

CHAPTER 6: OPEN SPACE & ENVIRONMENTAL PROTECTION

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Section 6.1 Purpose and Applicability

The purpose of this chapter is for the protection of existing environmental resources including open space, streams, wetlands, watersheds, floodplains, soils, forest stands, specimen trees and other significant vegetation and wildlife. These elements are of economic value to the Town and make it a desirable place to live and visit.

The Open Space requirements of this section apply only to new developments with greater than 10 residential dwelling units. Developments in which all lots are greater than one acre are exempt from this provision. Non-residential developments are encouraged to preserve open space wherever possible. All other requirements of this Chapter apply to all new developments and construction in all districts.

Section 6.2 Types of Open Space

All required open space shall be classified in accordance with this Section. Nature Preserves shall be comprised of Conservation Preserves, Greens, Greenbelts, and Manmade Bio-Retention Areas or Wetlands. Other forms of Open Space listed herein shall be considered “Active”. The following open space types may be either common area open space or public open space:

- A. **Playground**-Playgrounds are for active recreational use and provide sunny and shaded play equipment and play areas for children as well as open shelter with benches for parents. Playgrounds may part of other types of open space, such as parks, or may stand alone. Playgrounds should be fenced, lockable and lit if not part of a park.

Minimum Size: 10,000 square feet
Maximum Size: 20,000 square feet

- B. **Square**- Squares are formal landscaped areas for passive recreational use. Squares should be bounded by streets on a minimum of three sides or 75 percent of their perimeter. Squares are encouraged to be entirely bounded by streets and/or lanes. Squares may be bounded by buildings on a maximum of 60% of their perimeter (maximum of 2 sides) if through design, central gathering area for the area is formed. Squares shall be planted parallel to all streets and shall contain canopy trees along street frontages.

Minimum size: 2000 square feet
Maximum size: 1 acre

- C. **Plaza**- A plaza is an open area adjacent to, or part of, a non-residential building or facility. Plazas function as gathering places and may incorporate a variety of non-permanent activities such as vendors and display stands. Plazas are generally paved in brick or other type of paver or crushed stone. Plazas shall be level, stepped, or gently sloping (less than 5 percent grade). Plazas may be left unplanted. If planted, the trees should form a frame around the

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plaza space. The following sizes are recommended but may be larger or smaller depending on the building or facility design.

Minimum size: 2,000 sq ft

Maximum size: 30,000 sq ft

- D. **Park-** Parks may be designed for passive and/or active recreational use such as, playgrounds, tennis courts, swimming pools, ball fields, etc. Large parks should create a central open space which services an entire neighborhood or group of neighborhoods; or incorporates physical features which are an asset to the community (i.e. lake or river frontage, high ground, significant stands of trees). Active interior portions of parks are encouraged to be kept free of tree plantings. Parks may be combined with greenways and greenbelts.

Minimum size: 1 acre

- E. **Green-** The green is an open space which is more natural. Like the square, it is small and surrounded by buildings. Unlike the square, it is informally planted and may have irregular topography. Greens are usually landscaped with trees at the edges and open lawns at the center. Greens should contain no structures other than benches, pavilions, and memorials; paths are optional.

Minimum size: 10,000 square feet

- F. **Greenway-**Greenways are large, irregular open spaces designed to incorporate natural settings such as creeks and significant stands of trees within and between neighborhoods. Greenways are typically more natural and may contain irregular topography. Greenways shall be used for certain active recreational uses including, at a minimum, trails for walking, jogging, and biking. Greenways typically connect points of interest in the community such as schools, parks, and other civic uses. Floodplains and stream buffers may be used for greenway open space. However, it shall not be included in the calculation of required open space.

- G. **Greenbelt-**Greenbelts run along the perimeter of a neighborhood or Town, and serve to buffer a neighborhood from surrounding non-compatible uses such as a highway corridor or industrial district, or a Town from agricultural areas or adjacent towns. Greenbelts differ from the other types of open spaces in that they are left natural, and are not intended for recreational use.

