

PART 12. - LANDSCAPE AND TREE PROTECTION REGULATIONS

SUBPART A. - GENERAL PROVISIONS

Sec. 656.1201. - Short Title; Charter Cross-Reference.

Part 12 shall be known and may be cited as the Landscape and Tree Protection Regulations. All requirements in Article 25 of the Charter of the City of Jacksonville, *Minimum Standards for Tree Protection, Conservation and Mitigation During Development* shall be met *in addition* to the Landscape and Tree Protection Regulations in this Part 12.

(Ord. 91-59-148, § 1; Ord. 2008-910-E, § 1)

Sec. 656.1202. - Declaration of legislative intent and public policy.

It is the intent of these regulations to promote the health, safety and welfare of the current and future residents of the City of Jacksonville by establishing minimum standards for the conservation of water, the protection of natural plant communities, the installation and continued maintenance of landscaping, and the protection of trees within the City of Jacksonville in order to:

- (a) Improve the aesthetic appearance of commercial, governmental, industrial, and residential areas through the incorporation of landscaping into development in ways that harmonize and enhance the natural and manmade environment;
- (b) Improve environmental quality by recognizing the numerous beneficial effects of landscaping upon the environment, including:
 - (1) Improving air and water quality through such natural processes as photosynthesis and mineral uptake;
 - (2) Maintaining permeable land areas essential to surface water management and aquifer recharge;
 - (3) Reducing and reversing air, noise, heat and chemical pollution through the biological filtering capacities of trees and other vegetation;
 - (4) Promoting energy conservation through the creation of shade, thereby reducing heat gain in or on buildings or paved areas;
 - (5) Reducing the temperature of the microclimate through the process of evapotranspiration; and
 - (6) Encouraging the conservation of water through the use of site specific plants, various planting and maintenance techniques, and efficient watering systems.
- (c) Provide direct and important physical and psychological benefits to human beings through the use of landscaping to reduce noise and glare, and to break up the monotony and soften the harsher aspects of urban development;
- (d) Establish procedures and standards for the administration and enforcement of this Part;
- (e) Promote the creative site development concepts in order to promote water and energy conservation;
- (f) Increase and maintain the value of land by requiring a minimum amount of landscaping to be incorporated into development;
- (g) Preserve existing natural trees and vegetation and incorporate native plants, plant communities and ecosystems into landscape design where possible;

- (h) Promote landscaping methods that provide for the preservation of existing plant communities, re-establishment of native plant communities, use of site specific plant materials, use of pervious paving materials, and Florida-Friendly concepts in order to promote water conservation.
- (i) Assist in public information, the education of its citizens, and the effective implementation of this Part.
- (j) Promote Best Management Practices (BMPs) by establishing standards for irrigation systems without inhibiting creative landscape design.
- (k) Facilitate the implementation of Florida-Friendly concepts by offering flexibility and incentives in Florida-Friendly landscape design for new single-family residential developments.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2009-864-E, § 1; Ord. 2011-74-E, § 1)

Sec. 656.1203. - Definitions.

For purposes of this Part, in addition to the following terms or words, the definitions provided for in Part 16 shall apply. If the definitions contained in this Section at any time conflict with the definitions contained in Part 16, the more restrictive definition(s) shall apply. As used in this Part:

- (a) *Annual consumptive use* means the yearly amount of water applied to the landscape.
- (b) *Automatic controller* means a mechanical or electronic timer, capable of operating valve stations to set the days and length of time of a water application.
- (c) *Bona-fide agricultural purposes* means the use of land for bona fide agricultural purposes as described in F.S. § 193.461, provided the land is classified for assessment purposes by the property appraiser as "agricultural", pursuant to F.S. Ch. 193.
- (d) *Buffer yard or strip* means a strip of land, identified on a site plan or by zoning ordinance requirement, established to protect one type of land use from another land use that may be incompatible. The area is landscaped, maintained and kept in open space.
- (e) *Caliper* means the trunk diameter of planted trees. Caliper shall be measured six inches above the ground for trees up to and including four inches in caliper, and measured 12 inches above the ground for trees exceeding four inches in caliper. If the tree has a very enlarged irregular base, then the caliper measurement shall be taken up where the trunk has a more regular circumference, but in no case higher than four and one-half feet above the ground. If the tree forks between ground level and one foot above ground level, then the tree shall be considered a multi-trunked tree. Caliper for multi-trunked trees shall be determined by measuring each trunk immediately above the fork and adding the total caliper of the four largest trunks. (See also and compare definition of DBH in subsection (nn) of this Section.)
- (f) *Cultivated landscape area* means planted areas that are frequently maintained by mowing, irrigating, pruning, fertilizing, etc.
- (g) *Development* means any proposed material change in the use or character of the land, including, but not limited to, land clearing associated with new construction, the placement of any structure or site improvement on the land, or expansion of existing buildings.
- (h) *Drip line* means a vertical line extending from the outermost branches of a tree to the ground.
- (i) *Ecosystem* means a characteristic assemblage of plant and animal life with a specific physical environment, and all interactions among species and between species and their environment.
- (j) *Emitter devices* means devices which are used to control the applications of irrigation water. This term is primarily used to refer to the low flow rate devices used in microirrigation systems.
- (k) *Ground cover* means a low-growing herbaceous or woody plant other than turf, not over two feet high, used to cover the ground.

- (l) *Hedge* means a landscape barrier consisting of a continuous, dense planting of shrubs.
- (m) *Infiltration rate* means the rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).
- (n) *Irrigation system* means a permanent, artificial watering system designed to transport and distribute water to plants.
- (o) *Landscaped area* means the entire parcel less the building footprint, driveway, nonirrigated portions of parking lots, hardscapes such as decks and patios, and other nonporous areas. Water features are included in the calculation of the landscaped area.
- (p) *Landscaping* means any combination of living plants (such as grass, groundcover, shrubs, vines, hedges, or trees) and nonliving landscape material (such as rocks, pebbles, sand, mulch, walls or fences).
- (q) *Microirrigation (low volume)* means the frequent application of small quantities of water directly on or below the soil surface, usually as discrete drops, tiny streams, or miniature sprays through emitters placed along the water delivery pipes (laterals). Microirrigation encompasses a number of methods or concepts including drip, subsurface bubbler, and spray irrigation.
- (r) *Mulch* means nonliving organic materials customarily used in landscape design to retard erosion and retain moisture.
- (s) *Native vegetation*. See Vegetation, native.
- (t) *Naturally occurring existing plant communities*. See Vegetation, native.
- (u) *Open space* means all areas of natural plant communities or areas replanted with vegetation after construction, such as revegetated natural areas; tree, shrub, hedge or ground cover planting areas; and lawns, and all other areas required to be provided as natural ground and landscaping pursuant to the Zoning Code.
- (v) *Perimeter landscape* means a continuous area of land which is required to be set aside along the perimeter of a lot in which landscaping is used to provide a transition between and to reduce the environmental, aesthetic and other impacts of one type of land use upon another.
- (w) *Pervious paving materials* means a porous asphaltic or concrete surface and a high-void aggregate base which allows for rapid infiltration and temporary storage of rain on, or runoff delivered to, paved surfaces.
- (x) *Plant community* means a natural association of plants that are dominated by one or more prominent species, or a characteristic physical attribute.
- (y) *Preserve areas* means vegetative areas required to be preserved under the jurisdiction of the Florida Department of Environmental Regulation, St. Johns River Water Management District and/or the United States Army Corps of Engineers or other regulatory agencies.
- (z) *Reserved*.
- (aa) *Runoff water* means water from rainfall and irrigation systems which is not absorbed by the soil or landscape to which it is applied and flows from the area, often contaminated with pesticides, fertilizers, and other pollutants.
- (bb) *Protected tree* includes all of the following:
 - (1) *Private protected tree* means any tree with a DBH of six inches or more located on any lot within 20 feet of a street right-of-way (including an approved private street or other access easement) or a tree with a DBH of eight inches or more located within ten feet of any other property line, or a tree with a DBH of 11.5 inches or more located elsewhere on the lot.
 - (2) *Public protected tree* means any tree located on lands owned by the City, or other governmental agencies or authorities, or any land upon which easements are imposed for the benefit of the City, or other governmental agencies or authorities, or upon which other

ownership control may be exerted by the City, or other governmental agencies or authorities, including rights-of-way, parks, public areas and easements for drainage, sewer, water and other public utilities, with:

- (i) A DBH of six inches or more located within a City or other governmental right-of-way, or
 - (ii) A DBH of six inches or more and located on any lot within 20 feet of a street right-of-way, or
 - (iii) A DBH of eight inches or more located on any lot within ten feet of any other property line, or
 - (iv) A DBH of 11.5 inches or more located elsewhere on the lot.
- (3) *Exceptional specimen tree* means any hardwood tree with a DBH of 24 inches or greater.
- (cc) *Scenic and historic corridors* means any street right-of-way, including approved private streets, which is so designated by the Council, pursuant to the procedures hereinafter established and adopted by Council, as a result of its special historic, architectural, archaeological, aesthetic or cultural interest and value to the citizens of Jacksonville. The Chief shall maintain a list which specifies the location and boundaries of all corridors so designated.
- (dd) *Shrub* means a self-supporting woody perennial plant characterized by multiple stems and branches continuous from the base naturally growing to a mature height between two and 12 feet.
- (ee) *Site specific plant* means a selection of plant material that is particularly well suited to withstand the physical growing conditions that are normal for a specific location.
- (ff) *Soil texture* means the classification of soil based on the percentage of sand, silt, and clay in the soil.
- (gg) *Tree* means a self-supporting woody plant having a single trunk or a multi-trunk of lower branches, growing to a mature height of at least 12 feet in northeast Florida.
- (hh) *Tree palm* means an evergreen plant of the Palmaceae family cold hardy in northeast Florida having a single trunk and terminal crown of large pinnate or fan-shaped leaves.
- (ii) *Turfgrass* means continuous plant coverage consisting of grass species suited to growth in the City of Jacksonville.
- (jj) *Understory* means assemblages of natural low-level woody, herbaceous, and ground cover species which exist in the area below the canopy of the trees.
- (kk) *Vegetation, native* means any plant species with a geographic distribution indigenous to all or part of the State of Florida.
- (ll) *Water use zone* means a grouping of sprays, sprinklers, or microirrigation emitters so that they can be operated simultaneously by the control of one valve according to the water requirements of the plants used.
- (mm) *Florida-Friendly* means a type of landscaping that maximizes the conservation of water by the use of site-appropriate plants - right plant in the right place methodology, efficient watering systems, appropriate fertilization, mulching, attraction of wildlife, responsible management of pests, recycling of yard waste, reduction of stormwater runoff, and waterfront protection. The principles include planning and design, appropriate choice of plants, soil analysis, the use of solid waste compost, practical use of turf, efficient irrigation, appropriate use of mulches, and proper maintenance.
- (nn) *DBH (Diameter Breast Height)* means the trunk diameter of an existing tree measured four and one-half feet above the average ground level at the tree base. If the tree forks between four and one-half and two feet above ground level, DBH is measured below the swell resulting from the fork. Trunks that fork below two feet, shall be considered multi-trunk trees. DBH for multi-

trunk trees shall be determined by measuring each trunk immediately above the fork and adding the total diameters of the four largest trunks. (See also and compare definition for caliper in subsection (e) of this Section.)

