

Tree Protection Plan Additional Element

Introduction

Trees and the natural areas in which they grow are a significant part of Pittsboro and Chatham County. The preservation and protection of existing trees and the planting of native trees provide a great number of community benefits that include the enhancement of property values and aesthetics, the treatment and management of stormwater runoff, the protection of existing and the creation of additional wildlife habitat, improved air quality and increased energy savings. This Tree Protection Plan Additional Element (the “Element”), together with the Chatham Park Open Space Element and Landscape Element, provide for the maintenance and protection of existing trees, the planting of new trees, and the further mitigation of development impacts through the planting of street trees and the establishment of perimeter buffers between properties. This Element is a comprehensive ordinance that is appropriate for an urbanizing area such as Chatham Park PDD and that, with other Additional Elements provide a variety of policy mechanisms to achieve tree canopy in Chatham Park PDD.

Section 1 Purpose

The primary purposes of this Element are the following:

1. Emphasize the importance of trees and vegetation as both visual and physical buffers.
2. Moderate temperature and promote energy conservation.
3. Promote carbon dioxide absorption and oxygen production.
4. Reduce the harmful effects of wind, heat, noise and glare.
5. Improve surface drainage and aquifer recharge.
6. Reduce soil erosion while promoting soil stabilization and enrichment.
7. Provide shade.
8. Reduce water pollution.
9. Provide wildlife habitat.
10. Encourage the protection and planting of native trees.
11. Enhance the aesthetic qualities of Chatham Park and its built environment as a means of improving quality of life and attracting new businesses and residents.
12. Require owners and developers of properties in Chatham Park to consider acquiring New Trees and other plant materials from nurseries and other landscape supply businesses in Chatham County, subject to availability and competitive pricing.

Section 2 Definitions

The following definitions are applicable in this Element:

1. "Existing Trees" is defined as trees satisfying the requirements of this Element that exist prior to commencement of any land disturbing activity.

2. "Multi-Family Development" is defined as a residential development other than a Single-Family Development.

3. "New Trees" is defined as trees satisfying the requirements of this Element that are planted subsequent to commencement of land disturbing activity.

4. Tree Coverage Area ("TCA") is defined as that percentage of the acreage of a Lot on which either Existing Trees are retained or New Trees are planted to satisfy the requirements of this Element.

5. Tree Coverage Planning Area ("TCPA") is defined as an area of land that contains either a Village Center¹, a shopping center, a Single-Family Development, or the portion of Section 7.1 as shown on the Master Plan that is located on the north side of Russett Run Road, together with the Existing Trees and/or New Trees needed to satisfy the TCA requirements of this Element for that development type. No single TCPA shall be larger than any Section or Village Center identified in a Small Area Plan.

6. "Residential lot" is defined as a separately platted Lot intended for residential use.

7. "Single-Family Development" is defined as a development wherein each residential lot may contain (i) a single residential structure which may contain a maximum of three (3) dwelling units (e.g., one dwelling, duplex or triplex, and also including a single structure with two (2) or three (3) townhouse dwelling units on two (2) or three (3) lots), and/or (ii) multiple residential structures which may contain a maximum of one (1) dwelling unit each (e.g., condominium with one (1) unit per structure).²

8. "Specimen tree" is defined as any evergreen canopy tree eighteen (18) inches or greater in diameter at breast height ("dbh", which is measured at 4.5 feet above ground level) or greater, any deciduous canopy tree twelve (12) inches dbh or greater and any understory tree (deciduous or evergreen) eight (8) inches dbh or greater, but excluding any tree listed as a non-native invasive plant by the US Forest Service.

9. "Shopping center" is defined as two or more businesses, developed under a uniform development plan (subdivision plan or site plan), and consisting of retail sales or retail sales and one (1) or more of the following: professional services; personal services; private recreational uses; movie theaters; food and/or beverage sales.

10. "Force Majeure" is defined as an event outside of human control, such as disease or other natural causes or a natural disaster including, without limitation, fire, flood, earthquake, hurricane, or tornado.

