

11 TREE PROTECTION AND LANDSCAPING

11.1 GENERAL PROVISIONS

11.1.1 Short Title

This chapter shall be known and may be cited as the “Belmont Tree Ordinance.”

11.1.2 Definitions

The words, terms, and phrases, as defined within this Chapter and used within the City of Belmont Land Development Code, shall have the meanings ascribed to them within this section.

Words and phrases used in this chapter that are not explicitly defined in this section or in Chapter 2, shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.

ANSI The American National Standards Institute (ANSI) is a private, non-profit organization (501(c) 3) that administers and coordinates the U.S. voluntary standardization and conformity assessment system. This includes tree care operations for trees, shrubs and other woody plant maintenance. www.ansi.org.

Appeal An action requesting reversal or modification of a decision made by the Planning Director based on his/her interpretations of the code. Appeals are made to the Board of Adjustment.

Auguring A practice to reduce the damage to and loss of individual trees where underground construction involves a tree’s CRZ (Critical Root Zone).

Caliper Diameter measurement of tree-trunk taken at 6 inches above ground level for trees up to and including trees 4 inches in caliper. For larger trees, measurement of caliper shall be taken at 12 inches above ground level.

Canopy The uppermost spreading branchy layer of a tree.

Canopy Cover The area that falls within a tree’s drip line.

Canopy Tree Any medium- or large-maturing tree which, at maturity, provides a crown area sufficient to shade a minimum of 1,200 square feet.

Certified Arborist An individual certified by the International Society of Arboriculture (ISA), a Consulting Arborist as designated by the American Society of Consulting Arborists, or a City-approved professional.

Clear Cut Felling and removal of all trees from an area. Typically, an indiscriminate removal of trees except in the case of silviculture harvesting where tree removal is followed up with a forest replanting or regeneration effort to keep the land forested.

Critical Root Zone (CRZ): A circular region measured outward from a tree trunk representing the essential area of the roots that must be maintained for the tree’s survival. The critical root zone is one foot of radial distance for every inch of tree DBH, with a minimum of eight feet.

DBH (Diameter at Breast-Height) The diameter of a tree 4.5 feet above the average ground level.

Deciduous Trees that lose their leaves annually.

Developer A person or company who engages in **Development**, as defined below.

Development The carrying out of any building activity, the making of any material change in the use or appearance of any structure or land, or the subdividing of land into two or more parcels.

- A. Except as provided in subsection C hereof, for the purposes of these regulations the following activities or uses shall be considered development:
 - 1. The reconstruction, alteration of the size, or material change in the external appearance of a structure on land or water;
 - 2. A change in the intensity of use of land, such as an increase in the number of dwelling units in a structure or on land or a material increase in the number of businesses, manufacturing establishments, offices, or dwelling units in a structure or on land;
 - 3. Alteration of the shore or bank of a pond, lake, river, or other waterway,
 - 4. Commencement of drilling (except to obtain soil samples), mining, or excavation on a parcel of land;
 - 5. Clearing of land, including clearing or removal of vegetation and including any significant disturbance of vegetation or soil manipulation; or
 - 6. Deposit of refuse, solid or liquid waste, or fill on a parcel of land.
- B. Development includes all other activity customarily associated with it. When appropriate to the context development refers to the act of developing or to the result of development. Reference to any specific operation is not intended to mean that the operation or activity when part of other operations or activities is not development. Reference to particular operations is not intended to limit the generality of this definition.
- C. For the purposes of these regulations the following operations or uses shall not be considered development; some may, however, require a tree removal permit or a building permit:
 - 1. Work involving the maintenance, renewal, improvement, or alteration of any structure, if the work affects only the color or decoration of the exterior of the structure or interior alterations that do not change the use for which the structure was constructed.
 - 2. Work involving the maintenance or replacement of existing landscaped areas and existing rights-of-way;
 - 3. A change in use of land or structure from a use within a specified category of use to another use in the same category;
 - 4. A change in the ownership or form of ownership of any parcel or structure;
 - 5. The creation or termination of rights of access, riparian rights, easements, covenants concerning development of land, or other rights in land unless otherwise specifically required bylaw, or
 - 6. The clearing of survey cuts or other paths of less than four feet in width.

Development permits A permit issued by the planning director that authorizes the recipient to make use of property in accordance with the requirements of this ordinance.

Drip Line An imaginary vertical line extending from the outermost portion of the tree canopy to the ground.

Evergreen Plants or trees that retain their leaves throughout the year.

Exotic/Invasive Species A plant species that is non-native to a given geographic area and becomes established in natural or semi-natural ecosystems or habitats. Generally, these species grow quickly and spread to the point of disrupting natural ecosystems and threatening native plants natural biological diversity. Such species include, but are not limited to, English Ivy-Hedera helix, Chinese Wisteria-Wisteria sinensis, Japanese Wisteria-Wisteria floribunda, Japanese Honeysuckle-Lonicera japonica, Kudzu-Pueraria Montana, and non-native bamboo.

Forest Management Plan A document that defines a landowner's forest management objectives and describes specific measures to be taken to achieve those objectives.

Grading or Land Disturbing Any use of land by any person that results in a change of the natural cover or topography and that may cause or contribute to sedimentation or soil compaction.

Land clearing Large scale indiscriminate removal of trees, shrubs, and undergrowth with the intention of preparing real property for non-agricultural development.

Landscape Plan A required element of any Development plan that exhibits the location of all new plantings and their tree protection zones and lists the quantity and size-at-installation of all plant material. Landscape Plans shall conform to all requirements of this Chapter and may incorporate a Tree Protection Plan, where required by this Chapter.

Landscaping Yard A planting landscaping yard is a strip an area of land (of various widths) provided along the perimeter of a site for the installation of plant material as required by the Belmont Tree Ordinance.

Landmark Tree Any tree of 24-inch DBH or greater and that has a health and condition standard factor of over 50% based on the standards established by the Internal Society of Arboriculture. These standards consider the soundness of the trunk, the growth rate, the structure of the tree, the presence of insects or disease, the crown development, and the life expectancy. The definition of a Landmark Tree shall not include any tree identified as an Invasive Species on the City's Invasive Species list.

