

## **ARTICLE XIX**

### **SCREENING AND TREES**

#### **PART I. SCREENING**

##### **Section 15-304 Board Findings Concerning the Need for Screening Requirements.**

The Board finds that:

- (1) Screening between two lots lessens the transmission from one lot to another of noise, dust, and glare.
- (2) Screening can lessen the visual pollution that may otherwise occur within an urbanized area. Even minimal screening can provide an impression of separation of spaces, and more extensive screening can shield entirely one use from the visual assault of an adjacent use.
- (3) Screening can establish a greater sense of privacy from visual or physical intrusion, the degree of privacy varying with the intensity of the screening.
- (4) The provisions of this part are necessary to safeguard the public health, safety, and welfare.

##### **Section 15-305 General Screening Standards**

Every development shall provide sufficient screening so that:

- (1) Neighboring properties are shielded from any adverse external effects of that development;
- (2) The development is shielded from the negative impacts of adjacent uses such as streets or railroads.

##### **Section 15-306 Compliance with Screening Standards**

(a) The table set forth in Section 15-308, in conjunction with the explanations in Section 15-307 concerning the types of screens, establishes screening requirements that, presumptively, satisfy the general standards established in Section 15-305. However, this table is only intended to establish a presumption and should be flexibly administered, as provided in Section 15-309.

(b) The numerical designations contained in the Table of Screening Requirements (Section 15-308) are keyed to the Table of Permissible Uses (Section 15-146), and the letter designations refer to types of screening as described in Section 15-307. This table indicates the

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type of screening that may be required between two uses. Where such screening is required, only one of the two adjoining uses is responsible for installing the screening; the use assigned this responsibility is referred to as the “servient” use in Section 15-308, and the other use is the “dominant” use. To determine which of the two adjoining uses is required to install the screening, find the use classification number of one of the adjoining uses in the servient column and follow that column across the page to its intersection with the use classification number in the dominant use column that corresponds to the other adjoining use. If the intersecting square contains a letter, then the use whose classification number is in the servient column is responsible for installing that level of screening. If the intersecting square does not contain a letter, then begin the process again, starting this time in the servient column with the other adjoining use.

(c) If, when the analysis described in subsection (b) is performed, the servient use is an existing use, but the required screening is not in place, then this lack of screening shall constitute a nonconforming situation, subject to all the provisions of Article VIII of this ordinance.

(d) Notwithstanding any other provision of this article, a multi-family development shall be required at the time of construction, to install any screening that is required between it and adjacent existing uses according to the table set forth in Section 15-308, regardless of whether, in relation to such other uses, the multi-family development is the dominant or servient use.

### **Section 15-307 Descriptions of Screens.**

The following three basic types of screens are hereby established and are used as the basis for the Table of Screening Requirements set forth in Section 15-308.

- (1) **OPAQUE SCREEN. TYPE “A”.** A screen that is opaque from the ground to a height of at least six feet, with intermittent visual obstructions from the opaque portion to a height of at least twenty feet. An opaque screen is intended to exclude completely all visual contact between uses and to create a strong impression of spatial separation. The opaque screen may be composed of a wall, fence, landscaped earth berm, planted vegetation, or existing vegetation. Compliance of planted vegetation screens or natural vegetation will be judged on the basis of the average mature height and density of foliage of the subject species, or field observation of existing vegetation. The opaque portion of the screen must be opaque in all seasons of the year. At maturity, the portion of intermittent visual obstruction should not contain any completely unobstructed openings more than ten feet wide. The portion of intermittent visual obstructions may contain deciduous plants. Suggested planting patterns that will achieve this standard are included in Appendix E.
- (2) **SEMI-OPAQUE SCREEN. TYPE “B”.** A screen that is opaque from the ground to a height of three feet, with intermittent visual obstruction from above the opaque

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portion to a height of at least twenty feet. The semi-opaque screen is intended to partially block visual contact between uses and to create a strong impression of the separation of spaces. The semi-opaque screen may be composed of a wall, fence, landscaped earth berm, planted vegetation, or existing vegetation. Compliance of planted vegetation screens or natural vegetation will be judged on the basis of the average mature height and density of foliage of the subject species, or field observation of existing vegetation. At maturity, the portion of intermittent visual obstructions should not contain any completely unobstructed openings more than ten feet wide. The zone for intermittent visual obstruction may contain deciduous plants. Suggested planting patterns which will achieve this standard are included in Appendix E.

