DIVISION 10. TREE PRESERVATION

Sec. 72-831. Purpose and jurisdiction.
(a) The county council finds and determines that it is in the best interest of the public health, safety and welfare to protect and preserve trees and enhance tree cover in Volusia County, Florida. The value of trees are many and varied and include, but are not limited to the following:

(1) Trees are valuable producers of oxygen, a necessary element to the human survival, and serve to reduce the environmentally dangerous carbon dioxide concentration in the air.
(2) The leaves of the trees trap and filter out ash, dust and pollen in the air.
(3) Trees may reduce wind velocity and noise levels.
(4) Trees may prevent erosion by stabilizing the soil through their root system and by breaking the force of raindrops pounding upon soil surfaces.
(5) Trees reduce the quantity of surface runoff and reduce the percentages of impervious surfaces.
(6) Trees help purify water by removing the nutrients from waters passing through the ground from the surface to the groundwater table.
(7) Trees provide shade and transpire water which helps to moderate temperatures and cleanse the air.
(8) Trees provide food, shelter and essential habitat for wildlife.
(9) Trees provide valuable visual aesthetics and psychological contrast to the urban environment.
(10) Trees are a valuable asset and increase the economic and aesthetic value of developed and undeveloped properties.

Therefore, for the above-described reasons, the county council has determined that it is necessary to enact this division.

(b) Jurisdiction. This division shall apply to the unincorporated areas of Volusia County, Florida.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-832. Penalty.
(a) Violations of this division are punishable as provided in chapter 1, section 1-7, Code of Ordinances, County of Volusia.
(b) Any person who violates a provision of this division may be required to replace an affected tree, at the county forester's option. Application and approval of a tree permit in accordance with the requirements of section 72-836 must be obtained. Replacement stock must be planted within 90 days of permit issuance. The cross sectional area of the replacement stock shall be taken at the tree's caliper and shall be equal to 150 percent of the cross sectional area of the tree removed. The county forester may reduce the replacement schedule based on the nature of the violation. All other tree replacement provisions of section 72-839 shall apply.

Sec. 72-833. Documents incorporated by reference.

When a word, term, or phrase used in this division is not defined in section 72-2, the definitions set forth in publications recognized as authoritative in the scientific and engineering fields, as applicable, shall apply. Such publications shall include the latest edition of Trees Native to Tropical Florida by Tomlinson; Dig Manual by the State of Florida; Guide for Plant Appraisal by the Council of Tree and Landscape Appraisers; Tree and Development by Jim Clark and Nelda Matheny; Tree, Shrub and Other Woody Plant Maintenance-Standard Practices by the American National Standards Institute (ANSI A-300); Grades and Standards for Nursery Plants by the Florida Department of Agriculture and Consumer Services; and the Florida Exotic Pest Plant Council List of Invasive Species. These publications, as amended, are adopted and incorporated into this division by reference.

Sec. 72-834. General prohibitions.

Unless otherwise authorized by this division, no person shall cause, suffer, permit or allow:

(a) The removal of any historical tree without first obtaining approval from the DRC to conduct the removal.

(b) The removal of any protected tree without first obtaining a tree removal permit from the county forester as herein provided.

(c) Any encroachments, excavations, or change of the natural grade within the drip line of a protected tree unless it can be demonstrated to the county forester prior to the commencement of said activity, that the activity will not negatively impact any tree.

(d) Land clearing or the operation of heavy equipment in the vicinity of a protected tree without placing and maintaining a protective barrier around the drip line of the tree. The protective barrier shall be conspicuous enough and high enough to be seen easily by operators of trucks and other equipment. Tree protection provisions of section 72-838 of this article shall apply.

(e) The storage or use of materials or equipment within the drip line of any protected tree, or attachments, other than those of a protective and nondamaging nature, to any tree.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08; Ord. No. 2008-25, § III, 12-4-08; Ord. No. 2013-20, § X, 12-12-13)
Sec. 72-835. General exemptions.

(a) During emergency conditions caused by a hurricane or other natural disaster, the provisions of this division may be suspended by the direction of the county manager.

(b) Nuisance Exempt trees as defined in 72-2 are exempt from the provisions of this division.

(c) Deteriorated trees, as defined in section 72-2, which have been removed with prior approval of the county forester, are exempt from the provisions of this division. Protected trees removed without prior approval of the county forester shall be presumed to have been in good condition. Removal of said trees without review by the county forester shall be considered a violation of this division and subject to the provisions of section 72-832 of this division.

(d) Protected trees with trunks which lie wholly within the property boundaries as described herein, are exempt from the requirements of this division if the following conditions are met:

   (1) Residential owner-occupied. Said property is classified (zoned) pursuant to article II, Volusia County Zoning Ordinance, division 7, as amended, as a:

      a. Single-family or two-family use area, in a community development plan or PUD, excluding mobile home rental parks; and
      b. A single-family or two-family dwelling or mobile home is located on said property; and
      c. Said property is owner-occupied.

   Historic trees located on residential owner-occupied property as defined in section 72-2, are exempt from the requirement of this division.

