

# City of Palm Coast, Florida Agenda Item

**Agenda Date:** June 9, 2026

**Agenda Item:** E.6

<b>Department</b> COMMUNITY DEVELOPMENT <b>Division</b> PLANNING	<b>Amount</b> <b>Org/Account #</b>
<b>Subject:</b> PRESENTATION - PROPOSED AMENDMENTS TO CHAPTER 11 TREE PROTECTION, LANDSCAPING, BUFFERS, AND IRRIGATION OF THE LAND DEVELOPMENT CODE	
<b>Presenter:</b> Richard Picatagi, RLA, LEED®AP, Landscape Architect, Dylan Rodriguez, Planner	
<b>Attachments:</b> 1. Presentation 2. Chapter 11 Tree Protection, Landscaping, Buffers, and Irrigation Proposed Changes	
<b>Background:</b> In May 2025, the City completed the update of the Comprehensive Plan. In order to implement the goals, objectives, and policies of the 2050 Comprehensive Plan, the Land Development Code (LDC) needs to be updated. Staff has started to draft updates to the various chapters of the LDC. Proposed amendment to Chapter 11- Tree Protection, Landscaping, Buffers, and Irrigation of the LDC will be presented by staff. The version included in the package is in a strike-thru and underline format. The proposed amendments will include changes directly related to policies in the Comprehensive Plan. Additionally, the amendments may include clarification of the code, update of references, or updates necessitated by best practices as applied in the City, or to address on-going/repetitive issues in applying the land development code.	
<b>Recommended Action:</b> <b>STAFF IS SEEKING COMMENT ON THE PROPOSED AMENDMENTS AS WELL AS SUGGESTIONS FOR ADDITIONAL AMENDMENTS</b>	



# Land Development Code Amendments

## Chapter 11 – Tree Protection, Landscaping, Buffers, and Irrigation

City Council  
Workshop  
June 9, 2026

# Land Development Code Amendments

## Chapter 11 – Tree Protection, Landscaping, Buffers, and Irrigation

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Amendments are based on the following:

- Recent update of the Comprehensive Plan
  - Implement a goal, objective, and/or policy
- To clarify the intent of the regulation
- To update references (to Florida Statutes, or agencies)
- Address on-going/repetitive issue

# Land Development Code Amendments

## Chapter 11 – Tree Protection, Landscaping, Buffers, and Irrigation

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### **Landscaping and Buffer Requirements**

- Required use of native and drought-tolerant vegetation for new development.
- Clarified buffer requirements, including adjustments to buffer widths while maintaining intent.
- Updated standards for use of existing trees, including pine tree credits and limitations.

### **Planting Standards and Design Requirements**

- Established requirements for foundation plantings in residential developments.
- Clarified tree replacement ratios and use of palms as substitutes for shade trees.
- Defined limits on use of understory trees in place of shade trees.
- Updated screening requirements for mechanical equipment and transformers.

### **Irrigation and Maintenance Requirements**

- Required moisture-sensing or smart irrigation systems for all developments.
- Established mulching standards for planting areas.
- Required certified arborists for certain tree maintenance activities.
- Required landscape and irrigation as-built drawings prior to certificate of occupancy (with exceptions).

# Land Development Code Amendments

## Chapter 11 – Tree Protection, Landscaping, Buffers, and Irrigation

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### **Enforcement/Remediation and Penalties**

- Requires irrigation of replanting's for sites cleared without proper approval.

# Land Development Code Amendments

## Chapter 11 – Tree Protection, Landscaping, Buffers, and Irrigation

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### Next Steps

- Additional questions on proposed amendments?
- Other potential amendments from the Committee
- Schedule for moving forward
  - Staff will present other LDC chapters in the coming months (Schedule has been provided to the Committee)
  - Workshop on follow-up amendments

Sec. 11.01. - General Provisions.

11.01.01. *Purpose and intent.* The purpose of this chapter is to protect the general welfare of City residents and visitors and to promote energy and water conservation; reduce air pollution and noise; enhance property values; reduce erosion; improve surface water quality and groundwater recharge; moderate temperatures by providing shade; improve compatibility between various land uses; and enhance the City's appearance. The intent of the chapter is to establish procedures and practices governing the protection, installation and long term maintenance of trees, vegetation, and other landscaping elements within the City. The criteria in this chapter are intended to institute landscape and irrigation design principles that will result in creative solutions and provide alternative means to achieve an environmentally sustainable and aesthetic community.

11.01.02. *Applicability.* The removal of trees or fill, and the excavation or dredging of any parcel of land shall be prohibited prior to issuance of all required permits (including tree removal permits), unless stated otherwise in this chapter.

- A. *Design of new development.* Developments shall be designed to the greatest extent possible to protect existing trees and their tree protection zones from stormwater facilities, drainage lines, utilities, grade changes, building footprints, parking areas, drives, and walkways. Subdivision plats shall shift lot lines to minimize placing specimen or historic trees in the buildable area of the lot, ~~if practical.~~ to the greatest extent feasible as determine by the Land Use Administrator.
- B. *Alteration of existing development.* No building or parking lot existing on August 19, 2008 shall be required to be altered or moved in order to comply with this chapter, except that the following activities shall require compliance with this LDC to the maximum extent possible. (Exceptions may be granted by the Land Use Administrator when development conflicts with pedestrian and traffic safety, interferes with the protection of specimen or historic trees or natural resources, removes required parking, or similar situations.)
1. When a structure is destroyed by fire or other calamity and is proposed to undergo substantial improvement, as defined in this LDC.
  2. When an existing non-residential building is expanded, the required building foundation plantings and their planting areas shall be provided for the new building area.
  3. When a parking/vehicular use area is expanded but not the building, the new pavement area is required to be brought into compliance with this chapter. At a minimum temporary irrigation shall be required.
  4. Any expansion project shall include replacing previously planted required landscaping that has been damaged or has died.

11.01.03. *Measurement of trees.* For the purposes of this chapter, the size of existing trees shall be calculated by the measurement of the diameter of the trunk in ~~caliper~~ Diameter at breast height (DBH) (4 feet 6 inches above ground) inches, ~~taken at breast height (four feet six inches).~~ Trees with multiple trunks at breast height will have the sum of the trunks utilized for the determination. Where the individual trunks are less than 9 inches in diameter, the largest 3 trunks will be used. The size of new landscape trees shall be calculated by measurement of the diameter of the trunk at ~~six~~ inches above grade, up to and including trees four inches in diameter. The size of new trees over four inches in diameter shall be calculated by measurement of the diameter of the trunk at 12 inches above grade.

11.01.04. *Classification of developments.* For the purpose of applying landscaping and irrigation requirements, developments are classified as follows:

- A. *MFR/COM:* Townhouse, condominium, and multifamily residential development and institutional, office and commercial uses;
- B. *IND:* Industrial and warehousing development;
- C. *SUBD:* Subdivisions in any zoning district; and
- D. *SFR/DPX:* Single-family detached and duplex development on individual lots.

( [Ord. No. 2016-6](#), § 2, 11-1-16)

Sec. 11.02. - Tree Preservation, Protection, and Replacement.

11.02.01. *Protected trees defined.* All trees that meet the following criteria are protected, with the exception of invasive species (see Section 11.02.05.C.1) and/or species not suited to this area per the United States Department of Agriculture hardiness list:

- A. The trunk is ~~6~~six inches or greater diameter.
- B. Trees with a trunk ~~4~~four inches or greater diameter, if surveyed for credit.
- C. Specimen trees, which are any protected trees with a trunk of 24 inches or greater diameter except for sand pines; however the following species are considered specimen trees when they reach one of the following:
  1. ~~12~~Twelve inches or greater diameter: Cypress, Magnolia, Loblolly Bay, Red Bay, Scrub Oak, and Red Cedar;
  2. ~~18~~Eighteen inches or greater diameter: Elm, Hickory, Oak, Green Ash, Sycamore, Date Palm, and Maple.
- D. Historic trees, which are any protected trees with a trunk of 36 inches or larger diameter.
- E. For SFR/DPX development, any tree 1½ ~~inches or greater to six inches~~ inches in diameter that was planted to meet the minimum tree density requirements or an existing tree that was previously credited towards meeting the requirements of this chapter.

