



156.137 TREE AND VEGETATION PRESERVATION AND PLANTING.

(A) Purpose.

(1) The purpose of this section is to preserve, protect, and replace trees and vegetation within the Town because such plantings:

- (a) Are an important public resource.
- (b) Preserve and enhance the Town's physical and aesthetic environment, especially its natural and unique atmosphere;
- (c) Enhance the air quality by filtering air pollutants;
- (d) Reduce topsoil erosion by the holding effect of their roots;
- (e) Reduce storm water runoff;
- (f) Provide a buffer and screen against noise pollution;
- (g) Reduce energy consumption by acting as a wind break and producing shade;
- (h) Preserve and enhance nesting areas for birds and other wildlife which, in turn, assist in the control of insects;
- (i) Protect and enhance property values;
- (j) Protect and enhance the quality of life and the general welfare of the Town;
- (k) Improve the compatibility of uses by providing privacy and enhancing the aesthetic transition between uses.

(2) For the purpose of this section, tree is defined as a self-supporting, woody plant, together with its root system, having a well-defined stem or trunk or a multi-stemmed trunk system, a more or less well-defined crown, and a mature height of at least 8 feet. "Tree" does not include trees in containers or nursery stock trees kept or maintained for resale. "Vegetation" is herein defined as perennial bushes and shrubs or ornamental or other grasses meeting minimum size requirements at planting.

(3) Multi-trunk trees.

(a) For the purposes of this section, *multi-trunk trees* are defined as trees that have more than one trunk growing from a single root mass or trees that split into multiple stems below breast height (4.5 feet above ground).

(b) The diameter at breast height of multi-trunk trees shall be measured according to the following formula from the U.S. Forest Service National Core Field Guide: the dbh for a multi-trunk tree is calculated by taking the square root of the sum of squared dbhs of all trunks. The following example shows how this formula is intended to be applied:

Example: Multi-trunk tree with four 10-inch trunks

1. Find square of each trunk. $10 \times 10 = 100$
2. Add squared numbers together. $100 + 100 + 100 + 100 = 400$
3. Calculate square root of total. Square root of $400 = 20$
4. This multi-stem tree would be measured as a 20" dbh tree.

(c) Preserving some trunks of a multi-trunk tree is preferable to removal of the entire tree. The Director is authorized to allow the pruning or removal of an individual trunk to accommodate reasonable development of a property.

(B) Clear cutting. On a vacant, undeveloped parcel, removal of any tree greater than 6 inches in diameter at breast height is prohibited except after receiving an approved development site plan and issued building permit, an approved tree management plan and any required tree removal permit.

(C) Tree removal permit.

(1) Permit required. No person shall remove or destroy any tree which is 24 inches or greater diameter at breast height on any lot without first obtaining a tree removal permit from the Director of Community Development (Director) in accordance with the procedures set forth in this section. Further, no person shall remove or destroy any tree located in the common open space of any development without first obtaining a tree removal permit.

(2) Issuance of permit. Tree removal permits shall be issued only after the Director has received the required tree management plan and a completed application for such permit which has been signed by the property owner. In determining whether to grant or deny a permit, the Director shall consider:

- (a) The effect of the proposed tree removal upon the stabilization of soil;
- (b) The intended use of the property and feasible alternatives which would preserve existing trees;
- (c) The existing topography, proposed changes in the topography and proposed landscaping;

(d) The hardship imposed or the reasonable use denied to the applicant as a result of permit denial;

(e) Historical value of the trees;

(f) Good horticultural and forestry practices;

(g) The effect of the proposed tree removal on the deadening and absorption of sound;

(h) The likelihood that the proposed action will adversely affect the control of flooding or soil erosion;

(i) The impact of such action on surrounding property or persons;

(j) The consistency of the proposed action with the purpose of this section.