¹ A Multi-Family Development or other residential development located within a Village Center or applicable portion of Section 7.1 is part of the TCPA for the Village Center or applicable portion of Section 7.1 for purposes of determining TCA.

² Accessory dwellings in a Single-Family Development are allowed in accordance with applicable Town ordinances.

Section 3 **Applicability**

This Element, together with applicable provisions of other Additional Elements, establish the development standards for TCA required in Chatham Park. Provided, however, TCA is not required in the following areas in Chatham Park:

1. Agricultural lands, until such time as the land is used for a non-agricultural purpose.
2. Until such time as the land is used for a non-exempt purpose, land under a forestry management program that (a) is prepared by a registered forester in accordance with Chapter 89B of the North Carolina General Statutes, and (b) includes the best management practices described in the version of The North Carolina Forest Service “Best Management Practices Manual” that exists at the time the forestry management program is prepared.

Section 4 **Tree Coverage Standards**

1. Development Plans. Development plans for new development shall include TCA in the applicable percentage required by this Element. As used in this Element, and notwithstanding any other approved definition of such term, the term "development plan" refers to a site plan or a residential subdivision plan.

2. Locations. TCA may not be located on a residential Lot. Except as otherwise provided herein, TCA may not be located in a street right of way or in a parking lot. TCA that satisfies the dimensional and other requirements of this Element may be located in any of the following areas:

- a. Open Space.
- b. Riparian buffers, perimeter buffers established pursuant to the Master Landscaping Plan Additional Element (“Landscaping Element”), or other buffers;
- c. In street right of way medians if the TCA in the median is not less than 1,000 square feet and has no individual dimension of less than 25 feet;
- d. In common areas owned by a property owners' association or in common areas of condominium developments;
- e. Anywhere on any Lot that is not a residential Lot;
- f. Anywhere within a TCPA other than on a residential Lot;
- g. Forested land in the floodway, floodway fringe, or preserved wetlands; and
- h. In a parking lot, when the TCA therein consists of one or more clusters of Existing Trees and/or one or more individual specimen trees.

3. TCA Standards. **Table 1, Table 2, and Table 3** establish TCA requirements for Chatham Park for individual Lots and for a TCPA. TCA is expressed as a percentage of the acreage

of a Lot³ or the acreage of the TCPA on which TCA is calculated. Total TCA Required can be satisfied with Existing Trees, New Trees, or a combination of Existing Trees and New Trees.

a. Table 1 - Village Centers

| | TCA Consisting of Existing Trees | Total TCA Required |
|----------|---|---------------------------|
| All Uses | 5% | 5% |
| | 3% or more but less than 5% | 6% |
| | Less than 3% | 7% |

b. Table 2 - Activity Centers (excluding Village Centers) and Section 7.1

| | TCA Consisting of Existing Trees | Total TCA Required |
|----------|---|---------------------------|
| All Uses | 10% | 10% |
| | 8% or more but less than 10% | 13% |
| | 6% or more but less than 8% | 14% |
| | Less than 6% | 15% |

c. Table 3 - Outside of Activity Centers and Section 7.1

| | TCA Consisting of Existing Trees | Total TCA Required |
|-------------------------------------|---|---------------------------|
| Residential Uses | 20% | 20% |
| | 15% or more but less than 20% | 23% |
| | 10% or more but less than 15% | 24% |
| | Less than 10% | 25% |
| Non-Residential Uses and Mixed-Uses | 12% | 12% |
| | 8% or more but less than 12% | 13% |
| | 6% or more but less than 8% | 14% |
| | Less than 6% | 15% |

d. Specific Tree Coverage Standard for Land Within 2,000 feet of Haw River. Existing Trees shall be retained on not less than thirty-five percent (35%) of the land in Chatham Park that is within 2,000 feet of the top of bank of Haw River. Notwithstanding anything to the contrary herein, Existing Trees that satisfy this requirement may be located in a vegetative setback area, not less than 50 feet wide, on Lots that adjoin the 300' wide Haw River riparian buffer in Section 1.1 on the Master Plan. Vegetative setback areas shall be shown on the recorded plat(s) of these Lots.

