ORDINANCE NO. (2005) 762TC 264 TC-7-04

AN ORDINANCE TO CONSERVE TREES.

Whereas, 2001 Session Laws Chapter 191, as amended by section 1 of 2003 Session Laws Chapter 128, authorizes the City of Raleigh to enact tree conservation regulations

NOW THERFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF RALEIGH,NORTH CAROLINA: that

Section 1. Raleigh City Code sections 10-2002 and 10-2082.2 are amended to add the following new definitions in their proper alphabetic order:

"***Basal area.*** The total cross sectional area, stated in square feet per acre, of trees in a wooded area measured at four and one-half feet (4 ½') above ground level.

Champion tree. Any tree listed as the champion or co-champion of its species, either on the "National Big Tree "list as compiled by the American Forestry Association or on the "Champion Big Trees of North Carolina" list as compiled by the North Carolina Division of Forest Resources, or on the "Capital Trees Program" list as complied by Wake County Keep America Beautiful.

Critical root zone. The area uniformly encompassed by a circle with a radius equal to one and one-quarter foot per (1.25') per inch of *DBH* tree trunk of the preserved *tree* measured at four and one-half feet (4.5') above the ground (measured to the nearest inch), with the trunk of the tree at the center of the circle.

DBH. Diameter at Breast Height (DBH) of a tree in the field is the diameter of the stem of a single-stem tree measured at four and one-half feet (4.5') (breast height) above grade level, or the total diameter of all stems of a multi-stemmed tree measured at four and one-half feet (4.5') above grade level.

Tree disturbing activity. Any activity that results in one or more of the following:

(1) The movement of earth, compaction of earth, chemical or physical alteration of earth, or a change in the existing soil cover (both vegetative and non vegetative) and/or the existing soil topography in the *critical root zone* of a tree, including but not limited to: chemical application; clearing, grading, filling, and excavation; stabilization of structures; and road or walkway construction.

(2) Chemical or physical alteration of a tree in any way that diminishes its health and vigor, including but not limited to removal, cutting, root pruning, branch pruning, topping, bark scraping, and application of chemical or

biological agents.

(3) The placement within the *critical root zone* of any permanent or temporary encroachment, including but not limited to: application of *impervious surfaces*; storage of equipment, materials, or earth; parking or circulation of vehicles or equipment.

***Understory tree*.** An evergreen or deciduous tree whose mature height can be expected to range between fifteen feet (15') to thirty-five feet (35') and which has an expected crown spread range between fifteen feet (15') to twenty-five feet (25') as determined by the latest edition of "**American Standards of Nursery Stock"** as set forth by the American Association of Nurserymen.

***Undisturbed area*.** An area free of any *tree disturbing activity* except the planting of landscaping required by §10-2082 *et seq*. and plantings required by conditional use zoning requirements.

***Urban forestry*.** *Urban forestry* is the management, including planting of trees and other plants for their contribution to the physiological, sociological, aesthetic, environmental and economic well-being of urban society. *Urban forestry* is distinguished from *forestry general* in which tree are grown primarily for wood and fiber. *Urban forestry* encompasses all of the following elements:

1. The maintenance of a permanent forest with continuous stocking of at least a basal area of sixty (60) square feet per acre comprised of trees three inches (3") or greater *DBH*.
2. Use of low soil impact equipment for care and maintenance of the urban forest. Low soil impact equipment does not include log skidders, mechanical harvesters, forwarders, mechanical tree planters, excavators, soil mounders, dozers, and similar tracked or wheeled vehicles.
3. Protection of the urban forest from the movement of earth, compaction of earth and the detrimental chemical or physical alteration of earth.
4. *Urban Forestry* does not include sale of trees for forest products, nor the establishment of permanent or temporary roads, skids, trails, or logging decks.".

Section 2. Amend Raleigh City Code section 10-2002 to replace the current the definition of Active Tree Preservation with the following definition:

"***Active tree preservation*.** Arboricultural practices designed to ensure survival of existing trees by the protection of *critical root zones* from *tree disturbing activities* and the application of one or more arboricultural maintenance procedures, including but not limited to: watering, fertilizing, pruning of trees, pruning of roots, and aeration beginning at the issuance of the grading permit and continuing for a minimum period of one year following construction, with frequency based on a plan approved by the City Forestry Specialist.".

Section 3. Amend the definition of Forestry contained in section 10-2002 to insert

after the word **Forestry** the word **general** and to rewrite subsection (3) to read as follows: "(3) the regeneration of trees by the replanting of trees at the rate of one inch caliper tree measured six inches (6") above the ground per every two hundred (200) square feet of *tree disturbing activity* area within two hundred and twenty (220) days of harvesting; and".

Section 4. Amend Raleigh City Code section 10-2002 to add a new definition in its proper alphabetic order which shall read as follows:

"***Minor tree removal activity*.** The lawful removal of a tree, other than a *champion tree*, and trees protected in either *Resource Management Districts*, Conditional Use Zoning Districts or *natural-protective yards*, which is unrelated to *forestry general* or to the installation of any driveway, use, structure, facility improvement, *site plan* or subdivision, is a *minor tree removal activity* when it meets one or more of the following:

(1) Unsafe trees are removed within one year following a natural disaster declared by the State of North Carolina or City of Raleigh such an ice storm or hurricane.