(3) (a) A permit shall expire and become null and void if work authorized is not commenced within 6 months from the date of the permit or if such work when commenced is suspended or abandoned at any time for a period of six (6) months;

(b) If work has commenced and the permit becomes null and void or expires because of lack of progress or abandonment, a new permit for the proposed tree removal activity shall be obtained before proceeding with further work.

(4) Removal of any size tree where the tree trunk is within ten (10) feet of a structure shall be allowed without a permit.

(D) Tree emergency exception.

(1) A tree emergency shall be deemed to exist when:

(a) A tree has become an imminent danger or hazard to persons or property as a result of fire, motor vehicle accident, or natural occurrence such as lightning, windstorm, ice storm, flood, or other similar event; or

(b) A tree must be removed in order to perform emergency repair or replacement of public or private water, sewer, electric, gas, or telecommunications utilities.

(2) In the case of a tree emergency, the Director is hereby authorized to:

(a) Issue a tree removal permit without an application;

(b) Waive the requirement for a tree removal permit set forth in this section; or

(c) Waive any of the other regulations of this section.

(3) Notwithstanding any other regulations, a person otherwise required to obtain a tree removal permit may take any reasonable action necessary to avoid or eliminate the immediate danger or hazard, or conduct emergency repair or replacement of the public or private utility. The person taking such action shall file an application for a tree removal permit within seventy-two (72) hours after a tree is removed in a tree emergency.

In these instances, documentation of the need for the emergency tree removal must be provided. Such documentation can include (as applicable):

- (a) Documentation from a certified arborist;
- (b) Police report;
- (c) Photographs; and/or
- (d) Other information documenting the condition of the tree and circumstances surrounding its removal.

(E) Vegetation management plan required for new development and substantial redevelopment. Any addition to the footprint of a structure, increases in lot coverage, changes to driveway and parking areas, or total renovation cost greater than or equal to 50% of the assessed value of the principal structure and for tree removal permits as required in division (C)(1).

(1) Any applicant proposing to remove or destroy existing trees or vegetation in conjunction with any land development activity, including the moving of buildings, shall submit a vegetation management plan containing such of the following information as deemed necessary by the Director:

- (a) The location, size and species of all trees which are at least 6 inches diameter at breast height, indicating which are to be preserved, which are to be removed, and a description of the condition of trees or vegetation that are to be preserved;
- (b) Specifications for the removal of trees and protection of trees during construction;
- (c) Proposed grade changes or other potentially injurious work adjacent to trees or vegetation designated for preservation with specifications for maintaining ground drainage and aeration around such trees;
- (d) The location, size and species of all vegetation to be planted;
- (e) An estimate of the vegetation canopy coverage to be provided as required in division (G) via retention or new planting
- (f) Such other information that the Director deems essential.

(2) Any applicant proposing to remove or destroy multiple existing trees or substantial vegetation on a developed lot not in conjunction with a land development activity shall ensure that the total vegetation cover on the property is equal to or greater than the minimum requirement through retention of existing vegetation or planting of new vegetation to meet ordinance requirements.

(3) Although not required, any person or firm subject to the requirements of this chapter is encouraged to seek professional assistance from a certified arborist, landscape architect, or similar professional.

(F) Acts harmful to trees.

(1) No person shall abuse, mutilate or otherwise damage any tree or vegetation located on public property, or any tree or vegetation protected by this section, including those located in the public right-of-way along street frontages within subdivisions. However, nothing in this section shall be construed to prevent reasonable and proper trimming of trees or vegetation located on public property by authorized persons in accordance with accepted horticultural practices.

(2) No person shall attach any sign, notice, placard, electrical wire or other injurious device to any tree, nor shall any person cause any substance harmful to trees to come in contact with them, or prevent water and oxygen from reaching their roots.

(G) Canopy cover required.

(1) New development and substantial redevelopment as defined in section 156.137(E) on any property shall provide for the planting or retention of trees (or approved substitute vegetation in the “Town of Duck Vegetation Planting Guidelines”) on the site to provide for a minimum vegetative lot coverage as follows:

(a) Ten percent for a lot within any commercial zoning district.