   (2) Agricultural use. Said property is over 2.5 acres and classified (zoned) A-1, A-2, A-3 (over 2.5 acres), A-4, C, CR, MH-3, MH-4 (over 2.5 acres), OTR, ORE, OCR or FR pursuant to article II, Volusia County Zoning Ordinance, division 7, as amended; or classified as agricultural land for ad valorem tax purposes by the Volusia County property appraiser.

      a. Rebuttable presumption: A rebuttable presumption is created for the removal of any protected tree on land which is classified as, or used for, agriculture, as set forth above; if said tree is removed within three years prior to and located on property which is the subject of:

         1. An application for rezoning to a classification other than agriculture; or
         2. An application for a special exception pursuant to article II, section 72-415, Volusia County Zoning Ordinance, as amended; or
         3. Subdivision and site plan application approval pursuant to article III, division 2, Volusia County Land Development Code, as amended; or
         4. Infrastructure related to subdivision improvements.

      b. In order to rebut the presumption that the tree removal was done with the intention of developing the land to a nonagricultural use, the owner may file a sworn affidavit with the county forester attesting to the fact that no protected trees have been removed except in conformity with recognized agricultural management or production practices.
c. The county forester shall consider the following factors, which shall be set forth in the affidavit, when deciding whether the protected trees have been removed in conformance with recognized agricultural management or production practices:

1. The specific reason(s) for removal of said trees.
2. The length of time the land has been in agricultural production.
3. Whether the use has been continuous.
4. The size of the area as it relates to efficient agricultural production.
5. Whether the land has been sufficiently and adequately cared for within accepted commercial practices of the dominant type of production.
6. Whether the land is under lease and if so, the type and terms of said lease.
7. Whether the tree removal was done in the ordinary course of business.
8. Any contract for sale in existence at the time of submitting the affidavit.
9. Such other factors which are relevant to the determination of good faith land use.

d. After reviewing these factors, the county forester shall deny or approve the exemption. If the county forester denies said exemption, said denial may be appealed as provided in section 72-846 of this division.

Historic trees located on agricultural use property as defined in section 72-2, are exempt from the requirement of this division.

(3) Existing rights-of-way and easements.

a. Any protected trees, except historic trees, within an existing open public or private right-of-way or maintenance easement which must be removed or thinned to ensure the safety of the motoring public and to maintain visibility of oncoming traffic at intersecting public streets. Protected trees which may disrupt public utilities such as power lines, drainage ways and similar public needs may be removed only upon prior approval by the county forester and pursuant to the requirement of subsection (d)(5) of this section. However, historic trees located in public or private rights-of-way or utility easements may only be impacted pursuant to county permit requirements.

b. Planned public or private rights-of-way shall be designed to preserve as many trees as possible. However, historic and specimen trees located in public or private rights-of-way or utility easements may only be impacted pursuant to county permit requirements.

(4) Trees for sale. Trees which are planted and grown for sale to the general public or for some public purposes. Licensed wholesale plant or tree nurseries and botanical gardens are exempt from this division.

(5) Removal of protected trees, except historical or specimen trees, by franchised utility companies provided that:

a. The utility company provides prior written notice of its intention to remove protected trees, to the county forester and the record property owner. The written notices shall be delivered, at minimum, 15 days prior to the intended tree removal; and
b. The utility company can demonstrate to the county forester prior to tree removal that:

1. The tree will cause a continual disruption of service; and

2. The threat of service interruption cannot be remedied by tree pruning in accordance with standards as set by the American National Standards Institute, as amended.

(6) **Airport Protection.** Any protected trees located within the runway protection zone and the approach zone.

(7) **Road projects.** Trees required to be removed in conjunction with local, state, and federal public road projects are exempt from the provisions of this division if the work is performed by or for a governmental entity and all required permits have been obtained from all applicable state and federal agencies.

(8) **Land management activities.** Trees removed by or for a governmental entity in conjunction with land management activities on publicly-owned conservation land are exempt from the provisions of this division. However, trees removed for construction or installation of buildings, hardscape, or related infrastructure are not exempt.

(9) **State and federal land.** All protected trees on state and federal land are exempt from this division.

Sec. 72-836 837. Tree permit application requirements.

(a) **Application forms.** A complete permit application for removing or relocating protected trees shall be submitted by a property owner or authorized agent of the owner, on county-approved application form(s). Submittal of an application is considered express consent for staff to inspect the property as necessary to process the application and determine compliance with ordinance requirements.

(b) **Fees.** Each permit application must be accompanied by the appropriate fee(s) as established by council. The permit application fees are nonrefundable and nontransferable.

(c) **Required application data.** The county-approved permit application must be accompanied by surveys, and other documents as required by the county forester, that describe the proposed activities to be performed in sufficient detail to meet the standards of this division and to clearly identify all potential impacts to the environment and public health.

1. A property boundary survey depicting existing improvements shall be submitted with all the application. Property boundaries must be locatable in the field by the inspectors. As a minimum, property corners must be located and so designated to be clearly identifiable and visible on-site. Property corners shall be intervisible or line markers shall be provided.

2. **Subdivisions and site plans, concurrent with a development order.**
a. A tree survey, conducted by a registered Landscape Architect, International Society of Arboriculture Certified Arborist, or certified forester, identifying all protected trees in the proposed development area with an identification number. A table shall be provided depicting the trees, identification numbers, specific species, and DBH. On individual lots not to be cleared during the subdivision process, only specimen and historic trees must be located on the survey.

b. A plan demonstrating compliance with the requirements of sections 72-836 through 72-844:
   1. A tree removal plan depicting all trees to be removed with an X or similar notation and the drip line of all protected trees adjacent to proposed improvements and proposed lots.
   2. Tables or charts showing the number of protected trees to be removed and cross sectional area of required replacement.
   3. Required tree protection details consistent with section 72-838.
   4. The number of existing and retained historic and specimen trees.
   5. Specimen tree calculations required pursuant to section 72-840.
   6. Minimum tree coverage calculations pursuant to section 72-841.

c. A landscape plan demonstrating sufficient tree replacement as required by section 72-839 and associated planting details.