11.02.02. *Tree survey requirements.*

- A. *Tree survey.* The required survey shall be accomplished within the last 24 months and shall identify all protected trees by species name and the size of the trunk measured at the diameter at breast height.
- B. *Monument signs.* Where monument signs are proposed to be located on an existing development, all protected trees that are located within 50 feet of the proposed sign shall be shown on the tree survey. At time of sign permit application, all protective measures for these trees should be depicted.
- C. *Protected, specimen, and historic trees.*
  1. *MFR/COM and IND developments.*
    - a. The tree survey shall show all protected trees ~~6~~six inches in diameter and greater from the property lines to ~~5~~five feet past the required buffer area width, except as provided in Section 11.02.02.D. Protected trees within any adjacent rights-of-way extending to the nearest street pavement shall be included in the survey.
    - b. All specimen and historic trees shall be individually located and identified over the entire site as to species and size except as provided in Section 11.02.02.D.
  2. *SUBD developments.* All ~~protected,~~ specimen, and historic trees shall be individually located and identified over the entire site as to its species and size except as provided in Section 11.02.02.D.
  3. *SFR/DPX developments.*
    - a. Protected trees ~~6~~six inches or greater diameter within all front, rear, and street side building setback areas shall be surveyed and shown on the tree survey if the trees are going to be used for credit.
    - b. Specimen and historic trees shall be surveyed over the entire lot except as provided in Section 11.02.02.D.

- D. *Survey of individual trees not required.* Under the following circumstances, the Land Use Administrator may determine that a survey identifying each individual protected tree is not warranted and a count of all protected trees including species and diameter size is acceptable:
1. When existing vegetated areas are to remain undisturbed; or
  2. Where some or all of a development site or a proposed subdivision must be filled to such an extent, in order for permitted development to occur, that there is no feasible means as determined by the Land Use Administrator to save protected, specimen, and historic trees.
  3. When the trees are located in wetland preservation or conservation areas that will not be impacted.

11.02.03. *Tree preservation.*

- A. *Specimen and historic tree preservation requirements.* Specimen and historic trees are select protected trees that due to their size and contribution to the overall tree canopy of the City are granted an extra level of significance and protection. Building footprints, drives, stormwater management facilities, and similar activities on all sites shall be designed to save the maximum practicable number of specimen and historic trees. During the subdivision platting process, lot lines shall be shifted for the same purpose. This requirement does not exclude the requirement for mitigation of any removed trees of protected statuses during the subdivision process. Table 11-1 shows the minimum percentage of specimen trees and the minimum percentage of historic trees that must be preserved individually for each category on a site. ~~Table 11-1 shows the minimum percentage of specimen and historic trees that shall be preserved on a site.~~ Owners of lots assigned the SFR, DPX, and EST zoning districts may remove any specimen or historic tree that is within the buildable area of the lot with no mitigation, if all reasonable efforts as determined by the Land Use Administrator, to shift or flip the building footprint cannot save the tree(s). ~~This requirement does not exclude the requirement for mitigation of any removed trees of protected statuses.~~

*Table 11-1: Minimum Specimen and Historic Trees to be Preserved*

Number of Specimen/ Historic Trees on a Site <sup>*1</sup>	Percentage of trees to be Preserved	
	MFR/COM, SUBD	IND
Less than 3 per acre, or a portion thereof	75%	50%
3.0 to 5.0 per acre	67%	40%
5.1 to 8.0 per acre	50%	25%
More than 8.0 per acre	4 per acre	2 per acre

\*1 For the purposes of compliance with tree preservation and mitigation requirements, specimen trees and historic trees shall be calculated and preserved as distinct categories.-

- B. *Tree preservation credits.* The following credits apply only within the COM, IND, MFR, OFC, P&G, and PSP zoning districts:
1. Trees saved in wetlands or their associated upland buffers are eligible for preservation credits; however, preservation of trees in wetlands for preservation credits may not also be

used as criteria for preserved wetlands and ~~impaired upland habitats~~ Environmentally Sensitive Lands density bonuses established in Chapter 3.

2. A stormwater retention/detention area may be credited toward meeting the tree density requirement provided the area contains tree species that will survive periodic flooding.
3. The total diameter of preserved protected, specimen, and historic trees on the site may be applied to satisfy the tree density requirements. A preserved palm tree shall be credited on a one-to-one basis for any palm tree removed.
4. Existing pine trees (other than ~~s~~Sand pine, Australian pine, Norfolk Island pine, or other invasive tree species) in good health may be used as buffer shade tree credits if they are a minimum of six inches diameter and comprise no more than 50 percent of the buffer tree requirement. If pines meeting these criteria are of good quality and spacing such that planting of new shade trees for some or all of the remaining required buffer shade trees is impractical, then existing pines may count for more than the 50 percent maximum requirement.

#### 11.02.04. *Tree protection measures.*

- A. *Canopy road, specimen, and historic tree protection.* In order to protect the existing tree canopy over portions of roadways within the City, the following roadway segments have an extra level of significance and protection: Colbert Lane (from the south right-of-way line of Palm Coast Parkway SE to 2,200 feet to the south), Palm Coast Parkway east of I-95, and Palm Harbor Parkway south of the Hammock Dunes Bridge.

Roadway projects and modifications to these roadway systems necessitated by development shall preserve and protect any specimen or historic tree within the right-of-way and within 35 feet of the right-of-way line along Colbert Lane (from the south right-of-way line of Palm Coast Parkway SE to 2,200 feet to the south), Palm Coast Parkway east of I-95, and along Palm Harbor Parkway south of the Hammock Dunes Bridge. The applicant may meet this requirement by utilizing an average protected width of 35 and a minimum width of 25 feet and maximum width of 45 feet. Within these protected tree areas, the specimen and historic trees shall not be removed except for the minimal number necessary to allow for site access, sidewalks, necessary utilities, and signage. Preservation methods are to include, but are not limited to, the following:

1. Reduction of the length of turn, deceleration, or acceleration lanes subject to public safety needs and the approval of the Land Use Administrator.
  2. Consideration of alternatives to widening such as alternate service roads.
  3. Root protection/aeration construction methods such as retaining walls with guardrails.
  4. Where no practical alternative for preservation is possible, such as traffic safety conflicts, the total diameter of the protected tree being removed shall be replaced with replacement trees having no less than 4 ~~four~~-inch caliper.
- B. *Tree protection during clearing or tree trimming activities.* Protected trees, including their tree protection zones, in front buffer areas shall be preserved if trees are in good condition and do not impede access or visibility into or out of the site.
- C. *Tree protection during construction.*
1. During any development activity, appropriate protective measures, per City standards, shall be taken to prevent the destruction or damage of all trees to be retained on the site. The preservation of existing vegetation within the tree protection zones of all trees to be retained is required, unless the vegetation is hand cleared.
  2. Protection methods, including trimming/pruning of trees and tree barricades, shall conform to ANSI A-300 standards.

