

**ARTICLE XXII  
LANDSCAPING**

**175-118. Preface.**

Trees are recognized as a valid asset to the community, providing a more healthful and beautiful environment in which to live. Trees and other vegetation provide oxygen; shade; protection from wind, glare and noise; view barriers; aesthetics; and a priceless psychological counterpoint to the man-made urban setting. Landscaping is economically beneficial in attracting new residents, visitors and industry. When grown on the right place and of proper varieties, landscaping enhances the value and marketability of property and promotes the stability of desirable neighborhoods and commercial areas.

**175-119. Purpose and Intent.**

- A. The purpose of this Landscape Article is to establish procedures and practices governing the protection, installation and long-term maintenance of trees, vegetation and other landscape elements within the limits of the Town of Durham. The process of development, with its alteration of the natural topography and creation of impervious cover, can have a negative effect on the ecological balance of an area by causing increases in air temperature and by accelerating the processes of runoff, erosion and sedimentation.
- B. Development oftentimes requires the removal of trees and other plant material. The protection and enhancement of the natural beauty, environment and green space within the Town of Durham is an important aspect of the economic base of the community in that it is instrumental in attracting residents and nonresidents who come to visit, trade, vacation or attend conventions and educational programs.
- C. The purpose and intent of this Article is as follows:
  - 1. To aid in stabilizing the environment's ecological balance by contributing to the processes of air purification, oxygen regeneration, groundwater recharge and stormwater runoff retardation while at the same time aiding in noise, glare and heat abatement.
  - 2. To ensure that the local stock of native trees and vegetation is protected and replenished.
  - 3. To provide visual buffering and enhance the beautification of the town.
  - 4. To safeguard and enhance property values and to protect public and private investment.
  - 5. To preserve and protect the identity and environment of the Town of Durham and preserve the economic base attracted to the Town of Durham by such factors.

6. To conserve energy.
7. To protect the public health, safety and general welfare.

**175-120. General Requirements.**

The objectives of this section are to encourage the planting and retention of existing trees and other vegetation to improve the appearance of off-street parking areas, yard areas and other vehicular use areas; to protect and preserve the appearance, character and value of surrounding properties and thereby promote the general welfare, safety and aesthetic quality of the Town of Durham; to establish buffer strips between properties of different land uses in order to reduce the effects of sight and sound and other incompatibilities between abutting land uses; and to ensure that noise, glare and other distractions within one area do not adversely affect activity within another area.

- A. No landscape plan submitted pursuant to this section shall be approved unless it conforms to the requirements of this Article.
- B. Landscape plans shall be submitted for all commercial and commercial residential uses. Said plans shall include dimensions and distances and shall clearly delineate the existing and proposed parking space or other vehicular use, access, aisles and driveways and the location, size and description of all landscape materials, including the quantity and botanical names of all plants. The Planning Board reserves the right to require landscape plans to a scale of one (1) inch equals twenty (20) feet.
- C. A detailed snow-removal plan shall be submitted with the landscape plan.
- D. Shrubbery, ground cover and other planting materials shall be used to complement the tree planting but shall not be the sole contribution to the landscaping. Effective use of earth berms, existing topography and existing trees is also encouraged as a component of the landscape plan and shall be considered as a part of the planting requirements.
- E. All shade trees to be used shall be a minimum of two (2) inches in diameter at breast height at planting. Inclusion in the landscape design of existing trees is encouraged.
- F. All shade trees to be planted shall be hardy for the Durham botanical zone.
- G. All required landscaping shall be provided with either:
  1. An underground sprinkling system; or
  2. An outside hose attachment.
- H. All landscaping which is in required landscaped areas and which is adjacent to pavement shall be protected with concrete or granite curbs or equivalent barriers (such as car bumpers, railroad ties, continuous border plants or hedgerows) when necessary to protect the vegetation from vehicular damage.
- I. Landscaping in landscaped areas shall not obstruct the view between the street and the access drives and parking aisles near the street yard entries and exits, nor shall any landscaping

which creates an obstruction of view be located in the radius of any curb return. (See Section 175-55C.)

- J. Plant materials used in conformance with the provisions of this Article shall be of specimen quality and conform to the American Standard for Nursery Stock, American Standards Institute, Inc., 230 Southern Building, Washington, D.C. 20005.
- K. Landscaping, landscape maintenance and snow-removal plans shall be developed and approved as required in the Site Plan Review Regulations and Subdivision Regulations of Durham, New Hampshire. In the case where a question may arise between the town and the developer regarding a proposed landscape plan, a third party (qualified professional landscape authority), as approved by the town and the developer, may be called upon to make recommendations for the Planning Board's consideration; all costs to be borne by the developer.
- L. A guaranty or performance bond or escrow agreement must be posted in an amount to be determined by the Director of Public Works and approved by the Town Administrator to ensure satisfactory completion of the landscaping plan as submitted and approved.

