

**ORDINANCE NO. 18615-05-2009**

**AN ORDINANCE AMENDING THE COMPREHENSIVE ZONING ORDINANCE OF THE CITY OF FORT WORTH, BEING ORDINANCE NO. 13896, AS AMENDED, CODIFIED AS APPENDIX "A" OF THE CODE OF THE CITY OF FORT WORTH, BY AMENDING CHAPTER 6, "DEVELOPMENT STANDARDS" TO DELETE SUBSECTION K OF SECTION 6.301 "LANDSCAPING" AND RE-LETTER THE REMAINING SUBSECTIONS; TO ADD A NEW SECTION, SECTION 6.302 ENTITLED "URBAN FORESTRY" TO INCLUDE AND REVISE THE CONTENTS OF SUBSECTION K RELATED TO TREE COVERAGE, PRESERVATION, PLANTING AND MAINTENANCE; PROVIDING THAT THIS ORDINANCE SHALL BE CUMULATIVE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING A PENALTY CLAUSE; PROVIDING A SAVINGS CLAUSE; PROVIDING FOR PUBLICATION IN THE OFFICIAL NEWSPAPER; AND PROVIDING AN EFFECTIVE DATE**

**WHEREAS**, Chapter 211 of the Texas Local Government Code allows a municipality to regulate land use for the purpose of promoting the public health, safety, morals, or general welfare and protecting and preserving places and areas of historical, cultural or architectural importance and significance; and

**WHEREAS**, the Attorney General of Texas has ruled that a home-rule city may enforce its reasonable land development regulations for the purposes of maintaining aesthetics and property values which would include landscaping and tree preservation (AG Opinion No. GA-0697); and

**WHEREAS**, in order to maintain and enhance a positive image and a livable city it is important to promote site planning which furthers the preservation of mature trees and to protect trees during construction, to facilitate the design and construction which contribute to the long term viability of existing trees and to control the removal of trees when necessary; and

**WHEREAS**, a Citizen Advisory Committee was formed in 2004, in response to citizen concerns regarding the practice of clear cutting, to study tree preservation practices in other cities and recommend possible regulations related to tree preservation to the City Council of Fort Worth; and

**WHEREAS**, the City Council recognized that there was a need to establish regulations addressing the protection of healthy and significant trees and to provide for the replacement and replanting of trees that are necessarily removed during construction, development or redevelopment in an expeditious manner and with due regard for the legal rights of property owners; and

**WHEREAS**, on October 3, 2006 the City Council of Fort Worth approved Ordinance Number 17228 to provide for regulations for the protection and replacement of trees in the City of Fort Worth; and

**WHEREAS**, it was the intent of the regulations to limit the removal of tree canopy, promote a multi-aged urban forest, to promote the orderly development of the City of Fort Worth, and to protect the public health, safety and general welfare of the citizens of the City of Fort Worth; and

**WHEREAS**, the regulations had the following objectives: to eliminate the process of clear cutting; to promote the preservation/conservation of trees throughout the City; to recognize the benefits of trees in the urban environment; to encourage the planting and preservation of quality trees that are suitable to an area; to promote a safe environment that includes trees; to aid in stabilizing the environment's ecological balance by contributing to the process of air purification, oxygen regeneration, ground-water recharge, and storm water runoff retardation, while at the same time aiding in noise, glare, wind and heat abatement; to provide visual buffering within and between land uses of differing character to alleviate the harshness of urban life; to enhance the beautification and aesthetics of the City; to safeguard and enhance property values and to protect public and private investment; to conserve energy; to provide habitat for wildlife; and to encourage the preservation of large trees which, once removed, can be replace only after generations;

**WHEREAS**, since the adoption of Ordinance Number 17228, staff has recognized a need to amend the regulations to provide clarity and to make the provisions easier to implement by moving the regulations to a separate subsection under landscaping; and

**WHEREAS**, it is advisable that the City Council amend Ordinance Number 17228 regarding the urban forestry regulations governing the preservation and removal of trees within the City;

**NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF FORT WORTH, AS FOLLOWS:**

#### **SECTION 1.**

The title of Article 3 "Landscaping and Buffers" is hereby amended to add urban forestry to read as follows:

#### **Article 3. Landscaping, Buffers and Urban Forestry**

#### **SECTION 2.**

Section 6.301 "Landscaping" is hereby amended by deleting subsection K "Preservation of Trees" and re-lettering the remaining sections. The Code of the City of Fort Worth, Texas (1986), as amended, is hereby amended to replace all references to "Section 6.301K" with "Section 6.302."

### **SECTION 3.**

Chapter 6, “Development Standards” of Article 3, “Landscaping, Buffers and Urban Forestry” is hereby amended to add a new section, Section 6.302 “Urban Forestry” to add and revise the contents previously contained in Section 6.301.K relating to tree coverage, preservation, planting and maintenance, to read as follows:

#### **6.302. Urban Forestry**

##### **A. Purpose**

It is the purpose of this section to achieve thirty percent (30%) tree canopy coverage citywide and to promote a multi-aged urban forest. This may be accomplished by addressing the preservation and protection of healthy and significant trees, providing for the replacement and replanting of trees that are removed during development, and establishing additional tree canopy.

##### **B. Applicability of Urban Forestry Requirements**

These requirements shall be applicable to all development as described below, unless subject to the exemptions in Paragraph C:

1. Removal of any trees of six (6) inches or greater in diameter.
2. Construction of new structures for which a building permit is required.
3. Expansion of structures used for commercial/institutional and industrial uses that increase the footprint of existing structures by at least thirty percent (30%) or add at least three thousand (3,000) square feet to existing structures.
4. Clearing of all or a portion of property, including grading or construction of a new parking lot.
5. Subdivision of land greater than one acre for the construction of one- or two-family dwellings, including contiguous lots with the same owner that total more than one acre.
6. Construction of manufactured home parks and recreational vehicle parks for which a permit is required and private recreation facilities located in manufactured housing subdivisions.
7. Mixed Use (MU) zoned properties. These properties must provide, through either preservation or planting, fifty percent (50%) canopy coverage of required open space.
8. New agricultural development that requires tree removal.
9. Public projects that will physically change the surface or will include removal of trees six (6) inches or greater.

