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CHAPTER 175. TREE PROTECTION, LANDSCAPING, BUFFERING

PART 1. TREE PRESERVATION AND REMOVAL CODE

§ 175.001. INTENT.

- A. The city finds that trees provide many beneficial functions to man, including many environmental, aesthetic, and economic amenities. It is declared to be necessary to preserve trees as a means to:
 - 1. Protect the value of lands and water quality;
 - 2. Preserve community appearance; and
 - 3. Assist climate control, soil stabilization, oxygen exchange, and noise and air pollution abatement.
 - B. These factors relate to the economy of the city and provide for the health, safety and welfare of residents and visitors of the city. It is the intent of this code to provide for the preservation and protection and to regulate control over the removal, relocation, or destruction of trees.
- ('74 Code, § 22½-11) (Ord. 89-12, passed 4-27-89)

§ 175.002. APPLICABILITY; PERMIT REQUIRED.

The terms and provisions of this subchapter shall apply to all lands lying within the city limits, including publicly owned lands, rights-of-way, and easements except as provided for in this subchapter. It shall be unlawful without first securing a permit from the Planning Division to remove, destroy, cut down or damage or cause the removal, destruction, cutting down or damage of any tree(s) as defined by this subchapter.

('74 Code, § 22½-13) (Ord. 89-12, passed 4-27-89)

§ 175.003. EXCEPTIONS.

The following exceptions to this subchapter shall be permitted in the manner prescribed:

- A. Trees may be removed without a permit on the following properties:
 - 1. Bona fide agricultural uses, cultivation, or grazing lands;
 - 2. Commercial plant nursery sites; and
 - 3. Properties meeting the exception granted by Section 163.045, Florida Statutes.
- B. After notifying the City Manager or designee the following trees may be removed without a permit: Beefwood, Scaly-barked beefwood, Australian pine, Melaleuca, Brazilian pepper, Castor bean, Eucalyptus, Chinaberry, ear tree, and camphor tree.
- C. In the event that any tree shall endanger health or safety, and require immediate removal without delay, on-site verbal authorization may be given by a City Manager or designee to allow the removal of the tree without obtaining a written permit as herein required. Such verbal authorization shall later be confirmed in writing within seven (7) days' time.

('74 Code, § 22½-14) (Ord. 89-12, passed 4-27-89; Am. Ord. 94-03, passed 2-17-94)

§ 175.004. PROTECTION OF TREES DURING CONSTRUCTION.

The property owner, developer, contractor, and/or authorized agents shall make every effort to protect those trees to be preserved during site preparation and construction. To this end, the following methods and procedures shall be followed:

- A. The use of hand labor may be necessary to clear vegetation within the drip line of those trees to be preserved. This shall be determined by the City Manager or designee at the time of barricading as described below.
- B. Materials, machinery, and soil shall not be placed within nor use the area within the drip line of any tree to be preserved.
- C. Materials, wires, signs, or nails shall not be attached to any tree unless such materials are used to preserve the tree.
- D. All felled material shall be promptly and carefully removed from the site in order to avoid potential damage to remaining trees and vegetation.
- E. Visible barricades shall be erected around those trees to be preserved. These barricades shall be at the drip line of the tree(s) and no closer than ten (10) feet to the trunk of the tree.
- F. All trees to be preserved, except palms, shall have their natural soil level maintained. Tree wells and/or retaining walls shall be provided where necessary to maintain the natural existing soil level. The design of these structures shall be approved by the City Manager or designee and shall generally be consistent with methods specified in Tree Protection Manual for Builders and Developers, published by the Florida Department of Agriculture and Consumer Services, Division of Forestry, latest edition.
- G. All efforts shall be made through the grading and drainage plan to maintain the natural drainage to those trees to be preserved. Swaling and minor negative grade changes should always be designed outside the drip line area as much as possible. Piping should be used where deep swales or ditches would require significant grade changes adjacent to trees to be saved. Trenching of any type should be avoided in the drip line area. Where underground installations are required adjacent to the trunks of trees to be preserved, tunneling should be used. When trenching or tunneling near trees to remain, protective measures should be taken as specified in Tree Protection Manual for Builders and Developers.
- H. All trees not approved for removal shall be protected and maintained during construction, as specified in the Tree Protection Manual for Builders and Developers or other comparable publications approved by the Planning Division.