(3) Residential construction (1 or 2 family), concurrent with a building permit or stand-alone tree permit.

a. A scaled site plan depicting all existing and proposed improvements on the lot, platted easements, setbacks, areas to be cleared, location of existing and proposed septic tanks and drain fields, and location of tree barricades to be installed on-site.

b. A tree survey identifying all protected trees on-site, specific species, DBH, protected trees to be removed or retained, root protection zones of protected trees to be retained, and replacement stock to be planted.

c. If it is anticipated that no trees requiring a permit are to be removed, submittal of a county approved certificate of compliance is required, subject to on-site inspection and verification by the county forester. If the county forester determines that protected trees are to be removed, the certificate of compliance will be converted to a tree removal permit, subject to payment of appropriate fees and tree replacement, in accordance with section 72-839 of this article.

(4) Non-residential stand-alone tree permit.

a. A scaled site plan depicting all existing and proposed improvements on the lot and protected trees proposed for removal.
(d) Action on permit applications. The growth and resource management department shall, in a timely manner, from the date of filing, determine if the application is complete. If it is determined the application is incomplete, the growth and resource management department shall forward to the applicant a notice of incompleteness specifying the information missing from the application. If the application is determined to be complete, the growth and resource management department shall transmit the application and plans to the county forester. The county forester shall have 15 working days from the date of receipt from the growth and resource management department of a complete application to approve or deny the permit.

(e) Modification of application requirements.

(1) Application requirements may be modified upon agreement of the county forester to reflect specific on-site needs for information. Modification would be based on the type of development proposed, the vegetative cover being impacted, and the degree of impact anticipated.

(2) Statistical tree survey information may be considered at the discretion of the county forester. However, such statistical surveys shall be limited to sites containing an overstory consisting predominantly of trees uniform in age, species and distribution, which do not contain specimen or historic trees. Historic or other specimen trees must be individually identified on statistical surveys. Statistical surveys must be conducted in compliance with accepted forestry practices.

(f) Tree permit issuance.

(1) If the application meets the requirements of this division, the county forester shall approve the application subject to appropriate permit conditions. In the event that the application does not comply with the requirements set forth in this division, said application shall be denied, with reasons stated. Incomplete or abandoned applications shall expire one year from the submission date.

(2) Upon approval or denial of the application, the county forester shall notify the growth and resource management department. If the application is approved, the department will notify the applicant that the tree permit is approved, subsequent to the requirement of section 72-838 of this division. If the application is denied, the department shall notify the applicant, stating the reasons for denial.

(g) Posting of permit. A copy of the approved tree permit shall be clearly posted on the job site during all phases of clearing and construction activities.

(h) Termination of permit. All tree permits shall expire one year from the date of issuance unless time extensions are granted by the county forester or extended by the application for a building permit. Application for extensions of time shall be made in writing to the county forester at least 30 days prior to the expiration of the permit.

(i) Notification of impending activity. The person holding an approved permit shall notify the county forester prior to the start of any land development activity that will affect trees. Notification shall be timely, allowing the county forester sufficient notice to perform necessary site inspections.
Sec. 72-837. Area tree protection requirements. Tree preservation areas

(a) Fifteen percent of the square footage of any development shall be designated for the protection of existing protected trees within tree preservation areas. The area required to protect specimen trees may be included to satisfy this requirement.

(b) This required area may be constituted as one or more subareas within the development. For subdivisions concurrent with a development order, the required area shall be placed in one or more tracts separate from individual building lots and shall not be utilized to meet common open space requirements. Said area may include any landscape buffer or other landscape buffer or other landscape areas required by article II, Volusia County Zoning Ordinance, as amended, or in a development.

(c) Such designated areas shall contain sufficient land area to comply with minimum tree protection standards of section 72-838 to adequately protect the trees contained within the areas. The minimum width of any tree preservation area shall not be less than 30 feet.

(d) A minimum of 50 percent of the required minimum number of trees as provided in section 72-838 of this division shall consist of existing trees within said area.

(e) Removal of vegetation categorized as an invasive exotic in the Florida Exotic Pest Plant Council’s List of Invasive Plant Species, any existing improvements or debris is required. Care shall be taken not to damage, destroy, or otherwise remove healthy, beneficial, native vegetation within designated areas.

(f) The county forester may provide for a waiver or modification of this requirement if the development contains an insufficient amount of existing trees to meet this requirement or if the county forester determines that modification of this requirement is warranted by specific on-site conditions.

Sec. 72-838. Minimum tree coverage requirements.

Each lot shall contain a minimum of one tree for each 2,500 square feet of lot area (rounded up to nearest whole number). If the lot contains an insufficient number of existing protected trees to meet this requirement, or if the lot has no existing protected trees, replacement trees shall be provided in accordance with section 72-839 of this division. The county forester may provide for a waiver or modification of this requirement if the county forester determines that the modification is warranted by specific on-site conditions.

Sec. 72-839. Natural Native vegetation retention areas.