### **C. Exemptions from Urban Forestry Requirements**

The following are not subject to Urban Forestry requirements:

1. Structures that do not create or expand building square footage or temporary structures such as job shacks associated with construction activities, when no trees greater than six (6) inches are removed;
2. Any single residential lot with a one- or two-family dwelling that is one (1) acre or less in size.
3. Change in use of an existing structure, unless the structure is expanded in accordance with Paragraph B.3 above;
4. Any area within a design district unless the standards for that district do not address urban forestry.
5. Construction or expansion of structures in the “H” Central Business District.
6. Any area located within an airport operating area as defined by Section 3-1 of the City Code.
7. Any tree that is deemed to be in unsafe condition, or is injurious to common good, or to electrical, gas or water utilities, or sewer pipes, pavement or improvements, or is infested and dangerous to other trees or conflicts with other ordinances or regulations.
8. Gas well sites and natural gas pipeline compressor stations, except as outlined in Chapter 15, Gas Drilling of the City Code.

### **D. General Requirements**

The following requirements apply to all development:

#### **1. Tree Protections and Maintenance:**

##### **a. Procedures required prior to development activities:**

i. Protective Fencing: Prior to development activities, the contractor or subcontractor shall construct and maintain, for each preserved tree or tree cluster on a tract, a protective fence which encircles the outer limits of the critical root zone of the tree to protect it from development activities. All protective fencing shall be in place prior to commencement of any site work and remain in place until all exterior work has been completed. Fencing shall meet the state minimum standards of a four (4) foot orange plastic mesh net with t-posts, including a top rail or other type of support. Significant trees shall be protected with a minimum four (4) foot chain link fence with support cables and t-posts.

ii. Bark Protection: In situations where a preserved tree remains in immediate area of intended construction and the City Forester determines the tree bark to be in danger of damage by development activities, the contractor or subcontractor shall protect the tree by enclosing the entire circumference of the tree with two-inch by four-inch (2" x 4") lumber encircled with wire or other means that does not damage the tree.

The intent is to protect the bark of the tree against incidental contact by large construction equipment.

iii. Canopy Coverage Protection: All trees being preserved for canopy coverage under Section 6.302.G.4. or a Significant or Large Tree covered under Section 6.302G.5. due to size will be protected during any development activities. Development activities will include vegetation removal, grading, demolition, installation of utilities and/or construction of structures and site amenities.

- b. Protective measures (as defined in this section) must occur on all trees located within fifty (50) feet of development activities.
- c. Protective measures are required within the critical root zone radius from the trunk at one (1) foot per inch diameter measured at Breast Height (DBH).
- d. The following activities within the critical root zone are prohibited:
  - i. No material intended for use in construction or waste material accumulated due to excavation or demolition shall be place within the limits of the critical root zone of any preserved tree;
  - ii. No equipment shall be cleaned or other liquids deposited or allowed to flow overland with the limits of the critical root zone of a preserved tree. This includes, without limitations, paint, oil, solvents, asphalt, concrete, mortar or similar materials;
  - iii. No signs, wires or other attachments, other than those of a protective nature, shall be attached to any preserved tree;
  - iv. No vehicular and/or construction equipment traffic or parking shall take place within the limits of the critical root zone of any Preserved Tree other than on existing street pavement; or
  - v. No heavy equipment, including but not limited to trucks, tractors, trailers, bulldozers, bobcat tractors, trenchers, compressors and hoists shall be allow inside the critical root zone of any preserved tree on any construction site without the specific approval of the City Forester;
  - vi. No grade change within the critical root zone of any Preserved Tree without submission of a certified arborist/forester report dealing with protections and the report acceptance by the City Forester;
  - vii. No filling activity in the critical root zone of any Preserved Tree may occur as a permanent condition which may damage the tree. Tree wells may be used to ensure that the root zone is protected.

- e. Replacement of any Preserved Tree which dies within five (5) years due to construction or development activities will be the responsibility of the original applicant. Replacement will be new trees with a minimum of three (3) inches each in diameter and equal to five (5) times the lost canopy. Tree replacement will be guaranteed for an additional period of two (2) years.

2. Construction Methods:

- a. *Boring*: Boring of utilities under preserved trees shall be required in those circumstances where it is not possible to trench around the critical root zone of the preserved tree. When required, the length of the bore shall be the width of the critical root zone at a minimum and shall be a minimum depth of forty-eight (48) inches.
- b. *Grade change*: In situations where the City Forester approves a grade change within the critical root zone of a preserved tree, procedures and special conditions shall be approved by the City Forester in advance of any work.
- c. *Trenching*: All trenching shall be designed to avoid trenching across the critical root zone of any preserved tree, unless otherwise approved by the City Forester. All work within the critical root zone requires advance approval by the City Forester. The placement of underground utility lines such as electric, phone, gas, etc., is encouraged to be located outside the critical root zone of preserved trees. Trenching for an irrigation system shall be placed outside the critical root zone, except into the critical root zone perpendicular to the tree trunk and in the manner that has the least possible encroachment into the critical root zone. Boring is required for all underground utility lines that cross the critical root zone.
- d. *Root pruning*: All roots two inches or larger in diameter which are exposed as a result of trenching or other excavation shall be cut off square with a sharp medium tooth saw and covered with pruning compound within two (2) hours of initial exposure.
- e. *Underground utilities*: All onsite underground utilities with backfill other than onsite material shall have a clay dam every two hundred (200) feet for the entire length of the utility placement.
- f. *Paving*: No paving is allowed within the critical root zone of any preserved tree unless otherwise approved by the City Forester. Approvals will be based upon best management practices for tree preservation.