#### 11.02.05. *Tree removal.*

- A. *Prohibitions.* Unless exempted herein, it is prohibited, ~~and~~ unlawful, and finable for a person or entity, agent, or representative thereof, directly or indirectly, to perform or authorize the following:
1. Cut down, remove, damage, or destroy any protected tree as defined in Section 11.02.01 on any parcel without first obtaining a tree removal permit (for required mitigation standards on MFR/COM and IND properties refer to Section 11.04.02 and on SFR/DPX properties refer to Table 11-4);
  2. Commit any act or authorize the commission of any act that physically or effectively removes a protected tree or causes a tree to die, such as damage inflicted upon the root system by heavy machinery, chemicals, or paving, any pruning or tree work inconsistent with ANSI A-300 standards, or changing the natural grade above the root system (removal or effective removal of any protected, specimen or historic tree on MFR/COM and IND properties shall be mitigated per Section 11.04.02 and on SFR/DPX properties refer to Table 11-4);
  3. Root raking the area within the tree protection zone or adding fill over the tree protection zone, which may cause damage and permit infection or pest infestation to a protected tree; or
  4. Perform tree removal, land clearing, grubbing, grading, excavation, construction, or make or install any improvement upon any site or parcel, regardless of the existence of valid permits or approvals for the given activity, unless all protected trees and protected vegetative areas established pursuant to this chapter have been surrounded by a protective barrier.
- B. *Land clearing.* During the subdivision infrastructure construction stage, clearing of trees and existing vegetation shall be limited to the minimum necessary to construct roadway and utility rights-of-way and stormwater facilities. Trees may only be cleared from individual lots upon review and approval of the tree survey and/or fire hazard considerations at the time of building permit application. However, in order to accommodate development within a subdivision where fill is required to such a depth that it would preclude the survival of existing trees, lots may also be cleared provided:
1. A clearing and grading plan shall be submitted showing vegetation and tree areas to be preserved with proper protective barrier, the amount of fill needed for lot development based on existing grades, proposed roadway and building elevations, and drainage plans.
  2. Replacement of these trees may be allowed in common areas of the subdivision (i.e., street trees, detention or retention ponds, buffer areas, etc.).
- C. *Tree removal activities exempt from permit/replacement requirements.* The following activities shall be lawful without application or issuance of a tree permit and do not require tree replacement:
1. The removal of any invasive plant species as determined by the Florida Department of Agriculture and Consumer Services' "Noxious Weeds" rule set forth in the Florida Administrative Code.
  2. The removal or alteration of any tree or vegetation in or about an existing City or utility easement or right-of-way provided such work is done by, or under the control of, the operating utility company, and said company has received all necessary licenses or permits to provide utility service within the easement.
  3. Removal or effective removal of trees severely cut by a utility company on SFR and DPX zoned platted lots.
  4. Any activity conducted by a lawfully operating and bona fide commercial nursery, tree farm, agricultural operation, silvicultural operation, ranch, or similar operation when the activity occurs on property owned or lawfully occupied by the person conducting said activity and is done in pursuit of said activity. This exemption shall include the purposeful removal of a tree or trees for their permanent relocation at another site undergoing development.

5. Trees located within a City drainage easement, City drainage rights-of-way, or City access rights-of-way that need to be removed to allow for access to or maintenance or clearing and construction of the City's drainage ditches and drainage related facilities.
6. Any activities being conducted under F.S. 163.045 for single family unattached dwellings that have a letter from a certified ISA arborist or a Florida Licensed Landscape Architect showing a tree possess an unacceptable risk to persons or property prior to removal.

D. *Permit requirements.*

1. A permit is required for land clearing/filling. It is prohibited and unlawful to clear trees, fill land, excavate, or dredge any parcel of land prior to the issuance of a single-family building permit or a site development permit, unless otherwise stated in this LDC, or authorized by the Land Use Administrator. The building permit shall act as the tree removal permit.
  - a. Vacant properties may be partially cleared to enable the construction of seawalls prior to a permit being issued for a principal structure. Refer to Section 4.01 for requirements.
  - b. Vacant properties may be partially cleared for the purpose of removal of unsuitable debris or muck within the buildable area of a site. Refer to Chapter 9 for permitting requirements.
  - c. Vacant single-family residential properties that are under common ownership with any developed adjacent residential lot may be cleared of all pines, vegetation, and any trees less than six inches in diameter if the minimum tree densities are maintained or replaced. Refer to Chapter 9 for permitting requirements.
2. Prior to the removal of any protected tree, an application for tree removal shall be submitted to the City. If the requested removal is in conjunction with an approved building permit, grade and fill permit, or a site development permit, a separate permit need not be obtained, but tree removal shall be addressed during the development order review process. The following types of tree removals require a permit but mitigation is not required.
  - a. Trees within clusters if there is a need to relieve thinning or overcrowding of trees, as part of an approved fire mitigation plan.
  - b. Protected trees, exclusive of specimen and historic trees, that would not drop the lot below the minimum tree density requirements on SFR/DPX platted lots, as outlined in Section 11.03.01.A.

E. *Removal of protected trees.* Protected trees removed under this section shall require replacement on MFR/COM and IND properties per Table 11-2 and on SFR/DPX properties per Table 11-4 if the tree was originally preserved or planted to meet a requirement of this Chapter or the tree removal would cause the property to no longer meet the minimum tree density standards outlined in Section 11.03.01.A. Upon receipt of a completed application and verification on-site by a certified arborist or the Land Use Administrator, the Land Use Administrator may permit the removal of the following protected trees:

1. Dead, severely diseased, or severely injured trees, as determined by a certified arborist or the Land Use Administrator.
2. Trees that pose imminent danger to the health, safety, and welfare of the public and cannot be corrected through standard arboricultural procedures, as determined by a certified arborist.
3. Trees that pose a sight distance visibility problem along any public right-of-way.
4. Any pine tree within 30 feet of a structure or within a distance from a structure less than the tree's height may be removed as a safety precaution provided the property owner where the tree is located agrees to the removal and applies for the permit.

5. Trees causing structural damage to a foundation, driveway, parking lot, patio, wall, water or sewer line, or which interfere with the construction or repair of public infrastructure or facilities that cannot be corrected by standard arboricultural means.
- F. *Tree removal on developed residential lots.* On developed lots zoned SFR, DPX, or EST all provisions of Section 11.02.05.D.2. and Section 11.02.05.E. would apply as well as the requirements to maintain the minimum tree density as outlined in Section 11.03.01.A. The following additional requirements also apply:
1. Protected trees, ~~exceptive of~~ specimen and historic trees that are in excess of the minimum tree density for the lot, can be removed without mitigation, but those not in excess of the minimum tree density require replacement per Table 11-4.
  2. Removal of a protected, specimen or a historic tree shall be mitigated as follows:
    - a. A protected tree – One shade tree per table 11-4
    - ba. A specimen tree—One shade tree per Table 11-4.
    - b. A historic tree—Two trees meeting the standards of Table 11-4 with at least one tree being a shade tree.
- G. *Tree thinning on MFR/COM and IND developments.* On properties where the landscaping has been planted for a minimum of ten years or where the property owner has retained or planted more trees than required by this chapter and meets all of the standards of this chapter; tree thinning of overcrowded trees may be requested by the property owner or designated agent upon submittal of a report by a certified arborist to the City. After review, the Land Use Administrator may approve or conditionally approve a thinning of the overcrowded trees when the intent of the original landscape plan and this chapter would still be met by the removal of such trees, and where:
1. Required trees have matured and grown to such a size and density that tree thinning would be the most prudent methodology for maintaining the health and vibrancy of the trees; or
  2. Trees in excess of the required minimum have matured and grown to such a size and density that tree thinning would only have an insignificant impact on the overall landscaping of the site.
- Preference for removal shall be given to trees having poor structure, root issues, or in declining health. Tree replacement and mitigation are not required after tree thinning.
- H. *Requirements suspended.* During a declared emergency, the Land Use Administrator may suspend the requirements of this subsection.

11.02.06. *Tree mitigation standards.* Applicants are strongly encouraged to preserve as much of the existing vegetation as possible. Therefore, existing protected trees are counted toward meeting the landscaping requirements for a site. By saving protected trees, rather than planting new ones, applicants can achieve the minimum planting requirements in a more efficient and economical manner.

Tree mitigation for all protected, specimen, and historic trees for MFR/COM and IND developments shall be provided as shown in Table 11-2 and for SFR/DPX properties shall be provided per Table 11-4. The property owner shall be responsible for the cost of mitigating the trees removed from the property by preserving existing trees, replanting trees on site, or paying a like fee to the tree bank fund (while still maintaining minimum tree density requirements).

Table 11-2: Tree Mitigation Requirements for New MFR/COM and IND Development

Protected Trees	Specimen Trees	Historic Trees	Palm Trees
70% of the predevelopment tree inches removed from the required perimeter	70% of the tree inches removed from the site.	100% of the tree inches removed from the site.	40% of palms removed from the site. Minimum

buffer areas of the site. Minimum replacement tree size shall be 2½" caliper.	Minimum replacement tree size shall be 3" caliper.	Minimum replacement tree size shall be 3½" caliper.	replacement shall be 8' clear trunk palms (preferably Sabal Palms).
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11.02.07. *Tree bank fund established.*

- A. If due to site conditions or configuration, it is impossible or impracticable for the property owner, applicant, or developer to meet the requirements for tree density and/or replacement on-site, the property owner, applicant, or developer shall pay fees of equivalent value into the tree bank fund or plant the trees off-site upon approval of a suitable site or sites by the City. The tree bank fund shall be a separate account set up and shown in City financial records in which all receipts are detailed. All monetary contributions paid to the tree bank fund pursuant to this section shall be used exclusively for the design, planting, or replacement of trees on public lands. Funds may also be used for relocating trees onto public lands. Funds may also be used for the design and installation of irrigation systems, mulching, arboricultural practices, and staking for these trees.
- B. Valuation of contributions to the tree bank fund shall be based on the caliper size and height, if applicable, of the required hardwood tree replacement and quantity of the required palm trees in accordance with City standards. The valuation of cost shall include the current market value of similar type trees and include the following costs: tree cost, delivery, labor to install, mulching and staking.