(2) Fewer than sixteen trees with a *DBH* of three inches (nine and three-eighths inches [9 3/8] circumference) measured four and one-half feet above grade) or more are lawfully removed from the property within any continuous twelve month period; provided that, the subsequent subdivision of the property, *shall* not increase the number of trees which can be removed from the property and that no tree ten inches or greater in *DBH* is removed if such tree is located :

a. within fifty feet (50')of a right-of-way of any *thoroughfare*; or
b. within 32 feet (32') of any vacant adjoining property boundary line; or
c. within 65 feet of any other property line.

or *Urban forestry*.

The term "vacant" as used herein means that at the time of application for development there is no building or structure or vehicular surface area within two hundred feet (200') from the common property line of the property being developed and the adjoining or adjacent property.

(3) A certified arborist, certified by the International Society of Arboriculture, or a forester registered by the State of North Carolina, or a landscape architect licensed by the State of North Carolina first certifies in writing to the City that the tree is either unsafe or is *unhealthy* as set forth in §10-2002(1) through (4) and applicable soil erosion and sedimentation laws are obeyed.

(4) The tree is less than three inches *DBH* (nine and three–eighths inches [9 3/8"] circumference) measured four and one half feet above grade.-

(5) The tree is damaging an existing improvement on the *lot*.

(6) Lawful removal of trees located on lots of record existing prior to the application of this regulation* that are less than two acres in size.

*__Editor's Note__: this regulation first became applicable on May 1, 2005. Ordinance NO. (2005) 762 TC 264 TC-7-04."

Section 5. Repeal Raleigh City Code section 10-2053(e)(4)b2; rewrite and re-enact said section to read: "2. lies within the *critical root zone* of a tree.".

Section 6. Amend the first sentence of Raleigh City Code sections 10-2058(e)(2)b.2.(ii), 10-2059(e)(2)b.2.(ii), 10-2060(e)(2)b.2.(ii), 10-2061(e)(2)b.2.(ii), and 10-2082.5(f)(2) to delete the language "the greater of either a seven-foot radius measured outward from the tree or a radius of six (6) inches for each inch of circumference of the tree measured at four and one-half- feet above grade level", and in lieu thereof substitute the following language: " equal to the *critical root zone* of the tree". The last sentence of said sections are amended to delete the language "encroachment within the protected ground area" and in lieu thereof substitute the language "*tree disturbing activity*".

Section 7. Amend the Schedule of Permitted Land Uses in Zoning Districts which appears in section 10-2071 to remove the listing for *Forestry* from the agriculture land use category, and insert in its proper alphabetic order within the agriculture land use category two entries: *Minor tree removal activity* and *Tree disturbing activity* except a *minor tree removal activity*. The entry for *Minor tree removal activity* shall be a general use (a black circle symbol) in all zoning districts except CM. The entry for *Tree disturbing activity* except a *minor tree removal activity* shall be a conditional use (an open circle symbol) in all zoning districts except CM.

Section 8. Amend Raleigh City Code section 10-2072 by inserting a new entry in the alphabetical listing of conditional uses at the beginning of the section which new entry shall read: "- *Tree disturbing activity* except a *minor tree removal activity*.". Subsection (b) of Raleigh City Code section 10-2072 is amended by adding a new alphabetic regulation which reads as follows:

"***Tree disturbing activity* except a *minor tree removal activity*.**

Any *tree disturbing activity*, except a *minor tree removal activity*, *shall* meet all of the following:

(1) That a tree protection plan is approved by the City Forestry Specialist in the Inspections Department for all applicable tree protected areas, and that the tree protection measures are in place in the field prior to the issuance of any City permit and prior to engaging in any *tree disturbing activity*.

(2) That no *tree disturbing activity*, except a *minor tree removal*

activity, shall within a thirty-two (32) foot wide perimeter buffer when the adjoining or adjacent property is “vacant". And, that no *tree disturbing activity*, except a *minor tree removal activity, shall* occur within a sixty-five (65) foot wide perimeter buffer when the adjoining or adjacent property is a roadway, other than a thoroughfare or is not “vacant”.

The term "vacant" as used herein means that at the time of application for development there is no building or structure or *vehicular surface area* within two hundred feet (200') from the common property line of the property being developed and the adjoining or adjacent property.

But nothing in this subsection *shall* prevent the otherwise lawful grading and installation of street, utility or other improvements shown on subdivision plans approved pursuant to Part 10 Chapter 3 and/or shown on *site plans* approved pursuant to Part 10 chapter 2. And nothing in this subsection *shall* prevent installation of access ways in accordance with subsection (3) below. *Forestry general* is allowed in the perimeter buffers provided that the landowners *shall* first record with the local county register of deeds a covenant running with and binding the land stating: “That *forestry general* operations were initiated within regulated perimeter buffers of the real property on _____ date and year, and that pursuant to State Law, no building permit, *site plan*, or subdivision plan will be approved by the local governing authority for a period of five years following harvesting.” A copy of this covenant recorded with the local county register of deeds *shall* be provided to the Chief Zoning Inspector and to the Planning Director.