³ For a Multi-Family Development, the Lot is the total of the land area on which the building(s) and common elements or common areas are located.

NOTES TO TABLE 1, TABLE 2 and TABLE 3:

1. For the purpose of calculating TCA, acreage shall be rounded to the nearest 0.01%, with 0.005 or more being rounded up and with less than 0.005 rounded down. For example, assume a 1.57 acre Lot in an Activity Center for which total TCA Required is 14%. $1.57 \text{ acres} \times 14\% = 0.219 \text{ acre}$, which is rounded to 0.22 acre.

2. For purposes of calculating TCA, the following are excluded from the acreage on which TCA percentage is calculated: land in existing utility easements, land in existing street rights of way, land in proposed street rights of way for freeways, boulevards, expressways, major thoroughfares, and minor thoroughfares depicted on the Highway Map of the Town's comprehensive transportation plan in effect at the time the TCA is calculated; land in existing and proposed public greenways and public parks; and land in water surface areas.

3. For the purposes of this Element, "mixed-use" refers to a development that includes residential and non-residential uses in the same building (also referred to as "vertical mixed-use").

e. Calculations of TCA are illustrated by the following examples:

Example 1 – Table 3:

A 100 acre tract that adjoins a minor thoroughfare is proposed for development as a residential subdivision. The 100 acre tract constitutes a TCPA. It has no existing utility easements or streets within the tract. The proposed TCA will consist entirely of Existing Trees. TCA Required by this Element is calculated as follows: $100 \text{ acres} \times 20\% = 20 \text{ acres of TCA Required}$. **See Attachment 1 for a drawing depicting Example 1.**

Example 2 – Table 1:

A 120 acre tract that adjoins a major thoroughfare is proposed for development as a Village Center. The 120 acre tract constitutes a TCPA. It has 1 acre of existing utility easements and 2 acres of proposed public greenway within the tract. The proposed TCA will consist of an area of Existing Trees equal to 4% and an area of New Trees equal to 2%. TCA Required by this Element is calculated as follows: $117 \text{ acres} (120 \text{ acres} - 1 \text{ acre for existing utility easements and } 2 \text{ acres for proposed greenway}) \times 4.0\% = 4.68 \text{ acres of Existing Trees} + 117 \text{ acres} \times 2\% = 2.34 \text{ acres of New Trees} = \text{a total of } 7.02 \text{ acres of TCA Required}$. The New Trees will consist of 136 canopy trees ($2.34 \text{ acres} \times 43,560 \text{ square feet per acre} \div 750 \text{ square feet} = 135.9$, rounded to 136) and 51 understory trees ($2.34 \text{ acres} \times 43,560 \text{ square feet per acre} \div 2,000 \text{ square feet} = 50.96$, rounded to 51).

Example 3 – Table 3:

A 2 acre Lot that is not in an Activity Center or Section 7.1 and that adjoins a major thoroughfare is proposed for development as mixed-use. There is nothing within the 2 acre Lot to be excluded from the TCA calculation. The proposed TCA will consist of an area of Existing Trees equal to 8% and an area of New Trees equal to 5%. TCA is calculated as follows: $2 \text{ acres} \times 8\% = 0.16 \text{ acre of Existing Trees} + 2 \text{ acres} \times 5\% = 0.1 \text{ acre of New Trees}$, for a total TCA Required of 0.26 acre. The New Trees will consist of 6 canopy trees ($0.1 \text{ acre} \times 43,560 \text{ square feet per acre} \div$

750 square feet = 5.8, rounded to 6) and 3 understory trees (0.1 acre x 43,560 square feet per acre ÷ 2,000 square feet = 2.17, rounded to 3).