Large-maturing Tree See *Tree, Large-maturing*

Medium-maturing Tree See *Tree, Medium-maturing*

Modifications Alternate tree planting plans, plant materials, planting methods, or reforestation may be used where unreasonable or impracticable situations would result from application of the tree planting and preservation requirements.

Native Species Tree and plant species indigenous to the local ecosystem. Generally, these are species whose geographic range during pre-colonial times included the Piedmont of North Carolina and can be found at the NC Division of Forest Resources.

Net Lot Area The remaining square footage of a lot after deducting the square footage of any existing and dedicated road rights-of-way and utility easements and existing ponds and lakes.

Parking Area All vehicular use areas including parking areas, vehicle storage areas, access and maneuvering areas and the like.

Parking Lot Plantings Planting areas within and adjacent to parking areas designed to shade and improve the attractiveness of large areas of pavement.

Payment-in-Lieu A contribution by the Developer to a city-administered tree preservation fund a dollar amount equal to a percentage of the tax value of the land being developed at the time of Development Plan approval.

Planting Strip A ground surface located outside of any public right-of-way that is free of impervious cover and/or paved material and is reserved for landscaping purposes.

Pruning The cutting off or removal of dead or living parts of a tree or shrub. See ANSI standards for recommended pruning practices.

Qualified Professional A professional in the field of arboriculture, who, on a regular basis, provides expert advice about trees and other woody plants, their care, safety, preservation and value. A Qualified Professional, as defined here, does not have a vested economic interest in the delivery of any services recommended nor deliver paid services in lieu of a consulting fee. A Qualified Professional must be able to demonstrate proficiency and credibility through evidence of the following:

- Documentation of substantial experience in arboricultural practice,
- Documentation of degree acquisition and/or other forms of certified training,
- Documentation of a referential record of practice in the field as a consultant

Small-maturing Tree See *Tree, Small-maturing*

Specimen Tree Any tree that is 12 inches in diameter or larger measured at 4.5 feet above grade (i.e. diameter at breast height).

Street Tree A tree planted within or adjacent to a public right-of-way as required by the city.

Topping The inappropriate removal or cutting back of tree limbs to stubs in either a straight-across hedge fashion or a complete delimiting of the tree, leaving only the main trunk or trunks of a tree. This includes any pruning that leads to disfigurement of the normal shape of the tree. Topping is also referred to as “heading”, “stubbing”, “rounding,” or “dehorning”.

Tree, Large-maturing A tree whose height is greater than 60 feet at maturity and meets the specification of “American Standards for Nursery Stock” published by the American Association of Nurserymen.

Tree, Medium-maturing A tree whose height is 35-60 feet at maturity and meets the specification of “American Standards for Nursery Stock” published by the American Association of Nurserymen.

Tree, Small-maturing A tree whose height is less than 35 feet at maturity and meets the specifications of “American Standards for Nursery Stock” published by the American Association of Nurserymen.

Tree Inventory The gathering of accurate information on the health and diversity of the community forest on a development site or within the City of Belmont. Tree inventories must include identification of the tree species, DBH, and tree condition. Inventories must be completed by a Certified Arborist or other Qualified Professional.

Tree Planting Plan A required element of any Development plan that utilizes new plantings to meet tree save area requirements.

Tree Protection Barricade A physical and visual barrier installed around the critical root zone of a tree to prevent damage to the tree and its root system.

Tree Protection Plan A required element of any Development plan that exhibits tree save areas, their tree protection zone, and the location of any tree protection measures, as required by this Chapter.

Tree Protection Zone The area above and below ground with a radius that extends from the trunk to the perimeter of the Critical Root Zone, as defined within this Chapter.

Tree Save Area One or more areas of a site which includes existing trees and new plantings used to meet tree save requirements and their associated tree protection zone.

Urban Forest Trees or plants within Belmont city limits and the City of Belmont ETJ.

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11.1.3 Applicability

The regulations apply to both public and private property and all developers and/or owners of real property involved with the erection, repair, alteration, or removal of any building or structure as well as land grading in anticipation of such development. These regulations will not prohibit any individual resident of Belmont from removing or pruning any tree on his or her property, nor will they prohibit harvesting timber in accordance with N.C.G.S. 160A-458.5.

Compliance with this chapter shall be required for all Development. New development or re-development that receives a Development Plan waiver and the proposed development activities will impact existing trees, vegetation, or required landscaping.

11.1.4 Purpose & Intent

The tree protection and landscaping regulations set forth in this chapter exist to:

- Establish minimum development standards for the protection and conservation of existing tree coverage, mature trees, vegetation, and natural resource buffers on development sites.
- Establish minimum development standards for the planting, installation, and maintenance of new trees, shrubs, and vegetation.

The purpose of these regulations is to lessen the environmental impacts of site development on surrounding properties and to protect, promote, and enhance the quality of life for the Belmont community and its citizens. Specifically, the regulations set forth in this Chapter are intended to:

- Protect and enhance the aesthetic qualities of the community to ensure that tree removal associated with land development does not reduce surrounding property values.
- Prevent and/or control soil erosion.
- Reduce stormwater runoff and its associated hazards, including flooding and contamination of water resources.
- Promote clean air quality through reduction of air pollution, sequestration of carbon, and release of oxygen to the atmosphere.
- Provide shade and minimize increases in land temperature resulting from impervious surfaces and natural causes.
- Screen
- Stabilize ground water tables.
- Require the preservation and planting of trees on site to maintain and enlarge the tree canopy cover across the City.
- Protect and conserve natural resources.

11.1.5 Exemptions & Relief

- A. No exemption or relief from the regulations set forth in this chapter shall be allowable without written approval from the Planning Director.

11.2 ADMINISTRATION

11.2.1 City Jurisdiction & Authority

- A. The City shall have the jurisdiction, authority, control, supervision, and direction over all trees planted or growing in the city of the City ETJ, except where exempted in this chapter.
- B. The City may prepare and publish guidelines and specifications for tree planting, care, maintenance, removal, and landscape design for reference and use by property owners, developers, consultants, and the general public in furtherance of the requirements and intent of this chapter. This document would be reviewed periodically by the city's planning department and the Environmental Sustainability Board.
- C. The City shall review all applications for permits for any planting, removal and/or trimming or cutting of trees subject to this chapter and shall have the authority to grant or deny permits and to attach reasonable conditions to the granting of a permit.