#### **175-121. Commercial Areas.**

The existing natural landscape character shall be preserved to the extent reasonable and feasible. As an example of this, in a yard area containing a stand of trees, the developer shall use care to preserve such trees. In determining whether there is compliance, the Planning Board shall consider topographical constraints on design, drainage, access and egress, utilities and other factors reasonably related to the health, safety and welfare of the public which necessitated disturbance of the property without the disturbance of its natural character, the nature and quality of the landscaping installed to replace it and such other factors as may be relevant and proper. Clearing and stripping of the natural vegetation on a lot is prohibited prior to obtaining an approved landscaping plan.

##### **A. *Landscaped yard area requirements.***

- 1. The landscape plan will include a mix of tree species a minimum of two (2) inches in diameter at breast height at planting, to be planted at twenty-foot centers to provide for a tree canopy. The total number of trees necessary will be determined according to the combined footage of the front and side lines defining the landscaped yard as illustrated by the diagram accompanying this chapter as Exhibit A and made a part hereof.
- 2. In cases where the zoning requires a buffer area, landscaping requirements under Subsection C below shall be followed.
- 3. Shrubbery, ground cover and other planting materials shall be used to complement the tree planting but shall not be the sole contribution to the landscaping. Effective use of earth berms, existing topography and existing trees is also encouraged as a component of the landscape plan and shall be considered as a part of the landscaping requirement.

- B. All newly planted trees shall be planted in a permeable area of no less than a three-foot-wide radius from the base of the tree. Piles of snow shall be kept a minimum of five (5) feet away from the base of the tree.
- C. **Buffer/barrier.** Abutters will be protected against undue noise, glare, unsightliness or other nuisance detrimental to property values. Where a commercial lot abuts a residential area, a screen along the lot line must be provided consisting of either a row of evergreens at least four (4) feet in height at planting, which will grow into a thick hedge not less than six (6) feet high, or of an opaque and neatly maintained fence not less than six (6) feet in height.

**175-122. Subdivision Areas.**

During the development and construction process, wooded natural and nonwooded natural areas will be manipulated to maintain a healthy vegetative cover to maintain the soil structure, minimize soil erosion and enhance the quality of the proposed community. In wooded natural areas, the healthy forest cover will be retained to reduce the amount of stormwater running across the ground surface.

**A. Wooded natural areas.**

1. Plant community groupings or forest types will be identified, and the negative response to construction for plant groupings or forest types shall be identified based on forestry management principles.
  2. Trees targeted for harvest/removal shall be clearly marked.
  3. Trees to be protected during clearing operations and construction shall be clearly marked to caution operators.
  4. Trees of special interest, historic trees or trees having unusual silvicultural characteristics shall be flagged and located on the landscaping plan. These existing trees shall be protected during construction as outlined in Section 175-123.
  5. The landscape plan will include a reforestation plan to establish trees in appropriate places, not to attempt to design finished landscaping near home sites. The plan is intended to establish and enhance forest cover in certain areas and/or create screens and buffer strips in critical locations, i.e., sewer/water easements. Proposed screening and buffer strips will receive plantings of evergreens three (3) to four (4) feet in minimum height, planting on ten-by-ten-foot centers (i.e., white pine, red pine or hemlock).
  6. A site inspection by the Durham Tree Warden of trees marked for saving, cutting or clear-cutting is required prior to cutting of the lot.
- B. Nonwooded natural areas.** For subdivisions in open fields and other nonwooded areas, the landscape plan will include a mix of tree species to be planted on thirty-foot centers to provide for a tree canopy. The trees will be planted within the town right-of-way or on the private property boundary line adjacent to the town right-of-way.

- C. **Roadway slopes.** In cases where the sloped areas extend more than ten (10) feet from the shoulder to the ditch line, the sloped areas must be landscaped and planted as determined by the Planning Board.

**175-123. Protection During Construction.**

The Protection during construction section, as outlined below, will apply to commercial, subdivision, parking lot, roadway slopes and buffer/barrier zone sections of this chapter.

