

APPENDIX 'E'
FORMAT AND CONTENT REQUIREMENTS FOR
TREE PLAN, PROTECTION AND REPLACEMENT

SECTION 1: Tree Inventory

Pursuant to Section 19-6.3.2 (A), Tree Inventory, a tree inventory shall be completed as part of an application for a final development plan, site plan permit, and grading permit. This inventory shall be in the following form:

1. The survey shall be provided by a certified arborist or licensed landscape architect, and a licensed surveyor that shows the location, species, and DBH of all trees greater than 3-inches DBH. The survey should, at a minimum, contain the following:
 - (A) The location, species, and DBH of all trees between 3-6 inches to be saved, trees greater than 6-inches to be saved, and all trees greater than 6-inches to be destroyed or impacted.
 - (B) Other relevant features, such as streams, buildings and other structures, and significant boundary features.
 - (C) The approximate location of trees on land adjacent to the development site whose critical root zone extends onto the subject site which may be impacted by development.
2. The tree survey shall have an accuracy of plus or minus three (3) feet and shall overlay the site plan or plat at the same scale. This survey must depict any trees being saved and applied as part of the required planting mitigation. Trees in this category shall have a minimum diameter at breast height (DBH) of three (3) inches. The diameter of trees shall be measured 4 1/2 feet above finished grade. Dead or diseased trees shall be identified, where possible.)
3. Multi-stem or groups of trees located in close proximity (within five feet of each other) may be designated as a clump of trees with the predominant species being calculated by adding the diameter of each trunk at DBH and then dividing by the number of trunks that were added together.
4. Tree Protection Plan shall be shown on tree survey or as an overlay to the site plan or plot at the same scale and shall include the following:
 - (A) Trees selected for retention (marked in a manner showing retention);
 - (B) Trees to be removed (marked in a manner to dictate removal);
 - (C) Table of all trees being removed and mitigation technique to be applied, either as a 1:1 DBH replacement or fee-in-lieu as stipulated in Section 19-6.3 of the City of Greenville Code of Ordinances;
 - (D) The precise location for the erection of protective barriers and any other relevant physical protection;
 - (E) The Tree Protection Zone (TPZ) fencing (marked as a hatched polygon). As shown on the tree protection fence detail from City of Greenville;
 - (F) The critical root zone of trees being protected;

(G) Any proposed structure that results in modifying existing site conditions must be marked on tree protection plan documents. Examples of this would be structures such as buildings, driveways, irrigation, walkways, and underground utility lines

Pursuant to Section 19-6.3.2 (C), Tree Protection and Replacement, all properties subject to the Section shall maintain a tree density of one (1) tree per 2,000 square feet excluding building footprint and athletic fields and courts (or pro rata portion). To that end, a landscape plan shall accompany the required inventory reflecting the manner in which the applicant intends to meet this objective via the retention, or installation, of trees meeting the requirements of the Ordinance and this Manual. Planted, replanted, or replaced trees shall have a minimum diameter of 2.5 inches.

SECTION 2: Tree Requirements and Mitigation

1. The fee-in-lieu shall be \$50 per caliper inch. This number is based on the annual savings calculated by National Tree Benefit Calculator which takes into account the interception of storm water, raised property values, conservation of kilowatt hours for heating/cooling, absorption of airborne particulate matter, and reduction of atmospheric carbon. For purposes of determining the fee-in-lieu of \$50 per caliper inch, a 10 year annual average savings was considered along with the wholesale cost of trees that would otherwise be required to be planted for mitigation purposes.
2. Trees under 3 inches have no mitigation value or penalty.
3. Trees between 3 inches and 6 inches can count toward mitigation.
4. Trees over 6 inches must be mitigated.
5. An EXCEL table can be supplied to the public via the Planning Department which will assist in determining the number of trees required to meet landscape code, tree removal mitigation requirements, and any heritage tree removal mitigation requirements.
6. The fee-in-lieu shall be capped at a maximum of \$25,000 per acre. For parcels greater than or less than one acre in size, the cap shall be adjusted upward or downward on a proportional basis.

Section 3. Prohibited Trees and Invasive plants

TABLE A. PROHIBITED TREES

Species	Reason
Tree of Heaven (<i>Ailanthus altissima</i>)	Invasive, weak wood, littersome
Black locust (Robinia pseudoacacia)	Weak wood, pests
Box elder (<i>Acer negundo</i>)	Weak wood, <u>pests</u>
Callery Pear (<i>Pyrus calleryana</i>)	Invasive, Weak wood
Chinaberry (<i>Melia azedarach</i>)	Weak wood, littersome
Female ginkgo (<i>Ginkgo biloba</i>)	Littersome, smelly fruit pods
Mimosa (<i>Albizia julibrissin</i>)	Invasive, weak wood
White Mulberry (<i>Morus alba</i>)	Weak wood, littersome, invasive
White Poplar (<i>Populus Alba</i>)	Weak wood, pests
Silver maple (<i>Acer saccharinum</i>)	Weak wood
Siberian elm (<i>Ulmus pumila</i>)	Weak wood
White Pine (<i>Pinus strobus</i>)	Root issues
Chinese Tallow Tree (<i>Triadica sebifera</i>)	Invasive
Princess Tree (<i>Paulownia tomentosa</i>)	Invasive
Chinese Parasol Tree (<i>Firmiana simplex</i>)	Invasive
Paper mulberry (<i>Broussonetia papyrifera</i>)	Weak wood, littersome, invasive
Sweetgum (<i>Liquidambar styraciflua</i>) Fruitless varieties are acceptable	Littersome

Invasive and Prohibited Plant Lists

Species that are listed within the following documents are prohibited from use.

1. "Invasive Plant Pest Species of South Carolina," from SC Native Plant Society

<https://scnps.org/wp-content/uploads/2012/05/invasive-species-brochure-2011.pdf>

SECTION 3: Typical Details and Checklists

1. The following typical details, tables, and calculation are to be included in all landscape plan submissions. Visit <http://www.greenvillesc.gov/PlanningZoning/> for downloadable versions.
 - a. Tree Protection Details
 - b. Tree Planting and Staking Details
 - c. Shrub Planting Detail
 - d. Tree requirement and mitigation table
 - e. Typical Plant Schedule
 - f. General Landscape Notes