3. Tree planting to achieve the goal of canopy coverage:

- a. Trees planted to provide canopy coverage shall be a minimum of two and one-half to three inches (2.5" to 3") each in diameter and will be credited its canopy coverage at normal maturity. These credits are as follows:

- i. Large canopy tree with typical crown width of fifty (50) feet in diameter--two thousand (2,000) square feet (minimum spacing of forty (40) feet on center);
  - ii. Medium canopy tree with typical crown width of thirty (30) feet in diameter—seven hundred (700) square feet (minimum spacing of twenty-four (24) feet on center);
  - iii. Small canopy tree with typical crown width of ten (10) feet in diameter—one hundred (100) square feet (minimum spacing of eight (8) feet on center).
- b. Tree planting requirements: Table H is a list of desirable and adapted trees for the Fort Worth area. Other trees other than those in Table H will be considered by the City Forester and granted on a case-by-case basis. The approval of additional species will be judged on adaptability, long-term health and growth characteristics of the tree type.
  - c. The minimum size of tree planted will be two and one-half to three inches (2.5" to 3") in diameter. The caliper measurement of the trunk shall be taken at a point six (6) inches above the ground if the resulting measurement is no more than four (4) inches in diameter. If the resulting measurement is more than four (4) inches, the measurement of the caliper shall be taken at twelve (12) inches above the ground. If the tree is multi-trunk, the main stem will be given full credit for its diameter and all other stems will receive one-half (1/2) credit. The total of all must be three (3) inches or greater.
  - d. All newly planted trees that die within two (2) years of the date of project completion will be replaced. The replacement tree carries the same two (2)-year replacement requirement. The requirement to replace the trees shall run with the land.
  - e. A minimum of sixteen (16) square feet of permeable surfaces must be provided for all tree plantings.
  - f. Expansion of structures used for commercial/institutional and industrial uses: Tree plantings to achieve canopy coverage will be based only on the square footage of the expansion footprint rather than the entire site to ensure at least minimal tree replacement. Only tree removal permits for trees greater than six (6) inches in diameter are required for expansions under three thousand (3,000) square feet.

#### 4. Warranty/Replacement:

Any preserved tree that dies or becomes hazardous and a threat to public safety or property due to construction activities within five (5) years following the date of issuance of the Certificate of Occupancy shall be replaced following the criteria outlined above for tree preservation and significant tree replacement by the original applicant or assigned party.

5. A Certificate of Occupancy shall not be issued until the requirements of Section 6.302.G. are met.

#### **E. Specific Requirements based on Land Use**

The City's goal to achieve a city-wide tree canopy cover of at least thirty percent (30%) and to promote the functional distribution of that canopy throughout various land uses as development occurs through a combination of planting and retention goals and requirements for tree canopy cover. In support of the overall goal of tree canopy cover for the City, the following land use requirements shall apply:

1. One- and two-family residential land uses:

- a. Minimum retained or planted canopy coverage shall be forty percent (40%).
- b. Canopy for New Subdivisions:

The forty percent (40%) canopy coverage requirement for one- and two- family residential land uses will be reduced to twenty-five percent (25%) if:

- i. One tree per residential lot is planted on all lots up to five thousand (5,000) square feet in area;
- ii. One additional tree for each additional five thousand (5,000) square feet of lot area, or fraction thereof is planted, up to a maximum of nine trees per residential lot; and
- iii. The remaining portion of the twenty-five percent (25%) canopy coverage may be provided in public rights-of-way, parks, homeowner association lots or boundary street parkways.

- c. Phased Development of Residential subdivisions:

Residential subdivisions that are to be developed in phases must provide a plan that complies with the retention requirements at full build-out as approved on the preliminary plat. If a final plat requests credit for trees in undeveloped phases or units that are planned for future development, it will be necessary for all subsequent plats to identify trees for retention or provide mitigation as needed to obtain the required canopy coverage percentage. Updated plans must be provided to Urban Forestry as the subdivision is developed.

- d. Canopy for Existing Platted Residential Lots over one acre:

- i. retained canopy coverage of twenty-five percent (25%);
- ii. overall canopy coverage of forty percent (40%).



2. Multifamily land uses:
  - a. Minimum retained or planted canopy coverage shall be fifty percent (50%) of open space.
3. Institutional land uses:
  - a. Minimum retained or planted canopy coverage shall be thirty percent (30%).
4. Commercial land uses:
  - a. Minimum retained or planted canopy coverage shall be thirty percent (30%).
5. Mixed Use land uses in MU Mixed-Use Zoning:
  - a. Minimum retained or planted canopy coverage shall be fifty percent (50%) of open space.
6. Industrial land uses:
  - a. Minimum retained and planted canopy coverage shall be twenty percent (20%).
7. Surface parking areas:
  - a. Minimum canopy coverage shall be forty percent (40%).
  - b. The canopy coverage shall be achieved through preservation of existing trees or tree planting within the parking field and drives;
  - c. No requirement for one- and two-family residential uses;
  - d. Credit shall be given for preserved or planted trees located outside the subject property within the parkway of adjacent streets.
    - i. Trees planted to provide canopy coverage shall be a minimum of three inches each in diameter and will be credited its canopy coverage at normal maturity. These credits are as follows:
      - (a) Large canopy tree with typical crown width of fifty (50) feet in diameter—two thousand (2,000) square feet (minimum spacing of forty (40) feet on center);
      - (b) Medium canopy tree with typical crown width of thirty (30) feet in diameter—seven hundred (700) square feet (minimum spacing of twenty-four (24) feet on center);

- (c) Small canopy tree with typical crown width of ten (10) feet in diameter—one hundred (100) square feet (minimum spacing of eight (8) feet on center).

8. Public projects (e.g. water, sewer, street, or drainage):

- a. Minimum retained and planted canopy coverage shall be thirty percent (30%);
- b. Public projects may elect to mitigate required canopy coverage through payment into the tree fund at a rate of six hundred dollars (\$600.00) per required tree. No mitigation or payment in to the tree fund shall be required if the public project does not prevent the surface from being restored to its original condition or where the public project will not require tree removal.

9. Agricultural land uses:

- a. Minimum canopy retention shall be twenty-five percent (25%);
- b. New agriculture development will require documentation of the existing canopy coverage and a detailed tree survey of the property prior to clearing or grading of the property. The tree survey will include the location, size and species of tree. At the time of development a payment of two hundred dollars (\$200.00) per diameter inch will be required for up to twenty-five percent (25%) of the removed trees over six (6) inches in diameter. The canopy coverage and total diameter inch total will run with the land provided approved documentation is recorded in the applicable county deed records.

