
 7. *Minimum street design specifications.* All streets to be established in a subdivision shall be graded to their full required right-of-way width and designed in accordance with the following minimum right-of-way specifications:

Arterial	150 ft.
Collector	100 ft.
Local	60 ft. (open drainage) 50 ft. (curb and gutter)

8. *Cul-de-sac.* All cul-de-sacs shall comply with the requirements contained in the Standard Construction Details.
9. *Street access to adjoining property.* Street stubs to adjoining unplatted areas shall be provided when required to give access to such areas or to provide for proper traffic circulation. Street stubs in excess of two hundred fifty feet (250') shall be provided with a temporary cul-de-sac turnaround. The developer of the adjoining

area shall pay the cost of restoring the street to its original design cross-section and extending the street.

10. *Street names.* Street names shall not be used which will duplicate, be phonetically similar or be confused with the names of existing or other proposed streets, except that new streets which are an extension or in alignment with existing streets shall bear the same name as that borne by such existing streets. All courts and circles shall have one name only. All street names shall be submitted with the preliminary plat to the County of Volusia prior to final plat approval for 911 verification.
11. *Street name signs, pavement markings and regulatory signs.* Required signs shall be in place prior to acceptance by the City. All signing and pavement markings shall be in accordance with "USDOT Manual on Uniform Traffic Control Devices". All pavement markings shall be thermoplast. Street name signs shall be a minimum of six inches (6") in height with letters four inches (4") in height. At cross-section intersections, two (2) street signposts shall be located diagonally across the intersection from each other. Only one street signpost shall be required at T-street intersections. Thirty inch (30") "STOP" signs shall be required at each street intersection unless otherwise approved or required by the TRC.

c. *Construction*

Basic construction requirements for roads are as follows:

1. Residential roadway pavement shall consist of 1-1/4 inches of compacted Type S-I asphalt over an eight inch (8") soil cement or limerock base, over an eight inch (8") compacted subbase. Alternative concrete pavements may be approved.
2. Commercial roadway pavement shall consist of two inches (2") of compacted Type S-I or S-III asphalt, over an eight (8") compacted limerock or six inch (6") compacted soil cement base over a twelve inch (12") compacted shellrock stabilized subbase.
3. All new roads shall have concrete curbs. Miami curbs are required on local streets with vertical curbs for enclosed drainage on major collector and arterial roads.
4. The remainder of the right-of-way shall be cleared, graded and sodded.
5. Signs for street identification and traffic control shall be installed by the City at the developer's expense. Signs shall be based on the requirements of the Federal Highway Administration Manual of Uniform Traffic Control Devices, current edition or other City specifications.

d. *Alleys.* In single-family residential districts alleys shall be discouraged, but may be required in other than residential districts to provide for proper traffic circulation. When provided in any district, alleys shall have a minimum right-of-way width of thirty feet (30').

e. *Easements.* Easements for utilities, including water, wastewater, electric, cable, telephone and gas and drainage easements, shall be provided as follows:

1. *Utilities.* Utility easements centered on side or rear lot lines shall be provided where deemed necessary and shall be at least fifteen feet (15') in width. Additional width may be required for wastewater and/or drainage easements. Side lot line easements may be decreased to ten feet (10') in width when serving a single electric

- or telephone utility.
- 2. *Drainage.* Where a proposed subdivision is transversed (traversed) by or abuts a watercourse, drainage way or stream, a conservation and stormwater easement or drainage way, canal or stream and such further width or construction or both as will be adequate for the purpose shall be provided. Where a drainage way or canal exists or is proposed, a maintenance easement approved by the City shall be provided.
- 3. *Access waterways.* Waterways which are constructed or improved for the purpose of providing access by the water to lots within a subdivision shall have a minimum easement or right-of-way width of one hundred feet (100'), except where adequate shoreline protection is provided, the minimum right-of-way may be reduced to sixty feet (60').
- f. *Turn lanes* - A left turn lane shall be provided at each access point with an average daily trip end of 1,000 vehicles and/or more than 25 peak hour left turn movements. A right turn/deceleration lane shall be provided when the posted speed limit equals or exceeds 35 miles per hour or if the proposed development will generate 100 or more peak hour right turn movements. Turn lane requirements shall be provided on all immediately adjacent roadways affected by any development/redevelopment project unless deemed unfeasible/impractical by the TRC.

21-52.06 - Public Recreation

- a. *Requirements.* If a proposed development exceeds the required Level of Service standards for Public Recreation, as set forth in Section 21-46 and 21-135, the developer shall deed said land to the City or Homeowner's Association, pay a fee in lieu thereof or provide a combination of the above at the option of the City Council. This condition shall be met prior to final plan approval.
- b. *General Standard*
Recreation impacts of proposed development shall be based on the anticipated population within said development and is calculated by the following formula:

Unit Type	Pop./Unit
Single Family Residential	2.5
Duplex	2.3
Multi-Family Residential	2.0
Mobile/Manufactured Home	2.0

- c. *Formula for fees in (lieu of) land conveyance.*
 - 1. If it is determined that the proposed development does not include any land designated by the Edgewater Comprehensive Plan as Recreation, to serve the immediate and future needs of the city residents and the developers are unable to provide Recreation lands outside the proposed development that are so designated and is required by Section 21-135, then the developer shall, in lieu of conveying land, pay a fee to the city equal to the value of land acreage as provided by the

current Volusia County Property Appraiser's assessed value for the nearest park or land deemed open space.

- d. *Use of Fees.* The fees collected hereunder shall be paid to the City of Edgewater. All such fees shall be placed in a reserve account in trust with the general fund and shall be known as the reserve trust for lands for parks and open space. Moneys within the reserve account shall be used and expended solely for the acquisition, improvement, expansion of city parks and open space land and to provide recreational equipment, facilities and land improvements as determined by the City Council. (Ord. No. 84-O-37, FS, 1-7-85).
- e. *Criteria for requiring both conveyance and fee.* In any development of over twenty-five (25) dwelling units, the developer may be required to convey the land and pay a fee in accordance with the following formula:
 - 1. When only a portion of the land which the developer is required to convey for parks is to be conveyed, such portion shall be conveyed for parks or a fee computed pursuant to the provisions set out herein shall be paid to the City for any additional land that the developer would otherwise have been required to convey hereunder.
 - 2. When most of the land designated as parks in the vicinity of the proposed development is needed to complete the site, such remaining portion shall be conveyed by the developer and a fee shall be paid by the developer in lieu of conveying the additional land which the developer would otherwise be required to convey and such fees to be used for the improvements of other city park land in the area serving the development.
- f. *Determination of land or fee.* The City Council shall determine whether to accept land or require payment of the fee in lieu thereof, after consideration of the following:
 - 1. Topography, geology access and location of land in the development available for dedication;
 - 2. Size and shape of the development and land available;
 - 3. The feasibility of conveyance;
 - 4. Availability of previously acquired parks property;
 - 5. Whether the developer owns or controls other land designated in the Edgewater Comprehensive Plan or other lands; and
 - 6. Accessibility.
- g. *Procedure.* In subdivisions requiring plat approval, the developer shall agree in writing to convey land for parks or pay a fee in lieu thereof or a combination of both. The City Council shall consider the request after a recommendation from the Leisure Services Department and the Planning and Zoning Board at the time of approval of the preliminary plat. At the time of approval of the final subdivision plat the developer shall convey the land and pay the fees as previously determined by the City Council, but not later than issuance of a building permit.