- H. **Conservation Preserve-**Open spaces designated as Conservation Preserves shall be left largely undisturbed except for the optional clearing of underbrush and provision of greenways. Conservation Preserve areas are encouraged to protect large stands of trees, wildlife, wildlife corridors, pastures, steep slopes, floodplains, wetlands, and other natural water features.

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- I. **Manmade Bio-Retention Areas or Wetlands-** Stormwater management facilities engineered as bio-retention areas or wetlands with gentle slopes (ie no drop offs) that provide some trails and/or scenic access to the public. Provided the manmade bio-retention areas or wetlands comprise 10% or less of required open space.
- J. **Recreation Facility**—An area of land that is developed for active recreational pursuits with various manmade features and is designed to serve the immediate neighborhood in which it is located, or can be regional in scope, serving several neighborhoods. This includes golf courses, club houses, community swimming pools, and similar amenity centers. If the recreational facility is indicated on an approved Concept Plan and/or Preliminary Plat for a development a Special Use Permit is not required.

Section 6.3 General Provisions for Open Space

- A. Land designated as open space on the approved development plan shall be maintained as open space and may not be separately sold, subdivided, or developed.
- B. Access from a public street shall be provided to all designated open space with a minimum 15 foot wide access included in the open space area. Additional access may be required by the Technical Review Committee.
- C. Open space in the form of playgrounds, squares, plazas, parks, and greens shall be distributed throughout a development. Every residential unit located within a conventional subdivision shall be located within 1,000 of open space. However, the location and distribution of open space types within a Conditional Zoning district shall be determined through the conditional zoning process.
- D. Open space may be either be held in common ownership by a Home Owners Association or dedicated to the Town of Troutman, Iredell County, another appropriate public entity, or non-profit agency so long as the space is accepted by the entity and will be properly maintained by the entity.

When dedicated to Homeowner's (HOA) or Property Owner's Association (POA):

- The landowners shall submit documents for the creation of the HOA or POA to the Town for review and approval, including its bylaws, and all documents governing ownership, maintenance, and use restrictions for the open space, including a legal description of such areas;
- The landowner shall agree that that the association shall be established by the landowner or applicant and shall be operating (with financial subsidization by the owner or applicant, if necessary) before approval of the first Subdivision Final Plat or Zoning Permit, whichever occurs first; and
- Membership in the association shall be automatic for all purchasers of land therein and their successors in title.

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Failure to maintain open space or other community facilities in accordance with a Town approved plan shall be a violation of this Ordinance subject to the remedies and penalties in Chapter 14.

- E. Multi-phase development shall provide active open space in the first phase or in phases, so that the last phase of the development does not contain 100 percent of the active open space allotted for the entire development.

Section 6.4 Minimum Open Space Dedication

Open space shall be dedicated in accordance with the below table. Percentages are based on total development area. Areas within utility right-of-ways, private yards, streets, outdoor storage, and parking areas shall not be considered in the calculation open space dedication.

Zoning District	Minimum Percent Open Space
R-P	1% or 1 acre (excluding roads) whichever is greater of active open space
R-S	30% (25% active)
R-T	20% (25% active)
R-M	30% (25% active)
R-MH	15% (25% active)
O-I	15% (25% active)
N-C	10% or 1/8 acre whichever is greater (25% active)
C-B	10% or 1/8 acre whichever is greater (25% active)
H-B	10% or 1/8 acre whichever is greater (25% active)
IL	n/a
IH	n/a
PUD (CZ only)	25% (25% active)
CC (CZ only)	40% (50% nature preserve, 5% active)

Section 6.5 Tree Preservation and Environmental Protection

6.5.1 Applicability

Significant forest stands natural vegetation, specimen trees, severe natural topography, drainage features and water courses shall be preserved to the extent that is reasonable and practical while otherwise not reasonably prohibiting development. Forested and vegetated areas whose physical site conditions render them unsuitable for development shall be set aside as conservation areas or as open space. Wooded sites shall be developed with careful consideration of the natural characteristics of the site. When portions of forested stands must be developed, careful consideration shall be given to preserving wooded perimeters or the most desirable natural features in order to retain the aesthetic or visual character of the site. Isolated pockets of existing trees or specimen trees should be protected as a valuable asset of the property. This section shall apply to all zoning districts regulated by this Ordinance.