State Law References: 2001 Sessions Laws Chapter 191 §1(d) made applicable to the City of Raleigh by section 1 of 2003 Session Laws Chapter 128.

In lieu of protecting perimeter buffers, tree conservation areas conforming to all the requirements of §10-2082.14 *et. seq. may* be designated instead provided that, all substitute tree conservation areas are shown on recorded plats;

(3) That access ways thru perimeter buffers *shall* not exceed twenty five feet (25’) in width, and all construction entrances of the access ways must be constructed in accordance with latest City “Guidelines for Land-Disturbing Activities” or latest State of North Carolina “Erosion and Sediment Control

Planning and Design Manual", whichever is more stringent. At least one access way *shall* be permitted, and additional access ways *may* be allowed provided such additional access ways are justified by a North Carolina registered forester and additional access ways fronting the same roadway are spaced at least one thousand (1,000) feet apart;

(4) That no *champion tree*, including its *critical root zone*, is subjected to any *tree disturbing activity*;

(5) That the allowable hours of operation any given day are between 7:00 a. m. and 8:30 p.m., other than emergency work for the preservation of public health or safety;

(6) That all applicable laws, including soil erosion and sedimentation control and tree protection regulations, are obeyed.

A violation of this conditional use regulation *shall* subject the offender to a civil penalty equal to the greater of one thousand dollars ($1,000) for the first tree plus thirty-five cents (0.35¢) of every square foot of unlawfully disturbed perimeter buffer required by subsection (2) above, but no civil penalty *shall* exceed one-third of the current land tax value of the entire parcel wherein the unlawful *tree disturbing activity* occurred. Said civil penalty shall be processed as set forth in §10-2152(5). In addition to this civil penalty, within the unlawfully disturbed perimeter buffer, the land *owner shall* install one two inch caliper (six and one-quarter inch circumference) tree measured six inches above the ground for each three hundred (300) square feet of all of the unlawfully disturbed perimeter buffer; provided that, in Rural Residential and Residential - 2 zoning Districts no more than fifteen per cent (15%) of the acreage of the entire tract and no more ten per cent (10%) of the acreage of the entire tract of all other zoning districts whereon the unlawful *tree disturbing activity* occurred *shall* be replanted. Prior to any replanting, the City Forestry Specialist *shall* first approve a replacement planting and maintenance plan. Replanting areas *shall* follow the priorities of section 10-2082.14(b). In accordance with §10-2082.14(b), the replanting areas *shall* be designated as tree conservation areas on plats with delineated metes and bounds descriptions recorded with the local county register of deeds. Following the recording of this plat, no *tree disturbing activity shall* take place within the designated tree conservation areas except in strict compliance with section 10-2082.14.".

Section 9. Amend the second sentence of Raleigh City Code section 10-2082.3(d)(4) to

insert before the term "Urban Forester" the following language: "City Forestry Specialist,". Amend the third sentence of said section to delete the language "two thousand five hundred dollars ($2,500.00)" and in lieu thereof insert the language "one thousand dollars ($1,000.00)". Amend the fifth sentence of said section to delete the words "or a root system" and to insert between the words "period" and "or" the following language: ", or more than 40 per cent (40%) of the *critical root zone* of the tree is subjected to *tree disturbing activity*,". Amend the sixth sentence of said section to delete the word "minimum" with the word "maximum". Amend the last sentence of said section to replace the term Urban Forester with "City Forestry Specialist".

Section10. Amend section 10-2082.4(a) after the word "material", which appears four times, insert the language ", or tree conservation,".

Section 11. Amend Raleigh City Code section 10-2082.4(b), to insert between the words "and" and "exceeds" the words "tree conservation areas". Said section is further amended to replace the comma between the words "limitation" and "but" with a period and to capitalize the initial letter of the word "but". Said section is yet further amended to replace the period at the end of the section with the following: ", and in no case *shall* the required tree conservation areas be reduced by more than one-half. Notwithstanding the foregoing, at the time of designation of tree conservation areas if *transitional protective yards* on the perimeter of the tract are indicated and such areas are not designed as an overlapping area for both the *transitional protective yard* and the tree conservation area, no other perimeter tree conservation area established pursuant to section 10-2082.14(b)(2)(c) and (d) nor their alternate tree conservation areas of *undisturbed areas shall* be considered when calculating the per cent of land coverage devoted to required landscaping."

Section 12. Amend section 10-2082.9(b)(3), last sentence, to insert between the words "that" and "there" the following words: "at the time of application for development".

Section 13. Amend section 10-2082.9(g)(1) to add a new last subsection, subsection e. New subsection "e." shall read as follows:

> "e. The ground area required for all landscaping by this Code exceeds thirty (30) per cent of the land area."