('74 Code, § 22½-18) (Ord. 89-12, passed 4-27-89; Am. Ord. 94-03, passed 2-17-94)

§ 175.005. TREE REMOVAL PERMIT

- A. **General Provisions.** Anyone desiring a permit to remove a tree or clear property as defined by this code shall perform the following application requirements:
 - 1. *Fee.* Submit a fee to the Land Development Division as established by resolution pursuant to Section 172.011.

2. *Expiration of permit.* Any permit issued hereunder shall remain valid for six (6) months and may be renewable for a second six (6) month period upon request to the City Manager or designee, provided such request occurs prior to the expiration date of the initial permit. If a permit required by this subchapter has been issued in conjunction with an approved site plan, subdivision, or building permit, then such permit shall remain valid for the life of the approved site plan, subdivision or building permit unless any of these approvals expire, are revoked or suspended.
3. *Renewal of permit.* The City Manager or designee may require reapplication and full review in those renewal cases where site conditions have changed substantially from the date of issuance of the initial permit as a result of natural growth of trees and vegetation or high winds, hurricane, tornado, flooding, fire, or other acts of nature.
4. *Site plan drawings.* Submit a site plan drawing(s) to the Planning Division at a scale of no greater than one (1) inch equals fifty (50) feet (1" = 50') which clearly shows all of the following information drawn to scale:
 - a. Sites to ten (10) acres. The diameter at breast height, botanical, and common names of each tree as defined in this subchapter.
 - b. Sites above ten (10) acres. The diameter at breast height, botanical, and common names of each exceptional specimen tree or those trees required to be listed by the City Planning Division. General distribution/groupings of protected trees as defined in this subchapter can be shown on the site plan instead of individual trees. The scale of this drawing may be increased as per the City Planning Division.
 - c. All existing and proposed site features, such as: structures, grading and drainage, pavements, easement, landscaping, utilities, streets, screening requirements.
 - d. Explanation of or code to identify those trees proposed to be removed and those to be preserved.
 - e. Details or notes explaining the methods for the preservation of those trees to remain.
 - f. Name, signature, address and telephone number of property owner and his agent, if applicable.
 - g. Legal description and address of property.
 - h. North arrow and scale.
 - i. Reason(s) for proposed removal of tree(s).
5. *Identification of trees to be preserved.* Identify all trees to be preserved on site with harmless bands, flagging, or other suitable markings. These shall correspond with the above site plan explanation in subsection D.4 above.

('74 Code, § 22½-15) (Ord. 89-12, passed 4-27-89; Am. Ord. 94-03, passed 2-17-94; Am. Ord. 2006-08, passed 2-2-06)

- B. Tree Removal Review Criteria.** The Growth Management Department shall review the tree removal request based on the following criteria:

1. The permit application shall be processed within seven (7) days, except that no tree removal permit shall be issued until the owner/developer has applied for a building permit and all pertinent subdivision and site plan reviews have been approved.
2. The signing of the certificate of approval on a subdivision plat and approved engineering drawings shall be considered as an issued permit under the terms of this subchapter. This shall only allow that clearing necessitated by the installation of the approved public improvements. However, tree preservation measures may still be required for exceptional specimens and trees within these areas after review in the field by the Planning and Engineering Departments.
3. Reasonable efforts shall be made on the property to save and design around existing healthy trees. Preservation of exceptional specimen trees may be required after review in the field by the City Manager or designee. However, this shall not reasonably restrict the development of a permitted use and shall not create an unsafe condition.
4. Effort shall be made to preserve enough trees on site so as to maintain the character of the existing tree coverage in the neighborhood based upon the number, type, size and distribution of trees.
5. Exceptional specimen trees approved to be removed shall be replaced with trees of the same species or other species as approved by the City Manager or designee. Replacement trees shall have a two (2) inch caliper and shall be a minimum of ten (10) feet overall height immediately after planting. One (1) replacement tree as described above shall be planted for each six (6) inches of trunk diameter of those exceptional specimen trees removed..
6. Efforts shall be made to preserve specimen trees and those trees which are of significant historical, aesthetic, or ecological importance to a site and/or the city.
7. Efforts shall be made to preserve trees which are in required landscape areas or yards.
8. Efforts shall be made to select, design, and locate permitted signs so that they do not necessitate the removal of trees.

('74 Code, § 22½-16) (Ord. 89-12, passed 4-27-89; Am. Ord. 94-03, passed 2-17-94)

§ 175.006. VIOLATIONS.