11.2.2 Modifications

- A. If strict compliance with the standards of this chapter conflict with existing federal or state statutory or regulatory requirements, or when tree preservation or planting is required by this chapter and the site design, topography, natural vegetation, or other special considerations exist relative to the proposed development, the developer may submit a specific alternate plan for tree preservation or planting to the city for consideration. This plan must meet the purposes and standards of this chapter but may suggest measures other than those within this chapter.
- B. If the developer seeks a modification of tree preservation or planting requirements based upon a contention that the requirements of this chapter would pose a threat to health and safety due to a conflict with existing federal or state statutory or regulatory requirements, a modification will only be considered upon receipt of a written explanation of the alleged conflict created by the planting requirement and a copy of the statute or regulation that creates the conflict. The city shall review the alternate proposal and advise the applicant of the disposition of the request within 15 working days of submission by the applicant. Any appeals by the applicant shall be in accordance with LDC Chapter 18.
- C. Requests for a delay in complying with this chapter due to poor weather conditions for planting will be considered following a written request directed to the City of Belmont Planning Department and payment for a surety for such planting. Certificates of occupancy will be issued upon approval of a request for planting delay. Failure to comply will result in penalties as provided for in LDC Chapter 18.
- D. All requests for Modifications require approval from the Planning Director and the Planning Board. The Planning Director and the Planning Board may refer requests for Modifications to the Environmental Sustainability Board for a non-binding opinion or recommendation.

11.2.3 Inspections and Investigations

- A. Planning department staff, agents, officials, or other qualified persons and authorized representatives of the City may periodically inspect sites subject to the provisions of this ordinance to determine compliance with this chapter or rules or order adopted or issued pursuant to this chapter.
- B. If, through inspection, it is determined that a responsible party, as outlined in Section 11.2.5, has failed to comply or is no longer in compliance with the provisions of this ordinance, a notice to comply shall be served upon that person by registered mail with return receipt or other means by the City.
- C. The notice to comply shall identify the nature of the violation and shall set forth the measures necessary to achieve compliance with this chapter. The notice shall inform the person whether a civil

penalty will be assessed immediately or shall specify a date by which the person must comply with this chapter. The notice shall advise that failure to correct the violation within the time specified will subject that person to the civil penalties as provided in LDC Chapter 18 or any other authorized enforcement action.

- D. The City shall have the power to conduct such investigations as it may reasonably deem necessary to carry out its duties as prescribed in this ordinance and for this purpose may enter at reasonable times upon the property, public or private, for the purpose of inspecting the site(s) subject to the provisions of this ordinance.
- E. No person shall refuse entry or access to any staff or authorized representative of the City who presents appropriate credentials and requests entry for the purpose of inspection, nor shall any person obstruct, hamper, or interfere with that representative while in the process of carrying out official duties.
- F. A certificate of occupancy for the development shall not be issued unless the regulations, provisions and rules required by the Belmont Tree Ordinance are inspected and found in compliance with the approved site plan or subdivision plat.
- G. The planning department shall inspect sites consisting of non-residential developments and common open spaces in residential development one year after the issuance of a permanent certificate of occupancy in order to ensure compliance with the approved site plan and the regulations, provisions, and rules of the Belmont Tree Ordinance.

11.2.4 Emergencies

- A. In the case of emergencies such as windstorms, ice storms, fire, or other disasters, the City may waive the requirements of this ordinance during the emergency period so that the requirements of this ordinance will in no way hamper private or public work to restore order in the City. This shall not be interpreted to be a general waiver of the intent of this ordinance.

11.2.5 Penalties

- A. Any person who violates any of the sections of this chapter, or rules or orders adopted or issued pursuant to this chapter, shall be subject to any one, all or a combination of the civil penalties prescribed by LDC Chapter 18. The person performing the work, the property owner and the person contracting for the performance shall be jointly and severally liable for any penalty or other enforcement action imposed pursuant to this chapter or other provisions of law on account of work performed in violation of this chapter.
- B. Civil penalties for violations of this chapter shall be assessed pursuant to the following:
 1. Failure to plant original or replacement trees in accordance with this chapter.
 2. Injury or damage to, or destruction of, trees and shrubs protected by this chapter.
 3. Failure to install or maintain required tree protection measures in accordance with this chapter.
 4. Any other action that constitutes a violation of this chapter
- C. A nonmonetary penalty, in the form of increased or additional planting requirements, may be assessed in addition to or in lieu of any monetary penalties, at the discretion of the Planning Director. The Planning Director may elect to seek a nonbinding opinion or recommendation from the Environmental Sustainability Board when considering the assessment of a nonmonetary penalty in addition to or in lieu of a monetary penalty.
- D. The City shall determine the amount of the civil penalty and shall notify the person who is assessed the civil penalty of the amount of the penalty and the reason for assessing the penalty.
- E. A civil action for unpaid assessment must be filed within three years of the date the assessment was due. An assessment that is not contested is due when the violator is served with a notice of

assessment. An assessment that is contested is due at the conclusion of the administrative and judicial review of the assessment.

- F. Civil penalties collected pursuant to this chapter shall be credited to the general fund as nontax revenue and shall be used to further the purposes, intent, and requirements of this chapter. The City Council shall be consulted regarding use of collected funds.
- G. Any person who knowingly or willfully violates any section of this chapter shall be guilty of a Class 2 misdemeanor and may, upon conviction thereof, be subject to punishment as provided in LDC Chapter 18.

11.2.6 Injunctive Relief

- A. Whenever the city has reasonable cause to believe that any person is violating or threatening to violate this chapter or any rule or order adopted or issued pursuant to this chapter, or any term, condition or provision of an approved permit, it may, either before or after the institution of any other action or proceeding authorized by this chapter, authorize the city attorney to institute a civil action in the name of the city for injunctive relief to restrain the violation or threatened violation. The action shall be brought in the county superior court or any other court of competent jurisdiction.
- B. Upon determination of a court that an alleged violation is occurring or is threatened, the court shall enter such orders or judgments as are necessary to abate the violation. The institution of an action for injunctive relief under this section shall not relieve any party to such proceedings from any civil or criminal penalty prescribed for violation of this chapter.

11.2.7 Appeals & Variances

- A. All applications or petitions for appeals shall follow the procedure set forth in LDC Chapter 18.