(3) **BROKEN SCREEN. TYPE "C".** A screen composed of intermittent visual obstructions from the ground to a height of at least twenty feet. The broken screen is intended to create the impression of a separation of spaces without necessarily eliminating visual contact between the spaces. It may be composed of a wall, fence, landscaped earth berm, planted vegetation, or existing vegetation. Compliance of planted vegetative screens or natural vegetation will be judged on the basis of the average mature height and density of foliage of the subject species, or field observation of existing vegetation. The screen may contain deciduous plants. Suggested planting patterns which will achieve this standard are included in Appendix E.

**Section 15-308 Table of Screening Requirements (AMENDED 06/26/07)**

**[PLEASE REFER TO THE NEXT TEN PAGES]**

**Section 15-309 Flexibility in Administration Required.**

(a) The Board recognizes that because of the wide variety of types of developments and the relationships between them, it is neither possible nor prudent to establish inflexible screening requirements. Therefore, as provided in Section 15-306, the permit-issuing authority may permit deviations from the presumptive requirements of Section 15-308 and may require either more intensive or less intensive screening whenever it finds such deviations are more likely to satisfy the standard set forth in Section 15-308 without imposing unnecessary costs on the developer.

(b) Without limiting the generality of subsection (a), the permit-issuing authority may modify the presumptive requirements for:

- (1) Commercial developments located adjacent to residential uses in business zoning districts.
- (2) Commercial uses located adjacent to other commercial uses within the same zoning district.
- (3) Uses located within planned unit developments.

(c) Whenever the permit-issuing authority allows or requires a deviation from the presumptive requirements set forth in Section 15-308, it shall enter on the face of the permit the screening requirement that it imposes to meet the standard set forth in Section 15-308 and the reasons for allowing or requiring the deviation.

(d) If the permit-issuing authority concludes, based upon information it (or the appearance commission) receives in the consideration of a specific development proposal, that a presumption established by Section 15-308 is erroneous, it shall initiate a request for an amendment to the Table of Screening Requirements in accordance with the procedures set forth in Article XX.

**Section 15-310 Combination Uses.**

(a) In determining the screening requirements that apply between a combination use and another use, the permit-issuing authority shall proceed as if the principal uses that comprise the combination use were not combined and reach its determination accordingly, relying on the table set forth in Section 15-308, interpreted in the light of Section 15-309.

(b) When two or more principal uses are combined to create a combination-use, screening shall not be required between the composite principal uses unless they are clearly separated physically and screening is determined to be necessary to satisfy the standard set forth in Section 15-305. (For example, screening may be required in a residential combination use consisting of single-family and multi-family components.)

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Any person who has been issued a permit under this chapter for any development in a non-residential district involving the construction of new buildings or parking areas or additions to or exterior modifications of existing buildings or parking areas, as well as (i) any similar development in a residential district, if such development requires a special or conditional use permit, shall prepare and file a landscaping plan prior to the issuance of a building permit for such development. No building permit shall be issued for such development until the Appearance Commission has had the opportunity, pursuant to regular agenda procedures, to review and comment upon such landscaping plan. (AMENDED 2/4/86)

**Section 15-311.1 Screening of Flag Lots in the Historic District (HD) (AMENDED 11/21/95).**

Notwithstanding the provisions of Section 15-308, every flag lot in the Historic District (HD) shall provide a Type B screen [as described in Section 15-307 (1)] between the flag lot and adjacent property [see Section 15-175.10(c)].