SECTION 21-53 - STORMWATER MANAGEMENT REQUIREMENTS

21-53.01 - Comprehensive Plan Reference

The intent of this Section is to provide regulations that ensure post-development stormwater runoff rates/volumes that do not exceed the pre-development rates/volumes and to prevent erosion, sedimentation and flooding to the maximum extent possible, and to prevent illicit discharge and/or illicit connections to the stormwater system. The provisions of Section 21-53-Stormwater Management are consistent with and implement the Comprehensive Plan contained in the Future Land Use Element, Utilities Element, Coastal Element, Conservation Element and the National Pollutant Discharge Elimination System Permit (NPDES).

21-53.02 - Permit Authority

No development activity can occur without obtaining a stormwater permit from the City and/or the St. Johns River Water Management District (SJRWMD) as provided herein. It is the intent of the City to accept stormwater permits issued by the SJRWMD in lieu of a City required permit. Development below thresholds of the SJRWMD shall require a City stormwater permit.

The following activities may potentially alter or disrupt existing stormwater runoff patterns and shall require a permit prior to the initiation of any project:

- a. Clearance and/or draining of land as an adjunct to construction;
- b. Clearance and/or draining of nonagricultural lands for agricultural purposes;
- c. Subdivision of land;
- d. Replatting of recorded subdivisions;
- e. Changing the use of land, or construction of a structure or a change in the size of one or more structures;
- f. Filling of depression areas;
- g. Construction of a driveway that crosses a public swale or ditch.
- h. Altering the shoreline or bank of any surface water body.

21-53.03 – Exemptions to Permit Requirements

The following activities shall be exempt from the formal stormwater permitting procedures of this article:

- a. Maintenance work on utility or transportation systems, if performed on established rights-of-way or easements; provided such maintenance work does not alter the purpose and intent of the system as constructed.
- b. Maintenance work performed on mosquito control drainage canals.
- c. Any maintenance, alteration, renewal, use or improvement to any existing structure not changing or affecting the rate or volume of runoff or the impervious surface area.

- d. The acceptance of a plat by the City Council in accordance with the subdivision regulations or approval of a site plan, shall be construed to include an approval of the stormwater management system and a separate permit under this Section is not required. Subsequent changes or additions not reflected by the accepted plat, or site plan, however shall be subject to the terms of this Article.
- e. Any maintenance, alteration, renewal, use or improvement to an existing structure that does not increase the rate or volume of stormwater runoff. The City will recognize exemptions given by the SJRWMD, provided the exemption and design standards comply with the City Land Development Code and/or Standard Construction Details.
- f. Construction of any new structure that consumes less than 1,000 square feet of impervious surface per parcel. The total impervious surface per parcel shall not exceed 1,000 square feet to qualify for this exemption.

21-53.04 - General Design Standards

- a. In general, the latest revision of the U.S. Department of Agriculture, Soil Conservation Service's Technical Release No. 55 entitled A Urban Hydrology for Small Watersheds shall be used in the stormwater designs described herein. However, the City Engineer may authorize the use of alternative methodology if similar results are produced.
- b. Three (3) copies of the stormwater calculations prepared by a licensed professional engineer shall be submitted for all proposed development permits not requiring a SJRWMD permit.
- c. Innovative approaches to stormwater management shall be encouraged and the concurrent control of erosion, sedimentation and flooding shall be mandatory. Best Management Practices (BMPs) shall be used in controlling stormwater runoff prior to discharge to the City's MS4 or waters of the United States.
- d. On-site pollution abatement shall be provided for no less than one-half-inch runoff depth over the entire project area.
- e. Pollution abatement shall be provided through retention where the project soils allow the process to occur. If one hundred percent (100%) of the retention volume is not capable of evacuation within seventy-two (72) hours through percolation and evapo-transpiration, detention with filtration shall be used.
- f. Other alternative methods, such as wet detention with controlled bleed down, are acceptable at the discretion of the City Engineer, provided a permit from the SJRWMD is obtained.
- g. All project areas greater than one quarter (1/4) acre shall also calculate the retention volume based upon the runoff generated from the first one inch (1") of rainfall and be calculated as the total percentage of impervious surface, including pond surface area, multiplied by one inch of rainfall. If the runoff depth does not exceed one half-inch, one-half inch shall be used as the runoff value.

- h. The use of filtration systems is not permitted. If no other stormwater treatment method is available, the TRC may approve the use of filtration systems (underdrain or exfiltration) and shall require a minimum of two (2) soil borings that detail soil profile, seasonal high water table and any pertinent percolation rates at the filter site location by a certified geotechnical engineer registered in the State of Florida.
- i. All projects that qualify for SJRWMD Surface Water Management Permits pursuant to Chapter 40C-42, FAC shall provide copies of the permit application and calculations to the Development Services Department as part of the site review process. Final District approval shall be granted prior to issuance of Development Order or any construction permits.
- j. All projects that qualify for a FDEP - NPDES Permit pursuant to Chapter 62-621, F.A.C. shall provide copies of the Notice of Intent and all attachments to the Development Services Department as part of the site review process. Two (2) copies of the Erosion & Sediment Control Plan shall be submitted.
- k. The post-development discharge rate and volumes shall not exceed the pre-development rates in a 100 year/3 day storm event for land-locked basins and 25 year/24 hour storm event for a positive outfall basin.
- l. All rainfall amounts shall be interpolated from the hydrograph contour in the latest version of TR- 55 for the particular area of the City.
- m. The peak discharge rate from a developed or redeveloped site shall not exceed the peak discharge rate prior to development or redevelopment.
- n. No site alteration shall cause siltation of wetlands, pollution of downstream wetlands, reduce the natural retention or filtering capabilities of wetlands.
- o. No site alteration shall allow water to become a health hazard or contribute to the breeding of mosquitoes.
- p. All stormwater design shall be consistent with the City's Standard Construction Details.

21-53.05 - Site Attenuation Standards

- a. Proposed stormwater management facilities must be designed to meet the minimum design performance criteria, for both water quality treatment and attenuation, established by the SJRWMD within Chapters 40C-4, 40C-40, 40C-41 and 40C42, F.A.C. (or current chapters). Plans and computations shall be signed, sealed and dated with a readable signature.
 - 1. Stormwater management systems shall comply with accepted engineering practices to minimize pollution, remove oils and suspended solids and other objectionable material contained within the stormwater runoff to acceptable limits, as well as employ Best Management Practices.