**F. Delineation of Artificial Lot**

If a developer wishes to develop a portion of a one acre or larger tract, the developer may request that the Planning and Development Director delineate the portion of the tract to be developed as an artificial lot, for purposes of calculating Urban Forestry requirements for the development. Artificial lots may be delineated in any type of development, including schools and places of worship. All artificial lots shall meet the following requirements:

- 1. Contain the entire area on which the development is to occur, including all paved areas;
- 2. Contain a land area of less than fifty percent (50%) of the entire tract, or, if the proposed artificial lot contains more than fifty percent (50%) of the entire tract, the Director must determine that a substantial amount of the tract is not affected by the proposed development; and
- 3. Be delineated on the Urban Forestry Plan as provided in Subsection G, below.

**G. Urban Forestry Plan/Permits**

No activity subject to the Urban Forestry Requirements shall be conducted without the required permit for such activity, as further described below:

1. Permits:

a. Tree Removal Permit is required:

- i. prior to the removal of a single tree. No permit shall be issued if the remaining canopy coverage is less than the twenty-five percent (25%) minimum retention; or
- ii. for the removal of any tree six (6) inches or greater in diameter.

b. Urban Forestry Permit is required:

- i. for the removal of more than one (1) tree;
- ii. for construction of new structures on properties where a building permit is required, unless exempted under Section 6.302.C.

c. An Urban Forestry Plan is required to be submitted with the Urban Forestry Permit.

d. An approved Urban Forestry Permit will run with the land. If the project scope or configuration changes prior to any disturbance of the land, the approved Urban Forestry Permit is invalid and the owner/developer shall apply for a new permit.

e. An Urban Forestry Permit shall expire on the fifth anniversary of the date the permit was issued if no progress has been made toward implementation of the Urban Forestry Plan.

2. Urban Forestry Plan:

Submission of an Urban Forestry Plan is required for the issuance of an Urban Forestry Permit and is required before or at the time of application for building permit. At the time of submission of the Urban Forestry Plan, the applicant shall elect a method of preservation of existing canopy under Section 6.302.G.4.

If no trees exist on the site, the applicant shall document the existing conditions and comply with Urban Forestry Plan Application Requirements below, but shall not be required to elect a method of preservation of existing canopy under Section 6.302.G.4.

3. Urban Forestry Plan Application Requirements:

Prior to any platting activity, site plan preparation and submission for development, demolition, disruptive activities (including clearing and grading) or tree removal, the following information must be submitted through a two-part process:

a. Part One: Documentation of Existing Conditions:

- i. The first submittal shall include two (2) copies of a scaled diagram of the subject property in which development, disruption or tree removal is proposed. The

scaled diagram may be an engineered drawing, survey, air photo or other illustration. Part One will reflect the existing conditions by including the following information:

- a. Boundaries of the property and its calculated area i.e. acres, square feet;
  - b. Location map showing the proximity of the property to the nearest streets;
  - c. Outline of the existing tree canopy area on the property and the calculated area (square feet or acres) of existing canopy coverage. Properties with no existing canopy shall indicate such conditions;
  - d. Scaled existing or proposed utilities regulated by the Public Utility Commission, and/or Texas Railroad Commission. Indicate the calculated area (square footage or acres) for these rights of ways or easements;
  - e. Location of each Significant or Large Tree as defined in Chapter 9, its species and canopy area;
  - f. Tables B, C, D, and E in Section 6.302.L.
- ii. Upon completion and approval of Part One documentation, tree removals will be granted if a minimum of fifty percent (50%) of the existing tree canopy is retained. The documentation of pre-development canopy coverage shall be maintained with the property until development occurs. The required retention indicated in Part One documentation will be achieved within the area remaining after the initial clearing.
  - iii. Part One documentation shall expire on the second anniversary of the date of approval if no progress has been made toward completion of a Part Two submission.

b. Part Two: Components of the Urban Forestry Plan:

Part Two will overlay the proposed improvements and removals/preservations/ plantings. Two (2) copies shall be provided and shall include the following information:

- i. Scaled site plan depicting the location of proposed structures, parking areas, drives and amenities;
- ii. Tree canopy areas that are desired to be removed;
- iii. Location and description of trees (large, medium or small canopy crown) that will be planted from Table F to reach the minimum canopy as stated in 6.302E;
- iv. Tables G and H in Section 6.302.L.

#### 4. General Preservation Methods of Tree Canopy

At the submission of an Urban Forestry Plan/Permit Application, the applicant shall elect one of the following tree preservation of existing canopy compliance methods:

- a. **Method “A”:** *Preservation of existing canopy coverage regardless of tree species:*
  - i. At least twenty-five percent (25%) of the existing canopy coverage must be retained, regardless of tree species, on all properties greater than one acre, provided however, Significant or Large Trees must be preserved as outlined in Section 6.302.G.5. The existing canopy can be determined via recent air photo, on the ground survey or other approved method by the City Forester;
  - ii. Property located in floodplains or located in areas that will be dedicated to public spaces may be counted toward the required twenty-five percent (25%) minimum retention;
  - iii. Calculation of all canopy coverage and retention areas will not include utility rights-of-way or easements covered under the rules and regulation of the public utility commission, and/or Texas Railroad Commission;
  - iv. To remove more than the minimum retention will require a waiver from the Urban Design Commission;
  - v. The overall canopy coverage percentage requirement must be met by planting the size and species of Protected Trees in Table A, “Protected Trees”, in Section 6.302.L.
- b. **Method “B”:** *Preservation of existing canopy coverage using Protected Trees only.* Protected Trees must be on the site to use this method. See Table A of Section 6.302.L. for a list of Protected Trees:
  - i. For property greater than one acre, at least twenty-five percent (25%) of the Protected Trees must be retained, provided however, Significant or Large Trees must be preserved as outlined in Section 6.302.G.5. The total overall retained and planted canopy coverage for the applicable land use must meet a total of five percent (5%) over the required minimum canopy coverage. (e.g. residential coverage would be a minimum of forty-five percent (45%), commercial coverage would be a minimum of thirty-five percent (35%) and industrial would be a minimum of twenty-five percent (25%);
  - ii. An onsite tree survey noting the location, size and species (diameter of trees six (6) inches or greater) and canopy coverage of each Protected Tree with a diameter of six (6) inches or greater will be required. This survey shall be completed and signed/sealed by one of the following: Texas licensed Landscape Architect,

Certified Arborist, Texas licensed Landscape Contractor or Texas Certified Nurseryman.