**Section 15-312 Protective Buffer Along Major Roads (AMENDED 05/25/99; 10/23/07)**

Notwithstanding the provisions of Section 15-308, but subject to the remaining provisions of this section, an undisturbed protective buffer shall be maintained along Old N.C. 86, Dairyland Road, Union Grove Church Road, Homestead Road, Eubanks Road and Smith Level Road south of Ray Road that will help preserve the scenic views and elements of this area. With respect to each property that fronts one of the named streets, any development other than use classification 13.200, Fire Station, that occurs after the effective date of this section shall provide an undisturbed buffer (except for necessary crossings) that is a minimum of 50 feet in width and on average is 100 feet in width along such frontage. If the buffer area does not provide the equivalent of a Type 'A' screen, the developer shall provide a Type 'A' screen on the development's side of the buffer (one hundred (100) feet from the right-of-way)

**Section 15-313 Reserved.**

*Art. XIX - SCREENING AND TREES***PART II. SHADING AND TREE PROTECTION****Section 15-314 Board Findings and Declaration of Policy on Protecting Trees and Other Plants (REWRITTEN 06/24/14)**

(a) The Board finds that:

- (1) Trees, shrubs, and other plants are proven producers of oxygen, a necessary element for human survival; and
- (2) Trees, shrubs, and other plants appreciably reduce carbon emissions by shading buildings and thereby lowering energy use to cool buildings, and also store carbon as biomass; and
- (3) Trees, shrubs, and other plants improve air quality by lowering air temperatures and removing air pollutants; and
- (4) Trees, shrubs, and other plants transpire considerable amounts of water each day and thereby maintain the natural hydrologic cycle; and
- (5) Trees, shrubs, and other plants through their canopies and root systems intercept precipitation and encourage rain to infiltrate into the soil and maintain soil water for plants and recharge ground water and play an important and effective part in soil conservation, erosion control, creek protection and flood control; and
- (6) Trees, especially large, old trees, provide invaluable beneficial physical, aesthetic, historic, and psychological counterpoint to the urban setting, making urban life more comfortable by providing shade and cooling the air and land, and built environment, reducing noise levels and glare, shielding people from high winds, and breaking the monotony of human developments on the land, particularly for parking areas and streets; and
- (7) Trees, shrubs and other plants help improve soil quality by breaking up heavy soils, mining nutrients and remediating soils at contaminated sites by absorbing, transforming and containing a number of contaminants; and
- (8) Tree stands create habitats that support a diversity of plants and animals; and
- (9) Trees, shrubs and other plants make important contributions to the vitality and character of the Town and its neighborhoods and create a more aesthetic, pleasant and emotionally satisfying place in which to live, work and spend leisure time; and

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(10) Trees, shrubs and other plants provide numerous human health benefits such as shading ultraviolet radiation, reducing rates of respiratory disease and illness and stress management; and

(11) Trees, shrubs and other plants have an important impact on the desirability of land and, consequently, on property values, as well as benefitting commercial activity by creating a more enjoyable environment.  
**(AMENDED 03/21/89)**

**(12) Certain flowering trees, shrubs, and other plants are important sources of pollen and nectar for pollinators.**

(b) Based upon the findings set forth in subsection (a), the Board declares that it is not only desirable but essential to the health, safety, and welfare of all persons living or working within the town's planning jurisdiction, present and future, to protect certain existing trees and tree stands and, under the circumstances set forth in this article, to require the planting of new trees, especially larger trees, in certain types of developments, and to ensure the protection of those trees whether on individual lots or on common space.

**Section 15-315 Definitions (REWRITTEN 06/24/14)**

Unless otherwise specifically provided, or unless the context clearly indicates otherwise, the words and phrases defined below shall have the meaning indicated when used in this Part.

(1) Canopy tree: A healthy evergreen or deciduous tree species that matures at a height of at least thirty (30) feet.

(2) Dripline: Perimeter formed by the points farthest away from the trunk of a tree where precipitation falling from the branches of that tree lands on the ground).

(3) Clearcutting: The large-scale, indiscriminate removal of trees, shrubs, and undergrowth with the intention of preparing real property for nonagricultural purposes. **(AMENDED 05/25/99)**

**(4) Habitat. The natural environment for animals and plants that is made up of physical factors such as soil, moisture, range of temperature, and availability of light as well as biotic factors such as the availability of food, nesting sites, and shelter.**

**(45)** A specimen or rare tree is defined as any healthy tree that:

i. has a trunk diameter at breast height (dbh) of thirty-six (36) inches or more for pine tree species; or

ii. has a trunk dbh of 18" inches or more for any species; or

iii. has a trunk dbh of 12 inches or more in the case of the species from the following list of North Carolina native canopy tree genera; or