(a) Areas of the property may be designated as natural native vegetation retention areas indicating that all existing native vegetation will remain on that area of the site.
(b) Under this designation, trees meeting the minimum replacement stock size criteria, up to trees of the minimum protected tree definition criteria, may be retained as replacement stock for trees to be removed elsewhere on the site.

(c) Cross sectional area of these replacement trees must be calculated and may be applied toward replacement volume needed on the site as a whole. Trees designated as replacement stock pursuant to this method, become protected trees.

(d) Removal of vegetation categorized as an invasive exotic in the Florida Invasive Species Council’s List of Invasive Plant Species, existing improvements, and debris is required. Care shall be taken not to damage, destroy, or otherwise remove healthy, beneficial, native vegetation within designated areas. Replanting with suitable native vegetation may be required as a condition of approval if determined appropriate by the county forester.

(e) Designated areas shall be placed in a preservation easement and in one or more tracts separate from individual building lots.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-840. Tree permits standards for review.

(a) Standards for issuance review. The county forester shall consider the following standards in reviewing the application:

1. The extent to which the actual or intended use of the property requires cutting down or destruction of vegetation and trees, including whether the applicant has made every reasonable effort to incorporate existing protected trees into the project and to minimize the number of trees removed.

2. The desirability of preserving any tree by reason of its size, age or some other outstanding quality, such as uniqueness, rarity or status as an historic or specimen tree.

3. The extent to which the area would be subject to increased water runoff and other environmental degradation due to removal of the trees.

4. The heightened desirability of preserving tree cover in densely developed or densely populated areas.

5. The need for visual screening in transitional areas, or relief from glare, blight, commercial or industrial unsightliness, or any other affront to the visual or aesthetic sense in the area.

6. The effect that changes in the natural grade will have on the trees to be preserved.

7. The removal of tree(s) will significantly affect the natural clearing of the atmosphere by vegetation through particulate matter interception, the ingestion of oxygen released to the atmosphere as a by-product of photosynthesis.

8. The effect that changes in the natural grade will have on protected trees on adjoining properties.

(b) Requirements for subdivision development.
(1) Except as otherwise exempted in this division, compliance with the provisions of this division shall be required of all subdivisions subject to requirements of the Volusia County Land Development Code. Review for compliance shall be a function of subdivision review pursuant to this article III, Volusia County Land Development Code, division 2 (as amended), and shall be clearly documented in the subdivision planning documents.

(2) Compliance with the standards for tree and root protection in section 72-838.

(3) Tree replacement in compliance with section 72-839 is required for all protected trees removed.

(4) Compliance with the historic and specimen tree requirements in section 72-840.

(5) Compliance with the minimum tree coverage requirements in section 72-841 for the entire site, excluding individual lots.

(6) Compliance with the area tree protection requirements in section 72-842.

(27) Tree removal on individual lots within the subdivision may be permitted either as a part of the subdivision review process or independently under the requirements of subsection (d) 72-848 of this division section, following approval of the subdivision.

(3) a. If said lots are to be cleared as part of the subdivision review process, clearing may be limited, based on a determination made by the county forester. If permitted with the subdivision process, tree replacement requirements of section 72-839 and minimum tree coverage requirements of section 72-841, must be provided on a planting plan with the subdivision approval for the individual lots. Permitting fees for tree removal on these lots within the subdivision shall be determined based on the number of protected trees removed and shall be calculated independently of with the fees for the subdivision.

(4) b. Lots to be cleared as part of the subdivision review process shall be subject to the following:

a.1. Developer must demonstrate a site specific need for lot clearing based upon the type of trees on-site, the topography of the site, and other factors as may be determined by the county forester.

b.2. Developer must demonstrate that clearing can be accomplished without damage to other protected trees within the subdivision.

c.3. Developer must demonstrate that clearing is in compliance with approved preliminary plat.

d.4. Clearing does not violate any provision of the Code of Ordinances of Volusia County.

e.5. The development agreement specifies permitting fees and replacement requirements for lots to be cleared.

f.6. Developer shall provide documentation of financial hardship to justify the need for lot clearing within the subdivision.

g.7. Clearing would be limited to an amount not to exceed 20 percent of the approved lots with the subdivision during any one calendar year. Subdivisions with 20 lots or less may be exempt from this requirement, with approval of the county forester.
(c) Requirements for site plans.

(1) Except as otherwise exempted in this division, compliance with the provisions of this division shall be required of all site plans subject to requirements of the Volusia County Land Development Code. Review for compliance shall be a function of site plan review pursuant to this article III, Volusia County Land Development Code, division 3 (as amended), and shall be clearly documented in the site plan documents.

(2) Compliance with the standards for tree and root protection in section 72-838.

(3) Tree replacement in compliance with section 72-839 is required for all trees removed.

(4) Compliance with the historic and specimen tree requirements in section 72-840.

(5) Compliance with the minimum tree coverage requirements in section 72-841.

(6) Compliance with the area tree protection requirements in section 72-842.

(d) Requirements for residential (1 or 2 family) development.

(1) Except as otherwise exempted in this division, compliance with the provisions of this division shall be required at the time of application for a stand-alone tree removal permit or building permits for residential construction.

(2) Compliance with the standards for tree and root protection in section 72-838.

(3) Tree replacement in compliance with section 72-839 is required for all protected trees removed within the zoning setbacks.

(4) Compliance with the historic tree requirements in subsection 72-840(b).

(5) Compliance with the minimum tree coverage requirements in section 72-841.