Each failure to comply with any of the provisions of this subchapter shall constitute an individual violation. The property owner, contractor and/or authorized agent shall be issued a violation notice and they shall then have a maximum of two (2) weeks to submit a restoration plan as described below. For projects that are under construction, a stop-work order will be issued when applicable and the issuance of and certificate of occupancy for any attendant structure(s) will be withheld until the restoration plan is submitted and approved by the Planning Division. This restoration plan shall, where applicable:

- A. Provide information as described in Section 175.005.
- B. Identify the appropriate protection practices as described in Section 175.004.
- C. Identify the locations of new tree plantings to restore the site, providing:

1. Each restoration tree shall be a minimum five (5) inch DBH trunk diameter nursery grown tree, and a minimum height of fifteen (15) feet and a minimum crown width of ten (10) feet, and the species shall be approved by the City Manager or designee.
2. One (1) restoration tree as described above shall be shown for each six (6) inches of trunk diameter of those trees that were severely damaged, cut down or removed from the site.
3. If the site has been cleared, and there is little evidence of the removed trees to determine the extent of the violation, it shall be assumed that eight (8) trees with six (6) inch trunk diameter existed per acre of disturbed area.

D. Provide an irrigation system or method for the maintenance of the new trees.

E. Indicate a schedule for the restoration to occur which shall at the latest coincide with the final inspection for a site development where applicable or three (3) months where final inspections would not normally occur. If the restoration does not occur within the approved time schedule, each day of which the property is not in compliance shall constitute a violation of this subchapter and the violation shall be presented to the Code Enforcement Board for action.

('74 Code, § 22½-19) (Ord. 89-12, passed 4-27-89)

F. Appeals. Any application for a tree-removal permit that has been denied may be appealed pursuant to Section 172.014.

('74 Code, § 22½-17) (Ord. 89-12, passed 4-27-89)

§ 175.007. RESERVED.

§ 175.008. RESERVED.

§ 175.009. RESERVED.

PART 3. LANDSCAPING AND BUFFER REQUIREMENTS

§ 175.010. PURPOSE AND INTENT

The purpose of the landscaping and buffer requirements is to enhance the aesthetic quality of the city, promote water conservation, mitigate the impact that a use or traffic may have on the neighboring sites, and promote the health and general welfare of the citizenry.

§ 175.011. LANDSCAPING STANDARDS FOR SINGLE- AND TWO-FAMILY RESIDENTIAL LOTS

A. Applicability; Permit Required. The terms and provisions of this subchapter shall apply to all single and two-family residential lots, as defined in Chapter 171, developed after the effective date of this chapter. Every residential lot developed hereafter shall be provided with landscaping in accordance with the provisions set forth herein. Where a principal structure existed or was in the process of being developed at the effective date of this subchapter, the principal structure may be modernized, altered, or repaired without providing the required landscaping. All detached accessory structures are permitted to be developed, modernized, altered, or repaired without providing the required landscaping for new principal structures.

(Ord. 94-15, passed 7-7-94)

- B. Minimum Landscaping Required in Single- and Two-Family Residential Lots.** The following minimum landscaping is required for newly developed single- and two-family residential lots (see Section 175.016 for landscaping material standards).:
1. *Required Trees and Shrubs.* Prior to the issuance of a certificate of completeness or a certificate of occupancy for newly constructed single- and two-family residences, the following number of trees and shrubs must exist or be planted on the lot.
 - a. Lots smaller than one (1) acre in size:
 - i. Four (4) trees; and
 - ii. Ten (10) shrubs.
 - b. Lots larger than or equal to one (1) acre in size:
 - i. Six (6) trees plus two (2) additional trees for each one-half ($\frac{1}{2}$) acre above one (1) acre in size, up to a maximum of forty (40) trees.
 - ii. Twenty (20) shrubs plus ten (10) additional shrubs for each acre above one (1) acre in size, up to a maximum of fifty (50) shrubs.
 2. *Required Ground Cover.* One hundred percent (100%) of the lot, excluding principal structures, accessory structures, vehicle-use areas, and pedestrian walkways, must be covered with an approved ground cover.