*Aesculus* (Ohio Buckeye)

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*Chamaecyparis* (Atlantic White Cedar)  
*Carya* (Southern Shagbark Hickory)  
*Diospyros* (Persimmon)  
*Fagus* (Beech)  
*Juniperus* (Eastern Red Cedar)  
*Magnolia* (Magnolia)  
*Pinus* (Longleaf pine)  
*Quercus* (Swamp Chestnut Oak)  
*Taxodium* (Bald cypress)  
*Tsuga* (Hemlock)  
*Ulmus* (American Elm)

iv. has a trunk dbh of six inches or more in the case of the species from the following list of North Carolina native understory tree genera: or

*Amelanchier* (Serviceberry)  
*Asimina* (Pawpaw)  
*Carpinus* (Hornbeam)  
*Cercis* (Redbud)  
*Chionanthus* (Fringetree)  
*Cornus* (Dogwood)  
*Crataegus* (Hawthorn)  
*Halesia* (Silverbell)  
*Hamamelis* (Witch-hazel)  
*Ilex* (Holly)  
*Ostrya* (Hophornbeam)  
*Oxydendrum* (Sourwood)  
*Sassafras* (Sassafras)

v. is listed as a State or National Champion by the North Carolina Forest Service or the American Forestry Association; or

vi. provides unique habitat for any endangered or threatened wildlife species protected by Federal law; or

vii. has been cited by the Board of Aldermen as being historically significant; or

viii. any other tree species listed in the North Carolina Natural Heritage Program as being significantly rare, of special concern, threatened, or endangered.

| (56) Tree. A perennial woody plant, single or multiple trunks, with few if any branches on its lower part, which at maturity will obtain a minimum six (6) inch caliper.

| (67) Tree canopy. The combined area encompassing the drip zones of all canopy trees.

| (78) Tree Protection Perimeter: That area within a circle drawn with the tree's trunk as the center. Radius is dependent upon site conditions and the relative tolerance of tree species to

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construction damage. Standard accepted radius is 1-1.5 feet per diameter inch of tree to be retained.

(9) Tree Stand: An aggregation of trees occupying a specific area and generally uniform in species composition, size, age, arrangement, and condition that distinguishes it from vegetation in adjoining areas.

### **Section 15-316 Required Trees Along Dedicated Streets.**

Along both sides of all newly created streets with respect to which an offer of dedication is required to be made by this chapter, the developer shall either plant or retain sufficient trees so that, between the paved portion of the street and a line running parallel to and fifty feet from the center line of the street, there is for every thirty feet of street frontage at least an average of one deciduous tree that has or will have when fully mature a trunk at least twelve inches in diameter. Trees planted to satisfy this section shall not be placed uniformly but in an irregular pattern with a minimum of one twelve inch (12") diameter tree (when fully mature) every one hundred feet (100'). When trees are planted by the developer pursuant to this section, the developer shall choose trees that meet the standards set forth in Appendix E. (AMENDED 11/19/96)

### **Section 15-317 Retention and Protection of Specimen and Rare Trees**

(a) Every development shall retain all existing specimen and rare trees ~~unless the retention of such trees would unreasonably burden the development~~. When a site would be so unreasonably burdened by the retention of all such trees that a choice must be made as to which trees will be retained, the following criteria shall be used by the applicant, in consultation with the land use administrator and a landscape or forestry professional, who is a certified arborist, to evaluate the trees for the purpose of deciding which to retain: (AMENDED 06/24/14)

- (1) The rareness of the tree species, both relative to the species representation on the site and relative to the species representation within the region and the state. This shall be the most important criterion in the evaluation;
- (2) ~~S~~The tree's relative size and age, large old trees being considered more valuable than smaller, younger trees of the same species;
- (3) The expected longevity of the tree, trees' relative expected longevities, including such factors as the trees' relative health at the time of the evaluation;
- (4) The ~~relative~~ hardiness of the trees ~~in question~~, including wind firmness, climatic requirements, susceptibility to insects and diseases;
- (5) ~~A~~The trees' relative aesthetic values, including flowers, fruit, form characteristics, potential for autumn coloration;