5. Preservation of Significant or Large Trees

- a. Significant or Large Trees twenty-seven (27) inches in diameter (84.82 inches in circumference) for the entire city or eighteen (18) inches in diameter (56.55 inches in circumference) for Post Oaks and Blackjack Oaks east of Interstate Highway 35W can only be removed by permit of the City Forester. The reduced diameter for Post Oaks and Blackjack Oaks east of IH 35W is in recognition of the naturally occurring Post Oak Savannahs within the Cross Timbers Zone. Preservation of a significant or large tree will be credited to the required canopy cover one and one-half (1½) times the actual canopy size.
- b. Significant or Large Trees may be removed if one of the following conditions is met:
  - i. An area one and one-half (1½) times the area of the canopy of the tree identified for removal is retained on the same site. The one and one-half (1½) retention of existing trees shall be of the same species as the tree being removed in the Post Oak Savanna as indicated on Exhibit "A" or from the protected list if not in the Post Oak Savanna and be in excess of the required tree coverage on the site/tract; or
  - ii. Planting of new trees from the preferred list (see Table F of Section 6.302.L.) at five (5) times greater in canopy area than the removed specific tree canopy. The additional planting of five to one (5 to 1) will be in excess of the required tree coverage on the site; or
  - iii. Payment into the tree fund based upon the total diameter of the specific tree times two hundred dollars (\$200.00) per diameter inch, or four and 94/100 dollars (\$4.94) per square foot of canopy; or
  - iv. Urban Design Commission approves a plan that mitigates the removal of Significant or Large Trees.

6. Urban Forestry Plan Amendments

- a. Minor Amendments: Minor amendments to an approved Urban Forestry Plan may be approved administratively if one of three conditions below is met:
  - i. An increase in the total canopy;
  - ii. Adjustments in the type of tree to be planted, considering that trees from the list of preferred trees must be replaced with trees from said list;

- iii. Any adjustments in planting location required due to site specific issues including traffic circulation, safety, drainage or utilities, given that the adjustments include only the relocation of trees of the same type and size as provided on the approved Urban Forestry Plan. These adjustments cannot include the removal or transplantation of a tree not considered in the approved Urban Forestry Plan.
- b. Amendments that do not meet any of the conditions in subsection a. of this section must be submitted to and approved by the Urban Design Commission before construction begins.

## **H. Urban Forestry Development Agreement**

### **1. The Urban Forestry Development Agreement (“Agreement”)**

- a. The Agreement is intended to facilitate the development of large tract developments, other than single family or two-family developments, under common ownership which would meet or exceed an overall canopy coverage of thirty percent (30%) for all properties included in the Agreement. The intent of a development agreement is to allow areas with more extensive canopy to remain and contribute to the thirty percent (30%) overall coverage while allowing the canopy in other development areas to be reduced. Individual properties that are subject to the Agreement are required to maintain canopy coverage requirements for different land use types as outlined in Subsection c. below.
- b. The original application for an Agreement shall include an initial spreadsheet of minimum canopies and acreages, the form of which is provided in Table I of Section 6.302.L. Thereafter, Table J of Section 6.302.L shall be completed with the provided canopies and acreages included at the time of each subsequent submittal as property/tracts are being developed. These updates shall be provided at the time of submittal of each Individual Part One document. No approval shall be granted nor tree removals to be completed without the submission of the Table J form as set forth in Section 6.302.L.
- c. The Agreement must be presented to the City Council for approval prior to its execution. Any amendments may be approved administratively if the regulations of this subsection are satisfied. The initial submission for approval of an Agreement shall include:
  - i. A map all of the properties to be included in the Agreement, identified by land use and acreage;
  - ii. Individual maps of each land use type (commercial, industrial, etc.); and
  - iii. Table I of Section 6.302.L.

## 2. Overall Part One Permit

An Overall Part One permit as part of an Agreement will be issued if the following conditions are met:

- a. Minimum acreage allowed shall be one thousand (1,000) acres with all of the acres to be located within the same watershed. Applicant shall provide an exhibit depicting all of the property/tracts and acreages that will be subject to the Agreement.
- b. The property/tracts subject to the Agreement shall be separated by land use type, but shall not include single family or two-family development. Applicant will provide exhibits for each land use type for the initial submittal and will update for subsequent submittals. Canopy requirements will be tracked by land use type.

- c. The minimum canopy coverage for each tract described in an Agreement shall be:

Commercial	15%	Parking	40%
Industrial	10%	Parking	20%
Airport Industrial	5%	Parking	20%
Multifamily	25% of required open space		

- d. All of the acreage to be included in an Agreement shall be under common ownership at the time of the agreement, under a currently approved Overall Part I, or part of an approved concept plan or preliminary plat. A list shall be provided of any separate corporations to be included in an Agreement documenting that all are part of the same parent company. The list shall be provided with the initial Overall Part I submission and shall provide the filing number associated with the Articles of Incorporation filed with the Texas Secretary of State.
- e. The Overall Part One permit shall not expire for a period of fifteen (15) years and may be renewed for additional ten (10) year periods. Renewals will be approved administratively if the permit remains under the same terms and conditions of the original Agreement approved by the City Council or with amendments approved administratively. Progress shall be defined as the platting, permitting, or vertical construction on the properties. The expiration period in Section 6.302.G.3.a.iii. shall apply to the Individual Part One submissions. Individual Part One permits shall be defined as property/tracts that are submitted for approval after the date of execution of the Agreement.
- f. The Agreement shall run with the land and properties which are included in the original Agreement and subsequently sold shall remain under the terms of the Agreement regardless of future ownership. The Agreement shall be recorded in the real property records in the county which the property subject to the agreement is located. Recordation shall be the responsibility of the applicant, including the cost of recording fees. Within fourteen (14) days after execution and recordation, a copy of



the recorded documentation shall be provided to the City. The Part One permit shall not be issued until the recorded copy is received.