- (oo) *Chief* means the Chief as designated by the Director of the Planning and Development Department.
- (pp) *Shade tree* means a species having a height at maturity of at least 45 feet and an average mature crown spread of no less than 30 feet, or trees having an average mature crown spread of less than 30 feet grouped so as to create a total average mature crown spread of no less than 30 feet.
- (qq) *Sensor Device* means
 - (1) *Rain sensor device* - a low voltage electrical or mechanical component placed in the circuitry of an automatic turfgrass irrigation system which is designed to turn off a sprinkler controller when precipitation has reached a pre-set quantity.
 - (2) *Soil Moisture sensor device* - a low voltage electrical or mechanical component placed in the landscape of an automatic turfgrass irrigation system which is designed to suspend a sprinkler controller from operation when adequate soil moisture is present.
 - (3) *Weather sensor device* - a low voltage electrical or mechanical component placed in the circuitry, either directly or remotely, of an automatic turfgrass irrigation system which is designed to estimate plant water need and adjust a compatible sprinkler controller to apply the appropriate amount of supplemental irrigation.
- (rr) *Best Management Practices (BMP)* means turf and landscape practices or a combination of practices, based on research, field testing, and expert review, determined to be most effective and practicable on-location means, including economic and technological considerations, for improving water quality, conserving water supplies and protecting natural resources.
- (ss) *Pressure Regulating Device* means a device that maintains a constant flow and pressure for increased efficiency of irrigation systems. This device shall have a pressure regulating device built into the stem of head or provided in conjunction with the valve. If pressure regulation is derived through the head, it shall be identifiable from the top of the head.
- (tt) *Hardscape* means areas such as patios, decks, driveways, in-ground swimming pools, paths and sidewalks that do not require irrigation.
- (uu) *As-Constructed Sketch* means a legible drawing indicating the date of the irrigation system installation, the number of zones, locations of zones, backflow prevention devices, valves, emitter types and locations, controller(s), pressure regulating devices and sensor device(s). The drawing shall represent the irrigation system as it exists at the time of irrigation system completion and shall be prepared by or at the direction of the person installing the system.
- (vv) *Irrigation Zone* means a grouping of rotors or sprinkler heads or pop-up sprays or micro irrigation emitters or other irrigation system equipment operated simultaneously by the control of one valve.
- (ww) *Low Maintenance Zone* means an area a minimum of six feet wide adjacent to water courses which is planted and managed in order to minimize the need for fertilization, watering and mowing. See Chapter 366 Part 6 (Fertilizer Application), Ordinance Code.
- (xx) *Efficient Irrigation System* means irrigation system design, installation, and maintenance that incorporate water efficient strategies and components, including, but not limited to, pressure regulation devices, sensor devices, correct head spacing, minimum areas of zones of matched precipitation rates and BMP.
- (yy) *Water Wise Principles* means appropriate planning and design, proper choice of plants, soil analysis that may include the use of solid waste compost, efficient irrigation, practical use of turf, appropriate use of mulches, and proper maintenance consistent with Florida Statutes.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 97-192-E, § 1; Ord. 1999-775-E, § 1; Ord. 2008-910-E, § 1; Ord. 2009-864-E, § 1)

SUBPART B. - TREE PROTECTION

Sec. 656.1204. - Applicability.

The provisions of Subpart B shall apply to all protected trees within the City, unless specifically exempted herein. All requirements in Article 25 of the Charter of the City of Jacksonville, *Minimum Standards for Tree Protection, Conservation and Mitigation During Development* shall be met *in addition* to the provisions of this Subpart B.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2008-910-E, § 1)

Sec. 656.1205. - Removal of protected trees prohibited; exceptions.

- (a) No person, organization, society, association or corporation, or any agent or representative thereof, directly or indirectly, shall cut down, remove, damage or destroy, or shall authorize the cutting down, removal, damage, or destruction of any protected tree, as defined in Section 656.1203(bb) hereof, or shall commit any act or authorize the commission of any act which physically removes a protected tree or causes a tree to die, such as damage inflicted upon the root system by heavy machinery, chemicals or paving, changing the natural grade above the root system and tree damage permitting infection or pest infestation, without first having obtained a permit as herein provided.
- (b) The following protected trees are exempted from the provisions of subsection (a). Where an exemption is claimed, an applicant must obtain a permit pursuant to Section 656.1206 for a fee as found in www.coj.net/fees, and provide supporting evidence that the applicant is entitled to the exemption, as requested by the Building Inspection Division:
 - (1) Any tree located on an individual lot on which either a single-family dwelling or a mobile home is located, provided:
 - A. The lot is not capable of further subdivision under applicable law; and
 - B. The single-family dwelling or mobile home is:
 - (i) Occupied and used for residential purposes, or
 - (ii) Capable of occupancy in compliance with applicable law.
 - (2) Any tree of the palm family, other than the Cabbage Palm (*Sabal palmetto*), or the pine family, other than the Long Leaf Pine (*Pinus palustris*) located on that portion of a lot which is more than 20 feet from a street right-of-way (including an approved private street or other access easement), or more than ten feet from any other property line.
 - (3) Any tree located in botanical gardens or in state-approved or government nurseries and groves which are grown for sale or public purpose.
 - (4) Any tree that poses imminent danger to the public health, welfare or safety, and requires immediate removal without delay. In such instances, verbal authorization to remove a protected tree may be given by the Chief.
 - (5) Any tree in a land area located within a City drainage easement, a City drainage right-of-way, and/or a City access way right-of-way (excluding road rights-of-way, or road easements requiring drainage) where trees must be removed, as reasonably necessary, to provide access to, or maintenance and/or construction of, the City's drainage ditches and drainage-related facilities.

- (6) Any tree located within an existing or proposed street right-of-way and/or easement shown on a set of approved final construction plans for required improvements within an approved single-family or mobile home subdivision which has been platted or is in the process of being platted and has received preliminary sketch plan approval pursuant to Chapter 654, Ordinance Code (Code of Subdivision Regulations), may be removed during construction of such improvements.
- (7) Any tree other than an exceptional specimen tree, as defined in Section 656.1203(bb)(3), located on property that has been subdivided for residential development by a plat of record or that is in the process of being platted and as received preliminary sketch plan approval pursuant to Section 654.108, Ordinance Code. Property with trees that are exempt under this subsection (8) must comply with the buffer requirements for residential subdivisions of Section 656.1222.
- (8) The following nuisance and invasive species of trees: Pond Willow (*Salix caroliniana*), Chinese Tallow (*Sapium sebiferum*), Paper Mulberry (*Broussonetia papyrifera*), Chinaberry (*Melia azedarach*), Camphor (*Cinnamomum camphora*), Wax Myrtle (*Myrica cerifera*), Golden Raintree (*Koelreuteria bipinnata*) and Cherry Laurel (*Prunus caroliniana*).
- (9) Any tree located on an individual cemetery plot and removed at the request and with the consent of an individual cemetery plot owner; provided, however, that this exemption shall not apply to the expansion of existing cemeteries. As used in this subsection, *cemetery plot* shall mean a lot in any cemetery designated and maintained for the interment of a human body, or bodies or remains thereof and for no other purpose. As used in this subsection, *cemetery plot owner* shall mean a person, or his representative, in whose name a plot is listed in a cemetery organization's office as the owner of the exclusive right of sepulture; or who holds from a cemetery organization, a certificate of ownership or other instrument of conveyance of the exclusive right of sepulture in a particular plot in the organization's cemetery.
- (10) Any tree determined to be a danger to traffic flow or traffic site visibility by the City Traffic Engineer.
- (11) Any tree determined to be in a required fire break by the Chief of Mowing and Landscape Maintenance Division.
- (c) During the period of an emergency such as a hurricane, flood or any other natural disaster, the requirements of this Section may be temporarily waived by the Chief, so that private or public work to restore order in the city will in no way be hampered.
- (d) Exceptional specimen trees, except for exceptional specimen trees located on property upon which either a single-family dwelling or a mobile home is located and/or is exempt under Section 656.1205(b)(1), or which is in use for bona fide agricultural operations and is exempt under Section 656.1205(b)(2), or which is exempt under Section 656.1205(b)(7), are specifically excluded from the exemptions listed hereinabove, and a permit is required to be obtained prior to any cutting down or removal of the trees. In addition, the provisions of Section 656.1206(h) concerning replacement of protected trees shall also apply to the cutting down or removal of exceptional specimen trees with a replacement of one inch to one inch removed, however, no replacement is required for exceptional specimen trees which have been determined by the Chief to be diseased or dying. Under no circumstances whatsoever shall this subsection be construed to require the owner of a single-family dwelling or mobile home which is occupied or capable of occupancy to obtain a permit to remove any protected tree.
- (e) This Section shall not apply to the removal of trees (1) on land classified as agricultural land pursuant to Section 193.461, Florida Statutes, if the removal of such trees is regulated through Best Management Practice criteria formally adopted into the Florida Administrative Code by the Florida Department of Agriculture and Consumer Services; or (2) land for use as a salt water mitigation bank pursuant to a permit issued by the St. Johns River Water Management District, the Florida Department of Environmental Protection, or the United States Army Corps of Engineers, so long as no horizontal or vertical hardscape construction improvements are made on any portion thereof.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 95-212-154, § 1; Ord. 1999-152-E, § 1; Ord. 1999-775-E, § 2; Ord. 2001-161-E, § 1; Ord. 2001-1327-E, § 1; Ord. 2008-910-E, § 1; Ord. 2013-590-E, § 1; Ord. 2013-209-E, § 17; Ord. [2016-705-E](#), § 1; Ord. [2017-665-E](#), § 29)

Sec. 656.1206. - Permit procedure and criteria for tree removal, relocation and replacement of protected trees.

- (a) Permits for site clearing and the removal or relocation of a protected tree shall be obtained by filing an application with the Chief. Approval of the application and issuance of a permit by the Chief shall be required prior to any land clearing or grubbing, prior to any disturbance of the root system or site development, or prior to the occurrence of any changes to an existing developed site. The site shall be inspected to insure compliance with the approved site plan prior to any additional permits being issued. Applications for site clearing and tree removal or relocation shall include the following:
 - (1) A site plan, at a scale which clearly illustrates the requirements of this Part, showing the lot configuration; the location and identification of existing and proposed improvements, if any, including structures, water retention areas, paving, grade changes, utilities, easements, and street rights-of-way or approved private streets; the location and identity by botanical or common name and DBH, of protected trees to be removed, relocated or retained and of preserved understory vegetation; and preserve areas. In areas where groups of trees are to remain and no soil is to be disturbed, the tree group may be identified by general species; and
 - (2) A statement explaining why the protected tree is proposed to be removed or relocated.
- (b) An application for a permit for the removal or relocation of a protected tree shall be reviewed by the Chief and a decision shall be made thereon within ten working days after receipt of such application; provided, however, that if the Chief determines that a comprehensive study of a development plan or public improvement program is needed to assure the protection of a significant number of trees, he shall refer the application to the Planning and Development Department for a detailed study and recommendation and shall advise the applicant of this action within the ten day period hereinabove specified. The Planning and Development Department shall provide the Chief and the applicant with its report within ten working days after referral of the application.
- (c) Any person, organization, society, association, corporation or agent thereof who intends to trim, prune, cut, disturb roots, or to destroy or remove any tree from a public easement, public property or right-of-way shall obtain a permit from the Chief. All work shall be conducted in strict accordance with the National Arborist Association Pruning Standards for Shade Trees, the American National Standards for Tree Care Operations (ANSI #Z133.1), and any additional conditions of such permit.
- (d) Any department or division of the City of Jacksonville, any independent authority or agency of the City of Jacksonville, and any provider or utility service may obtain an annual permit to trim or remove trees for maintenance purposes, for the installation of new facilities, or to maintain proper clearance on existing facilities upon the submission of an operational manual, procedures and/or standards for such work within the service area of the utility, which manual, procedures and/or standards shall be subject to the review and approval of the Chief. A separate annual permit shall be obtained for areas designated as scenic and historic corridors established pursuant to Section 656.1219, which permit shall include the procedures, standards and conditions imposed by council, if any, in the ordinance designating the corridor. All work shall be conducted in strict accordance with the permit; provided, however, that the requirements of this Section shall not restrict in any manner whatsoever or prohibit any provider of utility service from taking any action to trim or remove trees which is reasonably required in order to restore utility service. The permit holder shall make every reasonable effort to minimize the impact on the environment, including consideration of alternatives for the provision of service.
- (e) The approval, conditional approval or denial by the Building Inspection Division of an application for a tree removal permit, as required by this Section, shall be based on the following criteria:

- (1) The extent to which tree removal decreases aesthetic and environmental quality, land values and physical benefits to human beings;
 - (2) The necessity to remove trees which pose a safety hazard to pedestrian or vehicular traffic or threaten to cause disruption to public services;
 - (3) The necessity to remove trees which pose a safety hazard to buildings;
 - (4) The necessity to remove diseased trees or trees weakened by age, weather, storm, fire or acts of God or which are likely to cause injury or damage to people, buildings or other improvements on a lot or parcel of land;
 - (5) The extent to which tree removal is likely to result in damage to the property of other owners, public or private, including damage to lakes, ponds, streams or rivers through runoff or erosion;
 - (6) The proposed landscaping, including plans whereby the applicant has planted or will plant perennial vegetative cover to replace those trees which are proposed to be cleared;
 - (7) The topography of the land and the effect of tree removal on erosion, soil retention and the diversion or increased flow of surface water;
 - (8) The necessity to remove trees in order to construct proposed improvements to allow access around the proposed structure for construction equipment, access to the building site for construction equipment, or essential grade changes;
 - (9) The land use and natural vegetative ground coverage of surrounding property;
 - (10) The extent of any damage or hardship to the applicant resulting from a denial of the requested permit;
 - (11) The species and size of the tree proposed for removal;
 - (12) Whether the tree to be removed is an exceptional specimen tree;
 - (13) Whether the tree is located within a scenic and historic corridor; and
 - (14) Areas to be converted to mitigated wetlands as required by federal, state and local agencies which regulate wetlands.
- (f) Any relocation of trees in compliance with this Subpart shall be performed in accordance with accepted industry practices, including watering to insure survival of transplanted stock.
- (g) Protected trees identified for removal on the site clearing or tree removal permit application shall be replaced with new planted trees, unprotected trees or transplanted trees. Protected live oaks (*quercus virginiana*) removed shall be replaced only with live oaks. The total caliper inches of replacement live oaks shall equal the total caliper inches of protected live oaks removed; for other removed protected trees, the total caliper inches of replacement trees shall equal one-third the total caliper inches removed. A waiver of this replacement requirement may be approved by the Chief if the tree removal was for the purpose of removing dead, diseased, dying or trees of similar condition or for trees whose roots are causing severe damage, as determined in the sole discretion of the Chief, to an adjacent structure. No waiver shall be allowed for the removal of any tree whose continued existence was necessary for compliance with the City's Landscape Code, for receiving credit for conservation mitigation, or for any tree which was planted as part of a mitigation requirement. The total caliper inches for replacement of exceptional specimen trees shall equal the total caliper inches of exceptional specimen trees removed pursuant to Section 656.1205(d). When there are more than an average of two exceptional specimen trees per acre removed on a particular site, the required mitigation shall be increased by twice the minimum caliper of all exceptional specimen trees lost in order to compensate for that loss. If multi-trunked trees are used as replacement trees, then the total caliper of the four largest trunks shall equal the replacement caliper. Palms may be used only to replace protected palms removed. Replacement species used shall be approved by the Chief. Additionally, the following provisions shall apply:
- (1) No replacement will be required for protected trees which are determined by the Chief to be dead or deteriorated as a result of age, insects, disease, storm, fire, lightning or other acts of

nature. Trees that require trimming or other simple forms of abatement to remain viable shall not be exempt pursuant to this subsection. An exemption pursuant to this subsection requires the following:

- (i) Sufficient documentation supporting the exemption in a form approved by the Chief; and
 - (ii) Verification of the dead or deteriorated status of the tree by a Certified Arborist; and
 - (iii) Evaluation of the tree based upon the current site conditions and viability of the tree, not considering potential impacts of construction.
- (2) New replacement trees shall meet the minimum standards for landscape materials established by Section 656.1211(e).
- (3) Existing trees, two-inch caliper or greater, which are not protected trees but which are preserved or transplanted, except those trees located in preserve areas, may be utilized to satisfy tree replacement requirements, subject to the conditions stated in Sections 656.1207 and 656.1213(b) and (d).
- (4) New, preserved nonprotected, or transplanted exceptional specimen trees or live oaks used as replacement for removed exceptional specimen trees or protected live oaks shall be four-inch caliper or greater.
- (5) Existing protected trees which would otherwise be removed from the site because of development, may be utilized to satisfy tree replacement requirements if transplanted to a location on the site which meets the requirements of Sections 656.1207 and 656.1213(b) and (d).
- (6) If protected tree removal is associated with new development, the name, size and location of all replacement trees shall be shown on the required landscape plan and such trees shall be installed prior to the final building inspection. Otherwise, the name, size and location of the required replacement trees shall be shown on the site plan required for site clearing or tree removal and such trees shall be installed within the time limit stated on the site clearing or tree removal permit.
- (7) Existing nonprotected trees, transplanted trees and new trees used for replacement become protected trees.
- (8) Replacement trees shall be maintained pursuant to the requirements of Section 656.1212.
- (9) Replacement trees may be used to satisfy the tree requirements of Subpart C, landscaping requirements.
- (10) A tree used for replacement shall be at least ten feet from any other tree planted, transplanted or preserved. Greater spacing may be required, based on a tree survey, to ensure survivorship of a tree.
- (11) Replacement trees shall be suitable to the site at which they are planted as determined by the Chief.
- (12) Replacement trees for protected trees larger than 11.5 inches DBH shall be shade trees as required by Article 25 of the Charter of the City of Jacksonville, *Minimum Standards for Tree Protection, Conservation and Mitigation During Development*.
- (13) Trees planted within an area of an onsite wetland created for mitigation of wetlands removed or relocated on the same site may be used satisfy the requirements of this Subpart.
- (14) If the applicant demonstrates to the satisfaction of the Chief that the site cannot accommodate the total number of required replacement trees as a result of insufficient planting area, the applicant shall provide a monetary contribution to the Tree Protection and Related Expenses Trust Fund. The amount of such contribution shall be determined as follows: For every two caliper inches, or fraction thereof, of replacement trees which would otherwise be required, the contribution shall be equal to the retail value of a planted two-inch caliper nursery grown shade tree. The retail value shall be calculated by taking the average of the median current wholesale

price, published by North Florida nurseries, for a container grown, and a balled and burlapped two-inch caliper live oak, multiplied by two. The retail value shall be recalculated and adjusted annually on October first.

- (15) As an alternative to providing a monetary contribution to the Tree Protection and Related Expenses Trust Fund, an applicant may, under the conditions set forth in this subsection, provide mitigation in certain off-site locations. In such cases, the applicant shall install the required replacement trees at another location (the "alternative site") which is not a residential lot and which meets all of the following criteria:
- (i) The alternative site must be located within the same planning district as the applicant's property, as such districts are defined in the City's Comprehensive Plan approved by the City Council. Applicants are encouraged to coordinate with, and seek input from, Planning District Citizen Planning and Advisory Committees in selecting alternative sites for tree mitigation. A location in the proximity of the applicant's property is preferred;
 - (ii) The alternative site must be owned or leased by the applicant or by a governmental entity which has authorized the installation of the trees, or is privately owned and nonconforming with respect to the requirements of this Part and the owner has consented to the use of his property as an alternative site; provided, however, that governmental entities providing off-site mitigation may do so only on property owned or leased by a governmental entity;
 - (iii) The installation of the trees at the alternative site will provide aesthetic benefits to many of the same citizens which would have benefited from the installation of the landscaping on the applicant's property; and
 - (iv) The alternative site is determined by the Landscape Architect to be a location where the trees are likely to survive.

If the applicant elects to install the required trees at the alternative site, the applicant must submit plans for the alternative site for review and approval of the Landscape Architect prior to the issuance of the site clearing permit. Any trees planted at the alternative site pursuant to this Section shall be in addition to, and not in lieu of, the requirements of this Chapter. Irrigation and maintenance of the replacement trees in accordance with the requirements of this Chapter are the responsibility of the applicant, and failure to comply with these requirements is a violation of this Chapter.

- (16) As a further alternative to providing a monetary contribution to the Tree Protection and Related Expenses Trust Fund, an applicant may, in limited circumstances and under the conditions set forth in this subsection, provide mitigation of the required mitigation amount through conveyance of certain lands to the City of Jacksonville. A conveyance of land in lieu of a monetary contribution to the Tree Protection and Related Expenses Trust Fund, must meet all of the following criteria:
- (i) The property to be conveyed to the City must be property the City is willing to accept pursuant to this subsection and maintain as open space;
 - (ii) The property to be conveyed to the City must be of a type and in a condition that will result in the preservation of open space and provide the opportunity for substantial tree planting and increase in tree canopy on the site;
 - (iii) The value of the property being conveyed to the City, as established in an appraisal acceptable to the City's Real Estate Division or the land value of which was established in an eminent domain proceeding within the previous five years, must equal or exceed the amount of the monetary contribution which would be made under this section;
 - (iv) The property being conveyed to the City must be free from environmental contamination, as established in environmental audits and studies acceptable to the City;
 - (v) The property being conveyed to the City must have clear title and be free and clear of any outstanding liens or unpaid taxes;

- (vi) Prior to conveyance to the City the owner shall furnish to the City, at no expense to the City, a landscape plan acceptable to the City for the City's use in planting trees on the property and a boundary survey of the property prepared by a licensed surveyor;
- (vii) Prior to conveyance to the City the property shall have been rezoned to Conservation (CSV) zoning district;
- (viii) The property being conveyed to the City must be located within a one-mile radius of the property from which protected trees were removed creating the requirement for mitigation under this section;
- (ix) The property being conveyed to the City shall be contiguous to a City right-of-way or City-owned land;
- (x) The property being conveyed to the City should be a minimum size of approximately 1.25 acres;
- (xi) The property being conveyed to the City shall not be land protected from development by other restrictions, such as subdivision buffer areas or St. Johns River Water Management District conservation easements;
- (xii) The property being conveyed to the City shall be free from easements which would limit tree planting such as overhead or underground utility, drainage or access easement which would, in the opinion of the City, unduly limit the ability of the City to plant trees on the site; and
- (xiii) The land being conveyed to the City shall be upland areas suitable for tree planting.

In the event that any portion of this subsection is declared invalid, unenforceable, unconstitutional or void, or is permanently enjoined, or if the existence of this subsection would result in any other portion of Chapter 656, Part 12, or Article 25 of the Charter being held to be invalid, unenforceable, unconstitutional or void, then thereafter no conveyance of land as mitigation shall be accepted pursuant to this subsection and all mitigation requirements shall be satisfied as otherwise allowed in this section.