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- (6) ~~S~~The trees' relative sizes at maturity; and
- (7) ~~P~~The trees' relative contribution to summertime comfort through their potential to provide shading. (AMENDED 03/21/89)

(b) Flexible approaches such as adjustments to lot layout, placement of buildings and paved surfaces and location of utilities should be pursued in order to save rare and specimen trees. (AMENDED 03/21/89; 06/24/14)

(c) ~~S~~No excavation or other subsurface disturbance ~~may be undertaken~~ within the Tree Protection Perimeter around any tree to be retained in accordance with (a) above, shall be limited to the minimum extent practicable as determined by a certified arborist. ~~In addition, no impervious surface (including but not limited to equipment, paving, and structures) may be located within the Tree Protection Perimeter, either~~ during construction or after completion of the development. (AMENDED 03/21/89; 06/24/14)

(d) There shall be no clearcutting in any development within the Transition Area portion of the Carrboro Joint Development Area as identified in the Joint Planning Agreement. The term "clearcutting" shall refer to the large-scale, indiscriminate removal of trees, shrubs, and undergrowth with the intention of preparing real property for nonagricultural purposes. (AMENDED 05/25/99; 06/24/14)

(e) If space that would otherwise be devoted to parking cannot be so used because of the requirements of subsections (a) or (b), and, as a result, the parking requirements set forth in Article XVIII cannot be satisfied, the number of required spaces may be reduced by the number of spaces "lost" because of the provisions of subsections (a) and (b), up to a maximum of fifteen percent of the required spaces. (AMENDED 06/24/14)

#### **Section 15-318 Shade Trees In Parking Areas.**

(a) Vehicle accommodation areas containing more than four parking spaces that are required by Section 15-296 must be shaded by deciduous trees (either retained or planted by developer) that have or will have when fully mature a truck at least twelve inches in diameter. When trees are planted by the developer to satisfy the requirements of this subsection, the developer shall choose trees that meet the standards set forth in Appendix E. As part of the redevelopment of an infill lot in the B-1(C), B-1(G), or B-2 districts, up to 25% of the shading requirement may be from existing or proposed buildings providing shadow as identified in the provisions of Appendix A, A-6(26). (AMENDED 11/10/81; 06/24/14)

(b) Each tree of the type described in subsection (a) shall be presumed to shade a circular area having a radius of fifteen feet with the trunk of the tree as the center, and there must be sufficient trees so that, using this standard, thirty-five percent of the vehicle accommodation area will be shaded. (AMENDED 06/24/14)

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(c) No paving may be placed within 15 feet (measured from the trunk) of any tree retained to comply with subsection (a), unless such tree is eighteen inches or greater in diameter or a very rare species as described in Section 15-3156, in which case no paving may be placed within the Tree Protection Perimeter for such trees as described in 15-315(8)6(b). New trees planted to comply with subsection (a) shall be located so that they are surrounded by at least 200 square feet of unpaved area. Notwithstanding the foregoing, new trees planted on infill lots in the B-1(C), B-1(G) or B-2 districts may be surrounded by less than 200 square feet of unpaved area if installed with an urban tree planting system, specified by a professional engineer and landscape architect or certified arborist, that will ensure the survival of the tree for its typical life expectancy. (AMENDED 5/10/83; 03/21/89)

(d) Vehicle accommodation areas shall be laid out and detailed to prevent vehicles from striking trees. Vehicles will be presumed to have a body overhang of three feet six inches.

(e) The foregoing requirements shall not apply to 19.100 classification uses where such uses do not involve the construction of a permanent structure and are conducted not more than two days per week on the site of a vehicle accommodation area that is used primarily in connection with another use. Furthermore, when a 19.100 classification use meeting the foregoing requirements is installed on a lot that is nonconforming with respect to the shading requirements of this section, the lot shall not be required to comply with these shading requirements solely because of installation of such use, even though a new permit applicable to the entire lot may be required. (AMENDED 9/2/86)

### **Section 15-319 Tree Canopy Coverage Standards (REWRITTEN 06/24/14)**

(a) ***Minimum Canopy Coverage Standards.*** Subject to the remaining provisions of this section, the following minimum tree canopy coverage percentages are required within the boundaries of every lot or tract for which a zoning, special use, or conditional use permit is issued ~~after June 24<sup>th</sup>, 2014~~, exclusive of required cleared active recreation areas, water bodies, access easements, public and private right-of-way, stormwater and utility easements.