11.3 TREE PROTECTION

Wooded sites, in addition to their economic and environmental significance and value as a natural resource, offer the distinct advantages of providing shade and aesthetically pleasing views. In order to protect and enhance the existing tree canopy of the City of Belmont, significant forest stands, specimen trees, and natural resource buffers shall be protected and preserved to the extent that is reasonable and practical while otherwise not unreasonably prohibiting development.

11.3.1 General Development Requirements

- A. Provide a total tree save area equivalent to fifteen percent (15%) of the net lot area.
- B. Provide a Tree Inventory, as described in Section 11.3.6, for all trees on the lot and on the adjacent public right-of-way.
- C. Provide a Tree Protection Plan, as described in Section 11.3.7.
- D. Where new plantings are utilized to count toward tree save area requirements, provide a Tree Planting Plan.

11.3.2 Tree Save Area Requirements

- A. A minimum of fifteen percent (15%) of the net lot area must be dedicated as a tree save area, regardless of zoning district, type, permitted use, or density.
- B. Existing trees must meet the definition of a specimen tree or a landmark tree to qualify for tree save area requirements. Specimen trees and landmark trees shall be given priority for satisfying the tree save requirements of this chapter.
- C. If less than 15% of the total lot has existing vegetation sufficient to fulfill tree save area requirements, then additional trees shall be planted at a rate of 36 large-maturing native deciduous trees per acre to meet the tree save requirements.
- D. No tree may be used to meet the requirements of this chapter if it is unhealthy or an otherwise hazardous tree, as determined by a Certified Arborist or other Qualified Professional and approved by the Planning Director.
- E. Tree save areas shall be free of invasive species unless approved otherwise by the Planning Director. If an area proposed for tree save contains invasive plant species at the time of such proposal, all invasive plant species shall be removed prior to the issuance of final certificate of occupancy for commercial and multi-family properties or at final plat approval for subdivisions. Invasive plant species are considered removed if they are no longer living in the tree canopy, on the tree trunks or otherwise competing with preserved trees. Subsequent property owners are required to maintain this condition for compliance with this chapter.
- F. Should any tree that is used to meet tree save area requirements die for any reason, including acts of God, within two years of the recording of the final plat containing the tree save area, the developer or owner shall replace the dead tree using minimum 2" caliper large-maturing native deciduous trees in the amount equal to the DBH of the dead tree (example, should a 20" oak tree designated for tree save die within two years of the recording of the final plat, then replacement would require installation of ten trees of 2" caliper). The tree must either be replaced within 180 days of death or a bond placed with the planning department for 125% of the cost of tree replacement if the tree dies during a time of year unsuitable for planting.
- G. Tree removal in a tree save area that occurs at any point before, during, or after development and construction activities shall require a permit from the City and may require mitigation, at the discretion of the Planning Director. The Planning Director may elect to seek a nonbinding opinion or recommendation from the Environmental Sustainability Board when considering mitigation requirements for permitted tree removal within a tree save area.

- H. Any alterations to or land disturbing activities within a tree save area must be accomplished without mechanized equipment, unless otherwise approved and permitted by the City.
- I. No structure shall be allowed within 10 feet of the tree save area. A building restriction must be noted on the Final Plat.
- J. Tree save areas must be delineated on Construction Documents.
- K. Calculations for each tree save area must be shown on Construction Documents.
- L. An inventory of the trees used to meet tree save area requirements must be shown on Construction Documents and include the species, DBH and condition of each tree.
- M. All trees utilized to meet tree save area requirements must be delineated on Construction Documents.
- N. Tree save area boundaries shall be required to be surveyed and be described in metes and bounds and be recorded on the Final Plat as a tree conservation easement.

11.3.3 Tree Save Area Calculation Methods

- A. The total tree save area required shall be calculated as a percentage of net lot area.
- B. Net lot area shall be calculated as the total lot area, less the square footage for existing and dedicated road rights-of-way and utility easements and existing ponds and lakes that are to remain undisturbed. The net lot area shall be calculated before the required percent of the tree save area is calculated.
- C. Existing trees must be specimen trees or landmark trees, as defined within this Chapter, to qualify for tree save area eligibility.
- D. The amount of eligible tree save area for any existing specimen tree shall be calculated as the square footage the area contained within the critical root zone.
- E. Any portion of the critical root zone of a tree that cannot be protected shall not qualify toward tree save area requirements.
- F. If more than 30% of the critical root zone of a tree designated for tree save cannot be protected, then the tree shall not qualify for use in meeting tree save area requirements.
- G. Where open space dedication is required, pursuant to Chapter 7, dedicated open space may be used toward required tree save area provided that the open space meets the tree save area requirements of this Chapter or is otherwise planted at a rate of 36 large-maturing native deciduous trees per acre, if approved by the Planning Director.
- H. Any required natural resource buffer or protective area may be utilized as tree save area, provided the existing conditions of the required buffer meet tree save area requirements. If existing conditions do not meet tree save area requirements, the buffer may be planted at a rate of 36 large-maturing native deciduous trees per acre until the buffer meets trees save requirements.
- I. For all properties, at least one-half of the required tree save area must be satisfied using existing trees.
- J. Where a property does not have enough existing and qualifying trees to account for at least one-half of the required tree save area, on-site new plantings must be used, at a minimum, to make up the difference between the amount of tree save area provided by existing trees and one-half of the total tree save required.
- K. Where new plantings are utilized to meet tree save area requirements, a Tree Planting Plan shall be a required element of the Construction Documents. All new plantings are subject to the requirements of the Tree Planting Plan, as detailed in section 11.3.9.
- L. New plantings shall receive tree save area credit based upon the size of the tree at maturity using the following rates:
 1. Large-maturing trees shall be credited 1,210 square feet of tree save area, per tree.
 2. Medium-maturing trees shall be credited 905 square feet of tree save area, per tree.
 3. Small-maturing trees receive a credit of 600 square feet of tree save area, per tree.