Example 4 – Table 2:

A 3 acre Lot in an Activity Center that adjoins a boulevard and is proposed for development of a non-residential use. It has 0.4 acre of greenway proposed within the Lot. The proposed TCA will consist of an area of Existing Trees equal to 7% and an area of New Trees Equal to 7%. TCA required by this Element is calculated as follows: 2.6 acres (3 acres – 0.4 acre for proposed greenway within the 3 acre tract) x 7% = 0.182 acre, rounded to 0.18 acre of Existing Trees + 2.6 acres x 7% = 0.182 acre, rounded to 0.18 acre of New Trees, for a total TCA Required of 0.36 acre. The New Trees will consist of 11 canopy trees (0.18 acre x 43,560 square feet per acre ÷ 750 = 10.45, rounded to 11) and 4 understory trees (0.18 acre x 43,560 square feet per acre ÷ 2,000 = 3.92, rounded to 4).

f. Site Plans and Subdivision Plans. Site plans, and residential subdivision plans with average Lot sizes of 10,000 square feet or less shall include clearing and grading information for the property or applicable phase of the property. Property for which there is an approved site plan, and property for which there is an approved residential subdivision plan for average Lot size of 10,000 square feet or less, may be cleared and graded in whole or in part to accommodate construction of improvements on that property.

g. Landscaping Element. Existing Trees and New Trees under this Element also can satisfy the landscaping and buffering requirements of the Landscaping Element, as long as all applicable standards can be met.

Section 5 Existing Trees

A TCA of Existing Trees shall meet the following requirements:

1. The dimensional requirements in Section 7 of this Element for TCA consisting of Existing Trees.

2. Although smaller trees also may be present, the Existing Trees constituting a TCA shall consist of trees with at least a two (2) inch dbh as determined by the Tree Coverage Inventory Field Report.

3. The root protection zone for each of the Existing Trees constituting a TCA shall be a radius of one (1) foot for each one (1) inch dbh of the Existing Tree, and at least 75% of those root protection zones shall be located in the TCA.

Section 6 New Trees

A TCA of New Trees shall meet the following requirements:

1. There shall be one (1) canopy tree for each 750 square feet of TCA and one (1) understory tree for every 2,000 square feet of TCA. In instances where planting requirement calculations produce a fraction, the fraction shall be rounded up to the nearest whole number;

2. Hardwood canopy trees shall be a minimum of 2.5" caliper⁴ at time of planting, and evergreen canopy trees shall be a minimum of 2" caliper at time of planting. Unless otherwise approved by the Board, canopy trees planted on an individual development site or in a TCPA shall be of a type expected to attain a height at maturity of not less than forty feet (40');

3. Hardwood and evergreen understory trees shall be a minimum of 1.25" caliper at time of planting. Unless otherwise approved by the Board, understory trees shall be of a type expected to attain a height at maturity of not less than fifteen feet (15'); and

4. A minimum of 75% of the New Trees shall be hardwood canopy species. The remaining 25% of the New Trees shall be a mix of canopy and understory hardwood and non-hardwood species, as long as no more than 50% of this remainder consists of pines.

5. Unless otherwise approved by the Board, all New Trees shall be species of trees that are native to North Carolina.⁵ Property owners who are required to plant New Trees to satisfy the requirements of this Element are required to consider acquiring New Trees and other plant materials from nurseries and other landscape supply businesses in Chatham County, subject to availability and competitive pricing.

6. Topsoil native to the applicable Lot or TCPA, or comparable topsoil, shall be used in planting New Trees.

7. New Trees shall be planted prior to the issuance of a certificate of occupancy for the improvements on a Lot or the first certificate of occupancy for property in a TCPA or applicable development phase of property in a TCPA (or other document required by Town ordinances prior to occupancy or commencement of use of the improvements on the Lot or in the TCPA, any and all such documents being included in the term "certificate of occupancy", also referred to herein as "CO"). If the owner of the Lot or applicable portion of a TCPA desires to postpone installation of landscaping because seasons and weather conditions are not appropriate for the installation of landscaping immediately prior to issuance of a CO, but does not desire to have issuance of a CO delayed until the New Trees are planted, a performance bond, irrevocable letter of credit, cash deposit, or other surety acceptable to the Town, or some combination thereof, (all of the foregoing, individually or together, being referred to herein as "financial security") may be provided by the owner as provided herein. All New Trees covered by the financial security shall be installed within the first three (3) months of the next planting season after the use of the Lot or applicable portion of the TCPA is commenced (the "Final Completion Date"). For good cause shown, the Planning Director may grant one (1) or more extensions of the Final Completion Date for a total period of time not to exceed one (1) year. The months of June, July and August are considered seasons or

⁴ caliper" is the diameter of a tree trunk measured at a height of 6 inches above ground level for field grown stock and 6 inches above the soil line for container grown stock.