Section 14. Amend section 10-2082.9(g)(3) to add a new last subsection, subsection d. New subsection "d" shall read as follows:

"d. The *closed fence* or *wall* is erected pursuant to §10-2082.9(g)(1)e. and the *transitional protective yard* screens any of the following: a low or medium impact use, as specified in subsection (c), property zoned Conservation Management or a *residential district* developed with one (1) or more *dwellings congregate care* or *congregate living structures*. In such instances the width of the *transitional protective yard may* be reduced in size so that the ground area required for all landscaping by this Code does not exceed thirty (30) per cent of the area, provided such *transitional protective yards shall* not be less than ten feet (10') in width.".

Section 15. That Raleigh City Code section 10-2082.12 be amended to replace in the first sentence of subsection (b) the words "grading or tree removal" with the following words "*tree disturbing activity*". Subsection (c) of said section, including its caption is amended to replace the words "tree removal permit" with the words "tree conservation permit". Subsection (f) of section10-2082.12 is amended to insert a new sentence before the last sentence which shall read as follows: "Prior to any replanting, the City Forestry Specialist *shall* first approve a replacement planting and maintenance plan.".

Section 16. That the Raleigh City Code be amended to include the following new subsection 10-2082.14:

"_____

Sec. 10-2082.14
ESTABLISHMENT AND PROTECTION OF *TREE CONSERVATION AREAS*

(a) Intent, Purpose and Application.

(1) Intent and Purpose.

The intent of this section is to conserve one of the community's most valuable natural resources, the trees and natural vegetation of Raleigh. This natural resource is of general aesthetic and ecological value and has been preserved to:

a. ensure the beautification of Raleigh;
b. modify the effect of stormwater, by reducing both the amount and the rate of runoff and increasing the capability of groundwater recharge in urban areas;
c. conserve a remnant of Raleigh's natural vegetative cover;
d. filter particulate and gaseous pollution from the air;
e. attenuate glare and noise;
f. prevent soil erosion and sedimentation;
g. provide visual buffering of streets and developments;
h. preserve the unique identity and environment of the City of Raleigh;
i. provide areas to filter stormwater runoff and remove nitrogen and other pollutants from stormwater;
j. provide a pleasing habitat for people and animals;
k. promote an appropriate balance between the built environment and the natural environment;
l. promote the preservation of existing natural areas rather than the removal and replanting of vegetation.

(2) Application.

After the application of this regulation* , the provisions of Section 10-2082.14 *shall* apply to:

a. Subdivisions of any tract two acres or greater in size.
b. *Site Plans* for parcels two acres or greater in size on lots either existing prior to the application of this regulation or lots configured by recombination after the application of this regulation.

***Editor's Note:** Section 10-2082.14 first became applicable on May 1, 2005 (Ord. NO. 2005) 762 TC 264 TC-7-04

(b) Tree Conservation Areas Required.

Prior to the approval of any subdivision plan or *site plan* two acres or greater in size, the developer *shall* establish tree conservation areas. Tree conservation areas established on the parent tract *shall* apply to further subdivision of the parent tract, but not to subsequent recombinations.

(1) Primary Tree Conservation Areas-

Tree conservation areas *shall* be required and established in each of the following applicable areas of the tract:

a. *Resource Management Districts* tree protection areas and areas with conditional use zoning tree protection areas such as, and without limitation, *natural protective yards* and areas subject to *active tree preservation*.

b. Areas containing *champion trees* that are not *unhealthy*, including the *critical root zone* of such tree.

c. Zone 2 of Neuse River Riparian Buffers, as established in title 15A of the North Carolina Administrative Code subchapter 2B Section .0233 excluding governmental and utility easements that prohibit trees and any area devoted or to be devoted to crossings of the buffer.

d Areas with a gradient of 45% or greater which are adjacent to or within floodways.

(2) Secondary Tree Conservation Areas

Whenever the total land area of all primary tree conservation areas required by section (1) above is less than fifteen per cent (15%) of the area of any tract zoned Rural Residential or Residential -2 and is less than ten per cent (10%) of the area of tracts zoned any other zoning district, except Conservation Management, then additional tree

conservation areas *shall* be required and established until either at least fifteen per cent (15%) of the land area of tracts zoned Rural Residential and Residential-2 are designated tree conservation area*s* or at least ten per cent (10%) of the land area of all other zoned tracts. except Conservation Management, are designated tree conservation areas. Notwithstanding these percentage limitations, once all of the priority areas of subsection (2) have been considered in accordance with the provisions of section 10-2082.14, the requirements of this Code section are fulfilled even if the required minimum amount of tree conservation area is not provided. Designated tree conservation areas on the tract, in addition to those primary tree conservation areas, *shall* be based on the following priorities; the priority of secondary tree conservation areas from highest priority to lowest priority is as follows:

a. An *undisturbed area* adjoining a major *thoroughfare* designated on the Comprehensive Plan varying in width between a minimum of zero (0) feet and a maximum of one hundred (100) feet; provided that, the total area of the *undisturbed* area is equal to an area measured fifty feet (50') perpendicular to the frontage of the *thoroughfare.*

b. An *undisturbed area* adjoining a minor *thoroughfare* designated on the Comprehensive Plan varying in width between a minimum of zero (0) feet and a maximum of one hundred (100) feet; provided that, the total area of the *undisturbed area* is equal to an area measured fifty feet (50') perpendicular to the frontage of the *thoroughfare*;

c. A sixty-five (65) foot wide perimeter yard when the adjoining or adjacent *property* is not "vacant'.

d. A thirty-two (32) foot wide perimeter yard when the adjoining or adjacent *property* is "vacant".