- M. Tree save areas may include greenway easements granted to the City of Belmont, Gaston County Parks and Recreation, and the Carolina Thread Trail, provided the existing conditions of the easement meet tree save area requirements and that any portion of the greenway easement utilized as tree save area remain subject to the tree save area provisions of this Chapter. If the easement does not meet tree save area requirements, the greenway easement may be planted at a rate of 36 large-maturing native deciduous trees per acre until the greenway meets tree save requirements. Trail placement must be coordinated with the city so that the effective tree save area required is maintained.
- N. Tree save areas must exclude the following:
 1. Sight triangles.
 2. Slope easements.
 3. Drainage easements.
 4. Cross access easements.
 5. Governmental and utility easements that prohibit trees.
 6. Any easement that authorizes tree disturbing activities.
 7. Any area devoted or to be devoted to streets, future right-of-way reservations, sidewalks, driveways, walkways, transit easements and storm drainage facilities, including without limitation, pipes, energy dissipators and stormwater control measures which require the removal of vegetation.
- O. Any tree 12 inches DBH and larger that has 30% or more of its critical root zone traversed in part or in entirety by any of the excluded areas in Section 11.3.3.N, by impervious surface, or by any adjacent property where the adjacent property containing the critical root zone is not itself a tree save area or conservation easement.

11.3.4 Off-Site Tree Save Area Calculation Methods

- A. A Developer may choose from the off-site methods described in this section to receive credit for up to 50% of total required tree save area. Alternative methods will not be considered when the objective is to develop the site without regard for the tree protection priorities outlined in this chapter.
- B. Off-site tree save methods will not be considered when the objective is to develop the site without regard for the tree protection priorities outlined in this chapter.
- C. Tree-banking is an off-site method that allows a developer to meet a portion of tree save area requirements through the installation of new plantings in a city park or other city-owned property.
 1. All new off-site plantings are subject to the consent, review, and approval of the Planning Director.
 2. All new off-site plantings shall require a Tree Planting Plan.
- D. Payment-in-lieu is an off-site method that allows a developer to meet a portion of tree save area requirements through payment into a City tree conservation fund that would be used for streetscape projects, plantings in parks, purchase of conservancy lots, or other urban forestry activities that benefit the public.
 1. No more than 25% of total required tree save (3.75% of net lot area) can be accounted for using payment-in-lieu.
 2. All requests for payment-in-lieu are subject to the consent, review, and approval of the Planning Director.
 3. Payment-in-lieu contributions shall be calculated as a percentage of the tax value of the land being developed at the time of Development Plan approval.

11.3.5 Landmark Trees

- A. Landmark trees, as defined by this Chapter, located on any site subject to this Land Development Code must be preserved. Where a Development plan proposes the removal of a landmark tree, a tree removal permit is required and must be approved by the Planning Director.
- B. Tree save area credit received for retaining landmark trees will be one and one-half times the actual square footage of the critical root zone protected during Development.
- C. A person proposing to remove a landmark tree must identify the proposed tree removal on any plan submitted for approval to the City of Belmont.
- D. Anyone who removes a landmark tree without City of Belmont approval is subject to one or more of the civil penalties in LDC Chapter 18.
- E. Plans proposing the removal of landmark trees will be granted only where:
 1. The tree is located within that portion of the lot where buildings or other improvements are permitted. The developer should demonstrate that there is no other reasonable location for the building or improvement and that preservation would unreasonably restrict use of the property; or
 2. The tree is diseased, dying, dead or causes a safety hazard to nearby buildings or pedestrian or vehicular traffic, as determined by a Certified Arborist or other Qualified Professional; or
 3. The tree is causing significant structural damage to a building or other structure that reasonable maintenance cannot prevent, as determined by a Certified Arborist or other Qualified Professional; or
 4. Removal is necessary to allow construction of a road or drive that is essential for access to the site, and no viable alternative is available.

11.3.6 Tree Inventory

- A. All Development Plans shall require a tree inventory.
- B. All existing trees meeting the following conditions must be identified and inventoried:
 1. All existing specimen trees and landmark trees located within property bounds.
 2. All planted trees of two-inch caliper or greater that grow partially or wholly within the city right-of-way.
 3. All existing specimen trees and landmark trees that grow partially or wholly within the city right-of-way.
- C. The tree inventory shall record the species, DBH, and condition of the tree.
- D. The tree inventory shall be included with the Environmental Survey required by LDC Chapter 16. Where any Development or Development Plan is not required to submit an Environmental Survey, the tree inventory shall be submitted directly to the Planning Department and must be approved by the Planning Director.
- E. The inventory must be completed by a Certified Arborist or other Qualified Professional, as defined by this chapter.

11.3.7 Tree Protection Plan

- A. All Development Plans, preliminary plats, and applications for grading, building, demolition, land use, change of use, or rezoning shall include a Tree Protection Plan for all designated tree save areas.
- B. The Tree Protection Plan shall be a required element of the Construction Documents.
- C. Tree save areas must be delineated on the Tree Protection Plan.
- D. Tree Protection Plans must exhibit the tree protection zone for all tree save areas. The tree protection zone is defined as the area above and below ground extending a radial distance from the tree trunk to one foot past the dripline.

- E. The location of all tree protection measures must be shown on the Tree Protection Plan.
- F. A tree protection zone is required for any existing tree having all or any portion of its trunk in or upon public property.
- G. If root disturbance or construction activities occur within any area designated as protected on the Tree Protection Plan, only the area being protected will be included in the calculated tree save area. If more than 30% of the critical root zone of a tree cannot be protected, then that tree cannot be used to counted toward tree save area requirements.