⁵ For the purposes of this Element: (i) "native tree" is defined as a tree that either is a part of the balance of nature that has developed in North Carolina over hundreds or thousands of years or is a non-native and non-invasive tree that does not need human help to reproduce and maintain itself over time in an area where it is not native; and (ii) "invasive tree" is defined as a tree that is both non-native and able to establish on many sites, grow quickly, and spread to the point of disrupting plant communities or ecosystems.

weather conditions which are not appropriate for planting New Trees, unless an adequate irrigation system is installed and operated to irrigate the New Trees.

When the required financial security is provided and all other requirements for issuance of a CO have been satisfied, the Town shall issue the CO, even though all of the New Trees have not yet been planted. The financial security shall be accompanied by documentation of the estimated cost of the New Trees to be planted. The documentation of estimated cost may consist of a landscaping contractor's bid or contract, a bill from a plant or landscaping nursery, or similar document. The financial security shall be for an amount equal to one and one-quarter (1¼) times the cost of the New Trees plus installation for the New Trees yet to be installed, based upon the highest estimate provided (the "Required Amount"). The various forms of financial security are subject to the following requirements:

a. Performance Bond. A performance bond shall: (1) Be issued for the benefit of the Town, with the Planning Director as the authorized agent for the Town; (2) Be in the Required Amount; (3) Be in effect until New Trees secured by the performance bond have been planted in accordance with the requirements of this Element and the Planning Director has executed a written release of the performance bond; and (4) Be issued in a form approved by the Town.

b. Irrevocable Letter of Credit. An irrevocable letter of credit ("LOC") shall: (1) Be issued for the benefit of the Town, with the Planning Director as the authorized agent for the Town; (2) Be in the Required Amount; (3) Be in effect until the New Trees secured by the LOC have been planted in accordance with the requirements of this Element and the Planning Director has executed a written release of the LOC; (4) Be issued in a form approved by the Town; and (5) Be issued by a financial institution that shall allow for presentment upon default at a location within 25 miles of the corporate limits of the Town.

c. Cash Deposit. A cash deposit or other instrument readily convertible to cash at face value (both of which are included in the term "cash deposit") shall (1) Be deposited with the Town and held by the Town in a separate, interest bearing account, and all interest earned on the cash deposit shall become part of the cash deposit; (2) Be in the Required Amount; and (3) Be held by the Town until the New Trees secured by the cash deposit have been planted in accordance with the requirements of this Element and the Planning Director has executed a written release, at which time the cash deposit shall be disbursed by the Town to the person who made the cash deposit.

In the event that the Town draws on a performance bond or LOC, or uses a cash deposit to complete the planting of New Trees required by this Element, the balance, if any, remaining after completion of the planting shall be disbursed by the Town to the person who provided the financial security. The Planning Director may authorize reduction in the amount of any performance bond or LOC, or release of portions of a cash deposit, as portions of the New Trees secured by the applicable financial security are planted.

8. If a New Tree planted in connection with issuance of a CO pursuant to the immediately preceding subsection 7 dies or is destroyed, for any reason other than an event of Force Majeure,

within one (1) year of the later of the date on which the New Tree is planted or (i) a CO is issued for a building on the individual development site on which the New Tree is planted or (ii) the first CO is issued for a building in the same TCPA or applicable phase of the TCPA in which the New Tree is planted, it shall be replaced by the then owner of the property on which it was planted as soon as reasonably practicable after such death or destruction, giving appropriate consideration to the time of year most favorable to the survival of such replacement New Tree after it is planted. The replacement New Tree shall be the same or substantially similar species as the dead or destroyed New Tree and shall be not less than the same size at the time of planting as the size required by this Element for the dead or destroyed New Tree at the time it was planted.