(Ord. 91-59-148, § 1; Ord. 91-761-410, § 1; Ord. 93-718-395, § 1; Ord. 97-192-E, § 2; Ord. 97-434-E, § 1; Ord. 2001-161-E, § 2; Ord. 2001-424-E, § 1; Ord. 2002-868-E, § 1; Ord. 2002-1119-E, § 1; Ord. 2005-1019-E, § 1; Ord. 2006-269-E, § 1; Ord. 2008-910-E, § 1; Ord. [2017-396-E](#), § 1)

Sec. 656.1207. - Tree protection during development.

All protected trees, preserved understory vegetation, and trees retained for tree credit, pursuant to Section 656.1213 hereunder, shall be protected from injury during any land clearing or construction in the following manner:

- (a) Prior to any land clearing operations, tree limbs which interfere with construction shall be removed and temporary barriers shall be installed around all trees and other understory vegetation to remain within the limits of land clearing or construction and shall remain until the completion of the work. The temporary barrier shall be at least three feet high, shall be placed at least six feet away from the base of any tree, shall include at least 50 percent of the area under the dripline of any protected tree or trees retained for tree credit pursuant to Section 656.1213, and the barrier shall consist of either a wood fence with two by four posts placed a maximum of eight feet apart, with a two by four minimum top rail, or a temporary wire mesh fence, or other similar barrier which will limit access to the protected area. Tree protection shall comply with the guidelines in the Tree Protection Guide for Builders and Developers by the Florida Division of Forestry and any other reasonable requirements deemed appropriate by the Chief to implement this Part.

- (b) No materials, trailers, equipment or chemicals shall be stored, operated dumped, buried or burned within the protected areas. No attachment, wires (other than protective guy wires), signs or permits shall be attached to a protected tree.
- (c) When removing branches from protected trees to clear for construction or pruning to restore the natural shape of the entire tree, the guidelines in the National Arborist Association Pruning Standards for Shade Trees and the American National Standards for Tree Care Operations (ANSI #Z133.1) shall be followed. Protected trees shall be pruned to remove dead or damaged limbs and to restore this natural shape and fertilized as necessary to compensate for any loss of roots and to stimulate root growth. Any damage to tree crowns or root systems shall be repaired immediately after damage occurs.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1)

Sec. 656.1208. - Enforcement; violations and penalties; stopping work, correction of violation.

- (a) *Notice of violations.* Whenever the Chief has evidence that a violation of any provision of this Subpart has been or is being committed, he shall issue a written Notice of Violation or order upon the person or persons responsible for the violation, which may include, but not be limited to, the property owner, permit holder, and contractor (if known and if different person(s) or entities) by personal service or certified mail or, if these forms of service are ineffective, by posting a copy in a conspicuous place on the premises where the violation has occurred or is occurring. The notice shall briefly set forth the general nature of the violation and specify the manner and that the violation shall be corrected within 90 days from the date of the Notice of Violation, which may be extended by the Chief for good cause.
- (b) *Stopping work.* Whenever, in the opinion of the Chief, by reason of a violation of any provision of this Subpart, the continuance of work is contrary to the public welfare, he shall order, in writing, all further work to be stopped and may require suspension of all work until the violation is corrected.
- (c) *Correction of violation.* A violation of this Subpart shall be corrected as follows:
 - (1) When there is work done without a permit, the property owner shall pay the permit fee due the City for the work, which permit fee shall be twice the amount of the regular permit fee specified in Section 320.409(a)(15) which would have been due had the permit been obtained prior to commencing work, and by replacing the protected trees removed without a permit with new planted trees, unprotected trees or transplanted trees. The total caliper inches of the replacement trees shall equal twice the amount of total caliper inches required to be planted, pursuant to Section 656.1206(h). The property owner shall also submit a tree replanting plan showing how the damage caused to the site by the violation will be mitigated shall be subject to the review and approval of the Chief and the trees installed within the time limit stated on the permit. Replacement trees shall meet the requirements of Section 656.1206, except that the minimum caliper of all replacement trees shall be four inches, and the plan shall meet the requirements of Section 656.1217, to the extent applicable; or
 - (2) When there is no permit, the violator shall pay the permit fee due the City for the work, which permit fee shall be twice the amount of the regular permit fee specified in Section 320.408(a)(15), which would have been due had the permit been obtained prior to commencing work, and by making a contribution to the Tree Protection and Related Expenses Trust Fund to compensate for each replacement tree which is not planted. The amount of such contribution shall be twice the required amount, pursuant to the formula described in Section 656.1206(h)(14). For each subsequent violation by the property owner, the amount of such contribution shall be triple the required amount, pursuant to the formula described in Section 656.1206(h)(14).
 - (3) When there has been a permit issued for the proposed work, any property owner who removes more caliper inches than the number of caliper inches approved in their permit as identified in

the final landscape inspection is required to pay triple the required amount for those caliper inches that were not permitted pursuant to the formula described in Section 656.1206(h)(14).

- (4) If the site has been cleared and the trees have been removed from the site so that the Chief is unable to determine with reasonable certainty the number of protected trees removed in violation of this Subpart, the violation shall be corrected by making a contribution to the Tree Protection and Related Expenses Trust Fund equal to \$50,000 per acre, or fraction thereof per each acre, of land cleared, which fine shall be assessed by the Chief. In the event the Chief assesses such a fine, the Chief shall provide the following information in the Notice of Violation, pursuant to subsection (a), to the property owner: the amount of acres presumed to be impacted by the site clearing without a permit, the total fine assessed, and any other information or documents the Chief relied upon to calculate the fine ("preliminary assessment of fine"). The property owner shall have the ability to appeal the preliminary assessment of fine as follows:
 - (i) The property owner has the burden of proving the preliminary assessment of fine should be reduced. The property owner shall have 30 days from the receipt of the Notice of Violation to dispute the assessment. The notice of dispute shall be in writing and sent to the Chief via electronic mail and by either hand delivery or certified mail, and contain the following information (if applicable): evidence of the species of trees removed, the total caliper inches removed, the application of any exception or exemption to the trees removed as provided for in this Part, and any other relevant information used to dispute the preliminary assessment of fine. All evidence relied upon to support the dispute, including expert analysis and geographical data, shall also be provided in the notice of dispute.
 - (ii) The Chief shall have 30 days to respond to the notice of dispute. The response shall be in writing and shall be sent to the property owner, or his agent, via electronic mail and either hand delivery or certified mail, and shall provide the Final Assessment of Fine based on one of the following determinations: (1) the Chief rejects the basis for the notice of dispute and applies the preliminary assessment of fine as the Final Assessment of Fine; or (2) the Chief accepts all or a portion of the notice of dispute and adjusts the preliminary assessment of the fine, an explanation of the adjustment shall be provided. When the Chief accepts all or a portion of the notice of dispute, the minimum contribution shall be \$5000 for each acre plus twice the contribution amount required for those caliper inches that were removed pursuant to the formula described in Section 656.1206(h)(14).
 - (iii) The property owner may appeal the Final Assessment of Fine to the Planning Commission pursuant to the provisions of Section 656.135. For the purposes of this subsection, the use of the term "Director" shall mean "Chief" and "written interpretation" shall mean "Final Assessment of Fine" as such terms are used in Section 656.135.
 - (iv) In the event the property owner does not dispute the preliminary assessment of fine within the 30 days as provided for in subparagraph (i), the preliminary assessment of fine shall be the Final Assessment of Fine and shall be deemed the final action of the city and shall be subjected to no further appeal.
- (5) In the event the contractor responsible for the site clearing in violation of this subpart is different than the property owner, in addition to the penalties listed in subparagraphs (2) and (3), above, the contractor shall also be subject to a civil penalty of \$1,000.00 for the first violation, \$2,000.00 for the second violation, and \$3,000.00 for every subsequent violation. Each parcel where the contractor conducts site clearing work without a permit shall be considered a separate violation.
- (6) The contribution assessed under this subsection shall be payable to the Tax Collector within seven days after the non-appealable Final Order is issued. All amounts received by the City pursuant to this subsection shall be deposited into the Tree Protection and Related Expenses Trust Fund established under Section 111.760, except that the Building and Inspection Division shall receive up to \$1,000 per acre for the enforcement of this subsection. No work shall continue on the site until the tree replanting plan has been approved or the contribution or fine has been collected.

- (d) *Appeals.* A person aggrieved by an administrative order, determination or decision of the Chief may appeal the order, determination or decision to the Planning Commission pursuant to the provisions of Section 656.135.
- (e) *Violation and penalties.* A person who violates any provision of this Subpart, and fails to correct the violation as provided herein shall, upon conviction thereof, be guilty of a class D offense and punished accordingly. A separate offense shall be deemed to have been committed for each tree removed, damaged or destroyed contrary to the provisions of this Subpart.
- (f) *Judicial remedy.* In addition to other remedies and notwithstanding the existence of an adequate remedy at law, the City of Jacksonville may seek injunctive relief in the Circuit Court to enforce the provisions of this Subpart. The City shall be entitled to reasonable attorney's fees and costs, including appellate fees and costs in an action where the City is successful in obtaining affirmative relief.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2006-422-E, § 124; Ord. [2017-396-E](#), § 1)

SUBPART C. - LANDSCAPING REQUIREMENTS

Sec. 656.1209. - Applicability.

This Subpart shall be applicable to all new landscapes and irrigation systems for public agency projects and private development projects, including, but not limited to, industrial, commercial, recreational, multi-family residential developments and single family residential developments that have not had a plat recorded and have not been accepted for maintenance by the City before April 4, 2011, or to the expansion or renovation of any existing development, including property in government use. Within any three-year period, when the total cumulative renovation of existing development is equal to at least 50 percent of the assessed value of the lot improvements on the start of the three-year period, according to the Property Appraiser, or the total square footage of a structure is expanded to 50 percent or greater, as well as any cumulative square footage expansions totaling 50 percent, the project will be deemed a Qualified Project then this Subpart shall be applicable to existing development and the expansion. If the Qualified Project includes alterations to parking areas or exterior areas where landscaping improvements are required, the area where such project is planned shall also be brought into full compliance with this Subpart. For all other Qualified Projects, 20 percent of the project cost shall be applied to meet the requirements of this Subpart. If full compliance with this Subpart is not achieved through the improvements described herein, priority for improvements shall be given to areas that are visible from public rights-of-way and other public areas and improvements providing internal parking lot shade. All property used for right-of-way is specifically exempted from the provisions of this Subpart. No building permit shall be issued in violation of any of the provisions hereof. Landscape materials installed in addition to the minimum requirements of this Subpart, shall meet all criteria of this Subpart except for plant size and quantity. Property located in any single-family Residential District (RR, RLD, or single family residential portion of a PUD) and used as such or property used for agriculture or single-family residential in an Agriculture (AGR) district is excluded from the requirements of Sections 656.1214, 656.1215 and 656.1216. Owners of single family residences within residential subdivisions that have not had a plat recorded and have not been accepted for maintenance by the City before April 4, 2011 shall follow the Best Management Practices for Florida-Friendly landscape, Efficient Irrigation and Water Wise Principles, but shall have flexibility in meeting the requirements as set forth in this Subpart.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2008-910-E, § 1; Ord. 2009-865, § 2; Ord. 2011-74-E, § 2; Ord. [2015-837-E](#), § 1)

Sec. 656.1210. - Landscaping requirements related to Comprehensive Plan policies.

- (a) The preservation of native habitat vegetation during land development activities is required, either through maintenance of natural vegetation on the project site, or through the planting of native

vegetation. If through planting, at least 50 percent of all plantings incorporated in an approved landscape plan for any project site shall consist of native vegetation suitable to that site, and at least 60 percent of all post-development vegetation shall be indigenous to the City.