21-53.06 - Positive Outfall Standards

- a. A positive drainage outfall system shall be provided to a public conveyance which does not adversely impact downstream owners or adjacent lands, nor redirect preexisting runoff to previously unaffected lands. A drainage easement shall be required for outfall systems which affect private property.
- b. In the case of preexisting flooding downstream, the City Engineer may allow the relocation of the natural outfall if it can be shown that:
 1. Redirection of water will help mitigate downstream flooding problems.
 2. Land receiving new upstream discharge demonstrates the capability to handle additional upstream discharge.
 3. The owner(s) of new receiving land presents an acknowledgment and acceptance of the outfall flows.
 4. All stormwater discharge to Class II Waters, principally the Indian River Lagoon, shall meet the requirements of Chapter 62-302, F.A.C.
 5. The seasonal high water table shall not be reduced if adverse effects on wetlands or increased flows to the detriment of neighboring lands result.
- c. Stormwater Discharges to the MS4 and Waters of the United States
 1. Discharges to the City's MS4 shall be controlled to the extent that such discharges will not impair the operation of the MS4 or contribute to the failure of the MS4 to meet any local, state or federal requirements, including but not limited to, NPDES Permit ID No.FLR04E016. Discharges to the waters of the United States shall be controlled to the maximum extent practicable as defined in the NPDES Permit ID NO. FLR04E016.
 2. Any person responsible for discharges determined by the City to be contributing to the failure of the City's MS4 or waters within the City shall comply with the provisions and conditions of NPDES Permit ID No. FLR04E016 and shall provide corrective measures within 30 days of notification by the City and shall be subject to payment of fines and damages.
- d. Stormwater Discharges from Industrial and Construction Activities
 1. Stormwater discharges from industrial activities shall be treated or managed on site, in accordance with appropriate federal, state or local permits and regulations prior to discharge to the City's MS4 or to waters of the United States.
 2. Stormwater discharges from construction activities shall be treated or managed on site in accordance with appropriate federal, state or local permits and regulations prior to discharge to the City's MS4 or to waters of the United States. Erosion, sediment and pollution controls for the construction site shall be properly implemented, maintained and operated according to a pollution prevention plan required by an NPDES permit for the discharge of stormwater from construction

activities or according to a state permit issued by the Florida Department of Environmental Protection or the St. Johns River Water Management District.

3. The owners or operators of industrial facilities and construction sites which will discharge stormwater to the City's MS4 or to waters of the United States within the City limits shall provide written notification of the connection or discharge prior to the discharge from the industrial activity or construction activity.

e. Prohibition of Illicit Discharges and Illicit Connections

1. Illicit discharges and illicit connections not exempt under the provisions of this Article are prohibited.
2. Failure to report a connection from industrial activities or construction activities to the City's MS4 or to waters of the United States constitutes an illicit connection.
3. Failure to report a discharge from industrial activities or construction activities to the City's MS4 or to waters of the United States constitutes an illicit discharge.
4. Any discharge to the City's MS4 or to waters of the United States which is in violation of federal, state or local permits or regulations constitutes an illicit discharge.
5. Persons responsible for illicit discharges or illicit connections shall immediately, upon notification or discovery, initiate procedures to cease the illicit discharge or illicit connection, or obtain appropriate federal, state, or local permits for such discharge or connection.

f. Exemptions for Illicit Discharges and Illicit Connections

The following activities shall not be considered either an illicit discharge or illicit connection unless such activities cause, or significantly contribute to, the impairment of the use of the City's MS4 or the violation of the conditions of NPDES Permit No. FLR04E016.

- a. Water line flushing
- b. Flushing of reclaimed water lines
- c. Street cleaning
- d. Construction dust control
- e. Landscape Irrigation
- f. Diverted stream flows
- g. Rising ground waters
- h. Foundation and footing drains
- i. Swimming Pool Discharges
- j. Uncontaminated ground water infiltration
- k. Uncontaminated pumped ground water
- l. Discharges from potable water sources
- m. Air conditioning condensate
- n. Springs
- o. Individual residential car washing
- p. Flows from riparian habitat and wetlands
- q. Discharges or flows from emergency fire fighting activities and

emergency response activities done in accordance with an adopted spill/response action plan.

21-53.07 - Shoreline Protection Standards

- a. Vertical seawalls and bulkheads are prohibited unless a variance is approved pursuant to the requirements of Section 21-100. Hardening of the estuarian shoreline shall be permitted only when other stabilization methods are not practical and erosion is causing a significant threat to real property. Permits from the appropriate regulatory agency are required.
- b. A 50 foot wide shoreline buffer zone upland from the mean high water mark along the Indian River Lagoon is hereby established. Except as provided in subsection “d” below, the native vegetation shall be maintained and no development shall be permitted.
- c. All portions of the shoreline containing wetlands vegetation are subject to the requirements of Section 21-41.
- d. No more than twenty percent (20%) or twenty-five feet (25’), whichever is greater, of the shoreline within property boundaries may be altered for reasonable access. Reasonable access may include docks, boat ramps, pervious walkways and elevated walkways.

21-53.08 - System Maintenance Standards

- a. Except for systems accepted for City maintenance, property owners and/or occupants shall ensure that all stormwater facilities are maintained in proper working condition.
- b. The property owners of private systems shall execute an access easement to permit the City to inspect and, if necessary, to take corrective action should the owner fail to properly maintain the system(s).
- c. Should the owner fail to properly maintain the system(s), the City shall give such owner written notice of the nature of the corrective action necessary.
- d. Should an owner fail to complete corrective action within thirty (30) days of the written notice from the City, the City may enter the parcel, complete the corrective actions and assess the costs of the corrective action to the owner.
- e. All areas and/or structures to be maintained by the City must be dedicated to the City by plat or separate instrument and accepted by the City Council upon a recommendation from the City Engineer and Development Services Director.

21-53.09 - Stormwater Permit Application

- a. A stormwater permit application is required for development activity as described in Section 21-53.02. The application shall include:

1. Non-residential Sites:
 - a. Detailed site plan prepared by a professional engineer or architect registered in the state of Florida.
 - b. Topographic maps of the site before and after the proposed alteration, as prepared by a professional engineer or land surveyor registered in the state.
 - c. General vegetation maps of the site before and after the proposed alteration.
 - d. Construction plans, specifications, computations and hydrographs necessary to indicate compliance with the requirements of this Article, as prepared by a professional engineer registered in the State of Florida. Construction plans shall be readable with a minimum scale of one-inch (1") equals thirty feet (30').

2. Residential Sites:
 - a. Map of the site as prepared by a professional engineer or land surveyor registered in the state.
 - b. Proposed alterations with all impervious surface areas shown to scale on the survey.
 - c. All proposed pond and/or swale dimensions and depths.
 - d. A statement expressing the intent and scope of the proposed project.

21-53.10 - Plan Adherence

- a. Upon issuance of a stormwater permit, the applicant shall be required to adhere to the permit as approved. Any change or amendments to the plan must be approved by the City Engineer in accordance with the procedures set forth above.
- b. All stormwater conveyance appurtenances including ponds and swales to rough grade shall be in place prior to construction of any other improvements. Sodding or other erosion control measures may be required during construction in order to control erosion and sediment.
- c. Structural controls and other BMPs used for controlling the discharge of pollutants to the City's MS4 or to waters of the United States shall be operated and maintained so as to function in accordance with permitted design or performance criteria and in compliance with federal, state or local permit conditions and regulations.
- d. After the completion of the project, the applicant or his engineer shall submit as-built plans to the Development Services Department.