(b) Fifteen percent for a residential lot.

Required vegetative lot coverage will be calculated based on the total lot area minus the footprint of the principal building.

(2) To meet the minimum requirements of this division, vegetative lot coverage shall be calculated using the following methods:

(a) Vegetation that is newly planted to meet vegetative lot coverage requirements shall include only vegetation on an approved list of local vegetation, as provided in “the Town of Duck Vegetation Planting Guidelines”, or other trees, bushes, shrubs, or grasses as approved by the Director of Community Development upon submission of a landscape plan with assessment of local hardiness and calculation of canopy. All vegetation planted to meet these requirements shall be a minimum size as specified in “the Town of Duck Vegetation Planting Guidelines” and shall be planted as described in the technical standards included within the Guidelines. Palm trees and

tropical vegetation cannot be counted to meet vegetative lot coverage requirements. If the canopy coverage is accomplished by installation, canopy credit shall be provided based on the categories listed below. The plant list contained in “the Town of Duck Vegetation Planting Guidelines” defines the plant species that are included within each category.

1. Large trees, provide a 400 square foot canopy credit.
2. Small trees, provide a 200 square foot canopy credit.
3. Mulched bushes or shrubs (18-24 inches minimum height at planting or a three gallon size) provide a 40 square foot canopy credit.
4. Ornamental grasses (18-24 inches minimum height at planting or of a three gallon size) provide a 20 square foot canopy credit. Credit for smaller coastal grasses and forbs, such as American Beach Grass, will be provided at 100 sprigs or plants for every 100 square feet of lot area. Credit will not be provided for retention of existing vegetation in oceanfront areas within the CAMA small structure setback.

(b) Existing vegetation that is retained to meet vegetative lot coverage requirements may be calculated based on the methods described in division (a) above based on the allowable square footage as shown for large and small trees, shrubs, and grasses. Areas of significant, mature vegetation that will remain undisturbed may also be calculated on a square foot basis by determining the area within the perimeter surrounding the vegetation to be retained. Existing vegetation to be retained need not be on the approved list of local vegetation as provided in the “Town of Duck Vegetation Planting Guidelines,” provided it is a native or locally adaptive plant species.

(c) For trees to be eligible for any tree canopy cover credit, the required amount of open soil surface must be present and protected around the tree. The area of vegetative canopy cover for which credit is given shall always remain in vegetative cover and there shall be no other use of the area other than for vegetation growth or passive recreation except as otherwise provided herein. Developed properties shall be required to maintain the minimum vegetative canopy described above and must provide for replacement of or vegetations that are removed, per division (E)(2).

(H) Vegetation protection during and post development.

(1) During development or razing activity, the builder shall install effective dripline protection around all vegetation preservation areas, and shall further install tree wells, retaining walls, construction fencing, or other structures necessary to protect individual trees designated for preservation. The protective measures shall be specified on the vegetation management plan and shall be designed and installed in a manner consistent with good horticultural practices and subject to the approval of the site plan approving agent.

(2) If vegetation is not listed for removal on the tree removal permit but is destroyed or receives major damage due to construction activities, it must be replaced

with vegetation sufficient to reach the required vegetation canopy, subject to review and approval of the Director of Community Development.

(3) Trees conserved and planted to meet vegetation canopy requirements shall be actively protected during development activity and passively protected throughout their life in accordance with requirements for protected trees set forth below:

(a) Prohibited activities. During lot clearing, grading, building, and all construction activities, the following activities and conditions, and any other activities and conditions harmful to a tree's roots, trunk, or crown, within the vegetation protection zone are prohibited:

1. Vehicle or equipment traffic, parking, or storage, except as provided for in limited activities below.
2. Materials or supplies storage.
3. Placement of temporary or permanent structures.
4. Equipment maintenance or washout.
5. Wounding of trunk.
6. Wounding or breakage of scaffold limbs or branches greater than six (6) inches in diameter.
7. Fires; excessive heat from equipment exhaust pipes.