#### **Table 1: Minimum Tree Canopy Coverage Standards**

Land Use	Minimum Canopy Coverage
Residential	40%
Other than residential excluding districts (B-1(c), (B-1(g), (B-2)	30%
Other than residential in districts (B-1(c), (B-1(g), (B-2)	15%

(+) When a tract is subdivided and pursuant to the provisions of Article XIII the developer sets aside open space areas or recreation areas that contain canopy trees (with a minimum caliper of six inches) or when a developer of a subdivision plants canopy trees to comply with the shading requirements of Article XIII, the total tree canopy area so preserved or established shall be

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credited against the minimum canopy coverage percentages set forth above. The remaining required tree canopy coverage area shall be allocated by the subdivider among the subdivided lots, and this allocation shall be shown on the recorded plat of such subdivision with a disclosure note that such trees, to fulfill the requirements of this section, shall be subject to maintenance and replacement.

### ***(b) Modifications to Canopy Coverage Standards***

~~The permit issuing authority may approve a development application that does not fully comply with the canopy coverage standards when it finds that the application substantially complies with these standards and that such a deviation enables the development to better achieve other Town objectives, such as the promotion of solar access to encourage active and passive solar technology for water and space heating and renewable energy generation, improved stormwater management, and the preservation of established managed landscapes, or established streetscapes.~~

***(be) Implementation of Standards.*** Compliance with the tree canopy standards shall be achieved as follows:

- 1) Protection of existing tree canopy. The extent of existing tree canopy coverage retained at the time of permit application may be documented by survey or by using current aerial photographs available on the Town's web page or similar resource. Protection of the existing tree canopy will be demonstrated by the tree protection plan required by Section 15-320;
- 2) Replacement of canopy. If the existing protected tree canopy is less than the minimum standard as shown in Table 1, the deficit shall be made up by the planting of additional trees as provided herein:
  - a. ~~One (1) or more replacement tree(s) shall be planted in accordance with an approved planting plan. When trees are planted by the developer to satisfy the requirements of this subsection, the developer shall choose trees that meet the standards set forth in Appendix E. Each tree shall be presumed to create a canopy circular area with the trunk of the tree as the center, and there must be sufficient trees so that, using this standard, the canopy requirements in 15-319(a) are met per 500 square feet of tree canopy coverage deficit shall be planted in accordance with an approved planting plan.~~
  - b. All canopy trees planted to meet the Town's screening and parking lot shading standards can be counted when calculating replacement canopy trees provided.
  - c. Supplemental canopy trees planted to complete the canopy coverage requirements shall be planted no less than twenty (20) feet from any other proposed or existing canopy tree.
  - d. Replacement trees that are planted in an adjacent right-of-way may count toward total tree canopy.
  - e. Replacement tree caliper shall be at least two and one-half (2.5) inches at installation. ~~A replacement tree with a caliper of four (4) inches or greater may count for two replacement trees.~~

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f. Landscaped areas with shrubs of at least 100 square feet on an infill lot in the B-1(C), B-1(G) or B-2 districts.

(c) Modifications to Canopy Coverage Standards. The permit issuing authority may approve a development application that does not fully comply with the canopy coverage standards when it finds that the application substantially (50% or more) complies with these standards and that such a deviation:

- (1) Eenables the development to better achieve other Town objectives, such as: i) the promotion of solar access to encourage active and passive solar technology for water and space heating and renewable energy generation, ii) improved stormwater management, and iii) the preservation of established managed landscapes professionally designed and installed by an architect or landscape architect, or landscape designer; or, or established streetscapes.
- (2) Is for property enrolled in the present use value taxation program or subject to a forest management plan; or
- (3) Is part of the redevelopment of an infill lot in the B-1(C), B-1(G) or B-2 districts, where the applicant is seeking a reduction of the shading requirement per Section 15-318, has planted trees in the right-of-way to count toward the canopy coverage, and/or uses a landscaped area with shrubs of at least 100 square feet.