- (b) All new developments shall provide for the conservation and preservation of environmentally sensitive lands, native plant communities and wildlife habitat to maintain the natural ecological types and sustainable populations of wildlife native to the City consistent with the provisions of Objective 3.3, Policy 2.3.7 and associated policies of the Conservation/Coastal Management Element of the Comprehensive Plan.
- (c) All nonresidential land uses except in the CCBD District shall provide a minimum of ten percent of the lot in open space.
- (d) All multiple-family dwellings of 100 dwelling units or more shall be required to provide 150 square feet of recreation open space per dwelling unit.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 96-363-234, § 1; Ord. 2009-865, § 2)

Sec. 656.1211. - Florida-Friendly Landscape and Irrigation design standards.

- (a) All landscapes shall be designed to achieve water efficiency by:
 - (1) Preserving existing plant communities;
 - (2) Re-establishing of native plant communities per Comprehensive Plan objectives and policies;
 - (3) Using Florida-Friendly plant materials which are appropriate for the site conditions;
 - (4) Grouping plant material with similar irrigation requirements;
 - (5) Using pervious paving materials; and
 - (6) Using highly drought tolerant grass species per BMPs.

Existing plant communities should be preserved and native plant communities be re-established wherever possible. Landscaped areas requiring irrigation shall be designed to group trees, shrubs, ground cover and turfgrass together into water use zones. The water use zones are as follows:

High Water Use Zone—areas of the site limited to a maximum of 30 percent of the total landscaped area with plants and turf types which, within this area, are associated with moist soils and require supplemental water in addition to natural rainfall to survive. This zone includes nondrought tolerant turfgrass varieties.

Moderate Water Use Zone—areas of the site with plants, including drought tolerant turfgrass varieties, which survive on natural rainfall with supplemental water during seasonal dry periods.

Low Water Use Zone—areas of the site which shall be designed with a minimum 30 percent of the total landscape area provided with plants which survive on natural rainfall without supplemental water. Because of the tendency to maintain turfgrass with supplemental watering, turfgrass shall not be permitted in this zone. The minimum Low Water Use Zone area required for a single-family residential lot may be reduced one percent for every one percent reduction below the maximum High Water Use Zone area provided on the lot.

Plants with similar water and cultivation requirements (soil, climate, sun and light) shall be grouped together and irrigated according to their water requirements.

- (b) Trees shall not be placed where they interfere with site drainage or where they shall require frequent pruning in order to avoid interference with overhead power lines. Unless otherwise provided in this Section, a minimum number of trees shall be planted or preserved upon each site, pursuant to

the following standards which are the minimum requirements for landscaping within the City of Jacksonville.

- (1) Minimum tree planting requirements for all property upon which either a single-family dwelling or a mobile home on an individual lot is located or to be located: One four-inch caliper tree or multiple two-inch minimum caliper trees totaling four caliper inches shall be planted and/or preserved for every 5,000 square feet of lot area, plus an additional two caliper inches for every 2,500 square feet of lot area (but not a portion thereof) in excess of 5,000 square feet, excluding therefrom preserve areas and water bodies. Trees planted shall meet the general criteria specified in subsection (e)(3) hereunder.
- (2) Minimum tree planting requirements for all property other than property upon which either a single-family dwelling or a mobile home on an individual lot is located:
 - (i) One tree shall be planted and/or preserved for every 5,000 square feet of lot area, or portion thereof, which is located in any residentially-zoned district, AGR (Agricultural) District, PBF-2 (Public Buildings and Facilities) District, excepting public facilities), CRO (Commercial Residential Office) District, RO (Residential Office) District, CN (Commercial Neighborhood) District, CCG-1 (Commercial Community General) District, excluding therefrom preserve areas and water bodies.
 - (ii) One tree shall be planted and/or preserved for every 8,000 square feet of lot area or portion thereof, excluding therefrom preserve areas and water bodies in all commercial districts, except as otherwise provided herein.
 - (iii) One tree shall be planted and/or preserved for every 10,000 square feet of lot area or portion thereof, excluding therefrom preserve areas and water bodies in any industrial district or Public Facilities (PBF) District (except private facilities in each district).
- (c) Trees, excluding palm trees, which are larger than the minimum size may be credited as indicated in Table 1. A minimum of 50 percent of all required trees shall be shade trees.
- (d) Trees required for vehicular use area landscaping may be used to fulfill the tree requirements of this Section.
- (e) Standards for landscape materials.
 - (1) *Quality of plants:* All plant material shall be a minimum of Florida Number One as defined in the most current edition of the Grades and Standards for Nursery Plants, Part I and II, published by the Florida Department of Agriculture and Consumer Services.
 - (2) *Appropriate plant selection:* Plants shall be selected that are best suited to withstand the soil and physical growing conditions which are found in the microclimate of each particular location on a site. Plant species that are freeze and drought tolerant are preferred. Plants having similar water needs shall be grouped in distinct water use zones. Protection and preservation of native species and natural areas shall be provided. The planting of invasive plant species and controlled plant species is prohibited. Information regarding plants classified as prohibited, invasive, exotic, controlled or Florida-Friendly can be obtained from the Florida Department of Environmental Protection, the University of Florida/IFAS Duval County Extension Office and the City of Jacksonville, Building Inspection Division, Landscape Section.
 - (3) *General criteria for trees :* Trees shall be a species having an average mature crown spread of no less than 15 feet in northeast Florida. Trees having a mature crown spread of less than 15 feet, if grouped to create an equivalent 15 foot spread, may be substituted for the required tree. Single-trunk trees shall be a minimum of two inch caliper and a minimum of ten feet overall height. Multi-trunk trees shall be a minimum of three trunks eight feet high. Trees shall be planted in no less than 16 square feet of planting area, with a minimum dimension of four feet on any side. Trees shall not be planted closer than two feet from any pavement edge or right-of-way line, as measured from center of trunk. Architectural planters for trees shall be no less than four feet by four feet in width and no less than 24 inches deep. Credits for the use of trees larger

than the minimum size will be calculated as indicated in Table 1. Fractional measurements shall be attributed to the next lowest category.

- (i) *Shade trees:* Shade trees shall be a species having an average mature crown spread of no less than 30 feet; provided, trees having an average mature crown spread of less than 30 feet may be grouped so as to create a total average mature crown spread of no less than 30 feet and used in lieu of a shade tree. Shade trees at the time of planting shall be a minimum of two inch caliper and ten feet high. Shade trees shall be planted in no less than 150 square feet of planting area, with a minimum dimension on any side of eight feet. Shade trees shall not be planted closer than four feet from any pavement edge or right-of-way line, as measured from center of trunk. Those species of trees whose roots are known to cause damage to pavement shall not be planted closer than six feet to such pavement.
 - (ii) *Palm trees:* Palms shall be a minimum clear trunk height of eight feet, measured from the ground level to the base of the palm fronds. Palms may be substituted for the required trees at the ratio of two palms for each required tree or four palms for each required shade tree, except as provided below for Phoenix Palm. Each palm shall be planted in no less than 16 square feet of planting area, with a minimum dimension of four feet. Phoenix Palm may be used as a non-shade tree without meeting the ratios for other types of palms if the palm has a fifteen foot spread at maturity and a minimum clear trunk height of eight feet.
- (4) *Criteria for shrubs, vines and ground covers:* Hedges and shrubs used to form an opaque screen shall be no less than three-gallon container grown material or equivalent balled and burlap material. All other shrubs, dwarf shrubs and groundcover shall be of a size and spaced in such a manner so as to provide 85 percent coverage within two years after planting. Vines shall be evergreen and shall have a minimum of four stems 12 inches long immediately after planting.
 - (5) *Turfgrass:* The species and location of turfgrass areas shall be selected in the same manner as with all other planting regarding BMPs. Turfgrass areas shall be placed so as to be irrigated using separate zones from non-turf plantings. Turfgrass may be sodded, plugged, sprigged or seeded, except that solid sod shall be used on grass areas within street rights-of-way disturbed by construction, in swales, on slopes of four to one or greater, and on other areas subject to erosion. When permanent seed is sown during its dormant season, an annual winter grass shall also be sown for immediate effect and protection until permanent coverage is achieved.
 - (6) *Mulch:* A layer of organic mulch shall be applied and maintained in all tree, shrub, ground cover planting areas and bare preserved natural areas. The mulch layer shall not exceed three inches. The use of sustainably harvested mulches such as melaleuca, eucalyptus, recycled organic mulch; dead leaves and pine straw are highly recommended. Gravel mulch is prohibited in plant beds and shall be used only if required by the National Electric Safety Code or in the bottoms of swales, catchment basins and retention areas. Upon review and approval by the Chief, gravel applied in a maximum 24 inch width may be applied at the foundation of buildings for drainage.
 - (7) *General clean up:* At the completion of work, construction trash and debris shall be removed and disturbed areas shall be fine-graded and landscaped with shrubs, groundcover, grass or two inches of mulch.
 - (8) *Landscaping materials not required by Subpart C:* Landscaping materials not required by Subpart C shall meet all criteria of Subpart C except for plant size and quality.

Table 1.
Tree and Understory Vegetation Credits—
Landscape Regulations

Table 1 identifies credits for landscaping under Subpart C only. Table 1 does not identify credits for mitigation required by Subpart B.

Tree Credits for Existing Trees		Tree Credits for New Trees	
Trunk DBH	No. of Trees Credited	Single Trunk Trunk Caliper	No. of Trees Credited
2 inch and above	1	2 inch and above	1
4 inch and above	2	4 inch and above	2
6 inch and above	3	6 inch and above	3
12 inch and above	4		
18 inch and above	4		

Tree Credits for Existing Trees		Tree Credits for New Trees	
Trunk DBH	No. of Trees Credited	Multi-Trunk Tree Height	No. of Trees Credited
24 inch and above	6	8 feet	1
30 inch and above	7	12 feet	2

Understory Vegetation Credits

Area of Preserved Existing Understory	Landscape Area Credited
1 square foot	1½ square feet

- (f) *Standards for efficient irrigation design.* The irrigation system may consist of an automatic underground system, micro irrigation, quick coupling valves, or hose bibs located within 75 feet of any landscaped area. The irrigation system shall be installed according to the landscape plan approved pursuant to Section 656.1217. The Chief may waive any irrigation system requirement where it can be shown that this requirement is not necessary to ensure proper irrigation of the area or that other natural or manmade sources of irrigation are sufficient to provide the required irrigation system. Whenever not required, it is strongly recommended that the design requirements of Part 12, which include the BMP, Water Wise Principles and Efficient Irrigation, be followed for single family residential. These standards include, but are not limited to, the following:
- (1) Irrigation systems shall be designed to meet the needs of the plants in the landscape and to separately serve turfgrass and non-turfgrass areas; the plans and specifications shall identify the materials to be used and the construction methods;
 - (2) The system design shall consider soil, slope, and other site characteristics in order to minimize waste water, including overspray on hardscape and other impervious surfaces and off-site runoff;
 - (3) Automatic irrigation controllers, when utilized, shall contain a functional sensor device for rain or soil moisture which shall be capable of being set for one minute run times, days of the week, seasons, and time of day, and which shall maintain a battery backup capability to retain programming in the event of a power failure. The controller shall operate all zones of different precipitation rates independently;
 - (4) Sensor devices, when utilized, shall be placed on a stationary structure, free and clear of any overhead obstructions and above the height of the irrigation sprinkler coverage;
 - (5) Irrigation zones shall be divided according to available flow rate and matched precipitation rates (inches per hour) for heads within each zone, so that spray heads, rotors, and micro irrigation shall not be mixed on the same zone; pipelines shall be designed to provide the system with the appropriate pressure required for maximum irrigation uniformity; sprinkler heads in turfgrass areas shall be spaced for head-to-head coverage. Whereby head spacing will not exceed 50 percent spray diameter; irrigation areas shall be no less than four feet wide except when adjacent to a contiguous property or when utilizing micro or drip irrigation;
 - (6) Irrigation systems shall be fitted with backflow prevention to protect the water source against backflow using a pressure regulating device;
 - (7) Irrigation systems shall not be required for preserved plant communities that are maintained in their natural state and barricaded and not impacted by development. The location and technique for barricading of these areas shall be shown on the site clearing plan. Manual or controlled irrigation systems shall be required on a temporary basis during the re-establishment of native plant communities. Once the native plants are re-established, the system may be removed or abandoned.
 - (8) Irrigation systems shall be designed to use the lowest quality water feasible.