- A. Fencing or other protective barrier shall be used around trees near construction sites.
- B. Changes in the normal drainage patterns shall be avoided, and appropriate protection shall be provided for trees if a grade change is necessary in the surrounding area.
- C. Pedestrian and other traffic patterns should be kept away from trees to avoid soil compaction.
- D. Practices for the proper protection of trees on construction sites shall be in accordance with the guidelines in the following references:
  - 1. Tree Protection Manual for Builders and Developers, 1979, Florida Department of Agriculture and Consumer Services, Tallahassee, Florida.
  - 2. Protecting Shade Trees During Home Construction, United States Department of Agriculture, Home and Garden Bulletin No. 104, 1977, United States Government Printing Office, Washington, D.C. 20402.
  - 3. Environmental Do's and Don't's on Construction Sites, United States Department of Agriculture, Soil Conservation Service, Publication No. 1291, 1974.
- E. If the above guidelines are not followed and a tree is damaged or destroyed during construction, the developer shall be required to pay to the Town of Durham the assessed value of said tree, to a maximum of two thousand five hundred dollars (\$2,500.) per tree, the cost to be determined by guidelines in a Guide to Professional Evaluation of Landscape Trees, Specimens and Evergreens, 1982, International Society of Arboriculture, Urbana, Illinois, or per an updated version.
- F. Protection of existing vegetation during construction shall include, wherever possible, open field or non-treed areas.

**175-124. Maintenance Requirements.**

The maintenance requirements as outlined below shall apply to commercial, subdivision, parking lot areas, Roadway slopes and Buffer/barrier zone sections of this chapter.

- A. All newly planted vegetative material shall be guaranteed to meet minimum American Standard for Nursery Stock standards at the time of planting and for one (1) year thereafter.
- B. Any agreement for long-term maintenance of any landscaping project must be negotiated prior to approval of a subdivision request based on the following criteria:
  - 1. Vegetation replacement.

2. Irrigation.
  3. Pruning, fertilizing and insect and disease protection.
  4. Litter or debris cleanup.
  5. Drainage and tree protection if there is a grade change.
- C. A maintenance program shall be established. Pruning should be started early and kept up at regular intervals. Trees should be pruned and shaped to avoid splitting later in life. Broken tops and branches should be removed as soon as possible after injury. Broken, weak or diseased branches should be removed first, dead branches second and healthy branches last.
  - D. Trees and shrubs should be protected against damage incurred with lawn mowers and garden equipment. Keeping grass away from tree trunks with the use of mulch is recommended.
  - E. The use of road salt around the trees and shrubs should be avoided or minimized.
  - F. Required landscaped areas shall be routinely maintained free of debris and litter and in good condition, with regular mowing of grass, so as to present a neat, healthy and orderly appearance. Maintenance shall include the replacement of all dead plant material within the guaranteed contract period. Practices for proper maintenance of landscape materials shall be done in accordance with the following standards:
    1. A Pictorial Primer for Proper Pruning by Dr. Alex L. Shigo, Forest Notes, Number 148, Spring 1982, pages 18-21.
    2. Standards of Practice of National Arborist Association, Inc., which includes Pruning, Fertilizing, Cabling, Pesticide Application and Lighting System Installation, National Arborist Association, 3537 Stratford Road, Wantagh, New York 11793.
    3. The Planting and Care of Shade Trees, Extension Publication Number 10, Cooperative Extension Service, University of New Hampshire, Durham, New Hampshire 03824.

**175-125. References.**

References shall be as follows:

- A. Tree Protection Manual for Builders and Developers, 1979, Florida Department of Agriculture and Consumer Services, Tallahassee, Florida.
- B. Protecting Shade Trees During Home Construction, United States Department of Agriculture, Home and Garden Bulletin No. 104, 1977, United States Government Printing Office, Washington, D.C. 20402.
- C. Environmental Do's and Don't's on Construction Sites, United States Department of Agriculture, Soil Conservation Service, Publication No. 1291, 1974.
- D. A Guide to Professional Evaluation of Landscape Trees, Specimens and Evergreens, 1982, International Society of Arboriculture, Urbana, Illinois.

- E. Tree Values, Council of Tree and Landscape Appraisers, Washington, D.C. (slide and tape program).
- F. Trees and Shrubs in New Hampshire, A Guidebook for Natural Beauty Projects, Cooperative Extension Service, University of New Hampshire, Durham, New Hampshire, 03824.
- G. American Standard for Nursery Stock, American Standards Institute Inc., 230 Southern Building, Washington, D.C. 20005.
- H. A Pictorial Primer for Proper Pruning by Dr. Alex L. Shigo, Forest Notes, Number 148, Spring 1982, pages 18-21.
- I. Standards of Practice of National Arborist Association, Inc., which includes Pruning, Fertilizing, Cabling, Pesticide Applications and Lighting System Installation, National Arborist Association, 3537 Stratford Road, Wantagh, New York 11793.
- J. The Planting and Care of Shade Trees, Extension Publication Number 10, Cooperative Extension Service, University of New Hampshire, Durham, New Hampshire 03824.