( [Ord. No. 2016-6](#), § 2, 11-1-16)

Sec. 11.03. - Landscaping, Buffers, and Irrigation Requirements.

11.03.01. *General landscaping requirements.*

- A. *Tree density requirements.* All developments shall be required to provide one tree for every 2,500 square feet, or major fraction thereof, of property area, excluding ponds, lakes and canals.
- B. *Preserved trees.* Preserved trees, including those within wetland or associated upland buffer areas, may be counted towards the tree density requirements as long as they are, at a minimum, the same size as the required new trees (refer to Table 11-43). The trees must be in good structural condition and health and the root zone shall be protected during the construction phase of the project.
- C. *Protected trees and plants.* The use of protected trees, understory trees, shade trees, accent plants, shrubs, and groundcovers is required to partially or totally satisfy the planting requirements of this chapter. MFR/COM, IND and SUBD developments may use existing healthy pine trees (non-native and invasive pines are not counted for credit), ~~6~~ six inches diameter and over to meet the minimum tree requirements; however, no more than ~~25~~ 50 percent of the pine trees may be credited. The Land Use Administrator may approve alternate plantings if the purpose and intent of this Chapter are met and a nuisance or environmental hazard is not created.
- D. *Native vegetation.* Use of native plants and plant species that conserve water, adapt to local conditions, and are drought tolerant are required for all new landscaping. MFR/COM, IND and SUBD developments are required to use reuse water if available. If not available, developmentse shall plant at least 50 percent of the pervious area of the site with native plants or plants and sod that conserve water, adapt to local conditions, are noninvasive or nuisance species, and are drought tolerant.
- E. *Alternative landscape betterment plan.* Where an applicant with a unique or difficult site to develop based on the shape of the lot or its developable area, as determined by the PLDRB or City

Council, is unable to meet some of the specific landscaping standards in Chapter 11, the applicant may propose an alternative landscape betterment plan with at least the same quality of required plants and the same amount of landscaped area, but in a revised location or design layout. The applicant must also provide at least two landscape hardscape features not otherwise required that are pedestrian friendly, such as fountains, benches or art work designed to withstand outdoor use. The PLDRB or City Council may approve or conditionally approve the alternative landscape betterment plan if the proposed changes will provide at least as much public benefit, screening from rights-of-way and adjacent properties, and aesthetic appeal as if the landscaping standards were strictly followed. All Tier 1 Technical Site Plans having a landscape betterment plan shall be reviewed by the PLDRB.

F. *Freestanding sign landscaping.*

1. All monument signs shall have shrubbery or flowers planted around the perimeter of the sign extending 3 ft minimum. Signs shall be located so as to provide both adequate visibility from the public rights-of-way, meet the Florida Department of Transportation Standards for Sight Triangles and Sight Distances, and preserve protected trees.
2. If freestanding signage cannot be shifted within the buffer to allow the required room for screen plantings between the sign and the outside parking envelope area without obscuring visibility to the sign, then the City shall allow a ten-foot radius from the base of the freestanding sign in which lower accent plantings are allowed in lieu of the screen plantings.

G. *Retention and detention ponds.* Stormwater retention/detention ponds shall be naturally shaped with rounded corners, having a minimum radius of seven feet for ponds between 2,500 and 10,000 square feet, and a minimum radius of least a 12 feet for ponds greater than 10,000 square feet, and without geometric straight sides where possible. All wet ponds shall incorporate a combination of aquatic and non-aquatic native plants around the perimeter of the pond to filter runoff of fertilizers, herbicides, and pesticides. This wet pond planting area shall have a minimum area equal to 15 percent of the perimeter of the pond multiplied by 7½ feet. (For example, a pond with a 200-foot-long perimeter would have a wet pond planting area of 225 square feet that could be planted as a five-foot-wide strip 45 feet long.) Alternatively, the applicant may plant some or all of the wet pond planting area within the pond as littoral zone plantings.

H. *Screening plantings.* Above ground structures such as: dumpster enclosures, mechanical equipment, backflow preventers, wells, pumps, tanks, ground-mounted HVAC units, transformers, generators, storage sheds, lift stations, utility cabinets, electrical panels, or ground-mounted cable/satellite television equipment; shall have a medium screen planting, as described in Table 11-4. If the structures are in areas that are visible from an improved public rights-of-way, a medium screen planting as described in Table 11-4 shall be provided between the structures and the rights-of-way. If the structures are in areas that are visible from a parking lot or abutting property without an intervening buffer, fence, or wall, then a medium screen planting, as described in Table 11-4, shall be provided between the structures and the parking lot or abutting property. On transformers, lattice may be used for screening instead. Where vegetation is planted, it shall be setback sufficiently so that at maturity it still meets the Florida Power and Light minimum setbacks from the transformers. All Screening shall be set back from mechanical equipment shall be set back 3 feet.

I. *Plan submittal requirements.* Landscape and irrigation plans shall be submitted for all MFR/COM, IND and SUBD developments and shall be prepared by a Florida registered landscape architect or other licensed professional authorized by state law to prepare such plans. SFR/DPX development landscape plans shall also be required, but do not need to be prepared by a landscape architect.

J. *Street trees and median planting.*

1. In all subdivisions, exclusive of those for SFR/DPX lots, and other developments involving the creation of new streets or shared private access roads, street trees shall be planted in the rights-of-way or a median, unless the Land Use Administrator determines that a conflict exists between trees and utilities located in the rights-of-way, or that sight distances or

recovery zones are not in compliance with sound and generally accepted engineering practices and principles. In such cases, the street trees shall be planted outside of the rights-of-way.

2. If street trees are to be located outside of the rights-of-way, trees shall be planted no farther than ten feet outside of the right-of-way line or abutting utility easement, and shall be perpetually maintained. All property owners' associations' covenants and restrictions shall include this requirement, and all property owners shall comply with this paragraph. Street tree plantings shall be in accordance with City standards.
  3. Street trees may be included to satisfy the minimum requirements for tree density and buffers.
- K. *Utility lines.* Shade trees shall not be planted under or within 15 feet horizontally of overhead power lines. Underground power lines, cable TV, and phone line clearance to trees shall be as specified by the utility providing the lines. Water mains shall be separated a minimum distance of ten feet from shade trees. Distances less than ten feet shall be reviewed and approved by the City. Understory trees that do not attain a height of no more than 14 feet, or that can be maintained below that height by pruning, may be planted under utility lines.
- L. *Sight triangles.*
1. Where landscaping is proposed within a sight triangle at an intersection, landscaping shall be planted and maintained so that an unobstructed cross-vision is provided at a vertical level between two feet and seven feet, as measured from the centerline of the adjoining road. Trees may be permitted within the sight triangle, at the discretion of the Land Use Administrator, if the trees have a single trunk and foliage is kept trimmed between two feet and seven feet.
  2. The dimensions of the sight triangle shall be as shown in Table 11-3, unless the Land Use Administrator determines other standards in the Florida Department of Transportation Standards for Sight Triangles and Sight Distances are more appropriate, based upon specific traffic or site conditions. The first distance in the table is for the leg along the proposed roadway, and the second distance is for the leg along the existing roadway that the new roadway will intersect. For example, if a proposed driveway will be located along an arterial roadway, choose "Driveway" in the second column and follow it to the right under "Arterial". In this case the leg distance would be 15 feet along the proposed driveway and 50 feet along the arterial roadway.

Table 11-3: Sight Triangle Dimensions Along Driveways and Roadways

		Leg Distance on Existing Driveway or Roadway (see the four columns below)			
		Driveway	Local Road	Collector	Arterial
Leg Distance on Proposed Driveway or Roadway (see column to the right)	Driveway	15'/15'	15'/15'	15'/15'	15'/50'
	Local Road	15'/15'	15'/15'	15'/35'	15'/50'
	Collector	35'/15'	35'/15'	35'/35'	35'/50'

	Arterial	50'/15'	50'/15'	50'/35'	50'/50'
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Note: The first leg distance listed is the leg along the curb line of the proposed driveway or roadway and the second distance listed is along the curb line of the existing driveway or roadway where the proposed driveway or roadway will intersect. The third leg of the triangle would be a line connecting the furthest points of the two legs. There will be two sight triangles for "T" intersections and four sight triangles for full intersections.