(Ord. 91-59-148, § 1; Ord. 91-761-410, § 1; Ord. 93-718-395, § 1; Ord. 97-192-E, § 3; Ord. 1999-775-E, § 3; Ord. 2008-910-E, § 1; Ord. 2009-864-E, § 2; Ord. 2011-74-E, § 2; Ord. [2015-338-E](#), § 1)

Sec. 656.1212. - Maintenance and protection of landscaping and irrigation systems.

- (a) *Maintenance of Landscape.* The property owner shall be responsible for the maintenance of all landscaped areas, which shall be maintained in good condition so as to present a healthy, neat and orderly appearance, free of refuse, debris and weeds. The property owner should refer to the Low

Maintenance Zone for additional maintenance requirements and proper use of fertilizers and pesticides pursuant to Chapter 366 Part 6 (Fertilizer Application), Ordinance Code. Failure to maintain required landscaped areas or to replace, within a reasonable period of time, required landscaping which is dead, irreparably damaged, or fails to meet the standards of this Part, shall be deemed a violation of the Zoning Code. If there is insufficient area to replant the replacement trees on site, the property owner shall provide for mitigation of such trees pursuant to Section 656.1206(h).

- (b) *Maintenance of Irrigation Systems.* The installer shall provide the property owner and users with the manufacturer's guide for the controller and all other equipment provided. If the plans are different from the approved permitted plans, an as-constructed sketch of the installation will be provided to the Owner and the City of Jacksonville Building Inspection Division. All controllers shall be programmed to the appropriate level of water conservation per the St. Johns River Water Management District landscape irrigation rule. Installer shall include a watering schedule which meets the local codes for establishment of plant material and instructions on adjusting the system to apply less water after the landscape is established. The watering schedule shall meet the requirements set forth in Section 656.1217, Ordinance Code.
- (c) *Tree pruning.* Required trees shall be allowed to develop into their natural habit of growth and shall not be topped, pleached or pruned into topiary, espalier or other unnatural shapes. Trees may be pruned to maintain health and vigor by removal of dead, weak, damaged or crowded limbs, diseased and insect infested limbs, and branches which rub other branches. If trees are pruned in a manner which would prevent them from reaching the mature crown spread required by Section 656.1211(e)(3), or if mature trees are pruned to a height or canopy spread below the requirements of Section 656.1211(e)(3), then the property owner shall provide for mitigation of such trees pursuant to Section 656.1206(h).
- (d) *Protection of Landscape and irrigation systems.* To prevent encroachment by parked or moving vehicles provide wheel stops, landscape timbers, curbs, bollards (if in areas with large truck traffic) or other materials [may be] used for protection. Material selection is subject to the approval of the Chief. Paving, treating or covering a required landscaped area in a way that renders it impervious is prohibited. Shrub risers shall be set back at least two and one-half feet from any edge of pavement.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2008-910-E, § 1; Ord. 2009-864-E, § 2)

Sec. 656.1213. - Credit for existing trees and understory.

Whenever the provisions of this Subpart require trees and other landscaping, such requirement may be satisfied by the preservation of existing trees and understory, located in uplands or upland buffer areas, as specified herein, provided all other requirements are met. Trees planted in wetlands and wetland creation areas may also be credited toward mitigation pursuant to Section 656.1206(h)(13).

- (a) Existing trees, except palm trees, may be used to satisfy any requirement for trees pursuant to Table 1.
- (b) Existing trees, including trees located in preserve areas, may be utilized to satisfy any requirement for trees, subject to the following conditions:
 - (1) An area within the dripline of the tree or trees at least one foot in diameter for each inch of trunk diameter shall be preserved in its natural state or covered with pervious landscape material; provided, however, that the minimum area preserved shall be at least 150 square feet for shade trees and at least 25 square feet for all other trees. Such area shall be maintained at its original grade with no trenching or cutting of any roots and there shall be no storage of fill, compaction of soil or any concrete, paint, chemicals or other foreign substance in or on the soil;
 - (2) The tree or trees shall not be damaged from skinning, barking, bumping, and the like;
 - (3) The tree or trees shall be healthy, free from disease, damage and active insect infestation potentially lethal to the tree;

- (4) Each tree or trees in an existing hammock may be used to satisfy any requirement for trees;
- (5) If the Chief determines that the requirements relating to the damage or disease of any tree have not been met, such tree may nonetheless be utilized under this Section upon certification from the Urban Forester, Florida Department of Agriculture and Consumer Services, Division of Forestry, satisfactory to the Chief that such tree is healthy and has a reasonably good chance of survival.
- (c) Preserved existing understory vegetation may be utilized to fulfill the landscape area requirement pursuant to Table 1, so long as at least 90 percent of the credited area is covered by natural understory vegetation.
- (d) If, at any time within one year after all associated land alteration and construction activities are completed, a tree or understory vegetation for which credit was given according to Table 1 is dead or irreparably damaged or unhealthy as a result of these activities, then the tree or understory vegetation shall be removed and replaced with a tree or trees or such understory vegetation as would have originally been required.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 97-434-E, § 1; Ord. 2008-910-E, § 1)

Sec. 656.1214. - Vehicular use area interior landscaping.

- (a) Vehicular use areas open to the public: Except for those uses described in Sections 656.604(e)(1) and 656.604(f)(1), ten percent of vehicular use areas (VUA's) used for off-street parking, employee parking, auto service stations, outdoor retail display and sale of motor vehicles, service drives, and access drives within property located in multifamily, residential, commercial, industrial, and public facilities use zoning districts shall be landscaped. For those uses described in Sections 656.604(e)(1) and 656.604(f)(1), all vehicle use area landscaping shall satisfy the requirements set forth in the Parking Lot Landscaping Matrix, Figure B, set forth in Section 656.607(j). In the event the landscaping required under this section exceeds the requirements set forth in the Parking Lot Landscaping Matrix, Figure B of Section 656.607(j), the requirements of this section shall be relaxed to the extent necessary to comply with the Parking Lot Landscaping Matrix.
- (b) Specialized vehicular use areas closed to the public: Five percent of VUA's used for storage areas for new, used or rental vehicles and boats, bus terminals, motor vehicle service facilities, motor freight terminals, and other transportation, warehousing and truck operations not generally open to the public shall be landscaped.
- (c) Criteria for distribution: Landscape areas shall be distributed throughout the VUA in such a manner as to provide visual and climatic relief from broad expanses of pavement and at strategic points to channelize and define vehicular and pedestrian circulation. Landscape areas shall contain the following:
 - (1) At least 25 percent of the landscape areas shall be covered with shrubs; the remainder in shrubs, groundcover, mulch or grass, except that mulch shall cover no more than 25 percent of the landscape areas. Plants shall be spaced so as to achieve 90 percent coverage of the landscape areas within two years. Preserved existing understory vegetation may be used to fulfill the landscape area requirement so long as the vegetation meets the height and coverage requirement of the required landscaping;
 - (2) Not less than one tree for every 4,000 square feet, or fraction thereof, of the VUA. At least 50 percent of the trees shall be shade trees. Trees shall be distributed so that all portions of the VUA are within a 55-foot radius of any tree.
- (d) Each row of parking spaces shall be terminated by a landscape island with inside dimensions of not less than five feet wide and 17 feet long, or 35 feet long if a double row of parking. Each terminal island shall contain one tree. Each side of the terminal island adjacent to a travel lane shall have a

continuous six inch high curb of concrete or other appropriate permanent material. Terminal islands will be credited toward the satisfaction of the landscape area requirements of this Section;

- (e) If it can be shown to the satisfaction of the Chief that the strict application of this Section will seriously limit the function of the property, he may approve the location of the required interior landscape area near the perimeter of the VUA or adjacent to a building on the property, so long as the landscape area is within 20 feet of the perimeter of the VUA.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2009-907-E, § 4; Ord. 2010-449-E, § 3)

Sec. 656.1215. - Perimeter landscaping.

- (a) Perimeter landscaping adjacent to streets: For those uses described in Sections 656.604(e)(1) and 656.604(f)(1), all perimeter landscaping shall also satisfy the requirements set forth in the Parking Lot Landscaping Matrix, Figure B, set forth in Section 656.607(j). In the event the landscaping required under this section exceeds the requirements set forth in the Parking Lot Landscaping Matrix, Figure B of Section 656.607(j), the requirements of this section shall be relaxed to the extent necessary to comply with the Parking Lot Landscaping Matrix. All VUA's which are not entirely screened by an intervening building from any abutting dedicated public street or approved private street, to the extent such areas are not so screened, shall contain the following:
 - (1) Except for those uses described in Sections 656.604(e)(1) and 656.604(f)(1), a landscaped area of not less than ten square feet for each linear foot of VUA street frontage, 50 percent of which shall be at least a five-foot wide strip abutting the street right-of-way except for driveways. For those uses described in Sections 656.604(e)(1) and 656.604(f)(1), the landscape area is determined by the total number of parking spaces provided and the parking rate. All perimeter landscaping shall conform to Section 656.607(j), Parking Lot Landscaping Matrix, Figure B. Landscaped area calculations shall be met exclusive of any driveway width. The remaining required landscape area shall be located within 30 feet of the street right-of-way;
 - (2) A durable opaque landscape screen along at least 75 percent of the street frontage excluding driveways. Shrubs, walls, fences, earth mounds and preserved existing understory vegetation, or combination thereof, may be used so long as the screen is no less than three feet high measured from the property line grade two years after installation. Shrubs and preserved existing understory vegetation shall be evergreen, a minimum of 18 inches in height and spaced so that 85 percent opacity is achieved within two years. Shrubs located within three feet of a directional sign as defined in Section 656.1302(e) are not required to meet the minimum height requirements of this subsection. Walls or fences shall be no more than four feet in height and of wood or masonry at least 85 percent opaque. Earth mounds shall not exceed a slope of three to one. No less than 25 percent of street side frontage of walls or fences shall be landscaped with shrubs or vines;
 - (3) No less than one tree, located within 25 feet of the street right-of-way, for each 50 linear feet, or fraction thereof, of VUA street frontage. The trees may be clustered, but shall be no more than 75 feet apart. At least 50 percent of the trees shall be shade trees. If an overhead power line abuts the street frontage, then the required trees reaching a mature height greater than 25 feet shall be located at least 20 feet away from the power line;
 - (4) The remainder of the landscape area shall be landscaped with trees, shrubs, groundcovers, grass, or mulch, except that mulch shall not exceed 25 percent of the total landscape area;
 - (5) Landscape areas required by this Section shall not be used to satisfy the interior landscape requirements. However, the gross area of the perimeter landscaping which exceeds the minimum requirements may be used to satisfy the interior landscape requirements;
 - (6) If a railroad or utility right-of-way separates the VUA from the public street or approved private street, the perimeter landscaping requirements of this Section shall still apply.