(e) Requirements for non-residential stand-alone tree permits.

(1) Except as otherwise exempted in this division, compliance with the provisions of this division shall be required at the time of application for a non-residential stand-alone tree removal permit.

(2) The county forester will verify compliance with the approved site plan and this division.

(3) Compliance with the standards for tree and root protection in section 72-838.

(4) Tree replacement in compliance with section 72-839 is required for all trees removed.

(5) Compliance with the historic and specimen tree requirements in section 72-840.

(6) Compliance with the minimum tree coverage requirements in section 72-841.

(7) Compliance with the area tree protection requirements in section 72-842.

(c) Tree permit issuance.

(1) If the application meets the requirements of this division, the county forester shall approve the application subject to appropriate permit conditions. In the event that the application does not comply with the requirements set forth in this division, said application shall be denied, with reasons stated.
(2) Upon approval or denial of the application, the county forester shall notify the land development division. If the application is approved, the land development division will notify the applicant that the tree permit is approved subsequent to the requirement of section 72-844 of this division. If the application is denied, the land development division shall notify the applicant, stating the reasons for the denial.

(d) Posting of permit. A copy of the approved tree permit shall be clearly posted on the job site during all phases of clearing and construction activities.

(e) Termination of permit. All tree permits shall expire one year from the date of issue unless time extensions are granted by the county forester. Application for extensions of time shall be made in writing to the county forester at least 30 days prior to the expiration of the permit.

(f) Notification of impending activity. The person holding an approved permit shall notify the county forester prior to the start of any land activity which will affect trees. Notification shall be timely, allowing the county forester sufficient notice to perform necessary site inspections. Forester will inspect the site for compliance with section 72-844 of this division. A tree removal permit will be issued only after these pre-activity inspections are complete.

Sec. 72-841.844. Tree relocation option.

Any person may elect to relocate a non-historic protected tree subject to a plan submitted and approved prior approval by the county forester prior to relocation. Any person electing to relocate a protected tree, rather than remove it, shall receive credit for successful relocation equal to 100 percent of the cross-sectional area of the tree, deducted from the tree replacement requirements as specified in section 72-842 of this division. In addition, the applicant must post a bond to insure the survival of the relocated tree in accordance with the requirements of article III, Volusia County Land Development Code, division 5, as amended.

(1) Tree relocation requirements. To ensure successful relocation and transplanting of trees to the following guidelines shall be adhered to:

a. No other trees on-site shall be unnecessarily damaged by the relocation.

b. A relocated tree shall not interfere with existing or proposed utilities, either above or below ground. A relocated tree which may reach a height of 30 feet, shall not be placed within 20 feet of an overhead powerline.

c. A tree should be relocated within the vicinity from which the original tree was removed, where practicable.

d. Any tree being relocated shall not be unnecessarily damaged during removal, transport or replanting of that tree.

e. If a tree has a dormant period, it should be transplanted during that time. A tree should not be transplanted during periods of strong, dry winter winds or during droughts.

f. Adequate space for root and canopy development shall be provided.
g. Prior to transplanting, the tree shall be root and canopy pruned according to sound arboricultural standards. All crown pruning shall be done in accordance with standards set by the American National Standards Institute, as amended.

h. During and following transplanting of a tree, the root ball and trunk shall be protected. The root ball must be kept moist at all times.

i. A transplanted tree shall be braced for at least one year after its relocation.

j. A transplanted tree shall be fertilized as appropriate and shall be watered sufficiently until tree growth is re-established.

(2) Tree relocation maintenance/monitoring requirements. Any person conducting tree relocation activities shall:

a. Maintain the health of a relocated tree for a period of two years following final inspection and approval.

b. Replace, with an equivalent cross-sectional area, within 60 days, a relocated tree that dies or is determined by the county forester to be effectively destroyed within two years of being relocated. The two-year maintenance period shall begin anew whenever a tree is replaced.

(3) Tree relocation bond requirements:

a. Unless otherwise exempted by this article, any person conducting tree relocation activities must post a bond to insure the survival of the relocated trees designated for preservation. Said bond shall meet the approval of the county attorney's office and may be in the form of a letter of credit drawn upon banks or savings and loan institutions legally doing business in the State of Florida, cash bonds issued by an insurance company legally doing business in Florida or other acceptable means as approved by the county attorney's office. This bond shall be in addition to any other bond that may be required by any other governmental entity.

b. Determination of the bond amount shall be computed based upon the most current version of the Guide for Plant Appraisal, published by the International Society of Arboriculture.

c. Government entities are exempt from bond requirements.

d. Release of bonds. Tree relocation bonds will be released upon successful tree relocation as set forth in this article and written approval by the county forester.

e. Drawing on bonds. If a tree is determined by the county forester to be effectively destroyed within two years from the date of relocation, the bond shall be drawn upon and funds will be deposited into the tree replacement trust fund. Said funds will be expended pursuant to section 72-846 of this division.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)
Sec. 72-842. Tree replacement requirements.

(a) Protected trees removed, identified for removal, or those with significant encroachment into the dripline on the tree permit application shall be replaced by replacement stock. Replacement shall be calculated as a minimum based on the replacement of 15 percent of the total of the cross-sectional area of the trunks of the trees removed. Replacement for Sand Pine (Pinus clausa) shall be calculated based on replacement of seven percent of the total cross-sectional area of the trunks of the trees removed.