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Determination of the need to preserve significant vegetation on the site is also a function of a site's buildable area or potential for development defined as follows:

- *Prime Buildable.* Land with little or no building restrictions that occur as a result of slope conditions or site topography. These areas are defined as slopes less than 10 percent and generally offer the least opportunity for the preservation of existing tree canopy, forest stands, or significant vegetation outside of satisfying open space dedication requirements.
- *Secondary Buildable.* Areas with slopes of 10 to 15 percent, site preparation techniques should minimize grading. Such areas require selective clearing and grading. These areas offer limited opportunity for the preservation of existing tree canopy, forest stands, or significant vegetation outside of satisfying open space dedication requirements.
- *Conserved.* Areas with slopes of 15 to 25% with severe slope restrictions. These areas offer optimal opportunity for the preservation of existing tree canopy, forest stands, or significant vegetation outside of satisfying open space dedication requirements.
- *Preserved.* Natural floodplain and floodways, wetland areas, existing tree canopy, forest stands, or significant vegetation on slopes exceeding 25%, and which present severe or prohibitive slope conditions for development shall be preserved.

6.5.2 Tree and Root Protection Requirements

A Tree and Root Preservation Plan delineating areas in accordance with Section 6.5.1 shall be incorporated as part of the Landscape Plan for the project and shall consist of the following type of preventative measures:

- A. The preservation of existing trees requires protection by physical barriers in addition to supervision during the construction phase of development. During development of the property, the owner shall be responsible for the erection of any and all tree and root protection fencing necessary to protect any existing or installed vegetation from damage both during and after construction. All significant vegetation, native ornamental species and perimeter landscaping that are to be preserved during development shall be protected with a sturdy and visible fence before clearing and grading begins. The existing site conditions will be considered by both the applicant and staff in determining the exact location of any tree protection fencing. Generally, the location should be as far as possible from the vegetation in order to preserve soil and root structure. The location of tree protection fencing and method of construction shall be noted on the landscape plan. The proper installation of tree protection fencing shall be approved prior to site clearing, grading, construction, or other land disturbing activity, and cannot be removed until after final inspection by the Town of Troutman. Tree protection fencing shall remain in place and in good condition until all development activities are completed.

The tree protection fence shall be located no less than one (1) foot from the tree trunk for each one (1) inch in tree diameter for specimen trees, significant vegetation, or from the dripline of any forest canopy stand to be preserved, with a minimum distance of 10 feet required from the edge of the trunk. Tree protection fencing for forest canopy stands are to be located no less than one (1) foot from the tree trunk for each one (1) inch in tree diameter of the dripline trees identified up to ten feet. Tree protection fencing shall be constructed from any material substantial enough to protect the roots, trunk, and crown of the tree, such as 2"x4" wood posts and 1"x4" wood rails, silt fencing or orange safety fencing a minimum of 4 ft in height on metal or wood posts.

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- B. No soil disturbance or compaction, stock piling of soil or other construction materials, vehicular traffic, storage of heavy equipment are allowed in the tree and root protection area(s), or within the drip line of trees to be retained.
- C. Dead trees and undesirable scrub growth shall be cut flush with adjacent grade and removed during construction.
- D. Root pruning shall be kept to an absolute minimum.
- E. No nails, ropes, cables, signs, or fencing shall be attached to any part of any tree to remain.