21-53.11 - Enforcement

In addition to the code enforcement remedies described in Article X, the City Engineer or the City Manager (or his designee) is authorized to:

- a. Issue written notice to the applicant specifying the nature and location of the alleged noncompliance with a description to bring into compliance within a reasonable specified time; and/or

- b. Authorize the issuance of a stop-work order directing the applicant or person in possession to cease and desist all or any portion of the work that violates the provisions of this Section if the remedial work is not completed within the specified time.

SECTION 21-54 - LANDSCAPING REQUIREMENTS

21-54.01 - Comprehensive Plan Reference

The intent of this Section is to improve the appearance of the City, protect and improve property values and establish an integrated system of landscaping and horizontal corridors that provide visual accessibility to businesses. The provisions of Section 21-54 - Landscaping are consistent with and implement the Comprehensive Plan contained in the Future Land Use Element, Utilities Element and Recreation & Open Space Element

This Section applies to all proposed development and redevelopment. New subdivisions are subject to the requirements of Article XIII. Properties located within the Indian River Boulevard Overlay are subject to the requirements contained in Article XVIII - Indian River Boulevard Corridor Design Regulations. Landscaping plans must be submitted as a component of development approval.

The City of Edgewater encourages innovative water conservation planning, design and techniques, including xeriscaping landscaping methods as defined in Article II.

21-54.02 - Installation Standards

- a. The property owner shall be responsible for the installation of required landscaping in conformance with accepted commercial planting procedures.
- b. The property owner shall be responsible to ensure that all required landscaping is maintained in a healthy condition, including but not limited to, sufficient watering and trimming.
- c. All plant materials used in conformance with the requirements of this Section shall be Florida grade #1, as established, and periodically revised by the Florida Department of Agriculture and Consumer Affairs.
- d. Ground cover shall be planted so as to present a finished appearance and complete coverage within twelve (12) months of installation.
- e. Shrubs and hedges shall be non-deciduous species, shall be a minimum of twenty-four inches (24") in height immediately after planting. Plants shall be spaced no more than three feet (3') apart measured center to center. The number of shrubs required shall be determined by the linear length of the lot perimeter divided by three.
- f. Sod shall be used in road right-of-ways, swales, stormwater management areas and other areas subject to erosion. All new development or expansions must sod all disturbed areas of the lot prior to the time the Certificate of Occupancy is issued in accordance with all applicable regulatory agency requirements.

- g. Landscaped areas required by this Section shall not use either the trees listed in Table V-6 nor the plants listed in Table V-2.

**TABLE V- 2
PROHIBITED PLANTS**

COMMON PLANT NAME	BOTANICAL NAME
Acacia	Acacia spp.
Air Potato Vine	Dioscorea bulbifera
Caster Bean	Ricinus communis
Hydrilla	Hydrilla verticillata
Kudzu Vine	Paeraria lobate
Mimosa	Albizia julibrissin
Paper Mulberry	Broussonetia papyrifora
Rice Paper Plant	Tetrapanax papyriferus
Rosewood	Dalbergia sissoo
Taro	Colocasia esculenta
Water Hyacinth	Eichhornia spp.
Cogongrass	Imperata cylindrical
Tropical Soda Apple	Solanum viarum
Catclaw mimosa	Mimosa pigra
Old World climbing fern	Lygodium microphyllum
Skunk vine	Paederia foetida

21-54.03 - Parking Lot Landscaping Requirements

The requirements of this subsection shall apply to new parking areas, altered or improved parking areas and parking areas that are altered due to a change in use of the primary structure.

- a. A minimum ten foot (10') wide landscaped area shall be provided between vehicular use areas and any adjacent public roadway.
- b. Landscaped areas shall be protected from vehicular encroachment with effective curbs. Wheel stops are permitted only when certain stormwater system conditions warrant their use. Wheel stops are permitted on the perimeter of the parking area only and shall be maintained by the property owner in a manner as to not cause any bodily injury or property damage. Wheel stops shall be avoided in principle areas of pedestrian movement.
- c. Parking areas shall be designed so that in areas other than industrial zoned property no more than ten (10) spaces in a row occur and shall have a minimum ten foot (10') landscaped island in between.
- d. Parking lots shall have a minimum of a ten foot (10') landscape area abutting the stalls unless abutting sidewalks.

21-54.04 - Buffer Yard Determination Process

The City shall utilize a matrix to determine buffer requirements.

- a. Determine the type of proposed use.
- b. Identify the type(s) of uses adjacent to the proposed site, except the side adjacent to a public roadway.
- c. Identify the use intensity classification from Table V-3, i.e., Class I, II, III, IV, V or VI.
- d. Determine the buffer yard classification from Table V-4, i.e., A, B, C or D. For example, a Class III land use adjacent to a Class II land use requires a B buffer yard.
- e. Select the desired buffer yard components for each perimeter of the site from the B buffer yard options in Table V-5. For example, a project needing a B buffer yard has the following options to meet the buffer yard requirement:
 1. Install a 35 foot wide buffer yard with 24 plants per 100 linear feet and one tree for each 1500 sq. ft. of lot area and no wall (e.g. 200-foot wide lot = 48 shrubs/five (5) trees); or
 2. Install a 20 foot wide buffer yard with 32 plants per 100 linear feet and one tree per 1500 sq. ft. of lot area and a 6 foot high masonry wall (e.g. 200-foot wide lot = 64 shrubs/three (3) trees); or
 3. Install a 15 foot wide buffer yard with 40 plants per 100 linear feet and one tree per 1500 sq. ft. of lot area and a 6-foot high masonry wall (e.g. 200-foot wide lot = 80 shrubs/ two (2) trees).
- f. Where walls are selected, they shall be inside the buffer area with plantings on the outside.
- g. A project could have different buffer yard requirements for the rear and each side depending upon the adjacent uses.
- h. The buffer yard plan shall be included in the landscaping plan.
- i. Planting of trees in buffer areas may satisfy the total number to meet the one tree per 1,500 square feet of lot area requirements.