- g. Future acquired properties by the original applicant of the Agreement may be included in the Agreement after a recalculation of the canopy coverage and approval by Staff if the conditions of this section are met. Acquired properties not included in the Agreement shall be subject to the regulations of Section 6.302. Additional properties may not be included into the Agreement within three (3) years of the end of the initial term of the Agreement. No properties shall be allowed to be added to the Agreement during any renewal terms.

## **I. Appeals**

1. If the City Forester, or other city official, refuses to accept or issue an Urban Forestry Plan/permit, or if the applicant disagrees with the decision of City staff, the applicant may request an appeal of the decision to the Urban Design Commission within ten (10) days after the decision of City Staff. The appeal shall be in writing and shall be transmitted to the executive secretary of the Urban Design Commission within ten days after receipt of notification that the City Forester will not accept the Urban Forestry Plan/permit.
2. The Urban Design Commission shall consider the appeal within thirty (30) days after the appeal is received by the board's executive secretary, unless the applicant requests a later hearing in writing. The Urban Design Commission shall not release the applicant from the requirements of this ordinance, unless the applicant first presents credible evidence from which the Urban Design Commission can reasonably conclude application of this ordinance to the applicant would be likely to deprive the applicant of rights protected by law.
3. The Urban Design Commission may take the following actions on an appeal:
  - a. Deny the appeal, in which case the Urban Forestry Plan/permit shall not be accepted or granted; or
  - b. Grant the appeal, and direct the City Forester to accept and approve the Urban Forestry Plan/permit; or
  - c. Grant the appeal subject to such provisions, conditions, or limitations as deemed appropriate by the Urban Design Commission.
4. In no event shall acceptance of an application guarantee that the City will issue the Urban Forestry Plan/permit, unless the permit application is in compliance with all applicable codes, laws and regulations.
5. Appeals of the Urban Design Commission will be heard by the District Court.

## **J. Penalty**

1. Any person, firm, or corporation who violates, disobeys, omits, neglects or refuses to comply with or who resists the enforcement of any of the provisions of this ordinance may be:
  - a. Assessed a penalty of two hundred dollars (\$200.00) per diameter inch of all trees, regardless of size, removed or damaged without a valid Urban Forestry Permit and/or Tree Removal Permit, four hundred dollars (\$400.00) per diameter inch of Significant or Large Tree removed or damaged without a valid Urban Forestry Plan or permit, and/or
  - b. Issued a citation for a misdemeanor and upon conviction shall be fined not more than five hundred dollars (\$500.00) for the removal or damage of each tree.
2. Where illegal tree removal has occurred and the physical evidence has been removed from the site, a penalty will be assessed based on calculations using aerial photographs available to the City, calculated at a rate of four and 94/100 dollars (\$4.94) per square foot of illegally removed canopy for all trees regardless of size or nine and 88/100 dollars (\$9.88) per square foot of Significant or Large Trees removed or damaged.
3. Any person in a one-family or two-family residentially zoned district who removes or causes to be removed trees without first obtaining the required permit may be issued an after-the-fact permit. An after-the-fact permit shall be issued if:
  - a. The applicant can demonstrate that the criteria for removal in the after-the-fact application would meet the regulations in effect at the time the tree was removed; and
  - b. The applicant has paid the fee for an after-the-fact permit which shall be double the fee of a tree removal permit.

A citation may be issued for a misdemeanor and upon conviction shall be fined not more than five hundred dollars (\$500.00) for the removal or damage of each tree.

If the applicant cannot demonstrate that the criteria for removal in the after-the-fact application would have met the current regulations, then an after-the-fact permit shall not be issued and the person shall be in violation of this section, subject to both criminal and civil penalties.

A second after-the-fact permit shall not be issued if:

- a. another violation of this section occurs by a person previously issued an after-the-fact permit; or
- b. the after-the fact permit was issued on the same site on which an after-the-fact permit was issued within five years of the date of the second violation.

## K. Enforcement

Any Code Compliance Officer, the City Forester or his/her designee shall have the authority to enforce the provisions of this ordinance.

## L. Tables

TABLE A. Protected Trees

Redbud	<i>Cercis canadensis</i>
Mexican Plum	<i>Prunus mexicana</i>
Cherry Laurel	<i>Prunus caroliniana</i>
Eve's Necklace	<i>Sophora affinis</i>
Crab Apple	<i>Malus angustifolia</i>
Bradford Pear	<i>Pyrus calleryana</i> var. <i>Bradford</i>
Golden Raintree	<i>Koelreuteria paniculata</i>
Caddo Maple	<i>Acer barbatum</i> var. <i>Caddo</i>
Red Maple	<i>Acer rubrum</i>
Bigtooth Maple	<i>Acer grandidentatum</i>
Bur Oak	<i>Quercus macrocarpa</i>
Chinquapin Oak	<i>Quercus muhlenbergii</i>
Live Oak	<i>Quercus virginiana</i>
Shumard Red Oak	<i>Quercus shumardii</i>
Texas Red Oak	<i>Quercus texana</i>
Post Oak	<i>Quercus stellata</i>
Blackjack Oak	<i>Quercus marilandica</i>
Pecan	<i>Carya illinoensis</i>
Lacebark Elm	<i>Ulmus parvifolia</i>
Cedar Elm	<i>Ulmus crassifolia</i>
American Elm	<i>Ulmus americana</i>
Bald Cypress	<i>Taxodium distichum</i>
Black Walnut	<i>Juglans nigra</i>
Green Ash	<i>Fraxinus pennsylvanica</i>