- M. *Landscape review for single-family subdivisions by certified HOAs.* A Homeowners Association, or Property Owners Association (HOA) may apply to the City for annual certification to allow deferral of City review of single family home landscape plans and landscape inspections to a certified HOA for the construction of new single-family homes, additions and accessory structures within a subdivision.

HOA certification will be valid for one calendar year from date of certification, and certified HOAs may apply for recertification annually. In order to be certified or recertified, a HOA must provide the following to the City:

1. Covenants and Restrictions or deed restrictions with landscaping requirements that meet or exceed the City's minimum landscape requirements for single-family homes.
2. Proof that the HOA has an Architectural Review Committee or its equivalent that will review landscaping plans for all new single-family homes within its subdivision.
3. Proof that HOA inspects and enforces its landscape requirements.

Approval of certification or recertification does not preclude the City, at its discretion, from conducting evaluation audits which may include landscape inspections, landscape plan review or other applicable evaluations to ensure City Landscape requirements are being enforced. Certification may be revoked at any time for non-complying HOAs. Certification does not include the review and inspection for tree removal, fire mitigation, perpetual care, and landscaping and irrigation systems in common areas. The City reserves the right to enforce all provisions of City Codes, including this section. Every certified HOA must provide every ARC approved landscape plan to the City.

11.03.02. *Specific landscaping requirements for developments.*

A. *MFR/COM developments.*

1. *Foundation plantings.* Foundation plantings are intended to soften buildings and improve their aesthetics. Planting beds with a minimum width of four feet shall surround a minimum of 70 percent of the building elevation excluding areas adjacent to building entry doors, fountains, benches and sculptures. Bed lines, where practicable, shall be curvilinear and wrap the corners of the structure with shrubbery plantings no closer than three feet from the building. Screening that is at least four feet wide around loading areas, dumpsters, and mechanical equipment running parallel to the adjacent building elevation may be counted towards these requirements. On sites located along specially designated road segments or roads, as listed in Table 11-5, an average minimum foundation planting bed width of eight feet shall be provided. In this area, a minimum of two different heights of plant material shall be used along with understory trees at the rate of one tree per 50 lineal feet of building wall length. These planting beds shall be located in the most visible areas. The following may be used in order to provide some alternatives to foundation plantings:
  - a. *Architectural design.* Foundation planting requirements for multifamily and nonresidential buildings may be reduced by the Land Use Administrator, when it is determined that building façade massing techniques, beyond the minimum architectural standards described in Chapter 13, provide a benefit similar to foundation plantings.



3. *Wildfire hazard assessment.* The development may be required, at the determination of the Land Use Administrator based on a Forest Resource Assessment and Strategy Map, to include a wildfire hazard assessment for the site prepared and certified by a forester, wildfire mitigation expert, or landscape architect. If the site is determined to be in a medium or higher wildfire hazard area, certain measures shall be required to be implemented prior to the issuance of a certificate of occupancy of the building. Wildfire mitigation shall be in accordance with City standards.

D. *SFR/DPX developments.*

1. *Number and type of trees.*

- a. At least one tree shall be provided for each 2,500 square feet of lot area, or major fraction thereof, excluding ponds, lakes, and canals, per Section 11.03.01.A. On lots one acre or larger this minimum tree planting standard shall only be based on the portion of the lot being developed with buildings, swimming pools, pavement, or new landscaped areas including turf.
- b. Regardless of lot size, a minimum of one shade tree shall be provided, preferably in the front yard. At least two shade trees shall be provided on lots at least one-third acre but less than two-thirds-acre, three shade trees shall be provided on lots two-thirds-acre but less than one acre, and four shade trees shall be provided on lots one acre or larger.

2. *Foundation plantings.*

- a. Residential homes shall provide foundation plantings consisting of 16 shrubs as described in table 11-4. On interior lots, eight shrubs shall be planted in front of the home, and four shrubs planted on each side of the home. On corner lots, six shrubs shall be planted on each side of the home facing a street, and four shrubs planted on the interior side of the home. When the rear yard of a home faces a saltwater canal, lake, or golf course, an additional four shrubs shall be planted along the rear of the home.
- b. All of these required shrubs shall be planted between 2½ and eight feet of the home's foundation.
- c. The corners of the house shall be wrapped with shrubbery or have an understory tree planted there. Shrubby shall be selected using varying heights to accent and soften walls.

3. *Minimum planting requirement.* There shall be a minimum planted area or preserved existing native vegetation area of 60 percent of the pervious open space. The remainder of the pervious open space area may be decorative gravel or decorative crushed stone commonly used for landscaping purposes, or mulches. All swales in rights-of-way shall be sodded.

11.03.03. *Tree and plant types, sizes, and quality.*

- A. *Trees, shrubs, and groundcovers.* All trees, shrubs, and groundcovers shall meet or exceed the standards of a Florida No. 1 or better quality as set forth in the latest edition of Grades and Standards for Nursery Plants, Florida Department of Agriculture. Damage to any tree, shrub, or ground cover that puts the plant material at risk of not surviving due to the injury, is grounds for rejection. The planting requirements at time of installation are listed in the following table:

*Table 11-4: Minimum Planting and Maintenance Requirements*

Type of Development	Shade Trees	Understory Trees	Shrubs and Groundcovers	Accent Plants

MFR/COM, IND and SUBD	Caliper: 3½" <u>Hardwoods or 3 sabal</u> palm trees at 8' clear trunk are required to replace 1 shade tree.	Caliper: 1½" Minimum container: 30 gallon-In parking lot islands minimum height shall be 12'—14'.	Shrubs: 3 gallon Groundcover: 1 gallon <u>Short screen planting:</u> shrubs 2' in height, 3-gallon container, and maximum 3' on-center spacing or shrubs 2½' in height, 7-gallon container, and maximum 4' on-center spacing. For either option shrubs shall achieve a minimum height of 3' within 2 years. <u>Medium screen planting:</u> shrubs 2½' in height, 7-gallon container, and maximum 4' on-center spacing installed that achieves within 2 years a minimum height of 3½'. <u>Tall screen planting:</u> shrubs 5' in height and 60% opacity installed that achieves within 2 years a minimum height of 6' and opacity of 80%.	Dwarf to medium 3-gallon container shrubs. Height: 12" minimum at time of planting.
SFR/DPX	Caliper: 2" <u>Hardwood or 3 sabal</u> palm trees <u>clustered</u> at <u>83'</u> clear trunk are required to replace 1 shade tree.	Caliper: 1" Minimum container: 15-gallon	Shrubs: 3 gallon <u>Short screen planting:</u> shrubs 2' in height, 3-gallon container, and maximum 3' on-center spacing or shrubs 2½' in height, 7-gallon container, and maximum 4' on-center spacing. For either option, shrubs shall achieve a minimum height of 3' within 2 years.	None required

Notes

1. A ten-percent tolerance level may be provided to the above minimum plant sizes to reflect plant variability, or 20-percent tolerance level during times of extremely limited plant availability, at the determination of the Land Use Administrator.
2. Short, medium and tall screen plantings shall be non-deciduous, always maintained to meet their minimum height and opacity standards, and if planted on a berm, the berm may count towards the screening height.
3. Trees shall be allowed to grow to their natural height and typical shape in MFR/COM, IND and SUBD Developments.
4. In the case of mitigation for a historic tree on SFR/DPX properties, also see Section 11.02.05.F.2.b.

1. Existing trees shall count towards any tree requirements as noted in this Chapter if:
  - a. The trees are equal to or greater than the minimum sizes in Table 11-4;
  - b. Are in good structural condition and health; and
  - c. The root zone is protected during the construction phase of the project.

2. For MFR/COM, IND and SUBD developments a cluster of three palm trees or one date palm with a minimum of 8 ft of clear trunk may replace up to 25 percent of the required shade trees, at the ratios shown in this Chapter. Where an architectural theme in aan MFR/COM or SUBD development has a dominant tropical design, clusters of three palm trees may replace 50 percent of the required shade trees with the same spacing requirements. On SFR/DPX developments, clusters of three palm trees may replace up to 50 percent of the required shade trees, but in all cases at least one shade tree shall be provided.