(Ord. 94-15, passed 7-7-94)

- C. Landscape plan required.** Applicants for single family and two-family building permits shall submit a landscape plan, unless one was approved as part of the subdivision approval. The landscape plan must be shown on a survey drawing, and can be shown on the site plan survey to be submitted for the building permit. The landscape plan must contain the following:
1. An engineering scale and north arrow.
 2. The legal description and address of the property.
 3. The property lines.
 4. All existing and proposed site features, such as structures, pavements, easements, landscaping, irrigation, streets, drainage, septic tanks and drain fields, and above ground utility poles.
 5. Explanation of or legend to identify those trees to be preserved (a tree survey is not required.) The approximate type, size, and location of the trees to be preserved must be shown on the landscape plan.
 6. The location, common names, estimated size at planting including the plant height and quantity of proposed landscape plant, tree, and living ground cover shall be shown or listed in a key on the landscape plan. Only the type, quantity, and location of all nonliving ground cover must be shown or listed in a key on the landscape plan.

(Ord. 94-15, passed 7-7-94)

§ 175.012. LANDSCAPING WITHIN VEHICULAR USE AREAS.

A. Applicability. Sites with off-street parking areas in excess of one thousand five hundred (1,500) square feet, or five (5) spaces, shall conform to the minimum landscaping requirements set forth in this section. Single- and two-family residential uses on individually platted lots and multilevel parking structures shall be exempt from this section. All landscaped areas shall be protected from vehicular encroachment by curbs, wheel stops or other similar devices.

1. When existing off-street parking or other vehicular use areas are enlarged, the enlarged areas shall meet the provisions of this section. The newly enlarged areas shall not cause the existing parking area landscaping to be more nonconforming.
2. When existing off-street parking or other vehicular use areas are modified, the modification shall not cause the existing parking area landscaping to be more nonconforming. The intent of this provision is that any existing off-street parking or vehicular use areas shall, when feasible, become more conforming to the landscaping requirements of this section. Determination of the feasibility of modifying the existing parking or vehicular use areas, to become more conforming, shall be made by the City Manager or designee. This determination shall be based on the following considerations:
 - a. Cost of compliance with specific criteria in the parking area landscaping code;
 - b. Physical space available within the existing areas to comply with specific criteria in the parking area landscaping codes, such as existing "green" spaces;
 - c. The extent that existing conditions represent safety hazards; and
 - d. The extent to which modification addresses other criteria within the Code of Ordinances, such as, but not limited to, enhanced landscape installation, compliance with the Americans with Disabilities Act (ADA), stormwater management requirements, and similar regulations.

B. Minimum Landscaping Required in Vehicular Use Areas

1. *Required interior parking area landscaping.* All parking areas shall be internally landscaped to provide visual and climatic relief from broad expanses of pavement and to channelize and define logical areas for pedestrian and vehicular circulation.
 - a. Interior landscaping, excluding required parking setbacks, shall account for ten percent (10%) of the total parking area. Landscape dividing strips, with or without walkways, shall be used to subdivide the parking area into rows with not more than an average of ten (10) spaces, per row except that parking rows adjacent to required landscape row dividers shall only be required such landscape strips at the end of each landscape row divider.
 - b. Each separate landscape area shall contain a minimum of one hundred (100) square feet and shall have a minimum dimension of at least ten (10) feet, measured at its narrowest area, except that islands required to be designed with turn radii are permitted to have less than ten (10) feet if approved by the City Manager or designee, and shall include at least one (1) tree, with the remaining area meeting the requirements of this code.

- c. The total number of trees shall not be less than one (1) per two hundred (200) square feet or fraction thereof of required interior landscaped area and shall exclude those trees required along the perimeter of the parcel. Such landscaped areas shall be protected from vehicular encroachment by curbs, wheel stops or landscape timbers.
 - d. Whenever an off-street parking area is designed to provide parking of vehicles in five (5) rows or more, at least one (1) interior landscaped area not less than ten (10) feet in width shall be provided for the length of the parking rows, with at least one (1) landscaped row divider required for every five (5) parking rows.
 - e. Landscaped areas, including landscaped islands, within or abutting vehicular use areas shall be excavated to a depth of two (2) feet to remove lot base course material, lime rock, asphalt, concrete, and similar material in order to ensure that adequate planting soil exists.
 - f. In parking areas where the strict application of this section will seriously limit the function of such areas, such as off-street loading areas, the required landscaping may be located near the perimeter of the paved area. Such interior landscaping which is relocated as herein provided shall be in addition to the perimeter landscaping requirements.
 - g. The front of a vehicle may encroach upon any interior landscaped area or walkway when the area is at least three and one-half (3½) feet in depth per abutting parking space and protected by motor vehicle stops or curbing. An overhang may be permitted in such landscaped area or walkway. If shrubs or hedges are planted in front of such parking areas, the shrubs must be planted a minimum of three and one-half (3½) feet from the back of the curb or wheel stop to prevent damage to the hedge.
 - h. Interior landscaped areas may be used for retention and detention sites for groundwater recharge.
 - i. Landscape vines, shrubs, or a combination of the two, are required to be planted along the outside of subdivision walls and/or any required masonry walls facing canal, road, or other rights-of-way.
2. *Pedestrian zone landscaping.* The pedestrian zone is defined as the area between the front and side building facades and the adjacent parking area or driveway.
- a. The pedestrian zone shall include a sidewalk with a maximum width of five (5) feet and a five (5)-foot landscaping strip.
 - b. A minimum of five (5) feet of the width of the required pedestrian zone shall be clear of roof overhead.
 - c. Facades that include drive-through windows or loading/unloading spaces and overhead doors in industrial/warehouse or commercial buildings shall be exempt from these provisions.
 - d. All multi-family and all non-residential development shall have at least two (2) trees planted per pedestrian zone, except for areas under a canopy. The tree requirement shall not apply to gasoline stations if such trees cause a line-of-sight obstruction.