Texas Ash	<i>Fraxinus texensis</i>
Southern Magnolia	<i>Magnolia grandiflora</i>

TABLE B Net Urban Forestry Area

Net Urban Forestry Area	Square Feet	Acres
Gross area of property		
Utility rights-of-way or easements regulated by the Public Utility Commission/Texas Railroad Commission	--	--
Net urban forestry area		

TABLE C Required Tree Canopy Area

	Square feet	Acres
Net Urban Forestry Area		
Land Use/Canopy Coverage ratio		
One- or two-family (40% coverage)		
One- or two-family with trees planted on individual lots (25% coverage)		
Commercial (30% coverage)		
Industrial (20% coverage)		
Additional 5% if only protected trees are being preserved		
Required canopy coverage		

TABLE D Minimum Canopy Retention

	Square feet	Acres
Existing tree canopy area		
Preservation requirement	X 0.25	X 0.25
Additional 5% if only protected trees are being preserved		
Minimum retention		

TABLE E Significant Tree Removal

	Calculation	Inches DBH	Canopy Sq Ft
All Post Oaks/Blackjack Oaks $\geq 20"$ dbh (if east of I-35)	→		
All other trees $\geq 30"$ dbh (regardless of species or location)	→		
Total of significant trees to be preserved	→		
Significant tree preservation credit	(sq ft x 1.5)		
Total of significant trees to be removed	()→		
<b>Removal Options (Choose One):</b>			
Retention of existing canopy 1.5X the canopy of removed significant trees--in excess of minimum retention	(sq ft x 1.5)		
Planting additional trees 5X the canopy of removed significant trees--in excess of total planting	(sq ft x 5)		
Payment into tree fund for total inches dbh of significant trees removed @ \$200 per inch dbh	(sq ft x \$200)		
Urban Design Commission approved plan that mitigates the removal of the significant tree(s)			

TABLE F Preferred Tree List

Large Canopy Trees	
Pecan #	<i>Carya illinoensis</i>
Deodar Cedar	<i>Cedrus deodara</i>
Green Ash	<i>Fraxinus pennsylvanica</i>
Southern Magnolia#	<i>Magnolia grandiflora</i>
Bur Oak*	<i>Quercus macrocarpa</i>
Chinquapin Oak	<i>Quercus muhlenbergii</i>
Shumard Oak #	<i>Quercus shumardii</i>
Texas Red Oak	<i>Quercus buckleyi</i>
Live Oak *	<i>Quercus virginiana</i>
American Elm	<i>Ulmus americana</i>
Cedar Elm *	<i>Ulmus crassifolia</i>
Lacebark Elm	<i>Ulmus parvifolia</i>

<b>Medium Canopy Trees</b>	
Caddo Maple *	<i>Acer barbatum</i> var. <i>Caddo</i>
Bigtooth Maple *	<i>Acer grandidentatum</i>
Common Persimmon	<i>Diospyros virginiana</i>
Texas Ash	<i>Fraxinus texensis</i>
Ginkgo	<i>Ginkgo biloba</i>
Kentucky Coffeetree	<i>Gymnocladus dioicus</i>
Eastern Red-Cedar *	<i>Juniperus virginiana</i>
Golden Raintree	<i>Koelreuteria paniculata</i>
Eldarica (Afghan) Pine *	<i>Pinus eldarica</i>
Italian Stone Pine	<i>Pinus pinea</i>
Chinese Pistache *	<i>Pistacia chinensis</i>
Honey Mesquite *	<i>Prosopis glandulosa</i>
Blackjack Oak *	<i>Quercus marilandica</i>
Monterrey (Mex. White) Oak *	<i>Quercus polymorpha</i>
Western Soapberry *	<i>Sapindus drummondii</i>
Pond Cypress	<i>Taxodium ascendens</i>
Bald Cypress *	<i>Taxodium distichum</i>
<b>Small Canopy Trees</b>	
Japanese Maple #	<i>Acer palmatum</i>
Common Button-bush	<i>Cephalanthus occidentalis</i>
Redbud *	<i>Cercis canadensis</i>
Desert Willow *	<i>Chilopsis linearis</i>
Rough-leaf Dogwood #	<i>Cornus drummondii</i>
Texas Persimmon *	<i>Diospyros texana</i>
Carolina Buckthorn #	<i>Frangula caroliniana</i>
Yaupon Holly *	<i>Ilex vomitoria</i>
Deciduous Holly	<i>Ilex decidua</i>

Creape Myrtle *	<i>Lagerstroemia indica</i>
Mexican Plum *	<i>Prunus mexicana</i>
White Shin Oak *	<i>Quercus sinuata var. breviloba</i>
Flameleaf Sumac *	<i>Rhus lanceolata</i>
Eve's Necklace *	<i>Sophora affinis</i>
Mexican Buckeye *	<i>Ungnadia speciosa</i>
Rusty Blackhaw	<i>Viburnum rufidulum</i>

\* Drought tolerant species

# Not recommended for parking lots or high heat areas

TABLE G Tree Preservation and Planting Area

	Square feet	Acres
Area of existing tree canopy retained		
Planting		
_____ large canopy trees @ 2,000 square feet per tree (minimum spacing of 40 feet on center)		
_____ medium canopy trees @ 700 square feet per tree (minimum spacing of 24 feet on center)		
_____ small canopy trees @ 100 square feet per tree (minimum spacing of 8 feet on center)		
_____ additional trees		
Total preservation and planting		

TABLE H Parking Canopy Area

Parking Areas for Commercial or Industrial Uses	Square feet	Acres
Area of parking and drives		
Required canopy coverage of parking areas	X 0.4	X 0.4
Required canopy coverage		
Area of canopy coverage being provided		