- B. *Turf.* Grass areas shall be planted with sod in a species normally grown as permanent lawns in East Central Florida. Newly installed Bahia sod shall be healthy and have no more than 20 percent weeds or unlike grass species. Newly installed St. Augustine, Seashore Paspallum, Bermuda,

and Zoysia sod shall have no more than five percent weeds or unlike grass species. For newly installed turf where irrigation is not provided, grass species shall be Bahia grass or Bermuda grass where appropriate. All areas of a disturbed site not otherwise landscaped or not left in natural native vegetation shall be grassed, or mulched, at a minimum.

11.03.04. *Parking lot landscaping requirements.*

- A. *Screening.* Screening from the right-of-way and adjacent properties in the form of a short screen planting, as defined herein, is required for off-street parking lot areas where the perimeter buffer does not already include one. The height shall be measured from the top of the adjacent parking surface, and if planted on a berm, the berm height can be included towards the minimum height.
- B. *Internal parking lot landscaping.* Internal parking lot landscaping shall comprise an area equal to a minimum of ten percent of the vehicular use area excluding those areas beneath vehicular canopies, such as a bank drive-thru or a convenience store with gas pumps. The vehicular use area is the total area of all parking stalls, drive aisles, and access ways within the limits of the property being developed. Sites zoned industrial can exclude vehicular use areas designated for heavy-duty truck parking, loading, and maneuvering from these calculations.

1. *Landscape islands.*

- a. A qualifying island or planting area shall contain at least one tree per landscaped island. Shade trees shall only be planted in islands having at least nine feet in width and at least 300 square feet of island area per tree, except for median islands described in Section 11.03.04.B.2.a.(1).
- b. Required islands shall be a minimum of 150 square feet in area and shall have one understory tree unless the island is large enough for a shade tree, or a grouping of three palms.

2. *Placement of landscape islands.*

- a. No more than five consecutive parallel parking spaces may be constructed without separation by a vehicular use area landscape island, and no more than ten consecutive parking spaces may be constructed without separation by a landscape island, except as specified below:
- (1) Where shade trees are planted at a minimum of 50 feet on-center the length of a center island located between two rows of parking spaces ("median island"), the median island shall have a minimum planting width of eight feet. If understory trees or a cluster of three palm trees are planted instead, the median island shall have a minimum width of five feet with the understory trees or clusters of three palms spaced a minimum of 30 feet on-center.
- (2) Where a minimum of an additional five feet of buffer width is provided, in addition to any required perimeter buffer width, along the outside edge of the parking lot adjacent to the parking spaces, with shade trees planted at a minimum of 50 feet on-center.
- b. If stabilized grass parking is approved, the parking spaces shall be delineated with parking stops and the required vehicular use area islands shall be provided.
- c. All parking rows ending adjacent to drive or parking aisles shall be terminated by a landscape island ("terminal island") that is at least five feet in width.

3. *Design requirements for landscape islands.*

- a. Where light poles or flagpoles are placed in landscape islands that contain shade trees, the minimum size of those landscape islands shall be increased by 150 square feet, and the pole shall be located at least 15 feet from the shade tree.
- b. Curbing shall be installed around the perimeter of all landscape islands that abut paved parking or drive aisles. Where the landscape islands abut stabilized grass parking,

pressure-treated timbers (minimum size of six inches by six inches), securely attached with rebar to the ground, are allowed in lieu of the curbs. Curbing or areas beneath the pressure-treated timbers shall not be counted towards the landscape island areas.

- c. The Land Use Administrator may supersede specific landscaping standards in this subsection when they conflict with concerns expressed by the Fire Department or utility providers regarding public safety.
  - d. Landscape islands shall have at least one tree credit for every 165 square feet of required internal parking lot landscape areas; with understory trees receiving one tree credit, clusters of three palm trees receiving 1½ tree credits, and shade trees receiving two tree credits.
4. *Alternate planting requirements for parking lot islands.* The following specific planting requirements relate to internal parking lots:
- a. In lieu of providing the minimum open space in a parking lot island, the Land Use Administrator may approve one or more of the following practices:
    - (1) Structural soils;
    - (2) Structural bridging under sub-base and pavement areas;
    - (3) Soil trenches/root paths that allow roots to access larger soil areas; or
    - (4) Other methodology, such as pervious pavers, that provide adequate means for tree roots to properly grow.
  - b. Upon submittal and approval of design plans and specifications of an alternate means of rooting area under a paved surface, the minimum parking lot island planting area as required in this section may be reduced. Structural soil specifications shall comply with City standards.
5. *Driveway medians.* A landscaped island ("driveway median") may be installed to separate the ingress and egress driveways of an access way. This driveway median shall meet the planting and design requirements for landscape islands.
6. *Flexibility.*
- a. The Land Use Administrator may permit the use of architectural planters to provide partial credit towards landscape island/area requirements, if found to be of equivalent public benefit and where no other practical options exist.
  - b. The Land Use Administrator may permit more than ten contiguous parking spaces without an island in order to promote tree preservation or when unique site circumstances exist, such as redevelopment.
  - c. The Land Use Administrator may reduce the minimum area for parking lot islands if it is determined adequate tree rooting area is provided below the pavement area, per the City Technical Manual.
7. *Related standards.*
- a. For large scale commercial centers, see Sections 4.15.03.B. and 4.15.03.C.
  - b. For screening of mechanical equipment, utilities and storage areas, see Section 13.04.07.A.

11.03.05. *Landscape buffer requirements.*

- A. *Buffer type determination.* Determining perimeter buffer requirements for a site consists of a two-step process:
1. Use Table 11-5 to determine the type of buffer required.
  2. Use Table 11-6 to find the design standards for the particular buffer required.

B. *Perimeter buffer requirements.* Table 11-5 shows the perimeter buffer types required based on the zoning of the subject property and the adjoining zoning/use. The zoning of the subject property is shown on the second row with the black background and the adjoining zoning/use is shown on the left-hand column. To use Table 11-5, go along the second row to find the subject property's zoning and then go down that column to where it aligns with the same row as the adjoining zoning/use. For example, if the proposed development is located on land zoned "IND-1" and the abutting land is zoned "MFR-1" then use the "IND" column at the right-hand side of the table and follow it down to the row labeled "MFR", which would require a perimeter buffer type "D", "E", or "F".

*Table 11-5: Perimeter Buffer Requirements*

	Zoning of Proposed Development				
	AGR, PRS, P & G	SFR, DPX, EST	MFR, MHD	OFC, COM, MPD <sup>1</sup> , PSP <sup>2</sup>	IND
<b>Adjoining Zoning/Use (shown below):</b>					
AGR, PRS, P&G	None	None	None	None	None
SFR, DPX, EST	None	None	D, E or F	D, E or F	D, E or F
MFR, MHD	None	None	C	D, E or F	D, E or F
OFC, COM, MPD <sup>1</sup> , PSP <sup>2</sup>	None	None	C	C	D, E, or F
IND	None	None	C	C	C
Non Specially Designated Roads	None	A	A	A	A
Specially Designated Segments Palm Coast Parkway, Palm Harbor Parkway and Colbert Lane <sup>3</sup>	None	B	B	B	B
Other Specially Designated Roads or Segments Thereof <sup>4</sup>	None	G	G	G	G
Retention Pond, Lake, or Canal	None	None	None	C	D, E or F

<sup>1</sup> In the MPD zoning district the requirements shall revert to the underlying zoning district or use for the subject property, as described within the MPD Agreement.

<sup>2</sup> Requirements in the PSP zoning district shall revert to the existing or proposed use on the property, as determined by the Land Use Administrator.

<sup>3</sup> Segments are limited to Palm Coast Parkway east of I-95, Palm Harbor Parkway south of the Hammock Dunes Bridge, and

Colbert Lane from the south right-of-way line of Palm Coast Parkway SE to 2,200 feet to the south.

<sup>4</sup> Other specially designated roads or segments thereof, include the following: Belle Terre Parkway, Belle Terre Boulevard, Colbert Lane (segment north of Palm Coast Parkway SE and segment more than 2200 feet south of Palm Coast Parkway SE), Cypress Point Parkway, 1-95, Matanzas Woods Parkway, Old Kings Road, Palm Coast Parkway (segment west of 1-95), Palm Harbor Parkway (segment north of the Hammock Dunes Bridge), Pine Lakes Parkway, Royal Palms Parkway, S.R. 100, Seminole Woods Parkway, U.S. 1, and White View Parkway.