C. Landscape plan submittal. Applicants for building permits shall submit a landscape plan containing the following:

1. An engineering scale (one (1) inch equals twenty (20) feet preferred).
2. Property lines.
3. Dimensions.
4. Structures.
5. Accurate parking lot design showing parking spaces, aisles, loading areas, driveways, islands, signs, and parking lot or security light fixtures and the like.
6. Calculations of total square footage of the parking and landscaped areas as well as indicating the number and location of existing trees to be used and the number of new trees to be planted.
7. Location of water lines or other underground utilities, fire hydrants and other above ground utility fixtures.
8. Grading plan.
9. Plant specification list which is keyed to the plan and contains the botanical name, common name, estimated sizes at planting and at maturity (crown spread and height), quantity of each, and how transplanted to the site (container stock, bare root, balled or burlapped).

('74 Code, § 25-193) (Ord. 89-08, passed 4-27-89; Am. Ord. 94-04, passed 2-17-94; Am. Ord. 2008-71, passed 12-18-08; Am. Ord. 2016-17, passed 4-21-16)

§ 175.013. LANDSCAPING IN OTHER INTERIOR SITE AREAS.

- A. Foundation landscaping.** Non-residential, mixed use, and multifamily buildings shall include a four-foot-wide landscaped strip adjacent to all building walls facing public and private streets. Shrubs, meeting the standards of Section 175.016, shall be planted within the strip and cover a minimum of 60 percent of the total length of each building wall.
- B. Dumpster pads.** All garbage/refuse containers shall be screened on at least three (3) sides by concrete block, fencing or other materials at least six (6) feet in height which renders the view of the container opaque. Shrubs, meeting the standards of Section 175.016, shall be provided adjacent to three sides of dumpster enclosures.
- C. Lift stations.** Shrubs, meeting the standards of Section 175.016, shall be provided adjacent to all sides of any lift station, approved outdoor storage area, above ground utility facility and mechanical equipment. Lift stations shall also be screened by a minimum of six-foot high enclosure, located around the perimeter of the easement and shall be made of masonry and consistent with the design theme of the building. Lift stations shall not be located between any building and right(s)-of-way and/or in any front yard setback. A solid gate shall be installed on the enclosure and shall remain closed at all times.

§ 175.014. STREET TREES IN RESIDENTIAL DEVELOPMENTS.

Proposed developments which involve the creation of a street shall submit and receive approval of a street tree plan that ensures street trees and/or shrubs will be planted and established in accordance with the standards of this chapter.

- A. Prior to the issuance of a Certificate of Occupancy, one (1) canopy tree shall be planted within twenty-five (25) feet of the right-of-way of each local street within the development for every fifty (50) linear feet, or substantial fraction thereof, of right-of-way. Street trees shall not be planted within a public or private utility easement. Palm trees may not be utilized to meet this requirement unless they are grouped with a minimum of two (2) palms used for each canopy tree. A maximum of twenty-five (25) per cent of all proposed street trees may be palm trees.
- B. The street tree plan shall specify the proposed methods the developer, owner and/or homeowners' association will implement to ensure maintenance, liability, establishment, protection, watering, and initial structural pruning of the trees.

§ 175.015. PERIMETER LANDSCAPING AND BUFFER REQUIREMENTS.