The term "vacant" as used herein means that at the time of application for development there is no *building* or structure or *vehicular surface area* within two hundred feet (200') from the common property line of the property being developed and the adjoining or adjacent *property*.

As an alternate means of compliance with priorities (2)c. or (2)d., tree conservation areas of *undisturbed areas* are allowed anywhere on the site. Provided, that the square footage of the substituted *areas* are equal in area to the square footage of priorities (2)c. and (2)d. respectively; as set forth in subsection (2), no alternate *undisturbed area shall* be less than four thousand square feet (4,000 sq. ft.) of land area, and all dimensions *shall* be at least twenty feet (20') in all directions. No portion of Zone 1 of Neuse River Riparian Buffers as established in Title 15A of the North Carolina Administrative Code, Subchapter 2B

Section .0233 *shall* be designated an alternate *undisturbed area*.

e. Any tree 10 inches (10”) or greater in *DBH* (31 and one-quarter inches or greater in circumference) that is located within sixty five feet (65’) along roadways and within sixty five feet (65’) of any *property* boundaries of *properties* that are not “vacant”. The term "vacant" as used herein means that at the time of application for development there is no *building* or structure or *vehicular surface area* within two hundred feet (200') from the common *property* line of the *property* being developed and the adjoining or adjacent *property*.

f. Any tree 10 inches (10”) or greater in *DBH* (31 and one quarter inches or greater in circumference) that is located within thirty-two feet (32’) of any *property* boundaries of *properties* that are “vacant”. The term "vacant" as used herein means that at the time of application of development there is no *building* or structure or *vehicular surface area* within two hundred feet (200') from the common *property* line of the *property* being developed and the adjoining or adjacent *property*.

For priorities (2)e and (2)f no tree *shall* be selected for tree conservation if it has one or more of the following characteristics:

1. It is located within a sight triangle as set forth by the North Carolina Department of Transportation’s **Policy on Street and Driveway Access to North Carolina Highways Manual** and all subsequent amendments thereto.

2. The tree is located within a slope easement or any easement that prohibits trees.

3. The tree is *unhealthy* according to one or more of the characteristics listed in section 10-2002 subsections (1) through (5) for the defined term *unhealthy*.

(c) Existing Tree Cover Required.

Tree conservation area*s* proposed for priority areas (b)(2)a. through)(b)(2)d., including any allowed alternate tree conservation areas of *undisturbed area*s, *shall* contain a *basal area* of at least thirty (30) square feet per acre as determined in increments of fifty (50) feet in length. No tree situated outside of the tree conservation area *shall* count for computing *basal area.*

For those developments that fulfill any of their tree conservation area requirement in

secondary tree conservation areas, subsection (b)(2) above, each developer *shall* submit to the City:

(1) Photo panoramic panels of the intended area to be conserved. The photo panel *shall* equal fifty feet (50') of the length of the priority area to be conserved;

(2) A tree cover report prepared by a certified arborist, North Carolina licensed landscape architect or North Carolina registered forester describing for each fifty foot (50') length of proposed *tree conservation area* the composition of tree species, typical characteristic of the tree stand, the smallest caliper tree, but not less than 3 inches *DBH* (9 3/8 inches circumference measured four and one-half feet above the ground) the largest *DBH* and the typical *DBH*, typical spacing between trees, the *basal area* and an indication of the general health and vigor of the tree stand. The report and the photo panels *shall* be interrelated;

(3) The most recent aerial photograph of the subject tract.

An actual survey of trees and computation of *basal area may* be substituted in lieu of subsection (1) and (3) above.

(d) Delineation of Tree Conservation Areas

The area of secondary tree conservation areas established pursuant to subsection (b)(2) above which consist of groups of trees is measured by finding the area minimum imaginary rectangles or squares of vertical and horizontal lines, which fully enclose all the protected trees excluding governmental and utility easements that prohibit trees and any area devoted or to be devoted to streets, driveways, walkways, storm drainage facilities, including without limitation, pipes, energy dissipaters and stormwater control measures which require the removal of vegetation. Such tree conservation areas *shall* also contain the dimensional requirements of (b)(2)a. through d. City of Raleigh greenways *may* at the option of the owner be included in the boundaries of tree conservation areas, provided that an area computed twenty-five feet (25') multiplied by the length of the greenway is excluded as tree conservation for trail construction. Tree conservation areas proposed for priority areas (2)a. through (2)d., including any allowed alternate internal *undisturbed areas shall* be at least twenty feet (20') in all directions excluding external boundaries.