11.3.8 Tree Protection During Construction

- A. Protective barricades shall be placed around all trees designated to be saved, as shown on the Tree Protection Plan, prior to the start of development activities or grading.
- B. Barricades shall be erected around the perimeter of the tree protection zone.
- C. Tree protection barricades must consist of a minimum 4-foot high heavy duty/warning barrier fencing in a high-visibility orange color attached to 2"x 4" posts, or a similar treatment approved by the Planning Director.
- D. Weatherproof signage shall be attached to the tree protection barricades every 30-feet and posted at the construction office or attached to the on-site permit board. The sign shall state in both English and Spanish, "Tree Protection Area: Do Not Enter." Signage shall state that any encroachment into a designated tree protection zone will result in a civil penalty issued by the City of Belmont of up to \$1,000 per incident. Signage shall reference this Chapter and include the City Seal.
- E. Protective barricades shall remain in place until development activities are complete, and the City of Belmont has approved their removal.
- F. The area within the protective barricade shall remain free of all building materials, stockpiled soil, or other construction debris. Construction traffic, storage of vehicles and materials, and grading is prohibited within designated tree protection zones.
- G. Construction access to a site should occur where an existing or proposed entrance or exit is located.
- H. All land disturbance within tree protection zone is prohibited. Sidewalks and driveways shall be routed and placed to accommodate existing trees.
- I. All of the following activities are strictly prohibited within the tree protection zone: trenching, placing or storing backfill, driving or parking vehicles and equipment, and dumping trash, oil, paint or other materials detrimental to plant health. Violations are subject to the penalties found in Sections 11.3.4 and 18.3.
- J. Where underground utilities must be located near existing trees, open trenching is prohibited within the CRZ. Underground utilities must be installed using boring or tunneling-within in the CRZ. The bore or tunnel must be at least 3 feet deep for trees less than 12" diameter (DBH); and at least 4 feet deep for trees greater than 12" diameter (DBH) , At no time shall a bore pit or tunnel be within 3 feet of a tree trunk. If the Planning Director determines that there is no practical means of boring or tunneling due to necessary grades for a utility line, and a tree must be removed, then tree mitigation shall be provided on site at a rate of 50% of the diameter (DBH) of the removed tree.

11.3.9 Tree Planting Plan

- A. Where new, on-site tree plantings are utilized to satisfy any portion of the tree save area requirements, a Tree Planting Plan shall be required and will be a mandatory element of the Construction Documents.
- B. All trees shown on the Tree Planting Plan must be incorporated into the Tree Protection Plan, detailed in Section 11.3.7, and are subject to all provisions of said section.
- C. Landscape plantings as required by this Chapter do not qualify for credit toward tree save area requirements, unless explicitly stated otherwise in Section 11.4.
- D. The Tree Planting Plan must meet the following specifications and criteria:

1. All tree plantings must be native large-maturing canopy trees and be no smaller than 2” caliper at the time of installation, unless otherwise approved by the Planning Director.
2. No more than 20% of the proposed species may be from the same genus.
3. The Planning Director retains the discretion to allow up to a total of 40% of all new plantings to be small- or medium-maturing trees.
4. Where small-maturing trees are allowed by the City of Belmont Planning Director, the minimum allowable size at installation is 1.5” caliper.
5. Where medium-maturing trees are allowed by the City of Belmont Planning Director, the minimum allowable size at installation is 2” caliper.

E. The Tree Planting Plan must meet the following specifications and criteria:

1. Locations of utilities must be delineated on the Tree Planting Plan.
2. Locations of all tree protection measures must be shown on the Tree Planting Plan. Tree save area calculations must be shown on the Tree Planting Plan.

11.3.10 Restriction of certain forestry activities prohibited.

A. In accordance with NCGS 160D-921, the following definitions apply to this section:

1. Development. – Any activity, including timber harvesting, that is associated with the conversion of forestland to nonforest use.
2. Forest management plan. – A document that defines a landowner's forest management objectives and describes specific measures to be taken to achieve those objectives. A forest management plan shall include silvicultural practices that both ensure optimal forest productivity and environmental protection of land by either commercially growing timber through the establishment of forest stands or by ensuring the proper regeneration of forest stands to commercial levels of production after the harvest of timber.
3. Forestland. – Land that is devoted to growing trees for the production of timber, wood, and other forest products.
4. Forestry. – The professional practice embracing the science, business, and art of creating, conserving, and managing forests and forestland for the sustained use and enjoyment of their resources, materials, or other forest products.
5. Forestry activity. – Any activity associated with the growing, managing, harvesting, and related transportation, reforestation, or protection of trees and timber, provided that such activities comply with existing State rules and regulations pertaining to forestry.

B. A city shall not adopt or enforce any ordinance, rule, regulation, or resolution that regulates either:

1. Forestry activity on forestland that is taxed on the basis of its present use value as forestland under Article 12 of Chapter 105 of the General Statutes.
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 Chapter 89B of the General Statutes.

C. This section shall not be construed to limit, expand, or otherwise alter the authority of a city to:

1. Regulate activity associated with development. A city may deny a building permit or refuse to approve a site or subdivision plan for either a period of up to:
 - i. Three years after the completion of a timber harvest if the harvest results in the removal of all or substantially all of the trees that were protected under city regulations governing development from the tract of land for which the permit or approval is sought.
 - ii. Five years after the completion of a timber harvest if the harvest results in the removal of all or substantially all of the trees that were protected under city regulations governing development from the tract of land for which the permit or approval is sought and the harvest was a willful violation of the city regulations.

2. Regulate trees pursuant to any local act of the General Assembly.
3. Adopt ordinances that are necessary to comply with any federal or State law, regulation, or rule.
4. Exercise its planning or zoning authority under this Article.
5. Regulate and protect streets under Article 15 of this Chapter. (2005 447, s. 2.)

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11.4 LANDSCAPING

11.4.1 General Landscaping Requirements

- A. All Development Plans, all preliminary plats, and all applications for grading, building, demolition, land use, change of use or rezoning permits on all property shall include a Landscape Plan.

11.4.2 Landscape Plan Requirements

- A. Landscape Plans are required to be submitted with Construction Documents.
- B. Tree protection is required for all new plantings during construction and shall adhere to the guidelines set forth in this chapter.
- C. Tree protection zones must be shown on the Landscape Plan.
- D. Locations of utilities must be delineated on the Landscape Plan.
- E. Due to seasonal planting problems and/or a lack of plant availability, approved landscape plans may require minor revisions. Minor revisions to Landscape Plans may be approved by the Planning Director if:
 1. There is no reduction in the quantity of plant material.
 2. There is no significant change in size or location of plant materials.
 3. The new plants are of the same general category (i.e., shade tree, ornamental tree, evergreen, or shrub) and have the same general design characteristics (mature height, crown spread) as the materials being replaced.
- F. The performance of alternate landscaping plans shall be evaluated by the Planning Director to determine if the alternate plan meets the intent and purpose of this ordinance.
- G. Decisions of the Planning Director regarding alternate methods of compliance may be appealed to the Board of Adjustment.