(b) Limited activities. During lot clearing, grading, building, and all construction activities, the following activities and conditions within the vegetation protection zone are limited to one (1) side of the tree in the outer 1/2 of the dripline, but in no case closer than 2.5 feet to the trunk of a planted tree and ten (10) feet to the trunk of a conserved tree:

1. Site or lot clearing or grubbing.
2. Soil excavation.
3. Soil cuts.
4. Soil fill.
5. Grading.
6. Trenching.
7. Tilling.
8. Edging.

9. Soil compaction.

10. Top dressing with soil greater than two inches in depth.

11. Paving.

(I) Preservation of special trees.

(1) The Town Council may, by ordinance, designate any tree as a heritage, memorial, or designated specimen tree. A heritage tree means any tree which the Town Council has designated by ordinance to have notable historic or cultural interest. A memorial tree means any tree which the Town Council has designated by ordinance to be a special commemorating memorial. A designated specimen tree means any tree which the Town Council has designated by ordinance to be notable by virtue of its outstanding size and quality for its particular species. No designated tree shall be removed, damaged or disturbed in any way unless the Town Council finds that:

(a) There is an overriding need for public improvements;

(b) A severe hardship exists in developing a site; or

(c) The tree dies, becomes irreversibly diseased or irreversibly damaged by natural causes. In permitting such action, the Town Council may require that the tree be relocated on-site or to another site designated by the Town, or be replaced with a similar tree or trees to approximate the canopy lost.

(2) The provisions of this section shall not apply to:

(a) Work conducted on federal, state, or local government owned property;

(b) Emergency work to protect life, limb or property;

(c) Routine installation, maintenance and repair of utilities;

(J) Violations and penalties.

(1) It shall be a violation for any person to remove a tree without having first obtained a tree removal permit, if so required under the provisions of Sections 156.115 and 156.137 of the Town Code. It shall be a violation for a property owner to employ, authorize or direct any third person or entity to remove a tree without having first obtained a tree removal permit, if so required under the provisions of this section.

(2) A separate violation shall be deemed to have occurred for each tree removed without a tree removal permit in violation of the provisions of this section.

(3) Each violation of the tree removal permit requirements of this section shall subject the offender to a civil penalty in the amount of one thousand dollars (\$1,000).

(4) Removal of a tree greater than six (6) inches in diameter at breast height on any vacant, undeveloped parcel without the necessary permits and approvals as defined above in section 156.137 (B), shall subject the offender to a civil penalty according to the following procedure:

(a) If the number and type of removed trees and/or vegetation can be determined, the civil penalty shall be assessed as follows:

1. Unauthorized removal of large trees as defined by the “Town of Duck Vegetation Planting Guidelines” shall subject the offender to a civil penalty in the amount of four hundred dollars (\$400) per tree.

2. Unauthorized removal of small trees as defined by the “Town of Duck Vegetation Planting Guidelines” shall subject the offender to a civil penalty in the amount of two hundred dollars (\$200) per tree.

3. Unauthorized removal of shrubs as defined by the “Town of Duck Vegetation Planting Guidelines” shall subject the offender to a civil penalty in the amount of forty dollars (\$40) per shrub.

(b) If the number and type of removed trees and/or vegetation cannot be determined, a civil penalty can be determined based on the square footage of disturbed area and/or area of canopy coverage removed. The penalty shall be equal to one dollar (\$1) for every one square foot of canopy coverage removed. In no instance shall the civil penalty exceed five thousand dollars (\$5,000).

(5) Unauthorized removal of trees and vegetation shall also subject the offender to mitigation requirements as specified herein.