Section 7 Dimensional Standards for Clusters of Trees

1. To satisfy TCA requirements for individual development sites greater than one (1) acre and for a TCPA:

(a) a cluster of trees consisting entirely of Existing Trees shall be a minimum of 1,000 square feet and have no individual dimension of less than 25 feet; and

(b) a cluster of trees consisting entirely of New Trees or a combination of Existing Trees and New Trees, shall be a minimum of 1,000 square feet and have no individual dimension less than 25 feet.

2. To satisfy TCA requirements for individual development sites one (1) acre or less:

(a) a cluster of trees consisting entirely of Existing Trees shall be a minimum of 500 square feet and have no individual dimension less than 13 feet; and

(b) a cluster of trees consisting entirely of New Trees or a combination of Existing Trees and New Trees, shall be a minimum of 500 square feet and have no individual dimension less than 15 feet.

3. Notwithstanding the foregoing dimensional standards, when a riparian buffer that would satisfy the requirements of this Element for TCA is separated into two or more portions by a street, utility easement, greenway, or multi-use path, the separate portions of that riparian buffer will continue to be TCA if those portions as combined satisfy the requirements of this Element for TCA. Provided, no portion of the riparian buffer within the street, utility easement, greenway, or multi-use path shall be counted or qualify as TCA. For example, a 30-foot wide greenway easement is dedicated in a 100-foot wide riparian buffer that satisfies the requirements of this Element for TCA, resulting in a separation of the riparian buffer into two (2) portions, one (1) of which is twenty (20) feet wide and the other of which is fifty (50) feet wide. These two separate portions of the riparian buffer, when combined, satisfy the requirements of this Element for TCA. Accordingly, these two separate portions of the riparian buffer continue to be TCA, but the portion of the riparian buffer within the thirty (30) foot wide greenway easement does not count or qualify as TCA.

Section 8 Protection of Trees

Property owners or applicable property owners' associations are responsible for protecting and preserving Existing Trees and New Trees that constitute the TCA located on their properties or in the TCPA serving their properties, both during and after the development process, in accordance with standard horticultural practice and this Section 8.

Existing Trees qualifying as TCA also shall be protected as follows.

1. Protection measures to be used during grading and construction, including details of the tree protection fence(s) and its location(s), shall be shown on the site, landscape, grading, utility, demolition, and erosion control plans.

2. A tree protection fence constructed of a material resistant to degradation by sun, wind, and moisture for the duration of the construction, shall be installed around the TCA at the same time as the sedimentation and erosion control measures are installed, and shall remain in place and be repaired or replaced as necessary until all construction on the applicable Lot or in the portion of the applicable TCPA adjacent to the TCA is complete. Such fencing shall be mounted on metal posts placed no further than ten (10) feet apart. Silt fencing that does not meet the foregoing requirements for tree protection fencing is not tree protection fencing for the purposes of this Element.

3. No storage of materials, dumping of waste materials, fill, or parking of equipment is allowed within the root protection zone, and no trespassing is allowed within the boundary of the root protection zone, and no trespassing shall be so noted on the grading and sedimentation and erosion control plans and posted at each end of the tree protection fence with perimeter signs spaced a minimum of 100 feet on center thereafter.

4. The Town shall (i) refuse to issue a zoning compliance permit, (ii) deny a building permit, and (iii) refuse to approve a site plan or subdivision plan for a period of five (5) 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 Town regulations governing development from the tract of land for which the permit or approval is sought, which would constitute a willful violation of the Town regulations. For the purposes of this paragraph: (a) "trees that were protected under Town regulations" are Existing Trees; and (b) "removal of all or substantially all of the trees" is removal of Existing Trees that results in Existing Trees remaining on an individual development site or within a TCPA being less than the percentage of the individual development site or TCPA required to satisfy the TCA requirements of this Element solely with Existing Trees. Provided, however, with the approval of the Board of Commissioners, the foregoing time periods for refusing to issue a zoning compliance permit or denying a building permit or refusing to approve a site plan or subdivision plan may be reduced or waived.