**TABLE V-3
USE INTENSITY CLASSIFICATION**

Class I	Class II	Class III	Class IV	Class V	Class VI
Single Family	Townhouses	Day Care - Children or Adults	Restaurant	Places of Assembly	
Duplex	Community Residential Homes	Manufactured Home Subdivisions	Bars, Lodges	Outdoor Recreation	Outdoor Storage
Multifamily Dwellings less than 4 units	Multifamily Dwellings	Professional Offices	Schools - Public Private No spec.	Warehouse & Distribution	Body Shops Auto Service/Repair
					Machine Shops
	Institutional Residential Homes		Automobile Sales	I-1 Uses Not Specified	I-2 Uses Not Specified
		Nursing Homes/ALF's	Retail - Not Specified	BPUD uses not specified	IPUD uses not specified
	Bed & Breakfast	Personal Service Establishments	Indoor Recreation		
		Places of Worship	Hotels & Motels		
	RPUD	Medical, Dental & Veterinary Clinics	Shopping Centers		
			Theaters		
		Mini-warehouse	B-3 & B-4 Uses Not Specified		
		Marinas/Fish Camps			

**TABLE V-4
BUFFER YARD CLASSIFICATIONS**

Adjacent (Existing) Use Intensity Class From Table V-3	Proposed Use Intensity Class From Table V-8					
	I	II	III	IV	V	VI
Class I	N/A	A	B	C	C	D
Class II	A	A	B	C	C	D
Class III	B	B	A	A	A	A
Class IV	C	C	A	N/A	N/A	A
Class V	C	C	A	N/A	N/A	N/A
Class VI	D	D	A	A	N/A	N/A

TABLE V-5

BUFFER YARD PLANTING OPTIONS

Table V-4 Buffer Class	Min. Buffer Yard Width Ft.	Plants/ 100 Ft.	Req. Screening	Req. Trees
Class A	20	20	None	(1)
	15	27.5	None	(1)
	10	37.5	None	(1)
Class B	35	24	None	(1)
	20	32	(2)	(1)
	15	40	(2)	(1)
Class C	50	30	None	(1)
	40	40	(2)	(1)
	30	50	(2)	(1)
Class D	70	36	(2)	(1)
	50	48	(2)	(1)
	40	60	(2)	(1)

(1) One tree per 1500 sq. ft. of buffer yard.

(2) 6 foot masonry wall (inside buffer) plus required plantings and trees (outside of wall) unless part of an approved Master Development Plan.

21-54.05 - Buffer Yard Installation Standards

- a. Buffer yards shall be located at the perimeter of the property and shall not be located in an existing or proposed public road right-of-way.
- b. When additional plants or trees are required in areas with existing natural vegetation, it shall be planted to minimize disturbance of suitable native plants.
- c. In the event it is impractical to install landscaping outside of a required wall, fifty percent (50%) of the required buffer yard plantings may be located on either side of a required wall on the same parcel.

SECTION 21-55 - TREE PROTECTION REQUIREMENTS

21-55.01 - Comprehensive Plan Reference

The intent of this Section is to protect certain trees to aid in the stabilization of soil by the prevention of erosion and sedimentation, reduce stormwater runoff and assist with the replenishment of groundwater supplies. The provisions of this Section are intended to provide a haven for wildlife, protect and increase property values, provide a noise buffer and enhance the City's physical and aesthetic environment.

Policy statements implementing these intents were adopted in the Comprehensive Plan. The provisions of Section 21-55 - Tree Protection are consistent with and implement the Comprehensive Plan policies contained in the Future Land Use Element and Recreation/Open Space Element.

21-55.02 - Tree Removal Permit

- a. **Standard Permits:** A tree removal permit shall be required for specimen trees of six inches (6") DBH (diameter at breast height measured 4 ½ feet from base of tree) or larger on all property within the City limits. Trees shall be defined by Section 21-20.02. Trees to be removed in this category will be required to be replaced if there is an insufficient number of trees left on the lot.
- b. Replacement trees shall be a minimum of 2 ½ inches in diameter measured 6 inches above the soil line or 10 feet in height above the soil line. An application for the permit is available in the Development Services Department. Fifty-percent (50%) of replacement trees shall be specimen trees as identified in Section 21-55-06.
- c. **Historic Tree Permits:** A tree so designated as historic per Section 21-55.05 shall only be removed by special permit granted by the City Council under Section 21-55.03 (b).
- d. Specimen and Historic trees, regardless of location, shall only be removed upon the issuance of a tree removal permit.
- e. Any tree listed in Table V-6 may be removed without a tree permit and shall be prohibited from use in landscaping areas.

**TABLE V-6
PROHIBITED TREES**

COMMON TREE NAME	BOTANICAL NAME
White Mulberry	Morus rubra
Australian Pine/Beefwood	Casuarina spp.
Brazilian Pepper	Schinus terebinthifolia
Cajeput or Punk Tree/Melaleuca	Melaleuca quinquenervia
Camphor	Cinnamomum camphora
Chinaberry	Melia azedararach
Chinese Tallow	Sapium sebiferum
Ear Tree	Enterolobium cyclocarpum
Eucalyptus	Eucalyptus spp.
Jacaranda	Jacaranda acutifolia
Silk Oak	Grevillea robusta
Woman's Tongue/Mimosa	Albizia lebeck spp.
Norfolk Island Pine	Araucaria heterophylla
Paper Mulberry	Broussonetia papyrifera
Golden Raintree	Koelreuteria paniculata
Orchid Tree	Bauhinia spp.
Carrotwood	Cupaniopsis anacardioides

21-55.03 - Tree Removal Permit Standards

- a. Existing trees may be relocated to suitable areas on same site in accordance with sound industry practices, refer to Section 21-311.
- b. All mitigated (replaced or relocated) trees shall utilize the provisions of the Tree Protection Manual For Builders and Developers published by the Florida Department of Agriculture and Consumer Services Division and shall be a minimum of 2.5 inches measured six inches (6") above the soil line or 10-feet in height above the soil line. Historic tree removal permits granted by the City Council shall have the following options:
 - 1. Determine the tree to be removed is in such a condition that it is hazardous to the surrounding area or structure(s) that no replacement is necessary, or

2. Require the replacement of historic trees at a ratio of one inch (1”) diameter to one inch (1”) diameter of replacement trees, or
 3. Require the payment of money per Section 21-311 equivalent to the replacement cost of the replacement trees.
- c. Relocated trees shall be planted in landscape buffer areas or parking island areas provided with irrigation systems.
 - d. All tree plantings shall be replaced if they die within two (2) years after installation. The health of a replacement tree shall be maintained for a period of two (2) years from the date of planting. The two (2) year maintenance period shall begin anew whenever a tree is replaced.
 - e. Replacement trees shall be sufficiently spaced to allow adequate growth room for the species.

21-55.04 - Exemptions

Notwithstanding any other provision of this Section to the contrary, any person may cut down, destroy, replace or authorize removal of one or more trees, whose trunks lie wholly within the boundaries of property owned by said person without a tree removal permit if any of the following criteria are met:

1. The property is engaged in active silviculture uses; or
2. The property contains trees which may have been determined by the Building Department to be deteriorated as a result of age, hurricane, storms, fire, freeze, disease, lightning or other natural acts; or
3. The trees are within an existing public or private right-of-way or maintenance easement and requires action to maintain traffic visibility at intersecting public streets or such other trees which may disrupt public utilities, such as powerlines, drainage ways or other public needs.

21-55.05 - Historic Trees

Historic trees shall only be removed upon approval of a Tree Removal Permit granted by the City Council. Historic trees are those listed in Section 21-55.06 that reach 36-inches DBH with the exception of the Laurel Oak.