<sup>5</sup>Land Use Administrator may determine additional buffer requirements may be allocated from other areas of less impactful buffer.

1. For nonresidential uses, a perimeter buffer will not be required between two or more newly created adjoining lot lines when subdividing a parcel of land that has an existing development or an approved site plan. (For example, two outparcels in front of a shopping center with an anchor tenant building.) In order to qualify, the existing or approved project and future developments on the proposed lots must have approval for a unified or master site plan that incorporates shared facilities including: access, stormwater facilities, and connectivity.
2. The double-frontage lots fronting along Palm Coast Parkway SE or Palm Coast Parkway NE and fronting along the City un-named right-of-way, located about 350 feet south of Palm Coast Parkway NE and extending east from Florida Park Drive to the Intracoastal Waterway, do not have to provide any buffers along the City un-named right-of-way.

C. *Buffer design standards.* The required buffers shall meet the following landscape standards:

*Table 11-6: Buffer Design Standards*

Type	Width <sup>1</sup>	Shade Trees per Linear Feet	Maximum Shade Tree Spacing per Linear Feet	Understory Trees per Linear Feet	Short Screen or Tall Screen	Accent Planting per Linear Feet	Decorative Wall/Fence
A	10'	1/50'	75'	1/50'	Short Screen	N/A	N/A
B	35'	1/50'	75'	1/50'	Short Screen	30/100'	N/A
C <sup>2</sup>	10'	1/50'	75'	Optional	Short Screen <sup>3</sup>	N/A	N/A
D <sup>2</sup>	10'	1/50'	75'	Optional	Not Required	30/100'	Decorative Wall
E <sup>2</sup>	20'	1/50'	75'	Optional	Tall Screen	N/A	Optional
F <sup>2</sup>	15'	1/50'	75'	Optional	Not Required	30/100'	Fence
G	25'	1/50'	75'	1/50'	Short Screen	30/100'	N/A

<sup>1</sup> A 35-foot Buffer B may be averaged with a minimum width of 25 feet and maximum width of 45 feet, and a 25' Buffer G may be averaged with a minimum width of 20 feet and a maximum width of 30 feet.

<sup>2</sup> Where an adjoining lot is undeveloped, shade tree spacing in the subject lot's adjoining buffer shall be increased to one per 75 linear feet and maximum spacing increased to 90 feet. Where an adjoining lot has been developed with an adjoining buffer having shade trees, the subject lot shall have understory trees planted that are staggered between the shade trees.

<sup>3</sup> Not required if the adjoining property has already been developed with the shrubs already planted, or where multi-family,

office, or commercial uses are adjacent to any pond, lake, canal or waterway and the view would be an enhancement for the proposed project while not negatively impacting neighboring properties, as determined by the Land Use Administrator. Also, not required when industrial properties are adjacent to each other, except where a parking area is unscreened and adjacent to the buffer.

1. Landscape buffer areas shall be located at the perimeter of the site. Plantings shall not be located in any portion of a public or private right-of-way or drainage easement, unless permitted by a landscape easement. Short, medium and tall screen plantings may be located between the minimum landscape buffer area and the parking lot, building, structure or equipment they are intended to buffer. If not screening parking areas or other areas required to be screened, these screen plantings can be incorporated into the required foundation plantings.
2. At least 50 percent of the existing native vegetation shall be preserved within the landscape buffer area. Preserved native vegetation within the buffer shall be hand cleared of vines, debris, and dead branches to present an attractive transition from maintained to natural. If native vegetation is not present, is insufficient to meet the screening required by this section, or the Land Use Administrator has determined that it must be removed due to required site grading or existing utilities, then plant material shall be installed to meet the buffer requirement.
3. When calculating the required number of trees and shrubs within a buffer, the width of access ways or easements running perpendicular to the buffer shall be subtracted from the property length.
4. Understory trees may be used in lieu of shade trees where noted in Table 11-6 as "Optional"; however, no more than 25 percent of the required trees may be understory trees. Unless limited by utility easement, then shade trees may be permitted at maximum required percentage as determined by Land Use Administrator.
5. Where accent plants are required, no more than 30 percent of the planting bed area shall be comprised of groundcover plants.
6. Uses within buffers:
  - a. Buffer yards shall be limited to passive recreation and may contain pedestrian or bicycle trails and public amenities such as decorative fountains, artwork, and similar structures.
  - b. Mechanical equipment or structures, directional signs, and backflow preventers may be allowed in perimeter buffer areas pursuant to approval by the Land Use Administrator.
  - c. In a buffer ten feet or less in width, none of the required buffer area may be used for stormwater retention/detention. In a buffer 15 feet in width, no more than 33 percent of the required buffer area may be used for stormwater retention/detention. In a buffer 20 feet or more in width, no more than 50 percent of the required buffer area may be used for stormwater retention/detention. These ratios shall be reduced if insufficient room is left for plantings.
  - d. A required buffer shall be at least 15 feet wide before it can be encumbered by the partial overlap of a sidewalk or utility easement running parallel to the buffer, and the overlap shall not exceed one-third of the required buffer width. This ratio may be reduced if stormwater retention/detention areas are also in the buffer or if there is insufficient room for plantings.
7. Decorative walls and fences, when required, shall be six feet in height and comply with the material and design requirements (see Section 4.01 for material and design requirements for walls and fences).

D. *Miscellaneous buffer requirements.*

1. *Vehicle display areas.* For automotive, recreational vehicles, motorcycles, motorized watercrafts, and other similar displays, a maximum of 33 percent of the frontage short screen

plantings may be reduced to a height of 12 inches at time of planting if a minimum height of 16 inches shall be achieved within two years and maintained at such height. The balance of the short screen planting shall be installed and maintained per the height standards in Table 11-4.

2. *Frontage road buffers.* Frontage roads that parallel the main road serving a site may encroach into a front landscape buffer if no less than ten feet of the required buffer is provided on the development side of the frontage road with the remaining footage of the buffer width on the side of the main road.
3. *Fleet rental parking buffers.* Fleet rental parking spaces (excluding spaces limited to the renting of automobiles or pickup trucks) shall be located to the side or rear of the building and screened with a tall screen planting.
4. *Phased projects.* Any development that proposes phasing shall be required to provide perimeter buffer plantings adjacent to existing development and rights-of-way that are visible to the general public. If existing trees and vegetation are sufficient to provide this buffer, they may be used to satisfy this requirement. The certificate of occupancy for the initial phase shall not be issued until the buffer plantings have been provided.

#### 11.03.06. *Irrigation requirements.*

##### A. *Requirements by type of development.*

1. *MFR/COM, IND:* These developments shall meet the irrigation design standards contained in this section.
2. *SUBD:* Irrigation systems for all common areas of a subdivision, including planted medians, shall be designed and installed with the subdivision infrastructure in accordance with this section. If the owner elects, the planting and irrigation of street trees on individual lots may be postponed until the lot is developed.

##### B. *Design standards.* Irrigation systems shall meet all City irrigation design standards as well as the following:

1. *Water conservation.* Irrigation systems shall be designed in such a way as to minimize runoff or spraying of irrigation water onto roadways, driveways, and adjacent properties that are not under the control of the owner. The irrigation systems shall be designed to locate plants into water use zones having the same irrigation needs.
2. *Water source.* Non-potable water use demands shall be met using water of the lowest quality supply that is both available and feasible for the intended application, as determined by the Land Use Administrator. Water reuse or water reclamation programs, if available, shall be used to reduce groundwater or surface water withdrawals for water use applications which do not require potable water. The following are the water source priorities of the City from highest preference to lowest preference:
  - a. Reclaimed water.
  - b. Stormwater, lake, or canal.
  - c. Groundwater (well).
  - d. Potable water.
3. *Temporary irrigation.* All landscape installations shall make necessary provisions for watering to establish and guarantee plant survival. Sites with these types of irrigation systems shall use super absorbents in the planting backfill as well as native plants or xeric plants and trees. A watering schedule shall be submitted. For an example, see the University of Florida Extension publication ENH856 - Tree Specifications for Planting and Shrubs in the Southeastern United States. Specifications shall be included to provide one of the following:
  - a. Automatic irrigation;

- b. Hand watering via hose bib or other water source;
  - c. Water truck hand watering; or
  - d. Automated water bags.
4. *Irrigated areas.* The irrigation system, unless temporary, shall have mainlines and lateral lines buried underground and designed to provide adequate irrigation to all landscaped areas except for areas of existing native vegetation or planting areas comprised of vegetation that conserves water, is adaptable to local conditions, and is drought tolerant.
  5. *Backflow prevention.* Irrigation systems connected to a potable water source shall have a backflow prevention assembly installed as required and approved by the Land Use Administrator. Permitted wells shall have a serviceable double-check valve as required and approved by the Land Use Administrator. See Chapter 9 for these requirements.
  6. *Moisture sensing device or smart irrigation system.* All irrigation systems shall have an operational moisture-sensing device or a smart irrigation system such as a rain detection device.