11.4.3 Required Types of Landscaping

The five types of landscaping are defined as follows, and shall meet the following performance requirements:

A. Opaque Screen/Buffer (Type A)

1. *Location & Required Usage*

- a. Rear and/or side transition yards between HC, BC-D, or IC-D lots and all other Districts (Minimum width: 30 ft)
- b. Rear and/or side transition yards between all other Districts (except RR, GR, INF-D, and TN-D) and adjacent residential and civic uses (Minimum width 10 ft to 30 ft.)
- c. Edge of all yards abutting right-of-way for Interstate 85 (Minimum width: 50 ft)
- d. Edge of all yards abutting right-of-way for active rail corridors (Minimum width: 20 ft)

2. *Function*

- a. This type functions as an opaque screen from the ground to a height of at least eight (8) feet and is intended to exclude visual contact between uses and creates a strong impression of spatial separation.

3. *Specifications*

- a. Type A landscaping may include a wall, wood fence, landscaped earthen berm, planted vegetation, existing vegetation, or any appropriate combination of these elements.
- b. Intermittent planting of deciduous and evergreen trees shall obtain a height at maturity of no less than 20 feet and have no unobstructed openings wider than ten (10) feet between tree canopies upon maturity.

- c. Shrub plantings shall have a minimum height of three (3) feet at installation and have no unobstructed openings wider than four (4) feet.
 - d. At least 50% of the required trees, and at least 75% of the required shrubs, shall be evergreen species locally adapted to the area.
 - e. Where a natural buffer exists, it is to remain undisturbed. **If the existing conditions of the buffer do not meet requirements of Type A Landscaping**, supplemental planting may be required by the Planning Director.
 - f. All buffers required by the watershed ordinance and stream buffer ordinance shall remain completely undisturbed.
4. ***Tree Save Area Incentive***
- a. Where Type A landscaping is also utilized as a dedicated tree save area as defined and described by this Chapter, the Developer shall receive one and one-half times credit for the square footage of the tree save area contained within the Type A landscaping yard.

B. **Semi-Opaque Screen (Type B)**

1. ***Location & Required Usage***

- a. Perimeter Yard of all parking areas visible from the street
- b. Districts NC-R, NC-C, INF-D, TN-D, HC, IC-D

2. ***Function***

- a. This type functions as a semi-opaque screen from the ground to at least a height of four (4) feet for screening of car lights and glare.

3. ***Specifications***

- a. Type B landscaping may include a wall, fence, planted vegetation, existing vegetation, or any appropriate combination of the elements.
- b. Shrub plantings shall have no unobstructed openings wider than four (4) feet.
- c. At least 75 % of the required shrubs shall be evergreen species locally adapted to the area.
- d. All side yard parking areas in the Downtown and Neighborhood Center-Commercial districts shall be screened from the sidewalk by low walls, fences or constructed as a continuation of the building wall a minimum of three (3) feet in height.
- e. Landscaping may be used in combination with walls or fences but **the total linear footage of walls or fences** shall not exceed 50% of the total required width of the landscaping yard.
- f. The use of existing vegetation to satisfy this requirement is encouraged.
- g. The minimum height upon installation for effectively screening storage areas is 6 feet. This type of planting should be opaque to screen the off-site view of parking areas from neighboring properties and streets.
- h. **The landscaping yard for the following zoning districts must be a minimum width of 10 feet: NC-R, NC-C, INF-D, TN-D, HC, IC-D.**

4. ***Tree Save Area Incentives***

- a. Where Type B Landscaping is also utilized as a dedicated tree save area as defined and described by this Chapter, the Developer shall receive one and one-half times credit for the square footage of the tree save area contained within the Type B Landscaping yard.

C. **Parking Lot Interior Plantings (Type C)**

1. ***Location and Required Usage***

- a. Interiors of all parking areas with more than 10 parking spaces

2. ***Function***

- a. Type C functions as a tree ceiling over a parking area providing shelter from sun and rain and minimizing the impact of runoff.

3. ***Specifications***

- a. Large maturing canopy trees shall be planted in a manner that provides shade for the entire parking area at maturity.
- b. No parking space shall be less than 60 ft from the base of a canopy tree.
- c. All rows of parking must terminate with landscaped islands that are at least 9 ft wide, and at least as long as the adjacent parking space.
- d. Islands at the end of a single row of parking shall be at 18 ft long and must contain at least one shade tree that is at least 3” in caliper at the time of planting.
- e. Islands at the end of a double row of parking must be at least 36 ft long and must contain at least two shade trees that are at least 3” in caliper when planted. These landscaped islands must be at least 200 square feet in area, as measured from the back of the curb to the back of the curb.
- f. Type C planting requirements may be modified, subject to the discretion and approval of the Planning Director, in order to protect existing trees on site where a parking area is planned, and a conflict exists between the proposed parking area, existing trees, and the Type C planting requirements.
- g. If parking lot lighting is installed in a landscaped island, then the lighting should be designed to accommodate the trees planted in the island.
- h. Where more than six new trees are required to meet Type C requirements, the use of at least two different species around the parking area shall be required to promote diversity in the overall urban tree canopy.
- i. The use of existing vegetation to satisfy this requirement is encouraged.

4. **Tree Save Area Incentives**

- a. Where Type C Landscaping is also utilized as a dedicated tree save area as defined and described by this Chapter, the Developer shall receive one and one-half times credit for the square footage of the tree save area contained within the Type C Landscaping yard.

D. Street Tree Canopy (Type D)

1. **Location and Required Usage**

- a. Along all street frontages (All Districts)

2. **Function**

- a. This type functions as a unifying element along all street frontages by establishing an attractive and consistent streetscape and scale. Street tree plantings soften the transition of the public street to the private yard and provide shelter from sun and rain to pedestrians and drivers.

3. **Specifications**

- a. Trees shall be spaced at a minimum average of:
 - i. Large-maturing trees = 40 ft on-center.
 - ii. Medium-maturing trees = 30 ft on-center.
 - iii. Small-maturing trees = 15 ft on-center.
- b. Trees shall be planted parallel to the street within a well-defined planting strip of consistent width (min. of 6 feet) located between the curb and sidewalk, or in tree wells located in the sidewalk.
- c. Tree selections shall be provided for in accordance with *City of Belmont Street Tree Selection*.
- d. Where the street frontage is a NCDOT maintained roadway, adherence to the *NCDOT Guidelines for Planting Within Highway Right-of-Way* mandatory.