21-55.06 - Specimen Trees

Specimen trees shall not be removed without a Tree Removal Permit or as part of an approved development plan. The following trees are designated as Specimen Trees.

Common Name	Botanical Name	Inches (DBH)
Elm	Ulmus spp.	12 plus
Hickory	Carya spp.	12 plus
Loblolly Bay	Gordonia lasianthus	12 plus
Magnolia	Magnolia grandiflora	12 plus
Maple	Acer spp.	12 plus
Other Oak Species	Quercus spp.	12 plus
Red Bay	Persea borbonia	12 plus
Red Cedar	Juniperus silicicola	12 plus
Swamp Bay	Persea palustris	12 plus
Sweet Bay	Magnolia virginiana	12 plus
Sweet Gum	Liquidambar styraciflua	12 plus
Sycamore	Platanus occidentalis	12 plus
Turkey Oak	Quercus laevis	12 plus
Cypress	Taxodium spp.	12 Plus
Sugarberry/Hackberry	Celtis laevigata	12 Plus
Slash Pine	Pinus elliottii	18 Plus
Longleaf Pine	Pinus palustris	18 Plus

21-55.07 - Historic and Specimen Tree Protection Requirements

- a. All development projects shall provide a plan to protect historic and/or specimen trees after construction has occurred on a site. Such plan may include, but not be limited to conservation easements, common open space, tree protection easements, deed restrictions and homeowner association documents. The minimum protection requirements for historic and specimen trees are as follows:

Number of Trees	Minimum Tree Protection
less than 2.9 per acre	80 percent
3.0 to 5.0 per acre	65 percent
5.1 to 8.0 per acre	50 percent
8.0 plus per acre	4 per acre

- b. All proposed development projects shall be required to include a tree survey by either a licensed Surveyor or Arborist, locating all Specimen and Historic Trees.
- c. Statistical tree survey information may be considered at the direction of the TRC. However, such statistical surveys shall be limited to sites containing an overstory consisting

predominantly of trees uniform in age, species and distribution which do not contain specimen or historic trees. Statistical surveys must be conducted in compliance with accepted forestry practices.

- d. All trees to be preserved shall be identified on site by harmlessly marking or banding.
- e. All trees to be preserved shall have their natural soil level maintained. Tree wells and/or planter islands shall be provided if necessary to maintain the natural existing soil levels. All efforts shall be made to maintain the natural drainage of trees in the grading and drainage plan.
- f. Prior to construction, the developer shall erect protective barriers around all trees to be preserved. These barriers shall be sufficient to prevent intrusion on that area within the drip line of the canopy of the tree.
- g. During construction, no signs, attachments or permits may be attached to any protected tree.
- h. No existing or replacement trees shall be removed after a Certificate of Occupancy is issued.

21-55.08 – Area Tree Protection Requirements

Fifteen percent (15%) of the square footage of any development shall be designated for the protection of trees. The area required to protect historic/specimen trees may be included to satisfy this requirement. This required area may be constituted as one or more sub-areas within the development. Said area may include any landscape buffer or other areas as required by the City on a development. Such designated areas shall contain sufficient land area to comply with minimum tree protection standards to adequately protect the trees contained within the areas. A minimum of fifty percent (50%) of the required minimum number of trees as provided in Section 21-55.07 shall consist of existing trees within said areas. The City may provide for a waiver or modification of this requirement if the development contains an insufficient amount of existing trees to meet this requirement or, if the City determines that modification of this requirement is warranted by specific on-site conditions.

21-55.09- Installation Requirements

- a. Single-family and duplex lots shall have a minimum of one (1) tree per 1,500 square feet of lot area.
- b. All development projects requiring site plan approval shall contain a minimum of one (1) tree for every 1,500 square feet of lot area.
- c. If the lot contains an insufficient number of existing trees to meet these requirements, replacement trees shall be provided per Section 21-55.02(b).
- d. In the event it is impractical to install the required number of replacement trees due to lot size, building configuration or other impediments, the Development Services Department may:

1. Allow up to a forty percent (40%) modification in the number required as long as the overall caliper requirements are fulfilled; or
 2. Allow the required trees to be planted on City property.
- e. Existing trees shall meet the definition provided in Article II to be counted in minimum requirements.

21-55.10 - Enforcement

- a. The Development Services Director, Building Official or designee shall issue a stop-work order to any person found in the act of cutting down, destroying, damaging or removing trees in violation of this Section.
- b. Historic/specimen trees removed in violation of this Section shall be replaced at a ratio of 2 inches per inch of caliper lost. In lieu of physical replacement, City Council may impose a fee of \$37.00 per cross sectional square inch lost or combination thereof.

SECTION 21-56 PARKING AND LOADING REQUIREMENTS

21-56.01 - Comprehensive Plan Reference

Chapter 163.3202, F.S. requires adoption of land development regulations to include safe and convenient off-street parking and loading provisions. The provisions of Section 21-57 - Parking and Loading Requirements are consistent with and implement the Comprehensive Plan contained in the Future Land Use Element and Utilities Element.

Properties located in the Indian River Boulevard Corridor Overlay are also subject to the regulations contained in Article XVIII for parking and loading design layout.

21-56.02 - Off-Street Parking Standards

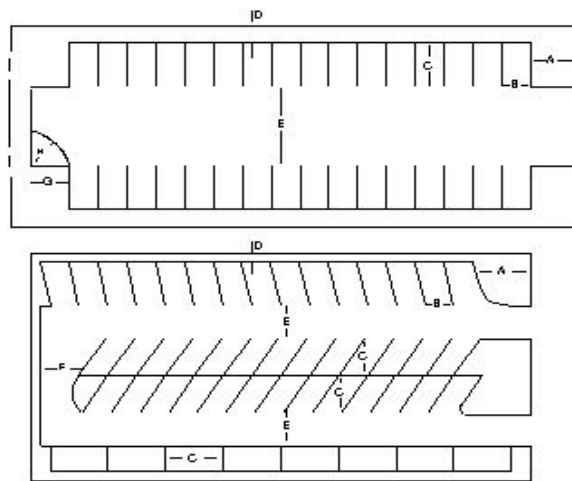
- a. All required off-street parking shall be located a minimum of ten feet (10') behind the right-of-way line of the adjacent street and on the same parcel as the building which they are intended to serve, unless a joint parking area agreement is executed as described in Section 21.57.04.
- b. No building permit, site plan, conditional use, planned unit development or business tax receipt application shall be approved unless the required number of spaces are provided in compliance with the requirements herein unless a variance has been approved.
- c. Any use that becomes non-conforming as to parking requirements upon adoption of this Article shall be required to come into compliance if the use changes or the structure is expanded by more than twenty percent (20%).
- d. The parking lot design standards are depicted in Table V-7 and Figure V-7A.