Large expanses of open space, meadowland, (excepting a meadow consisting of species native to the Piedmont), or manicured lawn shall not satisfy the canopy coverage standards of this section.

(d) Exemption from Canopy Coverage Standards. Zoning permit applications for structures that are exempt from building permit requirements, or are the lesser of either i) additions to existing permitted structures that do not exceed 25% of an existing building footprint or ii) do not increase the footprint of the existing building by more than 250 square feet, shall be exempt from the tree canopy standards.

### **Section 15-320 Protection of Trees During Construction.**

(a) The permit recipient shall be responsible for ensuring that all existing trees specifically shown on approved plans as being retained to comply with this article are protected, during the construction process, from removal, destruction, or injury. As described in Appendix A, a tree protection plan detailing the methods for such protection shall be submitted as part of the land use permit application and construction plan package. Tree protection methods shall meet accepted industry standards in accordance with ANSI A300 and associated Best Practices. (AMENDED 3/12/85; 2/24/87; 03/21/89; 06/24/14)

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- (1) The permit recipient shall ensure that, before any excavation takes place on the site, a barrier is erected around the Tree Protection Perimeter of all trees to be retained on the site that are within the area to be disturbed by construction activities, and other provisions made such as are necessary and sufficient to put on notice all construction personnel that the area within the Tree Protection Perimeter of all such trees is to be retained is not be disturbed. During the construction process, the permit recipient shall ensure that all activities are kept outside the Tree Protection Perimeter of all such trees. The barrier required by this subsection shall be installed before the issuance of any grading or construction permits for such site. **(AMENDED 06/24/14)**
- (2) The permit recipient shall ensure that all such trees to be retained on the site that are within the area to be disturbed by construction activities, or near roads within the development, shall be further protected from accidental equipment damage by wrapping their trunks with sections of snow fence or boards wired together from the ground to a height six (6) feet above the ground. **(AMENDED 06/24/14)**
- (3) The permit recipient shall ensure that land disturbing activity shall not occur, and that building materials, construction trailers, vehicles, equipment or machinery, dirt, fill, and/or other debris shall not be stored within the Tree Protection Perimeter of such trees as are to be retained.
- (4) The permit recipient shall ensure that all such trees as are to be preserved shall not be used as supports for roping, cable, signs, or fencing, and that nails shall not be driven into the trunks of trees.
- (5) The permit recipient shall ensure that any damage done during construction to the limbs or trunks of such trees as are to be retained shall be properly treated so as to assure the continued health of the trees. The land use administrator shall be consulted, and may suggest that the applicant seek advice from landscape or forestry professionals as to the appropriate method for such treatment. **(AMENDED 06/24/14)**
- (6) Prior to the commencement of any land alteration on a site for which a Tree Protection Plan has been approved, including all clearing or grading activities, the land use administrator shall certify in writing based on an inspection of the site that all tree protection measures required by the approved Tree Protection Plan have been put in place properly and accurately. The land use administrator shall provide this certification in a timely fashion on being notified by the permit recipient that the site is ready for such inspection and certification. **(AMENDED 03/21/89)**

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(b) If a violation of subsection (a) occurs, and as a result (b) rare or specimen tree(s) specifically shown on approved plans as being retained die or otherwise must be removed within four years after a certificate of occupancy is granted for that portion of a development on which the trees are or were located, then the permit recipient shall be required to replace such trees with trees of the same species, if available, or of a similar species. The choice of the replacement species, where necessary, shall be made subject to approval by the Town. Each replacement tree shall be at least of tree diameter equivalent in size to one (1) inch per every four (4) inches of tree diameter of the tree it replaces, up to a maximum replacement tree diameter of five inches. In cases where the tree to be replaced had a diameter greater than twenty inches, it shall be replaced by more than one tree, such that the ratio of one inch of replacement tree diameter to four inches of original tree diameter is satisfied, and at least one of the replacement trees is of the maximum replacement tree diameter of five inches. In addition, no replacement tree may be smaller than one inch in diameter. For example, a twenty-eight inch diameter tree would be replaced by one five inch diameter tree and one two-inch diameter tree of the same species. Tree replacement shall be performed by either a landscape contractor or forester licensed to practice in the State of North Carolina, or by an arborist certified by the International Society of Arboriculture or National Arborists Association. Such replacement must take place within one year after the death or removal of the trees occur, and this obligation shall be a continuing condition of the validity of the permit. Violators of the tree protection requirements described in subsection (a) shall be subject to the penalties and remedies for all land use ordinance and land use permit condition violations described in Section 15-114. (AMENDED 03/21/89; 06/24/14)