4. **Tree Save Area Incentives**

- a. Where Type D Landscaping is also utilized as a dedicated tree save area as defined and described by this Chapter, the Developer shall receive one and one-half times credit for the square footage of the tree save area contained within the Type D Landscaping Yard.

E. Residential Tree Canopy (Type E)

1. *Location & Required Usage*

- a. For all new single-family houses

2. *Function*

- a. This type functions to maintain and/or replenish the urban tree canopy in areas of new residential development.

3. *Specifications*

- a. Each lot shall provide canopy trees in accordance with the following schedule:

<u>Lot Size</u>	<u>Required Number of Canopy Trees</u>
Less than 5,000 sq ft	1 Front Yard
5,001-10,000 sq. ft	1 Front yard, 1 Rear yard
10,000-15,000 sq. ft	1 Front yard, 2 Rear yard
15,001-20,000 sq. ft	2 Front yard, 2 Rear yard
More than 20,000 sq. ft	3 Front yard, 3 Rear yard

- b. The use of differing species to be planted in residential yards is encouraged to promote diversity in the overall urban tree canopy. No more than 20% of the trees to be planted in residential yards can be from the same genus.
- c. Where the building setback is 35 feet or greater, all tree plantings must be large-maturing canopy trees, unless otherwise approved by the Planning Director. The Planning Director retains the discretion to allow up to a total of 40% of all new plantings to be small- or medium-maturing trees. The minimum caliper size at time of installation is 1.5” for small-maturing trees and 2” for medium-maturing trees.
- d. Where the building setback is between 25 feet and 35 feet, all tree plantings must be medium-maturing canopy trees, unless otherwise approved by the Planning Director. The Planning Director retains the discretion to allow up to a total of 40% of all new plantings to be small-maturing trees. The minimum caliper size at time of installation is 1.5” for small-maturing trees.
- e. Where the building setback is less than 25 feet, all tree plantings must be small-maturing canopy trees, unless otherwise approved by the Planning Director.
- f. The use of existing vegetation to satisfy this requirement is encouraged. Existing healthy canopy trees over 6” in caliper may be counted towards fulfilling this requirement, provided that tree protection measures are used and maintained during construction.
- g. If there is a question regarding the health of a tree that cannot be resolved between the City of Belmont and the developer, the City may require that the developer hire a Certified Arborist to examine the tree in question.
- h. Required street trees may be counted towards the fulfillment of this requirement. All other trees required under this Section shall be planted within the private lot.

4. *Tree Save Area Incentives*

- a. Where Type E Landscaping utilizes existing trees that meet the tree save area requirements of this Chapter, and those existing trees are included within a dedicated tree save area, then the Developer shall receive one and one-half times tree save area credit for those existing trees.

11.4.4 Planting Standards

- A. All new plantings required by this Chapter must conform to the standards of this Section.

- B. All new plant material shall be of good quality, installed in a sound, professional manner and meet the standards set forth in the American National Standards Institute (ANSI) A300 standards. Contractor shall warrant all new plant material for 2 years from time of installation.
- C. All trees shall be properly guyed or staked and mulched (3- 4" layer) in accordance with accepted practices in the landscape industry. Tree stakes must be removed within one year of tree planting. As a courtesy, the City of Belmont will notify the developer of this requirement within eleven months of the tree planting. If the contractor fails to remove stakes after one year and after being notified by the City of Belmont, then the City will remove the stakes and will assess the contractor for the removal expense.
- D. Where large maturing trees are required and overhead utility lines exist, small maturing trees planted 1 per 30 lineal feet shall be substituted with the approval of the Planning Director.
- E. The owner of commercial or institutional property is responsible for the continued proper maintenance of all landscaping materials that are required by the Belmont Tree Ordinance and shall keep them in a proper, neat and orderly appearance, free from refuse and debris.
- F. The canopy of trees planted in areas adjacent to pedestrian or vehicular traffic, such as along streets or in parking lots, shall be raised to a height of eight feet or ½ of the height of the canopy and be maintained at a height of eight feet.
- G. All dead or unhealthy plant material shall be replaced within 180 days to maintain the quality of the landscaping. In no instance will the City of Belmont be responsible for the maintenance of any vegetation unless such vegetation is located within the public right of way of a City maintained street or is located on property owned by the City of Belmont.
- H. Where new landscape materials are to be installed, the type of material used shall be complimentary to plant materials existing on the property and on adjoining properties. Use of native plant materials is required.
- I. At installation, large-maturing trees shall not be less than 10' in height with a minimum 2-1/2" caliper. Small maturing trees shall be a minimum of 1-1/2" caliper and have a minimum height of 6'.
- J. New trees to be planted shall come from the list of approved species found in the City of Belmont Minimum Standards Policy for Development Improvements.
- K. At installation, evergreen trees shall not be less than 8' in height with a minimum 2" caliper.
- L. At installation, small shrubs shall be a minimum 18" in height and medium or large shrubs a minimum 30".
- M. Installation and construction practices shall be utilized which preserve existing topsoil or amend the soil to reduce compaction.
- N. No plants shall be planted within the sight distance triangle at an intersection or driveway access points.
- O. Chain link and similar fencing materials for non-residential development, if visible from rights-of way, shall be landscaped on their exterior side.

11.4.5 Tree Maintenance Standards

Trees must be properly maintained in order to provide for a healthy and diverse tree canopy. Property owners must maintain their trees in order to prevent damage to buildings, pedestrians, or vehicles.

- A. All pruning shall conform to the standards of ANSI A300.
- B. Any form of business operation performing tree pruning in the city limits or ETJ must first obtain an annual tree maintenance permit from the Planning and Zoning Department.
 1. Individuals are not required to obtain such permit to remove or maintain trees on their own property.
 2. Commercial tree or landscaping services must obtain a tree maintenance permit when applying for its annual privilege license in order to do within Belmont city limits and the ETJ. This permit

will require that the tree professional [adhere to ANSI A300 standards](#) and only perform the minimal pruning necessary to protect the health of the tree [or mitigate public safety hazards](#).

- C. Tree topping, also known as “rounding over,” “heading,” “hat-racking,” and other terms to describe an improper pruning practice where [internodal cuts are made and](#) more than 25% of the tree canopy or branches are removed, is [strictly](#) prohibited by [any entity performing work](#) on any tree in the city limits or ETJ.

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