Section 9 Establishing TCA

TCA shall be established in accordance with the provisions of this Section for each development plan submitted to the Town for which TCA is required.

1. A "Tree Coverage Inventory Field Report" with respect to an individual development site, or TCPA, as applicable, shall be prepared by a certified arborist, a registered landscape architect, licensed professional engineer, or a registered forester. A Tree Coverage Inventory Field Report shall include all of the following:

a. A written general description of the trees existing on the individual development site or in the TCPA including species, sizes, forest canopy and understory characteristics, and predominant natural plant communities. For the purposes of this Element, a natural plant community is a recurring group of trees found in a particular physical environment. Factors that may be considered in determining the existence of a natural plant community are the following: species composition; vegetation structure (e.g., forest, shrubland, or marsh); and physical conditions (e.g., water, light, and topography); and

b. The most current aerial photograph(s) available from Chatham County Geographic Information Services or from any other comparable source showing the approximate limits of the individual development site, or TCPA.

2. A "Sampling Report" with respect to each proposed TCA on an individual development site or in a TCPA, as applicable, shall be prepared by a certified arborist, a registered landscape architect, a licensed professional engineer, or a registered forester. A Sampling Report shall include all of the following:

a. A written specific description of a 20 foot x 20 foot area for each predominant natural plant community within each proposed TCA that includes the following for trees that are two (2) inches dbh or greater in size: species; sizes; density; forest canopy and understory characteristics; and

b. Photographs representative of the sampling area.

The Tree Coverage Inventory Report and the Sampling Report shall be included with the first submittal to the Town of the applicable development plan. Provided, if the development is a phased development, the Sampling Report may be submitted on a phase by phase basis.

3. The proposed development plan shall include the following:

a. The required TCA percentage.

b. The proposed location and acreage of TCA.

c. The composition of the proposed TCA, i.e. Existing Trees and/or New Trees.

d. If property in a TCPA is to be developed in phases, the approved subdivision plan or site plan shall identify the TCA for each phase. The TCA for a phase may be less than the TCA that would be required for the land in that phase if it were developed separately from the remaining

phases, as long as the TCA required for the entire TCPA is satisfied when all phases are developed. TCA within a TCPA may not be used to satisfy the TCA requirements for another TCPA.

e. Following final determination of TCA and approval by the Town of a plat showing the metes and bounds of the boundaries of the TCA and the total area (in acreage and square footage) of the TCA, and prior to issuance of a certificate of occupancy for the applicable Lot or the issuance of the first certificate of occupancy for the applicable TCPA or phase thereof, the development plan applicant shall record the plat in the office of the Register of Deeds for Chatham County,

Section 10 Individual Specimen Trees Constituting TCA

The following are the requirements for an individual specimen tree to qualify as TCA:

1. A specimen tree survey shall be provided to the Town that shows the specific location, species, size and root protection zone of the specimen tree. This survey shall be included with the submission of the applicable development plan.

2. The root protection zone shall be a radius around the tree of 1.25 feet for each inch of tree dbh. Eighty percent (80%) of the tree's root protection zone shall be protected from disturbance, and any disturbance shall be limited to one side of the root protection zone (e.g., north side, east side, south side, or west side). If a proposed disturbance to the root protection is known prior to the time the specimen tree survey is provided to the Town, a report from a certified arborist as to the health of the specimen tree and recommendations to mitigate the impact of the disturbance shall be included with the specimen tree survey; otherwise, such an arborist report shall be provided to the Town prior to any such disturbance.

3. TCA for an individual specimen tree is calculated at 150% of the size of the portion of the root protection zone protected from disturbance; provided, however, specimen trees that are located in the floodway, floodway fringe, preserved wetlands and riparian buffers, are not eligible for the foregoing 150% calculation.