TABLE I Initial Urban Forestry Development Agreement

<b>Overall Canopy</b> <i>(enter Land Use Type) - Part 1</i>		
<b><u>Net Urban Forestry Area</u></b>	<b><u>Square Feet</u></b>	<b><u>Acres</u></b>
Gross Area of Property		
Utility Easements		
Net Urban Forestry Area		
<b><u>Required Tree Canopy Area</u></b>	<b><u>Square Feet</u></b>	<b><u>Acres</u></b>
Net Area		
Canopy Ratio		
Required Tree Canopy Coverage		
<b><u>Preservation/Retention of Existing Canopy</u></b>	<b><u>Square Feet</u></b>	<b><u>Acres</u></b>
Existing Tree Canopy		
Preservation Requirement (20, 30, 40%)		
Minimum Retention of Existing Tree Canopy		
Area of Existing Tree Canopy Retained		
Preservation Ratio		
<b><u>Retention of Canopy for Significant and Large Tree Canopy Removal</u></b>	<b><u>Square Feet</u></b>	<b><u>Acres</u></b>
Significant and Large Tree Canopy to be Removed		
Preservation Requirement (150%)		
Minimum Retention of Existing Tree Canopy for Removal of Significant and Large Tree Canopy		
Area of Existing Tree Canopy Retained for Removal of Significant and Large Tree Canopy		

TABLE J Urban Forestry Development Agreement Canopy Tracking

UFC #	Project Name	Project Address	Site Acreage	Usage Class	Canopy Coverage Required (sq ft)	Canopy Coverage Provided (sq ft)	Off Site Mitigation? (Y/N)	Beginning Land Balance	Ending Land Balance



## SECTION 4.

Chapter 9, “Definitions” is hereby amended to add the following definitions:

*Caliper:* The diameter of a tree, measured at a point six (6) inches above the ground line if the resulting measurement is no more than four (4) inches. If the resulting measurement is more than four (4) inches, the measurement is made at a point twelve (12) inches above the ground line.

*City Forester:* For the purpose of tree preservation, that person or persons designated by the Director of Planning and Development to provide administrative review and approval of Urban Forestry Plans / Permits (Urban Forestry Compliance Section).

*Critical Root Zone:* Area around the trunk of the tree that is equal to a radius of one (1) foot per inch diameter measured at breast height (DBH) – four and one-half (4.5) feet.

*Diameter at Breast Height of an Existing Tree (DBH):* That measurement of the size/diameter of a tree as determined by measuring at four and one-half (4.5) feet above the soil level. For a multi-trunk tree, the diameter shall be the total diameter of the largest trunk plus one-half (1/2) the diameter of each additional trunk.

*Disruptive Activity:* Any permanent change to existing surface conditions including clearing, grading, trenching, boring, and similar activities. Disruptive activity will NOT include normal mowing or removal of trees less than six inches in diameter.

*Landscape Plan:* A plan illustrating bufferyard features and landscaping required per Chapter 6, Article 3 of the Zoning Ordinance, and to illustrate trees along arterial streets required per Chapter 6, Article III.B. of the Subdivision Ordinance. Buffer yards are required along common property lines of one- or two-family districts adjacent to nonresidential districts for which certain trees may be credited. In addition, landscape plans are required for commercial, industrial, and manufactured home uses to include shrubs and sod (all references to trees have been removed from the landscaping requirements per Ordinance No. 17367). Trees are required along arterial streets for residential subdivisions of three lots or more.

*Public Project:* Capital improvement project that includes a disruptive activity that will prevent the surface from being restored to its original condition. Public projects shall specifically exclude utilities regulated by the Public Utility Commission or the Railroad Commission.

*Preserved Tree:* Any healthy tree retained for the purpose of meeting the requirements under Section 6.302

*Protective Measures:* Protective fencing surrounding the critical root zone and bark protection to ensure that all prohibited activities in the critical root zone are prevented, including for trees on adjacent properties. In addition, appropriate construction methods as outlined in section 6.301.K. of the Zoning Ordinance – Landscaping and Buffers shall be followed.

*Protected Tree:* Any tree listed in Table A, Section 6.302.

*Significant or Large Tree:* A tree twenty-seven (27) inches in diameter (84.82 inches in circumference) for the entire city or eighteen (18) inches in diameter (56.55 inches in circumference) for Post Oaks and Blackjack Oaks east of Interstate Highway 35 West.

*Tree Removal:* The cutting, destroying, removing, moving, poisoning, banding, marking, or effectively destroying through damaging, any tree six (6) inches or greater in diameter, regardless of species, situated on property regulated by the Zoning Ordinance without first obtaining an Urban Forestry Plan / Permit from the City Forester.

*Tree Removal Permit:* A permit required for the removal of a single tree as required under Section 6.302.

*Urban Forestry Permit:* A permit required under Section 6.302 for the removal of more than one (1) tree or the construction of new structures on properties greater than one acre for where a building permit is required.

*Urban Forestry Plan:* A plan showing the location of existing canopy coverage and any trees that are classified as large or significant as per 6.302.G.3. on the site, the location of all easements, the location of all proposed buildings, a grading plan, if applicable; the trees desired to be removed, the trees that shall remain on the site, and an accompanying document indicating the reason for the proposed removal of any tree, and if applicable, a description on how the existing healthy trees proposed to be retained will be protected from damage from construction.

## **SECTION 5.**

That this ordinance shall be cumulative of all other ordinances of the City of Fort Worth affecting zoning and shall not repeal any of the provisions of such ordinances, except in those instances where provisions of such ordinances are in direct conflict with the provisions of this ordinance.

## **SECTION 6.**

That all rights or remedies of the City of Fort Worth, Texas, are expressly saved as to any and all violations of Ordinance Nos. 3011, 13896, or any amendments thereto that have accrued at the time of the effective date of this ordinance; and as to such accrued violations, and all pending litigation, both civil or criminal, same shall not be affected by this ordinance but may be prosecuted until final disposition by the courts.

## **SECTION 7.**

That it is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this ordinance are severable, and if any phrase, clause, sentence, paragraph or section of this ordinance shall be declared void, ineffective or unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such voidness, ineffectiveness or unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs or sections of this ordinance, since the same would have been enacted by the City Council without the incorporation herein of any such void, ineffective or unconstitutional phrase, clause, sentence, paragraph or section.

## **SECTION 8.**

That this ordinance shall take effect upon adoption.

### **APPROVED AS TO FORM AND LEGALITY:**

By: Melinda Ramo  
Assistant City Attorney

Adopted: May 12, 2009

Effective: May 19, 2009