- (b) Perimeter landscaping adjacent to abutting properties: For those uses described in Sections 656.604(e)(1) and 656.604(f)(1), all perimeter landscaping shall also satisfy the requirements set forth in the Parking Lot Landscaping Matrix, Figure B, set forth in Section 656.607(j). In the event the landscaping required under this section exceeds the requirements set forth in the Parking Lot Landscaping Matrix, Figure B of Section 656.607(j), the requirements of this section shall be relaxed to the extent necessary to comply with the Parking Lot Landscaping Matrix. All vehicular areas which are not entirely screened by an intervening building from an abutting property, to the extent such areas are not screened, shall contain the following:
- (1) A continuous landscape area at least five feet wide between the VUA's and the abutting property, landscaped with shrubs, groundcovers, preserved existing vegetation, mulch and grass.
 - (2) No less than one tree, located within 25 feet of the outside edge of the VUA, for every 50 linear feet, or fraction thereof, of the distance the VUA abuts the adjacent property. Trees may be clustered but shall be no more than 75 feet apart. At least one-half of the required number of trees shall be shade trees.
 - (3) A buffer wall between incompatible land uses as required by Section 656.1216, if applicable.
 - (4) If an alley separates the VUA from the abutting property, the perimeter landscaping requirements shall still apply.
- (c) Existing landscape screen: If an existing landscape screen has been established on abutting property, then it may be used to satisfy the requirements of this Section, so long as the existing landscape screen is abutting the common property line, and it meets all applicable standards of this Subpart.
- (d) Driveways to streets: The maximum width of any driveway not containing a landscaped island through the perimeter landscape area shall be 36 feet. The maximum width of any driveway containing a landscaped island through the perimeter landscape area shall be 48 feet and the driveway shall contain a landscaped island which measures not less than eight feet in width (from back of curb to back of curb) and 18 feet in length, surrounded by a six inch continuous raised curb, or other alternative approved by the Chief. The maximum combined width of all driveways through the perimeter landscape area shall be no more than 48 feet for properties with 100 feet or less of street frontage. For properties with more than 100 feet of street frontage, an additional one foot of driveway through the perimeter landscape area may be constructed for each four feet of street frontage in excess of 100 feet. In no event shall more than 50 percent of any street frontage be paved, nor shall the provisions of this Section be applied to reduce the permitted driveway width to less than 24 feet.
- (e) Driveways to adjoining lots: Driveways may be permitted by the Chief to adjoining lots of compatible use. The maximum number of driveways which may be allowed shall be determined by first calculating the total length of the VUA perimeter adjacent to property lines of compatible use, less the portion of the VUA separated from the common property line by a building and less the portion of the perimeter VUA separated from the compatible use by a jurisdictional wetland or waterbody and then applying the following criteria:

Net Length of Perimeter VUA	Maximum Number of Driveways
50—149 feet	2
150—299 feet	3

300—599 feet	4
For each additional 500 feet	1 additional driveway

The maximum width of any driveway to an adjacent lot shall be 24 feet. The area of the continuous five feet wide perimeter landscape strip normally required where each driveway occurs shall be incorporated into the required perimeter landscape area to each side of the driveway.

- (f) If a joint driveway easement is provided between adjacent property, then the required perimeter landscaping for each property shall be provided between the drive and any other vehicular use areas. That portion of the drive on each property shall be counted as part of the VUA of each property.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2008-910-E, § 1; Ord. 2009-907-E, § 4; Ord. 2010-449-E, § 3)

Sec. 656.1216. - Buffer standards relating to uncomplementary land uses and zoning.

- (a) Where uncomplementary land uses or zoning districts are adjacent, without an intervening street, a buffer strip shall be required between the uses or zoning districts. Such buffer strip shall be at least ten feet, except as set forth in the Parking Lot Landscaping Matrix, Figure B, set forth in Section 656.607(j), in width the entire length of all such common boundaries. The following shall constitute uncomplementary uses and zoning districts:
- (1) Multiple-family dwelling use or zoning districts (three or more attached units) when adjacent to single-family dwelling(s) or lands zoned for single-family dwellings.
 - (2) Office use or zoning districts, when adjacent to single-family or multiple-family dwellings, mobile home parks or subdivisions or lands zoned for single-family or multiple-family dwellings, mobile home parks or subdivisions.
 - (3) Mobile home park use or zoning districts, when adjacent to single-family dwellings, multiple-family dwellings and office uses, or lands zoned for single-family dwellings, multiple-family dwellings or offices.
 - (4) Commercial and institutional uses or zoning districts, when adjacent to single-family dwellings, multiple-family dwellings or mobile home parks or mobile home subdivision uses or lands zoned for single-family dwellings, multiple-family dwellings or mobile home parks or mobile home subdivision.
 - (5) Industrial uses or zoning districts, when adjacent to any nonindustrial uses or zoning districts other than agricultural land uses or zoning districts.
 - (6) Utility sites such as transmission or relay towers, pumping stations, electrical sub-stations, telephone equipment huts or other similar uses when adjacent to single-family dwellings, multiple-family dwellings, mobile homes, offices, institutional uses or zoning districts or adjacent to public or approved private streets.
 - (7) On property zoned for government use, the proposed government use most similar to the land uses or zoning districts specified above shall determine the buffer standards.
- (b) Buffer material requirements shall be as follows:

- (1) *Tree count.* The total tree count required within the buffer strip shall be determined by using a ratio of one tree for each 25 linear feet of required buffer strip, or majority portion thereof, with a minimum of 50 percent of the trees being shade trees. Trees shall be spaced so as to allow mature growth of the trees, but spaced no greater than 40 feet on center.
 - (2) *Ground cover.* Grass or other ground cover shall be planted on all areas of the buffer strip required by this Section which are not occupied by other landscape material.
 - (3) *Visual screen.* A visual screen running the entire length of common boundaries shall be installed within the buffer strip, except at permitted access ways. The visual screen may be a wood, wood composite, or masonry wall, PVC fence, landscaping, earth mounds or combination thereof so long as such strips shall provide at the time of installation a minimum of 85 percent opacity for that area between the finished grade level at the common boundary line and six feet above such level and horizontally along the length of all common boundaries. Plants or preserved vegetation shall be evergreen, a minimum of five feet tall at the time of installation, and spaced so that 85 percent opacity is achieved within two years. Earth mounds shall not exceed a slope of three to one. If a visual screen, which satisfies all applicable standards, exists on adjacent property abutting the property line or exists between the proposed development on the site and the common property line, then it may be used to satisfy the visual screen requirements. Except for industrial uses or ones, whenever a preserve area or water body at least 100 feet wide when measured perpendicular to the property line separates the uncomplementary uses, then the visual screen height requirement shall be reduced to three feet and the buffer strip width shall be reduced to five feet, when measured from the top of the lake bank or the jurisdictional wetland edge. If a plant is used for the visual screen, it shall be a minimum height of 24 inches at the time of installation.
 - (4) *Prevailing requirement.* Whenever parcels of land fall subject to both the perimeter landscaping requirements and the uncomplementary land use buffer strip requirements of the article, the latter requirements shall prevail.
 - (5) *Hardship.* If the Chief determines that the construction of a landscape buffer area required by this article would create a hardship for the existing structures or vehicular use areas, the Chief may approve a buffer area with a width no less than five feet, provided such buffer area meets the visual screening requirements of this article.
- (c) The buffer strip shall not be used for principle or accessory uses and structures, vehicular use areas, dumpster pads, signs, equipment, storage. Slopes within buffer strips shall not exceed four to one.
 - (d) If a water body exists along the common property line between uncomplementary uses which is less than 100 feet wide when measured perpendicular to the property line then the buffer strip shall be established between the use and the water body. Preserve areas may be used as buffer strips, so long as the tree and visual screen requirements can be satisfied.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2008-910-E, § 1; Ord. 2010-449-E, § 3)

Sec. 656.1217. - Landscape and Irrigation system plans required.

- (a) Prior to the issuance of any building permit or paving permit, a landscape plan shall be filed with, reviewed by, and approved by the Chief. The landscape plan shall be prepared by either the owner, if for minor work or for a single-family residential lot, or a licensed, registered landscape architect, bearing his seal, or shall be otherwise prepared by persons authorized to prepare landscape plans or drawings pursuant to F.S. Ch. 481, Pt. II (Landscape Architecture).
- (b) The landscape plan required hereunder shall be drawn to scale, including dimensions and distances and shall:
 - (1) Delineate the vehicular use areas, access aisles, driveways, and similar hardscape features;

- (2) Include either a quick coupler, hose bib or irrigation system plan as part of the landscape plan submittal;
 - (3) Include plans for a quick coupler or hose bib systems; include the point of connection, well, water meter or other approved water source, backflow prevention device, pipe sizes and locations, sleeve sizes and locations and detail of quick coupler, valves and hose bibs; a hose vacuum breaker is required at each hose bib;
 - (4) Include plans for an automatic irrigation system - Refer to part (c) of this section for the plan requirements;
 - (5) Indicate the location and identify by botanical or common name, the existing vegetation;
 - (6) Designate by name and location the plant material to be installed or preserved in accordance with the requirements of this Part;
 - (7) Identify and describe the location and characteristics of all landscape materials to be used; for calculation purposes identification of all native and Florida-Friendly plant materials shall be shown in the plant schedule.
 - (8) Show all landscape features, including areas of vegetation required to be preserved by law, in context with the location and outline of existing and proposed buildings and other improvements upon the site if any;
 - (9) Provide an analysis of the existing soil. The analysis shall include but not be limited to the determination of soil texture with an indication of the percentage of organic matter; measurement of pH, total soluble salts and the estimated filtration rate; if required, it should include an approach for appropriate soil amendments;
 - (10) Include a tabulation clearly displaying the relevant statistical information necessary for the Chief to evaluate compliance with the provisions of this Part. This includes gross acreage, square footage of preservation areas, number of trees to be planted or preserved, protected tree removals and mitigation calculations, square footage of paved areas, and such other information as the Chief may require;
 - (11) Contain such other information, as may be required by the Chief, to the extent such information is reasonable and necessary to a determination that the landscape plan meets the requirements of this Part; and
 - (12) Indicate all overhead and underground utilities located on the property and in the right-of-way adjacent to the property to which the landscape plan applies. This shall include overhead and underground electric service lines to all proposed buildings.
 - (13) Identify the location, size and height of any signs, other than temporary signs, located or to be located on the property.
- (c) The required automatic, quick coupler or hose bib irrigation system plan shall be provided prior to the issuance of the building permit or other City issued permit. If an automatic irrigation system is provided in lieu of an approved quick coupler or hose bib plan and the plans were not part of the approved building permit, then the automatic irrigation system plans must be submitted to the Building Inspection Division for review and approval prior to the issuance of a Certificate of Occupancy. The plans must be drawn to scale, including dimensions and distances, and shall include:
- (1) Irrigation point(s) of connection (POC) and design capacity; water meter or well size and location; type of water, potable or reclaimed; backflow prevention device at each POC as may be required by local codes;
 - (2) Location of main line and all lateral pipes with sizes; location of control valves with sizes and zone number clearly identified; automatic controller, sensor devices; specific irrigation heads by type; location of pump;

- (3) Delineation of high water use zones, moderate use zones and low water use zones, as set forth in Section 656.1211;
 - (4) Watering schedule with precipitation rates in inches per hour and minutes per zone which shall not exceed maximums set by the St. Johns River Water Management District, with all of the product data sheets for deriving precipitation rates for each valve circuit attached;
 - (5) Irrigation legend with the following elements: separate symbols for all irrigation equipment with different spray patterns and precipitation rates and pressure compensating devices; general description of equipment; manufacturer's name and model number for all specified equipment; recommended operating pressure per nozzle and bubbler and low flow emitter; manufacturer's recommended over-head and bubbler irrigation nozzle rating in gallons per minute (gpm), or gallons per hour (gph) for volume point applicators; minimum (no less than 75 percent of maximum spray radius) and maximum spray radius per nozzle; and manufacturer's rated precipitation rate per nozzle at specified psi.
- (d) Prior to the issuance of any building permit or paving permit, a landscape and irrigation system plan shall be required for any residential subdivision that has not had a plat recorded and has not been accepted for maintenance by the City. In lieu of submitting an individual landscape and irrigation system plan for each residential lot, one or more typical landscape and irrigation system plans may be submitted that govern the landscaping and irrigation systems for the residential lots within the development. All landscaping and irrigation systems within the residential subdivision shall be developed and installed in accordance with the submitted typical landscape and irrigation system plan or plans for that residential subdivision.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2008-910-E, § 1; Ord. 2009-864-E, § 2; Ord. 2011-74-E, § 2)

Sec. 656.1218. - Intersection visibility.