11.03.07. *Installation of plants.* All landscaping is to be installed in a professional manner following good nursery practices as set by the Florida Nurserymen Landscape and Growers Association. All planting requirements shall meet or exceed the standards set forth in this chapter and the University of Florida Extension Publication ENH856 - Tree Specifications for Planting Trees and Shrubs in the Southeastern United States.

- A. *Mulching requirements.* All planting areas shall be mulched with a minimum of three inches and a maximum of four inches of mulching material. The type of mulching material is subject to approval by the Land Use Administrator.
- B. *Turf.* See Section 11.03.03.B. for turf requirements and quality.

11.03.08. *Compliance with approved plans; maintenance.*

- A. *Compliance with approved plans.* All required plantings as shown on the approved landscape plans must be completed prior to issuance of a certificate of occupancy.
- B. *Maintenance.*
  1. The owner is responsible for maintaining the approved landscaping on-site in a healthy condition indefinitely. All required plant material that dies, or becomes unhealthy and is not treatable, shall be replaced within 30 days. When any plants are replaced because they are dead, diseased, or destroyed by acts of nature, they should be of the same or similar species and meet the size standards of Table 11-4.
  2. Pruning standards for all tree work done in the City shall follow American National Standards Institute (ANSI) A300, Part 1 "pruning standards" as well as ANSI Z133.1-2000 standards for safety.
    - a. The owner, tenant and their agents including personnel and companies who provide the tree services shall be jointly and severally responsible for following these pruning specifications and for tree damage or loss. Trees shall not be topped (hat-racking), over-lifted (lions-tailing), shaped, or significantly pruned, but shall be allowed to grow to maturity and attain their natural form so that crown development is not inhibited. Trees may only be pruned to maintain good health and growth by removal of limbs that are dead, weak, insect or disease-infested, storm damaged, crowded, rubbing other limbs, low and interfering with pedestrians or vehicles, or to maintain safe distances from utility lines.
    - b. For maintenance of commercial properties, including: office, medical, retail, and industrial uses; and multi-family projects of 25 units or more, tree pruning of branches one inch or larger and at a height of eight feet or more shall only be provided by or

under the direct supervision of arborists certified by the International Society of Arboriculture within Florida, ~~or by tree trimmers certified annually by the City.~~

3. Adequate provision shall be made, as approved by the Land Use Administrator, for the perpetual maintenance of common areas through covenants and restrictions or other means. These requirements can be achieved through either existing tree preservation (preferred) or by planting new trees. Buffer plantings shall be planted in common areas and not private lots, unless a landscape maintenance easement is granted with adequate perpetual maintenance assurances.
4. The owners are responsible for maintaining the approved irrigation system in an operable and efficient condition in perpetuity.
5. For developed lots and the improved portions of partially developed parcels, the owners are responsible for ongoing removal of all invasive plant species, as determined by the Florida Department of Agriculture and Consumer Services "Noxious Weeds" rule set forth in the Florida Administrative Code.
6. The City may conduct periodic inspections to assure compliance with the planting and maintenance requirements of this section. If a violation is found the City will notify the owner that they have 30 days in which to replace plants and make any other necessary repairs. Continued violation after the 30 days will be referred to the Code Enforcement Board or another enforcement mechanism will be used.

11.03.09. *Construction phase/acceptance of improvements.*

A. *Construction phase.*

1. *Permit.* No site work shall commence until appropriate tree protection and erosion control measures are in place and approved by the Land Use Administrator.
2. *Pre-construction meeting.* Prior to any site clearing on MFR, COM, IND, and SUBD developments, all trees and areas with shrubs to remain shall be properly marked and barricaded as indicated in this Chapter. A pre-construction conference shall be scheduled with the general contractor, land clearing contractor or its designee, and City staff to review specific criteria for construction.
3. *Erosion control.* Best management practices shall be utilized.

B. *Acceptance of improvements.*

1. *Certificate of occupancy.* No certificate of occupancy may be issued until all specifications on the approved plan have been attained unless the Land Use Administrator determines that an extension of up to sixty (60) days is warranted and the required landscape and irrigation are covered by a surety given to the City on a form provided by the City, in the amount of one hundred fifty (150) percent of the estimated value of the unfinished work.
2. *As-built drawings.* Landscape and irrigation as-built drawings (as-builts) are required prior to the certificate of occupancy of the project being issued in any zoning district except for SFR, DPX, and EST. The irrigation as-builts provided to the City for future reference shall include certification via signed and sealed plans by a landscape architect for location of water source, rain sensor, valves, clocks, and heads. The purpose of the irrigation as-built drawings is to provide reasonable assurance that the irrigation system is installed in accordance with City approved irrigation plans. Approximate underground pipe run locations will be acceptable in lieu of exact locations. As-builts may be bonded according to the procedure as noted in Section 11.03.09.B.1.

( [Ord. No. 2016-6](#), § 2, 11-1-16)

Sec. 11.04. - Enforcement/Remediation and Penalties.

11.04.01. *Cease and desist orders.* The Land Use Administrator may issue a cease and desist order for a maximum of two working days whenever a violation of this subpart has occurred. Upon review of the violation, the Land Use Administrator may extend the cease and desist order until the violation is brought into compliance and all resulting fines incurred as a result of the violation are paid.

11.04.02. *Correction of violation/remediation.* The City shall take the following actions when a violation of this chapter has occurred in addition to all other available code enforcement remedies:

- A. *Tree replacement remediation requirements.* Each tree destroyed or significantly damaged contrary to the latest ANSI A-300, Part I standards, including removal or effective removal, shall be replaced on SFR/DPX properties pursuant to Table 11-4 by a desirable type of tree; and on MFR/COM and IND properties only, the total diameter inches of the protected trees removed shall be replaced with a minimum replacement tree size of six-inch caliper. On MFR/COM and IND properties a mitigation plan consistent with this Chapter must be submitted to the City for review. This plan may require, in part, contribution to the tree bank fund. If contribution is to be made into the tree bank fund, the monetary equivalent amount of such contribution shall be determined pursuant to Subsection 11.02.07. The mitigation plan shall also require mitigation of any other damage to the property. Each tree so damaged or removed shall be considered a separate violation of this LDC.
- B. *Sites cleared without approved tree surveys.* If the site has been cleared and the trees have been removed from the site such that the Land Use Administrator is unable to determine with reasonable certainty the number of protected trees removed in violation of this subpart, the violation may be corrected or partially corrected by paying into the tree replacement fund. The Land Use Administrator will determine the appropriateness and numbers of tree replacements to be planted back on the lot upon inspection. No work shall continue until the tree replanting plan has been approved. The contributions assessed under this subsection shall be payable to the City within ten working days after assessment. All replanting shall be required to be irrigated.
- C. *Clearing without construction/inspections.* Permitted projects which are cleared, and upon which construction and inspection has not occurred within six months of clearing, shall be subject to mitigation per Table 11-2, as well as stabilization of all disturbed areas with sod or seed. In areas where a tree survey was accomplished, all protected trees on the survey shall be mitigated, and in areas where trees were not surveyed, the fine established by the City shall apply. Additionally, all perimeter buffer plantings, as shown on the approved plans, shall be installed and irrigated. Trees used in these buffers shall be credited towards the mitigation requirements.

11.04.03. *Appeals.* Any person aggrieved by an administrative order of the Land Use Administrator may appeal the order to the Planning and Land Development Regulation Board in accordance with requirements in Chapter 2.

( [Ord. No. 2016-6](#), § 2, 11-1-16)