

## Administrative Policy/Procedure Tree Ordinance No. 4173

The ordinance to establish tree standards and practices for new land development; for industrial, commercial, retail, institutional, recreational, and residential development, and for multiple unit subdivisions was adopted by County Council on January 22, 2008, to become effective on January 23, 2008, and will be effective on any commercial, retail, etc. plans submitted on Wed., January 23 or later; and will be effective on subdivision plans submitted for the first subdivision advisory meeting after January 23, 2008.

Developments with Planning Commission approval before January 23, 2008 are exempt from the requirements of the ordinance if development activity is commenced by January 23, 2010 (within two years of the effective date of the ordinance).

### **Subdivisions:**

**If the developer intends to preserve trees**, the developer will need to submit a TPP with the preliminary plat. (Section 5 (D)...prior to any grading or clearing activities on a lot or parcel for development and applying for a grading or building permit, the developer shall have conducted a tree survey identifying the location and size of trees to be used for tree credits and they shall be shown on a TPP survey.)

- The developer will show his intent on the Preliminary and/or Summary Plat Application form by checking: “A Tree Preservation Plan **will** \_\_\_\_\_ or **will not** \_\_\_\_\_ be submitted.”
- The subdivision administrator will provide an approval letter that will be submitted with the TPP to Land Development prior to a grading permit being issued.
- The owner/developer will need to identify any “blue line” streams that will require stream buffers during the Land Development Pre-Design Meeting for commercial sites and subdivisions, and if the owner/developer plans to file a TPP, this will be noted on the pre-design submittal sheet.
- Once Land Development approval is completed, a grading permit is issued. Land Development will inspect to insure that trees are not disturbed during grading.
- Building Safety Administration – issues building permits and inspections made for compliance

**If the developer mass grades** – no tree credits, no TPP is submitted

If additional trees are to be planted on a subdivision site to meet the minimum tree requirements, and if the final plat for subdivision is to be recorded under a Letter of Credit, the cost of the required trees and the cost of planting those trees must be included in the Letter of Credit for the subdivision.

Prior to releasing the Letter of Credit or closing out the detention pond, the Engineer of Record must certify to the Planning Commission and/or the Land Development Division that the required trees have been planted and are surviving. The Engineer of Record is to certify that the number and size (caliper) of the planted trees meets or exceeds the requirement.

**Commercial** (industrial, commercial, retail, institutional, recreational)

Building Safety Administration will check the plans for compliance during preliminary plan review and will provide a letter with the TPP to the Land Development Division prior to the issuance of the grading permit. The zoned areas of the county shall comply with the parking lot landscaping standards in section 12.4 of the Zoning ordinance.

### **Policy for Building Safety Administration, Inspection and Enforcement**

The Building Safety Division is responsible for the Administration, Inspection and Enforcement of the Tree Ordinance for all qualifying Residential Subdivisions and Commercial projects County-wide.

#### **§8 B: Single Family Detached and Dwelling Two Family Residential Subdivisions**

Residential Builder or Developer/ owner to apply for permit in the normal fashion. The number of “**trees per lot**” will be noted on the Building Permit. These trees must be installed prior to request for Final Inspection.

The **Adjusted Medium Income Average Range (Affordable/ Workforce Housing)** will be shown on the building Permit. The **Adjusted Medium Income Valuation** will be shown on the Building Permit. If the owner/ agent/ builder elects to plant **3 gallon trees** for the “trees per lot” option, the Adjusted Medium Income Valuation (AMIV) of the home must fall into the Adjusted Medium Income Range shown on the permit. The calculation to determine these values are done during the Permitting Issuance process.

#### **No Action required by Developer/ owner in this section**

#### **Staff Action:**

Final Plats are received from the Planning Department indicating that the subdivision **is** or **is not** subject to the Ordinance and if the subdivision **is** or **is not** applying for tree credits. Two Final Plats will be required from the Planning Department. One copy for the Permit Application Center; one for the Building Inspection Staff.