**Section 15-321 Performance Security May Be Required (AMENDED 03/21/89; 10/24/06; 06/24/14)**

(a) In cases when the land use administrator has reasonable cause to believe that a Tree Protection Plan has been violated, he or she may require that the developer post a security, for the five year period (four years plus one year in which replacement may occur) described in subsections (b) and (c) of section 15-318, to cover the potential replacement of all such large and rare species trees as are called out in the Tree Protection Plan as being protected. The purpose of this security is to ensure that the financial capability will exist, during the full five year period described in subsections (b) and (c) of section 15-318, to replace any large or rare species trees as are called out on a Tree Protection Plan as being protected during construction, and which have died due to construction damage caused by a violation of the Tree Protection Plan.

(b) It is the intent of this section that the removal and replacement of such trees that die due to construction damage shall be arranged by the Town only when the developer cannot be located at the time when the removal and replacement becomes necessary.

(c) The required security shall be in the form of an interest-bearing account or certificate of deposit payable to the Town, in the amount necessary for the removal of all of the large and rare species trees as are called out in the Tree Protection Plan as being preserved, their replacement as described in subsections (b) and (c) of section 15-318, and the one-time violation penalty described in section 15-114 at the time the security is required. At such time as the four year period described in subsections (b) and (c) of section 15-318 is complete, and no deaths of

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trees called out in the Tree Protection Plan as being preserved have occurred, the security and all interest accrued on it shall revert to the developer. In the event that some but not all of the security amount is used or needed for tree removal and replacement at the end of the four year period described in subsections (b) and (c) of section 15-318, the remaining security amount and the interest it has accrued shall revert to the developer at the end of that four year period.

### **Section 15-321.1 Payment in Lieu of Providing Shade or Canopy Cover Trees**

(a) When the permit issuing authority determines that as part of the redevelopment of an infill lot in the B-1(C), B-1(G) or B-2 districts, it is physically impossible or impracticable for a development to satisfy the requirements of Section 15-318 (shading trees), or Section 15-319 (canopy coverage) of this Article, then the permit-issuing authority may allow the developer to pay a fee to a tree planting fund in accordance to an adopted tree planting master plan.

(b) The amount of the fee authorized by this section shall be determined by estimating the cost of providing the required trees (including the cost of the plant and labor for installation) that meets the requirements of this Article. This determination shall be made annually and the fee shall be included in the Miscellaneous Fees and Charges Schedule adopted by the Board of Aldermen.

(c) Any fees collected in accordance with this section shall be reserved and used exclusively to meet the purposes for which they have been obtained as specified above in subsection (a). The required fee shall be submitted to the Town prior to construction plan approval.

### **Section 15-321.24 Regulation of Forestry Activities. (AMENDED 06/24/14)**

(a) The terms “forestry,” “forestry activity,” “forestland,” “forest management plan” and “timber harvest” shall be defined by and used in the same manner as in G.S. 160A-458.5.

(b) Notwithstanding any other provisions of this chapter, this chapter does not regulate either:

(1) Forestry activity on forestland that is taxed on the basis of its present-use value as forestland under G.S. Chpt. 105, Art. 12; or

(2) Forestry activity that is conducted in accordance with a forest management plan that is prepared or approved by a forester registered in accordance with G.S. Chpt. 89B.

(c) Notwithstanding subsection (b) above, the Town may deny a zoning, special use, conditional use, or building permit for a tract of land for a period of up to three years after the completion of a timber harvest if the harvest results in the removal from that tract of all or substantially all of the trees protected by this chapter. If the removal of such trees was in willful

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violation of the requirements of this chapter, then such permits may be refused for a period of five years.