4. If an individual specimen tree that receives TCA credit under this Element dies or is destroyed, for any reason other than an event of Force Majeure, within one (1) year of the date on which (i) a CO is issued for a building on the individual development site on which the individual specimen tree is located or (ii) the first CO is issued for a building in the same TCPA or applicable development phase of the TCPA in which the individual specimen tree is located, the then owner of the property on which the individual specimen tree is located shall plant one (1) or more replacement trees of the same or substantially similar species as the dead or destroyed individual specimen tree that together total the same number of caliper inches as the dbh inches of the dead or destroyed individual specimen tree at the time of its death or destruction.

Section 11 Uses Allowed in TCA

1. Once approved as part of a development plan and/or designated as such on a recorded plat, TCA shall remain undisturbed except as provided below:

- a. Removal of diseased trees posing a threat to adjacent trees or property, structures, traffic, utilities, or public safety;
- b. Removal of underbrush and invasive/exotic plants of the Southeast as identified by North Carolina State University Cooperative Extension;
- c. Removal of dead or naturally fallen trees;
- d. Removal of trees with less than two (2) inch dbh;
- e. Planting of trees and other vegetation, except within the root zone of an individual specimen tree;
- f. Construction and maintenance of greenways and multi-use paths, including paving, by a governmental entity;
- g. Installation of unpaved walking paths and foot trails constructed with minimal disturbance of tree roots and existing vegetation, provided that no healthy tree eight inches dbh or greater is allowed to be removed for the construction of any walking path or foot trail;
- h. Inclusion of Open Space amenity areas containing such items as picnic tables and benches provided that such areas are unpaved and no larger than 200 square feet or 10% of the TCA, whichever is smaller. No tree eight inches dbh or greater is allowed to be removed for the construction of an Open Space amenity area;
- i. Passive recreational uses not involving the clearing of Existing Trees;
- j. Installation and maintenance of public streets;
- k. Installation and maintenance of utilities by a governmental entity or a provider of public utility services. For the purposes of this Element, a “provider of public utility services” is a person or legal entity who either is licensed by the Town or other governmental entity, is regulated by the North Carolina Utilities Commission or other governmental entity, or who has a franchise agreement with the Town or other governmental entity; and
- l. Disturbance as may be necessary for surveying, environmental investigation, and soil investigation;
- m. Selective thinning of trees and elimination of overstock to maintain the health of other trees in TCA;
- n. Stormwater Control Measures that are designed to include plant material may be located in TCA or in TCPA;
- o. Activities permitted by the Open Space element in riparian buffers that qualify as TCA under this Element; and
- p. Any other activities approved by the Town Board.

2. With respect to any of the foregoing activities, permanent easements and temporary construction easements may be granted or reserved by recorded document or plat. Greenways, multi-use paths, utilities provided by a governmental entity or a provider of public utility services, and public and private streets and street rights of way may be dedicated or conveyed to the applicable governmental entity or property owners’ association or provider of public utility services. The area of any TCA disturbed under the foregoing subparagraphs f, j, and k, except for

any areas taken by eminent domain or the threat thereof, shall be replaced by additional TCA as necessary to meet the requirements of this Element.

3. Trees planted in or adjacent to a SCM may qualify as TCA when they meet all of the requirements of this Element applicable to New Trees. All buildings and stormwater facilities (except for stormwater facilities that include TCA) shall be set back at least 10 feet from the edge of any TCA.

Section 12 TCA in Open Space

Open Space that meets the requirements of this Element may constitute TCA.

Section 13 Canopy and Understory Tree Resources





The following are resources that can be utilized in determining the species of canopy and understory trees to be planted:

- North Carolina Forest Service – Common Forest Trees of North Carolina
- North Carolina State Extension
- North Carolina Native Plant Society
- North Carolina Audubon Society
- North Carolina Botanical Garden

ATTACHMENT 1 TO CHATHAM PARK TREE PROTECTION ELEMENT



LEGEND

| | | |
|---|--------------------|--|
|  | AMENITY / REC AREA | TCPA AREA - 100.0 AC |
|  | TCA AREA | TCA REQUIRED - 20.0 AC (100 AC X 20%) |
|  | SCM | TCA PROVIDED - 20.2 AC |
|  | TCPA BOUNDARY | |

NOT TO SCALE