Permit Application Center (PAC) will enter all appropriate information into the Land Module of HTE. Included in this information will be the square footage contained for each parcel or lot in the subdivision and the number of trees required to comply with the “trees per lot” requirements. This information must be entered into the **Property Description Maintenance Screen as Square**

**Footage and Trees Required** (12,500sf/ 2 trees) This information is taken from the parcel/ lot table contained on the plat. This information will be transferred to the printed Building Permit and the Building Inspection Request form.

During the creation of the Building Permit a manual calculation of the Adjusted Mean Income Valuation (AMIV) must be done from the information obtained from the New Residential Application. The calculation is as follows:

AMIV = the total of --

Square footage of heated space x \$94.06\*

Square footage of garage x \$36.91\*

Square footage of unfinished basement x \$15.00\*

\*Taken from the current ICC Construction Costs published twice yearly by the International Code Council.

The resultant cost figure will be inserted into the AMIV line during the permit issuance.

This figure will be weighed against the Adjusted Medium Income Range (AMIR) for affordable and workforce housing to determine whether trees of the three gallon variety may be utilized to meet the “Trees per Lot” requirement of the ordinance. The AMVI and the AMIR will show on the Building Permit and the Inspection Request Ticket. It will be the responsibility of the Building Inspector to recognize that the lot/ parcel may qualify for this exemption.

The established Adjusted Medium Income Range for Greenville County is \$43,320 (80%) to \$63,480 (120%) and further results in the establishment of the base range of Affordable/ Workforce Housing Cost as \$85,831 to \$186,480. Housing units priced in accordance with the above formula or declared valuation higher than the calculated value will qualify for the three gallon trees. (Formula on file)

In order for the owner/ developer, builder to receive a credit for an existing (saved) tree at the time of Final Inspection, to qualify as one of the “per lot trees”, the party requesting the Final Building Inspection must identify the two or four trees by means of a flagging ribbon tied around the tree, so the building inspector can identify those specific trees as the “trees per lot”. These trees may not be counted as part of the Base Tree Density.

If the required per lot trees are not installed at the time of the request for final inspection, the building inspector shall issue a notice of violation that the dwelling is not eligible for a Certificate of Occupancy and may not be occupied. The Inspector will measure all trees at a height of 4.5 ft from the existing grade (at the base of the tree)

Failure to correct this deficiency on the second requested inspection shall result in the issuance of a civil fine to the permit holder in the amount of \$50.00, each succeeding request that is in violation of the requirement will result in additional civil fine to increase by \$50.00 until the maximum of \$250.00 is reached, and then continued at that maximum level.

The Building inspector must leave written notification at the dwelling and enter the information into the Permit Inspection record.

In the event the dwelling is occupied prior to a Certificate of Occupancy being issued, an Ordinance Summons will be issued immediately. This Ordinance Summons is subject to the limits for Magistrate's Court.

### **§8 C: Multi Family and Dwelling, Single Family Attached**

#### **Action Required by Developer/ Owner**

Projects containing Multi Family and Dwellings, Single Family Attached units, prior to the submittal of a grading permit application shall obtain a letter of compliance from the Building Safety Office.

A site plan in three copies of the required construction documents must be signed and sealed by a SC Registered Professional Engineer, Land Surveyor or Landscape Architect –

1. If a Tree Credit is being sought, three copies of the Tree Protection Plan and Site Plan indicating the details (building and lot areas shown in square feet) 10 tree density units per disturbed acre and 2 tree density units per 4,000 square feet of building footprint.
2. If no tree credit is being sought, then a site plan indicating the necessary details to show compliance with 10 tree density units per disturbed acre and 2 tree density units per 4,000 square feet of building footprint.
3. All Multi Family and Dwelling, Single Family Attached shall comply with the parking lot landscaping standards in Section 12.4 of the Greenville County Zoning Ordinance.