(b) Replacement may include planting of replacement stock or retaining existing native trees between 1.5 inches and 5.9 inches DBH. Existing trees remaining on the property after construction will meet this requirement as long as adequate protection has been provided during construction in accordance with section 72-838 of this division.

(bc) Diameter used to determine cross sectional area shall be as defined in the Grades and Standards for Nursery Plants, State of Florida, Florida Department of Agriculture and Consumer Services.

(cd) Single trees may be replaced with two or more trees provided the cross-sectional requirements are met. In no event shall replacement stock be less than six feet in height, nor have a caliper of less than two 1.5 inches.

(de) Replacement stock species shall be the same general species as the tree removed or an alternative native species acceptable to the county forester.

(ef) Replacement trees stock shall meet the requirements for Florida No. 1 or better grade, as provided in Grades and Standards for Nursery Plants, State of Florida, Florida Department of Agriculture and Consumer Services.

(fg) Replacement trees stock provided in conjunction with the site plan or subdivision approval shall be considered required improvements.

(gh) Palms may be used as replacement stock up to the full cross sectional replacement area of native palms being removed from the site. palms may not be substituted as replacements for other species being removed, under the following conditions:

1. If the cross sectional area of palms being removed from the site comprises zero to 25 percent of the total cross sectional area of trees being removed, palms may be substituted for replacement of nonpalm species up to a maximum of 25 percent of the total replacement cross sectional area required.

2. If the cross sectional area of palms being removed exceeds 25 percent of the total cross sectional area of trees being removed, no substitution of palms for non-palm species will be allowed. The use of palms will be restricted to the replacement cross sectional area originally calculated based on palms that are being removed.

3. Since palms are generally moved as mature trees, it is necessary to equate cross sectional area of commonly moved palms to cross sectional area of commonly planted nonpalm species when substituting palms for nonpalm species pursuant to subsection (g)(1) of this section. For the purpose of substitution of palms for nonpalm species, a ratio of 16 square inches of replacement cross sectional area of palms may be substituted for one square inch of replacement cross sectional area of nonpalm species.
For example, a six-inch DBH palm tree containing 28.26 square inches may be substituted for a two-inch caliper hardwood tree containing 3.14 square inches of cross sectional area. The following informational chart indicates common size comparisons:

<table>
<thead>
<tr>
<th>DBH of Palm</th>
<th>Caliper of Nonpalm Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>6” equates to 2”</td>
<td></td>
</tr>
<tr>
<td>8” equates to 2”</td>
<td></td>
</tr>
<tr>
<td>10” equates to 3”</td>
<td></td>
</tr>
<tr>
<td>12” equates to 3”</td>
<td></td>
</tr>
<tr>
<td>14” equates to 4”</td>
<td></td>
</tr>
<tr>
<td>16” equates to 4”</td>
<td></td>
</tr>
</tbody>
</table>

This substitution ratio applies only when replacing nonpalm species with palms.

(ii) General requirements for replacement stock replaced trees. Any person conducting tree replacement activities shall:

1. Refrain from unnecessarily damaging any other tree or Trees remaining on-site shall not be damaged while planting or preparing the site for any replacement tree;
2. Plant replacement tree stock shall be planted so that it will not interfere with existing or proposed utility lines or cables, either above or below ground. A tree which may reach a height of 30 feet shall not be planted within 20 feet of an overhead powerline;
3. Replacement stock shall not be planted in platted easements or within any septic tank drainage areas;
4. Replacement stock shall be installed and maintained in accordance with the procedures set forth by the American National Standard Institute, as amended;
5. Plant replacement tree species and use installation and maintenance methods that follow xeriscape principles, where practicable;
6. Replacement tree stock shall be planted in an area with adequate space for root and canopy development;
7. Wire baskets, burlap, and other binding materials must be removed prior to planting and guy wires, stakes, and other stabilizing materials must be removed within six months of planting; and
8. Complete tree replacement must be completed within six months one year of the issuance of a tree removal permit unless granted an extension by the county forester, or as otherwise permitted in section 72-845.
(i) Maintenance/monitoring requirements for replaced trees replacement stock or retained trees. Any person conducting tree replacement activities shall:

(1) Trees planted as replacement stock and retained trees must be maintained on-site in perpetuity.

(2) The county forester will perform an on-site inspection and verification of replacement stock and retained tree health within two years from the date of planting.

(23) The property owner must replace any replaced tree replacement stock or retained tree that dies or is determined to be effectively destroyed within two years of being planted, as determined by the county forester. The two-year maintenance period shall begin anew whenever a tree is replaced and has been inspected and approved by the county forester.

(jk) Remuneration in lieu of tree replacement. After the minimum tree coverage requirements of section 72-841 have been met, and if it is determined by the county forester that the replacement is not feasible due to lack of available planting space, the following applies:

(1) The person conducting the tree replacement activity shall, in lieu of actual tree replacement, pay a replacement contribution into the Volusia County Tree Replacement Trust Account.

(2) The replacement contribution will be determined using a replacement tree fee schedule as determined by council.

(Supp. No. 104, Update 2)
(3) The land development manager shall prepare and submit a report on the application, including the county forester’s recommendation, for inclusion on the next available DRC agenda.

(4)(a) The DRC shall consider the report and shall approve, approve with conditions, or deny the application. The report of the DRC action shall be transmitted back to the land development division, stating any reasons for denial or conditions.