**TABLE V-7
Parking Lot Design Standards**

Stall Angle / Requirements (ft)	45 Dgres	50 Dgres	55 Dgres	60 Dgres	90 Dgres	180 Dgres
Offset - A	18'	16'	13'	10'	10'	10'
Space Width - B	12'	12'	13'	10'	10'*	10'
Space Depth - C	18'	18'	19'	20'	20'*	22'
Landscape Area - D	10'	10'	10'	10'	10'	10'
Aisle Width - E	13'	15'	16'	18'	24'	15'
Turning Area - F	17'	16'	15'	14'	14'	14'
Maneuver Depth - G					15'	
Maneuver Radius - H					15'	

*Note 2' overhang is permitted when parking stalls are curbed.

FIGURE V - 7A



- e. Maneuvering areas shall be designed to permit vehicles to enter and leave the parking area in a forward direction.
- f. Any vehicle backup areas shall be fifteen feet (15') deep and have a minimum fifteen foot (15') turning radius.
- g. Driveways shall be considered parking spaces on parcels developed for single-family residences. All driveways shall be paved including the aprons and shall be constructed no closer than five feet (5') to any lot line or encroach into any side or rear easement.
- h. When the parking calculations described in Table V-8 result in a fractional parking space, fractions less than $\frac{1}{2}$ shall be disregarded and fractions greater than $\frac{1}{2}$ shall require a full space.
- i. Each parking lot shall have direct access to a public street or legal easement as part of an approved development plan.
- j. All parking areas shall be landscaped as provided in Section 21-54.
- k. Parking areas shall be hard-surfaced using material approved by the City.
- l. All site plans shall include FDOT standard traffic control signs and pavement markings necessary to ensure safe traffic and pedestrian flow, including but not limited to, fire lanes.
- m. All customer generated parking areas shall be used for vehicle parking only.

- n. No door or pedestrian entrance at ground level shall open directly upon a driveway or access aisle unless the doorway of the entrance is at least three feet (3') from said driveway or access aisle or unless improvements are provided to allow for safe doorway access.
- o. All parking spaces shall have lines between each space and shall be maintained by the property owner.
- p. Public rights-of-way shall not be used to satisfy on-site parking or loading requirements.
- q. Development may be required to provide fire lanes in accordance with the Florida Fire Prevention Code

**TABLE V -8
OFF-STREET PARKING REQUIREMENTS**

Land Use Category	Spaces	Unit of Measure
Adult Living Facility	2	Each largest shift employee plus 1/5 beds
Assembly Places With Fixed Seats	1	per 4 seat plus 1 per employee
Assembly Places w/o Fixed Seats	1	40 SFGFA of main assembly area space
Auto Sales *	1	400 SFGFA plus
	1	1 space for each vehicle for sale/lease
Auto Service/Repair	3	Service bay plus
	1	200 SFGFA non bay area
Beauty/Barber Shops	1.5	per chair
Bed & Breakfast	1	per each room rented plus residential requirements
Community Residential Homes	1	Employee plus 5 visitor spaces
Convenience Stores	1	200 SFGFA
Day Care - Children or Adults	1	Employee plus a 5 space drop area plus
	1	per 25 students
Restaurants/Bars/Lodges	1	4 Seats plus
	1	per 2 employees
Financial Institutions	1	250 SFGFA on ground floor plus
	1	200 SFGFA on other floors
Funeral Homes	1	4 Seats in main assembly area plus
	2	business vehicle
Furniture, Appliance and Similar	1	400 SFGFA
	1	750 SFGFA
Health/Fitness	1	150 SFGFA
Hotel/Motel	1	each bedroom unit plus
	1	per 2 employees
Lab/Research Facilities	1	each employee
Machine Shop/Repair	1	400 SFGFA
Manufacturing - General	1	2 employees on largest shift
Marinas/Fish Camps	1	Boat slip plus
	4	4 boat trailer spaces per boat ramp plus any accessory requirements
Medical/Dental or Veterinary Facilities	1	Each employee plus
	2	Examination rooms
Mini-warehouse	1	Per office
Residential, Institutional/Multi-Family	1.5	Unit plus 5% for visitors
Personal Service Not specified	1	300 SFGFA
Pool Hall/Billiards	2	per pool table plus
	1	employee
Professional Offices	1	250 SFGFA
Recreation - Outdoor	1	Each employee plus
	1	4 patrons capacity
- Indoor	1	400 SFGFA
Retail Not Specified	1	250 SFGFA
Schools - Other Than High School	1	Each employee plus
	1	4 spaces per instructional room
- High School & Community College	1	4 students plus
	1	each employee
Single Family, Duplex & Mobile Homes	2	Unit
Shopping Centers	5	1000 SFGFA
Theaters	1	10 Seats
Warehouse, Storage & Similar	1	1000 SFGFA

*Auto Sales to have display parking requirements of 8'x16' all other parking 10' x 20'

Notes:

SFGFA = Square Feet of Gross Floor Area, i.e., the total floor area inside the outside walls of the structure(s).

21-56.03 - Handicapped Parking Standards

- a. Development must meet Florida Accessibility Codes.

21-56.04 - Joint Parking Use Agreements

- a. The Development Services Director may authorize a reduction in the parking requirements for two or more uses jointly providing off-street parking.
- b. A reduction may be authorized in such cases if the developer submits sufficient data to demonstrate that the hours of maximum demand for parking at the respective uses do not normally overlap.
- c. The City shall have the authority to require the creation, use and maintenance of joint-use parking and/or joint-use driveways or other common ingress-egress facilities for multifamily, commercial and/or industrial uses.
- d. A joint-use parking or access agreement shall be recorded in the public records of Volusia County prior to issuance of a building permit and shall at a minimum include:
 - 1. A statement holding the City harmless from any and all claims or potential liability; and
 - 2. Shall run with the land involved and be binding on the parties to the agreement, their successors and/or their assigns.

21-56.05 - Loading Berth Standards

- a. Each required off-street loading space shall have a minimum dimension of fourteen (14') feet by forty (40') feet and a minimum overhead clearance of fourteen (14') feet above the paving grade.
- b. All commercial and industrial uses shall provide the number of off-street loading and unloading spaces described in Table V-10.

**TABLE V-10
LOADING BERTH STANDARDS**

Use Category	Floor Area (sq.ft.)	Berths Required
Retail and/or Service Uses	5,000 to 24,999	One
	25,000 to 59,999	Two
	60,000 to 119,999	Three
	120,000 to 199,999	Four
	200,000 to 289,999	Five
	290,000 plus	One/90,000 sq.ft.
Storage or Wholesale Uses	5,000 to 24,999	One
	25,000 to 59,999	Two
	60,000 to 119,999	Three
	120,000 to 199,999	Four
	200,000 to 289,999	Five
	290,000 plus	One/90,000 sq.ft.
Places of Assembly, Hotels, Motels, Office Buildings, Long Term Health Care Facilities	10,000 to 39,999	One
	40,000 plus	One/60,000 sq.ft.
Automotive, Recreation	2,000 to 14,999	One
	15,000 to 39,999	Two
	40,000 plus	One/10,000 sq.ft.
Manufacturing Uses	0 to 14,999	One
	15,000 to 39,999	Two
	40,000 to 64,999	Three
	65,000 plus	One/80,000 sq.ft.