The area of tree conservation areas for individual trees and for trees ten inches (10") or more in *DBH* that are situated within tree conservation areas in priorities (2)a.(2)b, allowed alternate *undisturbed areas* pursuant to (2)c. and d. and (2)e and (2)f., *shall* in addition include the *critical root zone* measured from the base of trees. When a landscape easement is obtained from the adjoining land that prohibits all *tree disturbing* activity, off-site areas for protected *critical root zones may* be included as tree conservation areas provided that such areas *shall* not be double counted as tree

conservation areas.

(e) Documentation of Tree Conservation Areas.

After the tree conservation areas have been determined in accordance with the foregoing requirements, and prior to any *tree disturbing activity*, a map with metes and bounds descriptions of all tree conservation areas *shall* be given to the City Forestry Specialist in the Inspections Department and protective fencing is in place in the field.

After the tree conservation areas have been determined in accordance with the foregoing requirements and prior to or concurrent to any subdividing of the *property* or issuance of building permit, which ever event first occurs, the landowners *shall* record with the local county register of deeds the following:

(1) A plat with metes and bounds descriptions of all tree conservation areas*;*

(2) An easement allowing all future lot owners of the *property* and their agents the right to enter recorded tree conservation areas of the property to perform any *active tree preservation* measure and to replant replacement trees;

(3) A owners' association declaration prepared in conformity to Raleigh City Code section 10-3073 and Chapter 47 F of the General Statutes for the maintenance and protection of the trees within recorded tree conservation areas;

(4) One or more deeds conveying all tree conservation areas in fee or in easement to the owners' association.

(f) Permitted *Tree Disturbing Activities*.

No *tree disturbing activity shall* take place in designated tree conservation areas except in strict conformity with the following regulations:

(1) Within tree conservation areas of *Resource Management Districts* and areas with a gradient of 45% or greater which are adjacent to or within floodways, *tree disturbing activities* are allowed provided a tree conservation permit is first obtained from the Inspections Department and the provisions of 10-2082.12(c) through (e) are met.

(2) Within Zone 2 of Neuse River Riparian Buffers permitted *tree disturbing activities* are allowed for: (a) Any work that is ancillary to activities allowed by the North Carolina Division of Water Quality in Zone 1. For example, the extension of a roadway perpendicular to zones 1 and 2 is allowed upon approval by the North Carolina Division of Water Quality; (b) Any sanitary sewer installation when an existing permanent structure or any part of an existing permanent structure that is to remain on the site is within the width of the proposed permanent and temporary construction sanitary sewer easement plus ten (10) feet; and (c) More than fifty per cent (50%) of a reach of sanitary sewer main will be over twelve (12) feet deep.

(3) Within tree conservation areas for secondary tree conservation areas of subsection (b)(2) *tree disturbing activities* are allowed when all of the following are met:

a Prior to commencing any *tree disturbing activity* a tree conservation permit *shall* be obtained from the Inspections Department. Tree conservation permits authorized under this section will be issued for one (1) or more of the following:

1. A certified arborist, certified by the International Society of Arboriculture, or a forester registered by the State of North Carolina, or a landscape architect licensed by the State of North Carolina first certifies in writing to the City that the tree is either unsafe or is *unhealthy* as set forth in §10-2002(1) through (5). Provided, no certification *shall* be required if it can be shown to the *City* that the tree died of natural causes and the dead tree is replaced in accordance with the substitution standards of subsection b.2. below.

2. Tree removal and grading is being done to remove a visual obstruction from a sight triangle as set forth in the North Carolina Department of Transportation's Policy on Street and Driveway Access to North Carolina Highways manual, and all subsequent amendments thereto.

3. The removal and grading is being done to install public improvements made pursuant to

Part 10 Chapter 3, including but not limited to street construction.

4. Where existing vegetation meets the minimum applicable *street protective yard* tree planting requirements for the applicable zoning district, or meets applicable *transitional protective yard* requirements, a tree conservation permit *may* be issued for wooded area clean-up for *shade trees* less than two (2) inches *DBH* (six and one-quarter inches (6 ¼") in circumference) and *understory trees* less than one (1) inch in *DBH* (three and one-eighth (3 1/8") inches in circumference). No permit for such tree removal will be issued unless and until a plan is submitted showing how the work will be undertaken without compacting soils and damaging preserved trees and maintaining minimum applicable requirements. Said plan *shall* show the nature and extent of all trimming.

No tree conservation permit required by subsection (f)(3)a *shall* be issued without a tree replacement plan that conforms to subsection b. and if applicable subsection c. below.

b. Whenever a tree conservation permit is issued in accordance with subsection (f)(3), the property owner *shall* install replacement trees for any tree situated within the limits of the *tree disturbing activities* in one of two ways:

1. One or more *undisturbed areas* of equal size containing vegetation similar in size and quantity as that which is being removed is preserved either outside the *street protective yard*, between the *principal building* and the roadway for priority areas 10-2082.14(b)(2)a. and b. or is preserved in alternate *undisturbed areas* meeting the requirements of subsections b. through d. herein for priority areas 10-2082.14b(2)c. and d.; or

2. For each one hundred (100) square feet of disturbed land area, two (2) inches of caliper (six and one-quarter (6 1/4) inches of tree circumference) is either planted between the *principal building* and the roadway for priority areas 10-2082.14(2) a. and b. and or is planted

in alternate areas of the site for priority areas 10-2082.14(b)(2) c. and d.