#### **Staff Action:**

The Building Safety Plan Review section will review these documents and issue a letter to the applicant of compliance or non-compliance, referencing what section(s) of the Ordinance is non-compliant. Resubmittal of documents will be allowed the initial 15 calendar days review period.

The Plan Review section shall tie the application to the Master Tax Map Number of the project in order to track the approval of the project. A notation will be entered into *HTE Land Parcel Misc. Information Maintenance* showing the approval or disapproval of the project with the associated date of any action taken. Upon approval of the project a letter will be generated to the owner/developer.

Application for building permits will be received in the normal fashion and processed through the Plan Review process. The Site Plan submitted with the application must accurately reflect the identical conditions showing the compliance with the Tree Ordinance Approval Letter. At the time of Permitting a note will be added to each permit stating that all required trees will be shown on the approved Site Plan.

**Office Use Only**

At the time of the Final Building Inspection/ Zoning Inspection, the inspector will request the onsite representative to produce the Record Field Construction Documents to coordinate the location of the required trees for that particular building/ group of buildings or area of the project. The Inspector will measure all trees at a height of 4.5 ft from the existing grade (at the base of the tree)

If the trees required per plan are not installed at the time of the request for final inspection, the building inspector shall issue a notice of violation that the dwelling is not eligible for a Certificate of Occupancy and may not be occupied.

Failure to correct this deficiency on the second requested inspection shall result in the issuance of a civil fine to the permit holder in the amount of \$50.00, each succeeding request that is in violation of the requirement will result in additional civil fine to increase by \$50.00 until the maximum of \$250.00 is reached, and then continued at that maximum level.

The Building inspector must leave written notification at the dwelling and enter the information into the Permit Inspection record.

In the event the dwelling is occupied prior to a Certificate of Occupancy being issued, an Ordinance Summons will be issued immediately. This Ordinance Summons is subject to the limits for Magistrate's Court.

**§9: Provisions for Public Recreation, Industrial, Commercial, Retail and Institutional Projects**

**Action Required by Developer/ Owner**

Projects containing Public Recreation, Industrial, Commercial, Retail and Institutional Projects prior to the submittal of a grading permit application shall obtain a letter of compliance from the Building Safety Office.

A site plan in three copies of the required construction documents must be signed and sealed by a SC Registered Professional Engineer, Land Surveyor or Landscape Architect

1. Indicate whether the Project is in the Zoned are of the Unincorporated area of the County, if so, what is the Zoning District.
2. If a Tree Credit is being sought, three copies of the Tree Protection Plan and Site Plan indicating the details (building and lot areas shown in square feet) necessary to comply with the 15 tree density units per disturbed acres and /or Section 12.4 of the Zoning Ordinance.
3. If no tree credit is being sought, then a site plan indicating the necessary items to show compliance with the 15 tree density units per acre and the Section 12.4 and 12.9 of the Greenville County Zoning Ordinance – Parking Lot Landscaping and Screening and Buffering Requirements, if the project is located in the zoned area of the County. If the project is located outside the zoned area of the County, then only the 15 tree density units will apply.

**Staff Action:**

The Building Safety Plan review section will review these documents and issue a letter to the applicant of compliance or non-compliance, referencing what section(s) of the Ordinance is non-compliant. Resubmittal of documents will be allowed the initial 15 calendar days review period.

The Plan Review section shall tie the application to the Master Tax Map Number of the project in order to track the approval of the project. A notation will be entered into *HTE Land Parcel Misc. information Maintenance* showing the approval or disapproval of the project with the associated date of any action taken. Upon approval of the project a letter will be generated to the owner/developer.

Application for permits will be received in the normal fashion and processed through the Plan Review process. The Site Plan submitted with the application must accurately reflect the identical conditions showing the compliance with the Tree Ordinance Approval Letter. At the time of Permitting a note will be added to each permit stating that all required trees will be shown on the approved Site Plan.