- A. **Required perimeter landscaping and buffers.** Table 175-1 shows the minimum perimeter landscaping/buffer width, landscaping materials, and solid screening required based on the proposed and adjacent uses.

Table 175 - 1. Required Perimeter Landscaping and Buffers ⁽³⁾

	Width (minimum)	Trees (type and minimum quantity ⁽¹⁾)	Shrubs	Screen (minimum height and type)
ALONG TO RIGHTS-OF-WAY				
Single-family, duplex, townhouse, and multi-family developments ⁽²⁾	10' along arterial and collector roads; 7' along local roads	1 canopy tree per 50 linear feet	Continuous row	6' masonry wall or fence
Vehicular use areas (regardless of the principal use)	10'	1 canopy tree per 50 linear feet or fraction thereof	Continuous row	3' hedge or street wall or 2' berm
ALONG SHARED PROPERTY LINES				
Any use adjacent to the same type of use	5'	None	Continuous row	None
Multi-family use adjacent to single family, duplex, townhome, mobile home park use or district	25'	1 understory tree per 35 linear feet or fraction thereof	Continuous row	6' masonry wall or fence
Non-residential use adjacent to any residential use or district	25'	1 understory tree per 35 linear feet or fraction thereof	Continuous row	6' masonry wall
Heavy industrial use adjacent to other non-residential use or district	25'	1 understory tree per 35 linear feet or fraction thereof	Continuous row	
Heavy industrial use adjacent to any residential use or district	40'	1 understory tree per 35 linear feet or fraction thereof	Continuous row	6' masonry wall

(1) Fractions shall be rounded up.

(2) The requirements of this table shall be waived if the buildings along the perimeter street are oriented to the street (see **Figure 175-1**).

(3) These requirements may be waived per subsection C below.

See Section 175.016 for plant specifications and Section 175.017 for installation and maintenance.

Figure 175 - 1Subdivision buffers along rights-of-way



Left: Buffer required; Right: Buffer not required

B. Buffer specifications

1. Buffers shall not include buildings or vehicular use areas but may include stormwater ponds.
2. The required perimeter landscape area shall be provided above and beyond the minimum maintenance berm around a retention pond, unless otherwise approved by the City Manager or designee.
3. The required plantings shall not be placed in any drainage facility or easement.
4. Where a masonry wall is required, it shall be constructed of a finished, maintenance free material such as brick, split-faced masonry block, textured concrete, or similar materials, and shall be consistent with the architectural style of the building(s) on site and surrounding properties. Columns or pilasters shall be required and shall not be spaced more than 50 linear feet on center. The height of the wall shall be measured on the interior side of the wall.
5. Where a fence is required, it shall be constructed of wood, or PVC.
6. For perimeter fences or walls adjacent to road rights-of-way, ivy or clinging vines may be used in lieu of the shrub requirement. Earthen berms may be approved in lieu of the wall or fence provided the berm is six (6) feet in height with landscaping provided as identified in this Chapter.
7. Street walls shall be constructed of wrought iron, brick, masonry, stone, powder-coated aluminum or other decorative materials that complement the finish on the primary building. Chain link, wood and PVC street walls/fences shall be prohibited. Street walls shall have a minimum height of two and a half (2.5) feet high and a maximum height of four (4) feet in height if the portion above the 2.5-foot height (or the entire wall) is transparent (i.e., wrought iron or similar material).

Figure 175 - 2. Street Wall Examples



8. Required masonry walls (including street walls) shall be set back from the property line a minimum of three (3) feet to provide adequate room for maintenance of both sides of the wall.
9. Canopy trees may be used in lieu of understory trees but shall comply with the minimum separation requirements stated above.
10. Where existing canopy trees are located within 50 feet of a required tree location, understory trees may be provided in lieu of the required canopy trees.
11. Whenever the adjacent use changes to a more intensive use requiring lesser buffer requirements, the subject site may modify the buffer components.

C. Buffer adjustments. The Development Review Committee (DRC) may approve a waiver or modification of some of the requirements of this section if the committee determines that the waiver/modification will not adversely impact the compatibility of land and water uses in the area, the use of a masonry wall would adversely impact adjacent residential uses, and/or existing specimen trees greater than 30 inches DBH and in good health would be affected by the buffer requirements.