All substituted natural areas and all newly planted areas of subsections 1. and 2. above *shall* be designated as tree conservation areas on plats with metes and bounds descriptions recorded with the local county register of deeds.

c. All portions of *critical root zones* of trees situated inside a designated tree conservation area which adjoin proposed *tree disturbing activities* requested pursuant to subsection (f)(3) within the same designated tree conservation area *shall* remain *undisturbed areas* for trees ten (10) inches or greater in *DBH* (31.25 inches in circumference or greater).

d. Prior to commencing any *tree disturbing activity,* the boundaries of such activities *shall* be delineated by a protective fence in the field and a tree conservation permit *shall* be obtained from the Inspections Department.

(g) Payments As An Alternate Means of Compliance.

After consideration of other alternate methods of compliance, §10-2082.4(a), the landowners *may* satisfy the requirements of section 10-2082.14 with the payment of money to the City of Raleigh. Payments *shall* be equal to the tax value of lands, not structures, relieved from the compliance, as determined as a ratio from the overall per square foot tax value of the entire land area of the property similarly zoned.

All collected monies, including any income derived from such monies, *shall* be spent either for acquisition of lands where trees will be preserved or for tree planting. The City Council *shall* set forth specific eligible activities for tree preservation and tree plantings. All collected monies must be spent within the same open space fee zone of City Code Part 10 chapter 8 as from which the payment were collected.

(h) Penalties.

A violation of this section 10-2082.14 *shall* subject the violator to a civil penalty of a minimum of one thousand dollars ($1,000.00) for the first tree plus thirty-five cents (.35¢) of every foot of unlawful *tree disturbing activity*. Said civil penalty *shall* be processed as set forth in §10-2152(5).

(i) Restoration.

In addition to the civil penalty of subsection (h), the owner of real *property*, where a violation has occurred, *shall* remove each such unlawfully disturbed tree and replace with a tree or trees of equal caliper as measured four and one-half feet (4.5") above grade. Prior to any replanting, the City Forestry Specialist *shall* first approve a replacement planting and maintenance plan. Replacement tree *shall* be two (2) inches in caliper [six and one-quarter (6.25) inches in circumference] measured at one-half (1/2) feet above grade, and no replacement tree *shall* be located in those portions of a tree conservation area with a *basal area* of over eighty (80) square feet per acre. All replacement trees *shall* be planted in a planting area of least three hundred fifty (350) square feet in area with minimum dimensions of seven (7) feet. If the tree conservation area whereon the violation has occurred fails to contain sufficient land area to replant the required replacement trees and replacement trees can not be planted on other portions of the *property*, then in lieu of such replacement trees, a replacement fee equal to one hundred dollars ($100.00) per caliper inch of replacement trees *shall* be paid to the City.

State law references: 2001 Sessions Laws Chapter 191 made applicable to the City of Raleigh by section 1 of 2003 Session Laws Chapter 128. ".

Section 17. Amend section 10-2103(d) to delete subsection numbers (1) through (3) and renumber existing subsection numbers (4) through (7) subsections (1) through (4) respectively. The first paragraph of renumbered subsection (1) [former subsection four] is amended to delete all the language between "§10-2051(e)(2)" and the colon, and in lieu thereof substitute: "all *group housing developments shall* comply with the greater of". Renumbered subsection (2) [former subsection five] is amended to insert in the first sentence, between the words "may" and "be" the language ", except in open space areas designated tree conservation areas", and to repeal the last sentence in its entirety. The last sentence of renumbered subsection (3) [former subsection six] is amended to replace the language "subsection (5)" with "subsection (2)".

Section 18. Amend section 10-2132.2(c)(1) to repeal existing subsections (j) and (k) and to insert in lieu thereof, without any sunsets, the following subsections:

"j. All nonresidential *site plans* less than two acres in size located adjacent to or within fifty (50) feet of a *thoroughfare* containing a *basal area* of thirty square feet (30 sq. ft.) that fails to provide either:

1. A fifty (50) foot-wide *natural protective yard* along the *thoroughfare*; or

2. A minimum average *natural protective yard* of fifty (50) feet wide along the *thoroughfare* with a minimum and maximum range of zero (0) – one hundred (100); provided, that the number of trees five inches (5") *DBH* or greater (15.625 inches in circumference or greater measured four and one-half feet (4 ½ ') above the ground) situated in the proposed average yard, as determined by a tree survey submitted to the City, is not less than the number of such trees located within the required uniform fifty-foot wide *natural protective yard* of subsection (1) above; or

3. Tree conservation area pursuant to section 10-2082.14 *et seq*.

k. All nonresidential *site plans* less than two acres in size located within the fifty foot (50') wide buffer area for areas directly adjacent to any riparian surface water, as defined in Part 10 chapter 9, that fails to provide a fifty (50) foot wide *natural protective yard* in the riparian buffer.".