(b) Upon receipt of the DRC actions, the land development division shall immediately act concerning issuance of the permit.

(b) Specimen trees.

(1) Specimen trees shall only be removed or relocated in accordance with a permit issued by the county forester, upon compliance with the following requirements:

<table>
<thead>
<tr>
<th>Number of Specimen Trees per Acre</th>
<th>On-site Protection Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 3 per acre or a portion thereof</td>
<td>80 percent of all specimen trees</td>
</tr>
<tr>
<td>3.0 to 5.0 per acre</td>
<td>65 percent of all specimen trees</td>
</tr>
<tr>
<td>5.1 to 8.0 per acre</td>
<td>50 percent of all specimen trees</td>
</tr>
<tr>
<td>8.0 or more per acre</td>
<td>4 specimen trees per acre</td>
</tr>
</tbody>
</table>

(2) Any specimen tree removed in accordance with a permit must be replaced pursuant to section 72-84839 of this article.

(3) The county forester may provide for a waiver or modification of these requirements if the county forester determines that a modification is warranted by specific on-site conditions.

Sec. 72-84838. Standards for tree and root protection during development activities.

The following are minimum standards necessary to protect trees designated for preservation from damage during development activities after a permit has been approved:

(1) Protection of existing trees. Prior to the commencement of construction of a development, the applicant shall clearly mark any tree or tree groups to be retained, maintained in the proximity of any area where land clearing equipment is to be operated. In addition, prior to any clearing of improved, vacant or unimproved land unless specifically exempted from this article, trees to be preserved, shall have barriers constructed around their driplines by the developer to prevent physical damage from heavy equipment and other activities incidental to development. Required barriers shall be subject to inspection by the county as a condition of permit approval and prior to any clearing. The barriers shall be:

Commented [GA7]: We should consider conditions for the waiver - for example: additional tree preservation area or tree replacement.
a. Large enough to include the entire area inside the drip line of the tree or one foot of radius per inch of the diameter, whichever is greater;

b. Conspicuous enough and high enough to be easily seen by operators of trucks and other equipment;

c. Constructed of sturdy material as approved by the county forester based on professional judgment that the intent of this provision shall be met; and

d. Constructed as a condition of the issuance of any tree permit, building permit, and any other development permit and prior to any construction or other development activities; and require to remain in place throughout the construction.

e. Barriers or barricades shall remain in place and be properly maintained and functioning throughout construction; and

f. Barriers or barricades shall only be completely removed from the site at the end of the construction after the final tree inspection has been completed, unless otherwise stipulated on the approved tree preservation plan, or in the tree permit conditions.

(2) Tree protection zones. The area within the drip line of trees, approximated by one foot per inch of tree diameter, designated for preservation is considered the tree protection zone. Only hand clearing is permitted within the tree protection zone, unless otherwise stipulated in the approved tree permit. Encroachments into the tree protection zone including those on adjacent properties will require submittal and approval of a drip line encroachment plan outlining tree protection measures to be utilized.

(3) Other required protection of trees and understory. Developers shall, as required by the approved tree permit, protect the trees and understory plants designated for preservation from chemical poison, excavation, and grade changes to at least the following minimum standards:

a. Utility line trenches. Utility line trenches shall be routed away from trees to an area outside of the drip line. If underground utilities must be routed through a tree protection barrier zone, tunneling will be required.

b. Grade changes. The site shall be utilized as to require the smallest possible grade change around existing trees. The project shall be designed to utilize site topography to the greatest extent possible. No grade changes are to be allowed within the drip line of existing trees unless approved by the county forester.

c. Tree wells of an approved design shall be constructed around all trees to be preserved when fill material will be deposited within the drip line of protected trees. Utilize retaining walls and drywells to protect any tree to be preserved from severe grade changes.

dc. Swales and minor negative grade changes shall be designed outside the drip line of the area of trees to be preserved. If ditches, swales, or other significant grade changes are required near a tree that is designated to be preserved, piping shall be used. Trenching within the drip line of trees to remain shall be avoided. If approved by the county forester, tunneling shall be used in lieu of trenching within the drip line of trees to remain.
e. Where vehicular or pedestrian traffic areas are proposed within the drip line of trees to be
preserved, and less than two inches of grade change is proposed, surfaces that allow air and
water in the soil shall be used in lieu of asphalt or other impervious surfaces, with prior
approval of the county forester.

(4) Pruning of trees and vegetation. The developer is permitted to properly cut or prune
branches and roots of trees designated for preservation under the supervision of the county
forester or an International Society of Arboriculture Certified Arborist. However, all tree
pruning shall be accomplished in accordance with the procedures set forth by the American
National Standard Institute, as amended.

(5) Roots system protection. The root systems of trees shall be protected as follows:
   a. Excavation within a drip line. County forester may approve a drip line encroachment
      plan upon the applicant’s request to excavate within the drip line of a tree as part of a
      clearing permit.
   b. Standards for root protection. The following standards shall apply and the county
      forester may establish additional standards for root protection consistent with this
      section if deemed warranted by site conditions or the project proposal:
      1. If roots are exposed, the developer shall provide temporary earth cover, mixed
         with peat moss and wrapped with burlap, to prevent exposure from drying out
         before permanent back fill is placed.
      2. The developer shall also fertilize, water and maintain in a moist condition, and
         otherwise temporarily support and protect the tree root from damage until the
         tree root is permanently covered with earth.
   c. Protection of the tree root system. The developer shall protect tree root systems from
damage due to noxious material in solution caused by runoff, or spillage during mixing
and placement of construction materials, or drainage from storage materials. Developer
shall also protect the root systems from flooding, erosion and excessive wetting
resulting from dewatering or grading operations.