Where an accessway intersects with another accessway within a vehicular use area, where an accessway is located within a vehicular use area, or where an accessway intersects with a street right-of-way, cross visibility within the triangular areas described below shall be unobstructed at a level between two and eight feet above elevation of adjacent pavement. Only trees with trunks free of vegetation and limbs within the cross-visibility area, other landscaping, wall and earth mounds not exceeding a height of two feet, utility poles, and traffic signs shall be allowed within the triangular areas. No parking shall be allowed within the triangular areas. The triangular areas are:

- (a) The area of property on both sides of an accessway which intersects with another accessway within a vehicular use area. Two sides at each triangle shall extend six feet each way from the point of intersection, the third side being a line connecting the ends of the other two sides;
- (b) The area of property on both sides of an accessway where the accessway intersects with a street right-of-way. Two sides of each triangle shall extend ten feet each way from the point of intersection, the third side being a line connecting the ends of the other two sides;
- (c) The area of property located at the corner formed by the intersection of two or more street rights-of-way. Two sides of each triangle shall extend 25 feet along the right-of-way lines, measured from their point of intersection, the third side being a line connecting the ends of the other two sides.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1)

Sec. 656.1219. - Scenic and historic corridors.

Notwithstanding the provisions of this Part, the Council may designate by ordinance, scenic and historic corridors which may establish conditions, procedures and/or standards on any street right-of-way

including approved private streets in order to protect their special historic, architectural, archaeological, aesthetic or cultural interest. Upon designation of any scenic and historic corridor by Council, all plans, permits, improvements including maintenance, etc. thereon shall be in strict accordance with the conditions, procedures and/or standards imposed by Council.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1)

Sec. 656.1220. - Modification to landscaping requirements.

A modification to the landscaping requirements of this Subpart B may be permitted on a lot if the landscape plan has been approved by the Planning Department in accordance with the site plan review procedures of Section 656.404. Modifications to the landscaping requirements of this Subpart B which are found not to be contrary to the public interest and without which, owing to special conditions, a literal enforcement of the landscape provisions would result in unnecessary and undue hardship may be permitted by the Planning Department, provided that the landscape modification meets the spirit and intent of this Subpart and is a relocation, not an overall reduction, of the landscape requirements within the property.

(Ord. 91-59-148, § 1; Ord. 93-718-395, § 1; Ord. 2002-714-E, § 4)

Sec. 656.1221. - Education.

To assist in public information, the education of its citizens, and the effective implementation of this ordinance, the City will coordinate its efforts with those of the St. Johns River Water Management District and the Duval County Agricultural Extension Service or other agencies. In conjunction with the agencies, the City will jointly sponsor workshops and/or short courses on the design principles and standards of water-efficient landscaping.

(Ord. 93-261-143, § 1)

Sec. 656.1222. - Buffer requirements for residential subdivisions.

- (a) *Tree survey required.* A tree survey of the site which shows all protected trees 11.5 inches DBH or greater shall be provided. The tree survey shall be prepared by a licensed registered surveyor, landscape architect, or arborist, however other professionals such as a wetland scientist or environmental professional may also submit a tree survey. Where the applicant believes that no protected trees 11.5 inches DBH or greater exist on the site, he may submit a "No Tree Verification" Affidavit stating that no protected trees 11.5 inches DBH or greater exist on the site, together with the required permit fee. If the affidavit is substantiated by an inspection of the site, a "No Tree Verification" Authorization shall be issued. If it is determined upon inspection that a tree or trees requiring a permit are found on the property, the permit fee shall be quadrupled.
- (b) *Buffer required.* An average 20-foot natural buffer area is required along all perimeters of the site adjacent to any public or approved private right-of-way. The buffer area shall run the entire length of the right-of-way, shall not be less than 15 feet wide, and shall be subject to the standards of the Land Development Procedures Manual. The Chief may approve a buffer strip of less than 15 feet in instances when there is a unique hardship or circumstances that do not provide for any other practical alternative. Notwithstanding this subsection, the buffer area shall not exceed ten percent of the actual developable acreage of the site.
- (c) *Additional buffer standards along rights-of-way classified as collector or higher.* In addition to the requirements in subsection (b), if property abuts a right-of-way classified as a collector or higher on the City of Jacksonville Functional Highway Classification Map, then additional screening shall be provided as provided in this subsection (c).

- (1) *Type of screening* . Screening may be a berm, brick wall, landscaping, masonry wall, natural buffer, ornamental metal fencing, stucco wall, vinyl fencing, or other composite material subject to all provisions of this subsection. A combination of these screening types is permitted. If wood fencing is used, it shall be located at the inside edge of the buffer required by subsection (b).
- (2) *Minimum Standards* . Conservation areas, amenity areas, and aesthetically designed stormwater retention areas may not be subject to the minimum standards of this subsection, and transparency in these areas shall be subject to review and approval by the Planning and Development Department. For all other areas, the following minimum standards shall apply without exception:
 - (i) *Height*. Screening shall be a minimum of six feet in height and height shall be measured from the design grade adjacent to the screening.
 - (ii) *Location and setback*. Required landscaping and tree planting shall always be located on the right-of-way side of any wall or fence. Screening requirements within the buffer other than landscaping, shall be set back between 10 feet and 20 feet from the right-of-way. Screening shall be at least four feet from any sidewalk.
 - (iii) *Opacity*. Screening shall be 85 percent opaque, unless otherwise permitted by definition.
 - (iv) *Relief*. Fence or wall screening shall contain one relief every 100 feet, as the term relief is defined in subsection (3). Exceptions for relief along a wall or fence shall not be deducted from meeting the average 20-foot required setback.
- (3) *Definitions*. For the purposes of this Section, the following definitions and limitations apply:
 - (i) *Berm* means a mound or embankment of earth and subject to subsection (2).
 - (ii) *Brick* means a molded rectangular block of clay baked by the sun or in a kiln until hard and used as a building and paving material and subject to subsection (2).
 - (iii) *Composite material* means any combination of soft material like polyethylene, hard plastic like polypropylene, and hard wood, which is combined to produce a durable, long-lasting end product, subject to subsection (2).
 - (iv) *Landscaping* means planting materials including, but not limited to, trees, shrubs, ground covers, grass, flowers, and other similar materials, all subject to subsection (2). If landscaping is used without any other screening options, then the plants used for landscaping shall be sized at least five gallon, evergreen, and spaced so that 85 percent opacity and the height requirement in subsection (2) is achieved within two years.
 - (v) *Masonry* means stone, concrete, or other similar material other than brick and subject to subsection (2).
 - (vi) *Natural Buffer* means an area set aside for the preservation of natural vegetation and subject to subsection (2). This term does not preclude the clearing of understory/secondary vegetation. Trees that are three inches DBH or more are considered protected trees within a natural buffer. Any tree removed from a natural buffer shall be mitigated for within the natural buffer. Replacement trees mitigated for within a natural buffer shall be at least three inches DBH and shall not count towards meeting other tree planting requirements as described in 656.1222(e) or individual planting requirements on a residential lot.
 - (vii) *Ornamental metal* means a screening made of various weather resistant iron, metal, or similar materials. Ornamental metal may be less than 85 percent opaque subject to review by the Department.
 - (viii) *Relief* means a projection or recess of at least 24 inches from the screening plane to provide visual differentiation along the plane. Landscaping may not be used to meet the relief requirement. Projections may be located within the required buffer and do not add additional feet to any buffer requirement.

- (ix) *Stucco* means a durable finish made from cement, sand, and lime or other similar materials and may be placed over a commercial grade foam core or other similar material and subject to subsection (2).
- (x) *Vinyl fencing* means any screening made of any of various tough plastics and subject to subsection (2).
- (d) *Platting, maintenance, and open space credit.* The buffer area and any additional screening shall be recorded on the plat and may be part of a lot or a separate tract. If part of a lot, the buffer area and any additional screening shall be maintained by the lot owner. If part of a separate tract, the buffer area and any additional screening shall be maintained by the homeowners' association in perpetuity. If the buffer area and additional screening is recorded as a separate tract on the plat then the site shall receive the equivalent area as a credit towards meeting recreation and open space requirements, not to exceed 25% of the required recreation and open space requirement.
- (e) *Removal of trees in required buffer.* Trees within the required buffer area may be removed, subject to the permit requirements of Section 656.1206, Ordinance Code. Trees mitigated within the buffer shall be replaced within the buffer. At least one tree, a minimum of four inches DBH, shall be planted or preserved every 40 feet on center along perimeters of the site which are adjacent to roadways. If trees cannot be planted every 40 feet because of conditions including, but not limited to, drainage easements, the Chief may approve an alternative visual screen, consistent with subsection (c) regardless of the classification of the abutting right-of-way.
- (f) *Improvements permitted in buffer .* No new structures, impervious surfaces, unpaved vehicular use areas or other improvements shall be constructed within the designated buffer area other than fences, gates, mailboxes, necessary driveways, necessary sidewalks, and permitted signs.

(Ord. 1999-775-E, § 4; Ord. 2006-23-E, § 1; Ord. 2008-910-E, § 1)

Sec. 656.1223. - JEA Neighborhood Below Ground Pump Stations.

- (a) *Landscape Performance Standards* The visual impacts of the below ground pump stations sites shall be mitigated through the use of a landscaping buffer outside the security fence. The buffer shall be a minimum 5' at the street frontage and a minimum of 10' on all other sides and subject to and consisting of the following:
 - (1) A row of shade trees, beginning at the halfway point along each side fence and across the back, with no trees allowed in the front of the pump station, planted a minimum of 25' on center. At the time of planting, the trees shall be a minimum 10' tall with a 2" caliper; and
 - (2) A row of evergreen shrubs such as viburnum, ligustrum, holly or juniper, or any other evergreen shrub permitted by Section 656.1223, a minimum of 3' tall at time of planting, planted at 3' on center; and
 - (3) A 6' tall privacy fence with black vinyl privacy slats and a minimum 10' wide privacy gate; and
 - (4) The required landscaping shall be properly maintained through an irrigation system with rain sensor.
- (b) Deviations from the standards in subsection (a) must be reviewed and approved by JEA and by the City's Landscape Architect.

(Ord. 2008-910-E, § 1)