6.5.3 Environmental Survey

Environmental Surveys shall be required for all developments that have greater than one acre of disturbed area or otherwise require a soil and erosion control permit. For subdivisions, this may be done following Sketch Plan approval. Identification of existing trees, understory vegetation, known endangered species, wetlands, streams and creeks, floodplains, and topographical features on a site prior to the advanced preparation of development plans enables the reasonable and practical planned preservation of existing vegetation while considering unique site conditions. This requirement provides the Town and the applicant the ability to evaluate the proposed development in order to preserve vegetation, to improve the appearance of the development proposed and to encourage the use of the existing forest and tree canopy, specimen trees, and significant vegetation to satisfy the requirements of this Chapter. An environmental survey is intended to identify forest stands or trees of a uniform size and species (homogeneous trees); specimen trees of varying sizes and species, particularly free standing or open-grown or field grown trees; a distinctive tree line or forest edge; existing watercourses; and previously documented endangered species habitats. A zoning permit shall not be issued for developments of greater than one acre of disturbed area unless the Town first approves an Environmental Survey.

Environmental survey requirements are as follows:

- A. The area to survey is to be located within the proposed construction limits, building envelope, or area of the site to be disturbed and is to extend a minimum of 10 feet outside of this area.
- B. Provide a general written description of the significant vegetation 12 inches in diameter at breast height (DBH) or greater and native understory species two (2) inches or greater, including tree species and uniform the size and height of stands of homogeneous trees including the typical tree species composition of the forest stand, typical tree size, typical spacing between trees, and general health and vigor of the stand and specimen trees.
- C. Denote the dripline of any existing forest stand, as measured between existing tree trunks 6 inches or greater located at the edge of the stand.
- D. Identify all free standing, open grown or field-grown specimen trees 18 inches DBH or greater located on the site. Every effort shall be made to save such trees during development.
- E. Show all other important natural features influencing site design such as the location of wetlands, rock outcroppings, site topography at two foot contour intervals, slopes steeper than 15 percent, and perennial streams, natural drainageways, lakes, and other water bodies.
- F. Show any existing watercourses including wetlands, streams, creeks, ponds, and floodplains indicating both the flood fringe and the flood way.

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- G. Denote the presence of any known endangered species indicated in any surveys completed by the State of North Carolina or other governmental agency.

6.5.4 Tree Removal Permits

- A. No person directly or indirectly, shall remove, destroy, cut, or severely prune any tree or shrub having its trunk in or upon any public property or on any street right-of-way without first obtaining a permit from the Zoning Administrator. A permit shall also be issued for the removal of any tree on public or private property that is listed as a state or national champion by the North Carolina Forestry Service or the American Forestry Association; or if it provides habitat for endangered wildlife protected by federal law; or has been cited by the Town as being historically significant. Public and private utilities shall submit written specifications for pruning and trenching operations to the Town for approval.
- B. Exemptions from tree removal permits:
- Single-family detached residential lots
 - Two-family attached (duplex) residential lots
 - The Town of Troutman, the North Carolina Department of Transportation, and utility companies as long as tree preservation and protection requirements are included in the project plans.
- C. The Town of Troutman may seek compensation from the property owner for the removal of hazardous vegetation. The Public Works Director is authorized to remove trees that are dead, diseased, irreparably damaged, or hazardous and are creating damage and/or are a threat to public safety. The Public Works Director shall be authorized to bill the owner for such services provided that the owner had been notified of the hazardous conditions and failed to act. The Public Works Director, upon determination that a tree on private property creates a threat to public safety, shall notify the property owner in writing to preserve or remove the hazardous tree. In the event the property owner does not respond to this notification, the Town of Troutman may seek civil remedy under the provisions of this Ordinance and may enter the property to remove the hazardous vegetation.

Section 6.5.5 Preservation of Existing Trees to Limit Clear-Cutting

There shall be no construction activity on the site (including but not limited to mobilization, clearing, grubbing or construction entrances) until the tree preservation plan has been approved as part of the landscaping plan.

Normal forestry activities may occur on property taxed under the present use value standard or conducted pursuant to a forestry management plan prepared or approved by a registered forester. However, if trees within the site perimeter, required landscaping areas, or stream buffers are removed, no building permits may be issued and no site plan and subdivision applications may be submitted for a period of up to five years (per NCGS 160A 458.5) from the date the clearing is complete, except with a reforestation plan and the approval of a 4/5 vote of the Town Board.

This section shall not apply to the removal of damaged or diseased trees for the purpose of maintaining existing healthy trees.