(a) When dealing with violations of clear-cutting standards under section 156.137(B) or canopy coverage standards in section 156.137(G), the required canopy coverage of replacement trees shall be no less than the canopy coverage which has been determined to have been removed for the assessment of the required civil penalty. The mitigation requirements shall be calculated using the formula to determine canopy coverage as defined above in section 156.137 (G). Replacement trees and vegetation, to the extent that it can be determined, shall of a similar type to that which has been removed.

(b) When dealing with tree removal violations of section 156.137(C), the diameter at breast height measurement of the trunk shall be used to determine the number of replacement trees. Trees of similar type must be planted such that the total caliper inches of trees planted is no less than the dbh of the tree(s) removed. In cases where the size of an individual tree(s) cannot be determined, the canopy coverage of replacement trees and vegetation shall be no less than the canopy coverage which has been determined to have been removed for the assessment of the required civil penalty.

(c) The size of such replacement trees at the time of installation shall be a minimum of three inches (3”) in caliper and ten feet (10’) in height. Each tree must be planted at least thirty feet (30’) from any other tree.

(6) If in the determination of the Director, the site cannot reasonably accommodate the required numbers of replacement trees, then only the amount of trees which can be accommodated on the site will be replaced and the remainder of replacement trees and vegetation shall be mitigated through a payment in lieu of providing on-site trees. This payment shall be made to the Town of Duck to be used for tree and vegetation planting and maintenance in public spaces. The amount of the payment shall be in accordance with the costs for purchase, delivery, and planting of the required replacement trees and vegetation.

(K) Conflicting provisions.

(1) Where provisions of this zoning ordinance dictate conflicting landscaping or screening requirements, the more stringent requirements shall prevail.

(2) Except under the following conditions, no certificate of occupancy or other final approval shall be issued until the relocation or replacement of trees and/or vegetation, as required by the tree removal or vegetation management plan, has been completed and the final approval has been given by the Director of Community Development. To address temporary adverse conditions during the current planting season, at any time prior to the issuance of the certificate of occupancy the property owner may request to defer installation of vegetation for a period not to exceed ninety days beyond the date of the certificate of occupancy. This request will be accompanied by the following:

(a) A cash deposit, an irrevocable letter of credit, or other financial surety shall be provided to the Town to be held until the planting is completed. The amount shall be equal to \$1 for every one square foot of canopy coverage required to be installed to satisfy the canopy coverage requirements as specified in the approved vegetation management plan.

(b) A signed Memorandum of Understanding between the property owner or authorized agent and the Town specifying the timeframe for installation of all vegetation and the penalties for failing to abide by the terms of the agreement. This agreement shall also include terms for refunding the cash deposit upon verification of compliance with terms of the vegetation management plan or tree removal permit.

(L) Special exceptions. Town Council may, upon application of the property owner, grant special exceptions modifying the requirements of this division in accordance with the procedures and limitations established for conditional use permits in § 156.145. Special exceptions shall be granted only if the applicant has clearly demonstrated a situation of extreme topography, unusual lot shape or extraordinary circumstance. In addition, the requested special exception shall only be granted if the Town Council finds that the proposed development will not be inconsistent with the CAMA Core Land Use

Plan and the purpose of this division, and otherwise will not result in inadequate on-site amenity or any condition which will adversely affect nearby property. Requests for special exceptions may be granted in whole, in modified form with conditions or denied by the Town Council after consideration of the requisites presented in this section.

(M) Irrigation. Vegetation that is well-adapted to the local environment does not generally require irrigation. Irrigation systems are not required; however, all irrigation systems installed subsequent to this section must meet the requirements of this section. If irrigation systems are used, the preferred source for their water is from individual or community wells rather than from the county water supply. For irrigation systems which use county water, the installation shall include rain sensors so that unnecessary watering does not occur and thereby add to the local high ground water table. No components of an individually owned private irrigation system shall be installed in any right-of-way. Water from sprinkler heads of an irrigation system shall be appropriately directed to retain the flow of water on the site for which it has been installed and to avoid run-off to adjacent properties and rights of way.