(6) Trees damaged during construction. The developer shall have trees damaged by construction
repaired by a professional or arborist in a manner acceptable to the county forester as
follows:
   a. Immediate notification to the county. The county forester must be notified immediately
      after any damage to any tree damaged by construction operations.
   b. Prompt repair. Repairs shall be made promptly, as necessary, after damage occurs to
      prevent progressive deterioration of damaged trees.
   c. Removal and replacement of damaged trees. The developer shall remove trees which
      are determined by the county forester as being incapable of restoration of normal
growth pattern. Such trees shall be subject to replacement pursuant to subsection 72-
832(b) of this article.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)
Sec. 72-845. Tree relocation by county.

Where a tree is intended to be removed pursuant to the provisions of this division, the county may with owner's permission, relocate the tree at the county's expense. The tree will be relocated within the incorporated area on public land. If the county does not elect to relocate a tree, it may give to the school board or any municipality within the county the right to acquire the tree, at its expense, for relocation within the city's incorporated area for public use, or to a school board owned site. The relocation shall be accomplished within 15 working days of the issuance of a permit. If it is necessary to root prune the tree to insure survival, the relocation shall be accomplished within a timeframe agreed to by all parties.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-846. Tree replacement trust account.

(a) Establishment. A Volusia County Tree Replacement Trust Account is hereby established as a depository for tree replacement fees and monies.

(b) Dispersal of assets. The funds in said account shall be expended, utilized and disbursed for the distribution and planting of native trees and plants, and to cover any other ancillary costs including but not limited to, landscaping, sprinkler systems and other items or materials necessary and proper for the preservation, maintenance, relocation or restoration of tree ecosystems on any public land within Volusia County. Funds may be used on public land within Volusia County or for projects with demonstrated public benefit as determined by the EMD. These monies may also be utilized to engage support elements such as landscape architects and additional personnel, if deemed necessary in the opinion of the county manager. These monies shall in no case be used to meet regulatory requirements.

(c) All monies deposited for use as specified in this section shall be deposited in trust, in a separate account established and maintained apart from the general revenue funds and accounts of Volusia County.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-847. Issuance of certificates of occupancy.

Compliance with this division, and including any conditions attached to the clearing tree permit, shall be a condition to the issuance of certificates of occupancy from the growth and resource management department of development and code administration. Under certain circumstances, conditions may warrant postponing installation of replacement trees due to unfavorable planting conditions. If conditions warrant, and if acceptable to the applicant and county forester, a certificate of occupancy may be granted without completion of the replacement requirements under the terms of this article, provided the applicant agrees to be bound by said conditions, and appropriate performance guarantee is provided in accordance with the requirements of article III, Volusia County Land Development Code, division 5, as amended.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)
Sec. 72-848. Tree permit requirements for residential construction.

(a) Residential construction application requirements. At the time of application for building permits for residential construction, the applicant must certify compliance with the requirements of this article. If it is anticipated that no trees requiring a permit are to be removed, submittal of a county approved certificate of compliance will satisfy this requirement, subject to on-site inspection and verification by the county forester. If the county forester determines that protected trees are to be removed, the certificate of compliance will be converted to a tree permit, subject to payment of appropriate permit fees and tree replacement, in accordance with section 72-842 of this article.

(b) Each section of this article shall apply to residential construction except:

(1) The area tree protection requirements of section 72-837;

(2) The specimen tree requirements of subsection 72-843(b); and

(3) Tree replacement requirements of section 72-842 of this article, within the buildable area.

Historic tree removal for residential construction is not exempt.

(c) Application for tree permit prior to building permit. A tree clearing permit may be issued prior to the issuance of a building permit. It shall remain valid for one year unless extended by the application for a building permit. If no such application is tendered, then replacement of protected trees shall be required.

(d) Optional residential tree permit procedures. At the developer’s option, and with concurrence of the county forester, the following tree permit standards for residential development may be utilized:

(1) Lots containing less than 20,000 square feet in lot area, shall contain a minimum of one tree per 1,000 square feet of lot size, rounded up to the next whole tree.

(2) Replacement trees may be existing trees, planted trees, or a combination thereof. Existing trees remaining on the property after construction will meet this requirement as long as adequate protection has been provided during construction in accordance with section 72-844 of this article. Planted trees must consist of a variety of species.

(3) Except for the historic tree provisions of subsection 72-843(a) of this article, tree removal on lots developed pursuant to this option are exempt from the replacement schedule set forth in section 72-842 of this article. However, a tree permit must be obtained in compliance with the requirements of this division.

(Ord. No. 02-13, § I, 7-18-02; Ord. No. 2008-25, § III, 12-4-08)

Sec. 72-848A. Appeals.

Aggrieved parties may appeal any decision of the county forester to the development review committee (DRC) as set forth in article III, Volusia County Land Development Code, division 1, subsection 72-502(g), as amended.

Determination of the county forester may be appealed in writing within 30 days of said determination to the DRC by the applicant. The DRC may uphold, modify or reverse the determination of the county forester. Appeals of the decision of the DRC shall be as provided in division 1, subsection 72-502(g).
Secs. 72-850848—72-880. Reserved.