Section 19. Amend section 10-2151(a) of the Raleigh City Code to insert between the words "placed" and "altered" appearing in subsection (1) the language, "removed,". Subsection (3) of said section is amended to insert the language "tree," between the words "sign" and "or".

Section 20. Amend Raleigh City Code section 10-3006 to delete from the caption the words "PENDING REZONING" and in lieu thereof insert the words "**ON SUBDIVISION APPROVAL**". Said section is further amended to add a new last paragraph which shall read as follows:

"No *subdivision* plan shall be approved on any parcel of a parent tract when forestry general as defined in part 10 chapter 2 has occurred on the parent tract within the last five (5) years and the perimeter buffers set forth in §10-2072, Tree disturbing activity except a minor tree removal activity, subsection (2), were not preserved.

State Law References: 2001 Sessions Laws Chapter 191 §1(d) made applicable to the City of Raleigh by section 1 of 2003 Session Laws Chapter 128.".

Section 21. Amend the definition of Forestry contained in Raleigh City Code section 10-5003 to rewrite subsection "c." to read as follows: "c. The regeneration of trees by the replanting of trees at a rate of one inch caliper tree measured six inches (6'') above the ground per every two hundred (200) square feet of tree disturbing activity area , as defined in Part 10 chapter 2, within two hundred and twenty (220) days of harvesting; and".

Section 22. Amend Raleigh City Code section 10-6032 (g) – permits required- to repeal subsection (5) and renumber all subsequent subsections accordingly.

Section 23. Amend Raleigh City Code section 10-6032 – permits required – to re-letter subsection (l) as letter (m) and to insert a new subsection (l) that shall read:

"(l) Tree conservation permit.

No *person shall* undertake any tree disturbing activity, as that term is defined in Part 10 chapter 2, without first obtaining a tree conservation permit from the Inspections Department whenever this Code, or condition of approval of any site plan, subdivision plan or variance, or conditional use zoning ordinance requires that *person* or landowner to either protect and conserve trees or to install protective fencing.".

Section 24. Amend Raleigh City Code section 10-6033 – application for permit- to insert a new last numbered subsection to read as follows:

"**(10) Tree conservation permit.**

The application for a tree conservation permit *shall* contain all drawings, data, distances, tree *DBH* sizes, boundary limits of all tree disturbing activities and all tree conservation areas and any other information required to ensure compliance with the provisions of this Code, conditions of approval of any site plan, subdivision plan or variance or provisions of any applicable conditional use zoning ordinance.".

Section 25. Amend Raleigh City Code section 10-6035(f) – limitations on the issuance of permits – to insert between the words "of" and "Metro-Park" the following language,"§10-2082.14,".

Section 26. Amend Raleigh City Code section 10-6035 – limitations on the issuance of permits – to insert a new last lettered subsection to read as follows:

"(j) No building permit will be issued on any parcel of a parent tract when forestry general as defined in Part 10 chapter 2 has occurred on the parent tract within the last five (5) years and the thirty-two (32) foot and sixty-five (65) foot wide perimeter buffers, set forth in subsection (2) of §10-2072, Tree disturbing activities except a minor tree removal activity, were not preserved.

State Law References: 2001 Sessions Laws Chapter 191 §1(d) made applicable to the City of Raleigh by section 1 of 2003 Session Laws Chapter 128. ".

Section 27. Amend 10-6039(d) – specific fees enumerated-, as amended by Ordinance NO (2004)637 TC 247, to insert a new entry between the entries for "Temporary trailer, per trade" and "Watercourse buffer permit"; the new entry shall read:

"Tree conservation permit…… $100.00".

Section 28. All laws and clauses of laws in conflict herewith are hereby repealed to the extent of said conflict.

Section 29. If this ordinance or application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given separate effect and to this end the provisions of this ordinance are declared to be severable.

Section 30. This ordinance has been adopted following a duly advertised joint public hearing of the Raleigh City Council and the City Planning Commission following a recommendation of the Planning Commission.

Section 31. This ordinance has been provided to the North Carolina Capital Commission as required by law.

Section 32. This ordinance shall be enforced as provided in N.C.G.S. 160A-175 or as provided in the Raleigh City Code. All criminal sanctions shall be the maximum allowed by law notwithstanding the fifty dollar limit in G.S. 14-4(a) or similar limitations.

Section 33. This ordinance shall become effective on May 1, 2005. Any development plan submitted to the City prior to that date shall not be subject to this ordinance, but nothing herein shall prohibit the application of this ordinance to future tree disturbing activities or application of this ordinance to site plans and further subdivisions on the site. All planned unit developments approved prior to January 4, 2005 which contain tree conservation requirements that total at least ten (10) per cent of the entire planned unit development are exempted from this ordinance until May 1, 2009.

ADOPTED: January 4, 2005

EFFECTIVE: See Section 33

DISTRIBUTION:

This ordinance prepared by the Raleigh City Attorney's Office