**Office Use Only**

At the time of the Final Building Inspection/ Zoning Inspection the inspector will require the onsite representative to produce the Record Field Construction Documents to coordinate the location of the required trees for that particular building/ group of buildings or area of the project. The Inspector will measure all trees at a height of 4.5 ft from the existing grade (at the base of the tree)

If the trees required per plan are not installed at the time of the request for final inspection, the building inspector shall issue a notice of violation that the dwelling is not eligible for a Certificate of Occupancy and may not be occupied.

Failure to correct this deficiency on the second requested inspection shall result in the issuance of a civil fine to the permit holder in the amount of \$50.00, each succeeding request that is in violation of the requirement will result in additional civil fine to increase by \$50.00 until the maximum of \$250.00 is reached, and then continued at that maximum level.

The Building inspector must leave written notification at the dwelling and enter the information into the Permit Inspection record.

In the event the structure is occupied prior to a Certificate of Occupancy being issued, an Ordinance Summons will be issued immediately. This Ordinance Summons is subject to the limits for Magistrate's Court.

## **Policy for Land Development Division Administration, Inspection and Enforcement**

For subdivisions – Land Development Division will review, prior to the Subdivision Advisory Committee meeting, and identify if the site requires a stream buffer. Those requiring stream buffers will be stated as such at the SAC meeting in order to be included in the notes.

Section 6 of Ordinance # 4173 outlining Buffer Criteria will be attached to the subdivision plat.

For commercial sites and subdivisions the owner/developer will identify any “blue line” streams that will require the stream buffer during the Pre-Design Meeting and if they plan to file a TPP it will be noted on the pre-design submittal sheet.

### **The Grading Permit Application Process will include:**

- A question as to whether the site has a TPP
- The application will be compared to the pre-design submittal sheet, the preliminary plat notes and the grading plans submittal to ensure that those sites with a TPP include the required approval letter and TPP plan as a part of their grading plan application.
- If the approval letter was not included in the application as required, the applications will be denied and returned immediately.
- Plan Review Staff will review the complete application package plans to ensure that the stream buffer and TPP tree protection zones are shown on the grading plans.
- Special notes outlining the tree protection zone requirements will be added to the grading plans.
- All sites with a TPP will be required to have the tree protection zone barrier installed prior to the on-site pre-construction conference. LLD Inspectors will not issue the grading permit if the fence is not in place. The pre-construction conference will be re-scheduled once assurances are given that the barrier has been installed.

### **LLD Inspections:**

As part of the regularly scheduled site visits, inspectors will ensure that the tree protection zone barrier is in place and has not been penetrated. Any repair needs will be noted on our erosion control inspection notes.

If the LLD inspector finds that the tree protection zone has been violated. A stop work order will be issued, a correction plan outlined and a timeline given for repair. The violator will be required to come to Suite 3900 to pay the \$250 fine. The stop work order will not be lifted until this fine is paid. If the stop work is violated prior to the correction being made and the fine paid a ticket will be issued.

For subdivisions - the Engineer of Record will be required to certify that the 10 density unit tree requirement of the tree ordinance has been met at the time the detention pond certification approval is obtained. This certification will be included as a check off item on the project close out document.

For commercial sites – Building Safety Administration will ensure the certification is provided as a part of the Certification of Occupancy.

## **TREE PROTECTION NOTES**

1. A root protection zone will be established around each tree or cluster of trees to be preserved and along the stream buffers to meet the tree preservation ordinance. The root protection zone shall be a circular area defined by the radius extending outward from the trunk of the tree a distance of one (1) linear foot for each diameter inch and at breast height (4.5') of the tree. For example a ten (10) inch diameter tree will have a ten (10) foot radius root protection zone.
2. The fencing for the root protection zone and the stream buffers must be installed by the day of the pre-construction meeting. If it has not been installed by this scheduled meeting the pre-construction meeting will be cancelled and rescheduled for a later date.
3. No work shall begin until tree protection fencing has been installed. Tree protection fencing shall be installed, maintained, and repaired by the contractor during construction.
4. The temporary construction fence shall be installed at the drip line (or tree protection zone). To protect lower branches the fence must be outside the drip line.
5. The fencing shall be substantial enough to prevent equipment and machinery from entering the protection zone. A minimum of four foot (4') high fence on metal posts with orange plastic web (snow fencing) or a welder wire fence barrier with web will be required. In urban areas with the presence of heavy pedestrian traffic a plywood clad boarding, or where visibility must be maintained a four foot (4') high fence consisting of orange plastic web (snow fencing), on a wood frame made of two by four foot (2x4').