1. The DRC may allow a six-foot high solid hedge or a solid fence instead of the required wall. All other perimeter landscape area width and landscaping requirements shall still apply.
2. The DRC may allow a narrower width for the perimeter landscape area or buffer if a six-foot high solid hedge or a solid fence is instead of the required shrubs. All other perimeter landscape area width and landscaping requirements shall still apply.
3. The DRC may waive the perimeter landscape area, landscaping, and buffer requirements between uses if their vehicular use areas are unified and designed to be shared.

§ 175.016. LANDSCAPE MATERIALS.

Selected trees and plants must be a variety which is compatible with the existing soil and drainage conditions, must be in locations which will not cause danger or interference with existing structures, on-site septic systems, wells, utility lines (both above and below ground), driveways or water bodies, and are not permitted within any easement or right-of-way. Artificial plant material or lawns shall not be used to meet the requirements of this chapter.

A. Conformance with state standards. All plant material used shall conform to the standards for Florida No. 1, or better, as given in Grades and Standards for Nursery Plants, State of Florida, Department of Agriculture.

B. Existing vegetation. The preservation and maintenance of existing native vegetation is strongly encouraged and may be utilized to meet the requirements of this chapter, provided such vegetation is located within the property lines of the lot and not in any rights-of-way or easements.

1. Existing wax myrtles, cabbage palms, mangroves, saw palmetto or other native species having a trunk height of at least four (4) feet and a caliper of at least two (2) inches may be substituted for the tree planting requirements of this chapter.
2. The following species, if existing on the lot, are not to be used as substitutes for the requirements of this chapter, nor shall they be planted on site:

Botanical Name	Common Names
Casuarina	Australian pine, beefwood
Melaleuca	Cajeput, punk tree, paperbark tree
Eucalyptus	Eucalyptus, gum tree
Schinus terebinthifolius	Brazilian pepper
Ricinus cummunis	Castor bean
Melia azedarach	Chinaberry
Enterolobium cyclocarpum	Ear tree, elephant ear
Cinnamomum camphora	Camphor tree
Sapium sebiferum	Chinese Tallow
Cupaniopsis anacardioides	Carrotwood
Leucaena leucocephala	White Leadtree

C. Drought tolerant vegetation. The use of drought-tolerant plant materials or water conservation techniques, as referenced In the St. Johns River Water Management District's Xeriscape Plant Guide, or other comparable publications approved by the Planning Division, is strongly encouraged for single-family and two-family lots. For other uses, a minimum of fifty percent (50%) of the total cumulative landscape plant material used to meet the provisions of this section shall be drought tolerant.

D. Trees. Trees required under this chapter shall meet the following standards:

1. Minimum dimensions.

MINIMUM SIZE	CANOPY	UNDERSTORY	PALM
Height *	10'	6'	15'
Caliper *	2½"	1½"	NA
Spread	4' * 15' at maturity	NA	NA
Clear trunk height	6'	6'	NA

* At the time of planting

2. A minimum of fifty percent (50%) of the required trees shall be species native to the county as identified by the Brevard County Agricultural Extension Services, Florida Department of Agriculture, Florida Native Plant Society, the City of Palm Bay Planning Division, or as approved by the City Manager or designee.

3. No single species of tree shall be used to total more than fifty (50%) percent of the required number of trees.
4. Native species such as oaks, pines, sabal palms, red maples and mangroves having a trunk height of at least six (6) feet or having a caliper of at least two (2) inches may substitute for the tree planting requirements.
5. Trees having an average mature spread or crown of less than fifteen (15) feet may be grouped together to create the equivalent of a fifteen (15) foot crown spread.
6. Tree species with roots known to cause damage to roadways/sidewalks shall not be planted closer than twelve (12) feet to public rights-of-way, unless the tree root system is completely contained within a barrier for which the minimum interior dimensions shall be five (5) feet square and five (5) feet deep, and for which construction requirements shall be four (4) inch thick concrete reinforced with No. 6 load mesh (6×6×6) or equivalent.
7. Each required tree shall be planted in at least twenty-five (25) square feet of planting area with a minimum dimension of at least five (5) feet. Each such planting area shall be landscaped with grass, ground cover or other landscape treatment.
8. Palm trees shall not be used to fulfill more than thirty percent (30%) of the requirements of this section. Existing native palms on the site should be preserved and can substitute if the palms have a clear trunk height of at least six (6) feet or a caliper of at least six (6) inches.
9. Under extenuating circumstances where the requirements conflict with best horticulture practices for tree planting, the City Manager or designee may approve one of the following options. The requirements for replacement trees, however, shall be observed.
 - a. A number of the required trees may be planted within publicly owned lands. The number, location, and placement thereon, shall be approved by the City Manager or designee.
 - b. The developer may choose to mitigate said trees through the payment of a fee into the Palm Bay Tree Replacement Trust Fund. The replacement contribution shall be as provided for in the latest fee resolution.