- c. Where a building is used for more than one use or for different uses, the loading space requirement shall be based on the use for which the most spaces are required.
- d. All loading areas shall be paved and clearly marked and delineated.
- e. All loading berths and maneuvering areas shall be separated from required off-street parking facilities and shall include traffic flow directional information.
- f. Delivery truck berths may be located within required parking spaces, provided they are marked as reserved for loading purposes. Access aisles may serve both parking and loading facilities.
- g. All loading and delivery areas shall be designed to prevent backing into streets, pedestrian ways or bikeways.
- h. Off-street loading spaces shall be directly accessible from a street without crossing or entering any other loading space and may not extend into any street.

SECTION 21-57- PLANNED UNIT DEVELOPMENT DESIGN CRITERIA

21-57.01 - Comprehensive Plan Reference

The provisions of Section 21-58- Planned Unit Developments are consistent with and implement the Comprehensive Plan policies contained in the Future Land Use Element, Coastal Element, Conservation Element and Recreation & Open Space Element.

21-57.02 - Residential Planned Unit Development (RPUD)

a. Purpose

The Residential Planned Unit Development (RPUD) District is intended to provide a flexible approach for unique and innovative land development, which would otherwise not be permitted by this Code. Notwithstanding the specific criteria identified herein, RPUDs should accomplish the following purposes, to the greatest extent possible:

1. Provide a variety of housing types with a broad range of housing costs allowing for the integration of differing age groups and socioeconomic classes;
2. Promote innovative site and building design, including traditional neighborhood developments;
3. Provide efficient location and utilization of infrastructure through orderly and economical development, including a fully integrated network of streets and pedestrian/bicycle facilities;
4. Establish open areas set aside for the preservation of natural resources, significant natural features and listed species habitats;
5. Create usable and suitably located public spaces, recreational facilities, open spaces and scenic areas; and
6. Provide for other limitations, restrictions and requirements as deemed necessary by the City to ensure compatibility with adjacent neighborhoods and effectively reduce potential adverse impacts.

b. Permitted Uses

All uses in conjunction with Residential Planned Unit Developments are considered conditional and require Planning and Zoning Board and Council approval. Permitted uses are listed in Article III, Table III-3.

c. Density and Intensity

1. Variable up to 4.0 dwelling units per net acre in areas designated Low Density Residential on the Future Land Use Map.
2. Variable between 4.1 and 8.0 dwelling units per net acre in areas designated Medium Density Residential on the Future Land Use Map.
3. Variable between 8.1 and 12.0 dwelling units per net acre in areas designated High Density Residential on the Future Land Use Map.
4. Proposed residential projects containing over 500 dwelling units shall include internally oriented retail commercial uses with a minimum of 250 sq. ft. of land area per dwelling unit.

5. Medium and high-rise residential projects shall not exceed a Floor Area Ratio of 0.4 nor an Impervious Surface Ratio of 0.3.

d. Conceptual Development Plan

A Conceptual Development Plan shall be submitted along with a Development Agreement, see Section 21-101. The Conceptual Development Plan shall contain the following:

1. Minimum dimensional requirements, including proposed lot area and width, setbacks, building heights and minimum floor areas;
2. Landscaping, parking and signage;
3. Project phasing, if applicable;
4. Infrastructure improvements;
5. Common/open space areas and their use, including any resource protection areas as defined in Article IV;
6. Proposed street layout, names and lot numbers; and
7. Overall stormwater/drainage master plan.

e. Master Plan Approval

A master plan shall be submitted in conjunction with Article XIII.

21-57.03 - Business Planned Unit Development (BPUD)

a. Purpose

The Business Planned Unit Development District is intended to provide a flexible approach for unique and innovative land development proposals, which would otherwise not be permitted by this Code. Notwithstanding the specific criteria identified herein, proposals should accomplish the following purposes, to the greatest extent possible:

1. Provide for mixed use commercial, office and residential development such as shopping centers, office parks and multi-family residential developments;
2. Promote innovative site and building design;
3. Provide efficient location and utilization of infrastructure through orderly and economic development;
4. Establish open areas set aside for the preservation of natural resources, significant natural features and listed species habitats;
5. Provide for a visually attractive environment through consistency of architectural styles, landscaping designs and other elements of the built environment; and
6. Provide for requirements to ensure compatibility with adjacent neighborhoods and effectively reduce potential adverse impacts.

b. Permitted Uses

All uses in conjunction with Business Planned Unit Developments are considered conditional and require Planning and Zoning Board and Council approval. Permitted uses are listed in Article III, Table III-3. If residential uses are provided, the residential floor area shall be no greater than forty percent (40%) of the gross commercial floor area.

c. Conceptual Development Plan

A Conceptual Development Plan shall be submitted along with a Development Agreement, see Section 21-101. The Conceptual Development Plan shall contain the following:

1. Lot layouts for commercial and residential development including lot areas and widths, setbacks, building heights, lot coverage and minimum floor areas;
2. Landscaping, fencing, parking, loading areas, signage and lighting;
3. Project phasing, if applicable;
4. Infrastructure improvements;
5. Common/open space areas and their use including any resource protection areas as defined in Article IV;
6. Proposed street layout, names and lot numbers; and
7. Overall stormwater master plan.

d. Site Plan Approval

A site plan shall be submitted in conjunction with Section 21-93.

21-57.04 - Industrial Planned Unit Development (IPUD)

a. Purpose

The Industrial Planned Unit Development (IPUD) District is intended to provide a flexible approach for unique and innovative land development proposals, which would otherwise not be permitted by this Code. Notwithstanding the specific criteria identified herein, proposals should accomplish the following purposes to the greatest extent possible:

1. Provide for mixed-use industrial development such as industrial office parks, aircraft and marine related uses and limited commercial;
2. Promote innovative site and building design;
3. Provide efficient location and utilization of infrastructure through orderly and economic development;
4. Establish open areas set aside for the preservation of natural resources, significant natural features and listed species habitats;
5. Provide for a coherent and visually attractive physical environment through coordination and consistency of architectural styles, landscaping designs and other elements of the built environment; and
6. Provide for other limitations, restrictions and requirements as deemed necessary by the City to ensure compatibility with adjacent neighborhoods and effectively reduce potential adverse impacts.

b. Permitted Uses

All uses in conjunction with Industrial Planned Unit Developments are considered conditional and require Planning and Zoning Board and Council approval. Permitted uses are listed in Article III, Table III-3.

c. Conceptual Development Plan

A Conceptual Development Plan shall be submitted prior to site plan approval. The

Conceptual Development Plan shall include the following:

1. The lots areas for industrial and/or commercial development, including lot widths, setbacks, building heights, building footprint and minimum floor areas;
2. Landscaping, fencing, parking, loading areas, signage and lighting;
3. Project phasing, if applicable;
4. Infrastructure improvements, all utility lines shall be installed underground;
5. Common/open space areas and their use including resource protection areas as defined in Article IV; and
6. Overall stormwater master plan.

d. **Site Plan Approval**

A site plan shall be submitted in conjunction with Section 21-93.