All supports and bracing should be outside the tree protection zone. All such supports should minimize damaging roots outside the tree protection zone.

6. No equipment, vehicles, or materials shall be operated or stored within the root protection zone. No lounging of workers in the area.
7. The following is not allowed within the root protection zone:
  - A. Buildings or new impervious surfaces such as sidewalks and pavements.
  - B. Grade changes of more than three inches (3") or cut and fill during or after construction.
  - C. Utility or drainage field placement.
  - D. Storing topsoil
8. All construction waste, including but not limited to building material debris, roofing materials, cleaning of cement trucks, chemical/adhesives/solutes, etc., shall be stored or disposed of no closer than fifty feet (50') from the tree protection zone.
9. Avoid changing water drainage patterns near the tree protection zone.

10. Ensure project construction access route is indicated on the plan to ensure root damages will be avoided.
11. No wires, nails, or other material may be attached to protected trees.
12. Trees must be maintained in good health through out the construction process. Maintenance may include watering the root protection zone and/or washing foliage.
13. If trenching in the root protection zone of mature trees cannot be avoided, the following precautions apply:
  - A. Mulch the root protection zone prior to trenching to develop a soil environment conducive to new root growth
  - B. Consolidate all utilities into one trench that impacts less than one third (1/3) the area of the root protection zone.
  - C. Hand excavate a single trench under the dripline; carefully excise and protect roots over one inch (1") diameter. Feed pipes or conduit underneath the preserved roots.
  - D. Where roots are cut, the exposed soil surface on both sides of the trench shall be protected from desiccation by a tarp or plastic sheeting.
  - E. Irrigation during the first two (2) dry seasons may be necessary. Caution must be taken not to over irrigate as root rot my result. Check soil moisture at inches six (6"), twelve (12"), and twenty-four a (24"). Water only when dry at inches twelve (12") and twenty-four (24").
14. New and replacement trees that will be planted in the stream buffer must use low impact methods that reduced the disturbance and compaction to the soil and ground cover by hand planting and minimizing the use of heavy equipment operations. The planting operations should only take place during dry soil conditions. For temporary traffic over the root zone, the access path should be vertically mulched then covered with at least eight inches of bark or work chips to prevent compaction or use a matting system and skid trails for the access path.
15. Removal of the fence shall only occur to allow for trenching as outlined in number thirteen (#13) or to allow the complete site landscaping as outlined in number fourteen (#14).
16. If a site has been found to have violated the tree ordinance by encroaching into the tree protection zone the county will stop work, issue a notice of correction and the contractor will be subject to a \$250 fee to be paid prior to releasing the stop work order.

Section 6, Buffer Criteria, Ordinance No. 4173 states:

**Section 6. Buffer Criteria.**

(A) A buffer shall be established along each side of all blue line streams in new developments. Consistent with Greenville County Code 18-24, a 15-foot drainage easement is required on normally dry waterways. A 15-foot drainage easement is required from the top of the stream bank on each side of live streams draining less than 50 acres. A 35-foot wide stream buffer is required on each side of all stream banks for live streams draining 50 acres or more. The stream buffer may be wooded or non-wooded. New and replacement trees required to be planted under this Ordinance may be planted in the stream buffers. The management requirements for stream buffers are:

- (1) The existing vegetation within the stream buffer shall not be disturbed except as provided in (B) below. This prohibition includes, but is not limited to, disturbance by tree removal, shrub removal, clearing, mowing, burning, spraying, and grazing.
  - (2) Soil disturbance shall not take place within the stream buffer by grading, stripping of topsoil, plowing, cultivating, or other practices, except as provided in (d) below.
  - (3) Filling or dumping shall not occur within the stream buffer.
  - (4) Except as permitted by the County and/or State, the stream buffer shall not be drained by ditching, under drains, or other drainage systems unless an existing drainage system is in place that adequately services the new uses.
  - (5) Motorized vehicles shall not be stored or operated within the stream buffer, except for maintenance and emergency use approved by the Building Official and Zoning Administrator.
- (B) The following structures, practices, and activities are permitted in the stream buffer:
- (1) Roads, bridges, trails, storm drainage, storm water management facilities, and utilities approved by Greenville County and/or the State of South Carolina are permitted within the buffer provided that no other practical alternative exists and that minimal disturbance will take place. Simple road crossings, close to perpendicular to the buffer, are permitted. All structures shall be located, designed, constructed, and maintained to provide optimum erosion protection, to have the least adverse effects on wildlife, aquatic life, and their habitats, and to maintain hydrologic processes and water quality.
  - (2) Stream restoration projects, facilities and activities approved by Greenville County or the State of South Carolina are permitted within the stream buffer.
  - (3) Scientific studies approved by the department, including water quality monitoring and stream gauging, are permitted within the stream buffer.
  - (4) Horticulture practices, including thinning and planting, may be used to maintain the health of individual trees in the stream buffer.
  - (5) Hazard trees and invasive species in the buffer may be removed. Removal of trees in the buffer must be accomplished using equipment with which a minimal disturbance will take place.

(6) Other forest management and timber cutting techniques approved by Greenville County and/or the State of South Carolina may be undertaken within the buffer if necessary to preserve the buffer from extensive pest infestation, disease infestation, or threat from fire.

(C) Minimum 25-foot undisturbed buffer on all sides of jurisdictional wetlands is required. Buffers shall not apply to the specific wetlands, other than blue line streams, for which an impact permit has been issued by SCDHEC and/or the USACE. If a jurisdictional wetland falls below the minimum size required for a permit by SCDHEC and/or USACE, no buffer is required.

(D) The acreage contained within the stream buffer(s) shall count toward the allowable density when developing under provisions of either option in an Open Space Residential Development.

(E) The buffer requirements of this ordinance shall be in addition to the landscaping and screening requirements in Ordinance No. 4048 of the Greenville County Zoning Ordinance. In the event of conflicts between the two ordinances, the most restrictive shall apply.

**NOTE:** The following statement is policy/procedure:

New and replacement trees that will be planted in the stream buffer must use low impact methods that reduce the disturbance and compaction to the soil and ground cover by hand planting and minimizing the use of heavy equipment operations. The planting operations should only take place during dry soil conditions. For temporary traffic over the root zone, the access path should be vertically mulched then covered with at least eight inches of bark or work chips to prevent compaction or use a matting system and skid trails for the access path.

**For guidance purposes the following will be considered policy:**

*Heritage tree* means any tree which has a trunk of 20 inches or more in diameter at 4 1/2 feet above the normal ground level, or if of a horticultural or ornamental variety, of ten inches or more in diameter 4 1/2 feet above the normal ground level, whether located on public or private property and whether in a tree protective zone or not.

*Historic tree* means any tree with a trunk of 30 inches or more at 4 1/2 feet above the normal ground level, wherever located.

Section 5-3. (B) Exemptions – “*substantially changed*” means:

1. For existing Commercial Projects – 50% increase in square footage of an existing building, and if it requires a grading permit, then it will be required to meet the tree density of an existing building for the disturbed area.
2. Residential/Subdivision Projects – any increase in acreage, or additional lots or phases not previously identified on plats, or changes in the use of space previously identified as another use.