E. Shrubs and hedges. Shrubs and hedges required under this chapter shall be provided in accordance with the following:

1. Minimum size and spacing

MINIMUM SIZE AT PLANTING	HEDGE	SHRUBS
Spacing	NA	30"
Height	24"	36"
Gallons	3 Gallons	

2. Hedges, where required, shall be planted and maintained to form a continuous, unbroken, solid visual screen within six (6) months after time of planting.

F. Ground Covers

1. Living ground cover shall include all grasses. Living ground covers used in lieu of grasses shall be planted to present a finished appearance. Lawn grass used as a living ground cover shall be planted in grass species normally grown as permanent lawns in the county such as, but not limited to Bahia, St. Augustine, and Bermuda species. Lawn grass must be used in swales or other areas subject to erosion.
2. Nonliving ground cover shall include mulch and similar materials. However, the use of astroturf, marl, crushed shell, coquina, or other road base material as a ground cover is unacceptable. Railroad ties, wood, bricks, and synthetic materials can be used to separate landscape areas but cannot be used in place of the required ground cover.
3. Nonliving ground cover is permitted within planting beds/flower beds provided such beds do not occupy more than ten percent (10%) of the pervious area of the single-family or two-family lot. The City Manager or designee may approve landscape beds with a mix of living and nonliving ground cover in excess of ten percent (10%) following submission of a detailed landscape plan depicting the proposed plantings.
4. Lawn grass shall be species normally grown as permanent lawns in the county such as, but not limited to Bahia, St. Augustine, and Bermuda species. All landscape areas containing lawn grass shall be completely covered with solid sod. Solid sod shall be used in swales or other areas subject to erosion. Grass sod shall be clean and reasonably free of weeds, noxious pests, or disease.

G. Vines. Vines are plants which require support to reach mature form. Vines, where required, shall be planted no further apart than three (3) feet from each other.

H. Mulch. All areas of required landscaping shall be mulched unless completely covered with grass or other approved ground cover.

§ 175.017. INSTALLATION AND MAINTENANCE.

- A. All landscaping shall be installed to accepted commercial planting procedures. Soil, which is free of lime rock, pebbles or other construction debris shall be provided. The owner of the property shall be responsible for the maintenance of all landscaping in good condition so as to present a neat, healthy and orderly appearance free of refuse and debris.
- B. All landscaped areas shall be provided with an irrigation system or available water supply with at least one (1) outlet located within one hundred and fifty (150) feet of the plant material. Where existing vegetation is used to meet the requirement along public rights-of-way or interior lot lines a water supply is not required. In order to conserve water, the following water saving techniques will be encouraged:
 1. The use of reclaimed wastewater where available;
 2. The use of drought tolerant ground cover instead of lawn grass;
 3. Watering schedules for automatic systems to reduce irrigation in the rainy summer and dormant winter seasons;
 4. The commitment to irrigate between sunset and sunrise when evaporation is minimal;

- 5. Irrigation systems shall be designed to the greatest extent practical; watering impervious areas shall be avoided;
- 6. The use of xeric landscaping techniques.
- C. If any living material that is required by this code and shown on the approved site/landscape plan dies or fails to achieve normal growth, it shall be replaced within thirty (30) days of notification from the City Manager or designee. Such replacement landscaping shall meet all requirements of this code and the approved site/landscape plan. Failure to maintain the minimum landscape requirements of this section shall constitute a violation of this code.
- D. Pruning restrictions shall not apply for trees located under power lines. Trees shall be pruned only as necessary to promote healthy growth. Trees shall be allowed to attain their normal size and shall not be severely pruned or “hat raked” in order to permanently maintain growth at a reduced height. Trees may be periodically pruned or thinned in order to reduce leaf mass in preparation for tropical storms. All pruning shall be accomplished in accordance with the National Arborist’s Standards.
- E. All recognized nuisance trees (i.e., pepper trees, Australian pines, etc.) shall be removed during site preparation and perpetually removed (upon re- growth) after issuance of a Certificate of Occupancy.
- F. All landscaping and buffering shall meet the sight triangle requirements (see Chapter 176).