

Chapter 5

Tree Preservation

Printed June 08, 00

Section 5.1 Purpose of This Chapter

The intent of this Chapter is to encourage site planning which furthers the preservation of trees and natural areas; to protect trees during construction; to facilitate site design and construction which contribute to the long term viability of existing trees; and to control the removal of trees when necessary. It is the further intent of this Chapter to achieve the following broader objectives:

Protect healthy trees and preserve the natural ecological environmental and aesthetic qualities of the City.

Protect and increase the value of residential and commercial properties within the City.

Prohibit the indiscriminate clear cutting of property.

Section 5.2 Authorization for Adoption of This Chapter

The regulations contained in this Chapter have been adopted under the authority of *Chapter 51 – General Powers of Municipalities of the Texas Local Government Code*, which authorizes a municipality to adopt ordinances, rules, or police regulations that are for the good government, peace, or the trade and commerce of the municipality. This Chapter is also adopted under the authority of *the Home Rule Charter of the City of Colleyville*, which authorizes the City Council to exercise all powers granted to municipalities by the Constitution or the laws of the State of Texas.

Section 5.3 Variances and Appeals

Any person seeking approval of a development as required by this Land Development Code may request a variance from a requirement contained in this chapter, or appeal a decision of an Administrative Official by submitting a request using the procedures described in *Chapter 1 – General Provisions* of this Land Development Code.

Section 5.4 Definitions

Definitions applicable to this Chapter may be found in *Chapter 2 – Definitions* of this Land Development Code.

Section 5.5 Tree Removal Permit

No person directly or indirectly shall cut down, destroy, remove, move, or effectively destroy through damaging the roots, trunk or canopy, any tree situated on property regulated by this Chapter without first obtaining a tree removal permit, unless otherwise exempted by the provisions of this Chapter.

Section 5.6 Applicability

The terms and provisions of this Chapter shall apply to real properties, persons and trees as follows:

- A. Properties which are regulated by this Chapter:

1. Any real property upon which any designated tree is located.
 2. Any property for which a final plat has not been submitted on the date of this Chapter.
 3. Any property for which construction plans have not been submitted on the effective date of this Chapter.
 4. All municipal / public domain property.
- B. The following persons are exempt from the provisions of this Chapter only to the extent of their control over the particular class of properties and trees described below. Persons exempt from the provisions shall not be required to obtain tree removal permits in the circumstances described.
1. An employee of a public utility or an authorized contractor working in a dedicated public right-of-way may in the course of business, remove or prune that portion of a tree which prohibits the safe construction, repair or maintenance of a service line or facility.
 2. The resident of a single family home may remove all or a portion of a tree which exists on the lot of record on which the single family home is built.
 3. A property owner or his authorized contractor, employee or tenant may remove a tree which has become severely diseased or damaged to the extent that it is beyond the point of recovery or is in danger of falling, as determined by the Administrative Official.
 4. All landscape nurserymen shall be exempt from the terms and provisions of this section only in relation to those trees planted and growing on the nursery premises which are planted and grown for the sale or intended sale to the general public.
 5. Any person may remove all or a portion of a tree which has disrupted a public utility service due to tornado, storm, flood, or other act of God, but only that portion of the tree which is necessary to safely restore normal utility service.
- C. The following persons shall be exempt from the tree replacement provisions of this Chapter. However, such persons shall provide tree protection and replacements as per this Chapter for all remaining trees in nonexempt areas.
1. A person performing work authorized by a building permit in the residential buildable area.
 2. A person performing work authorized by an approved site plan in the commercial building footprint.
 3. A person performing work authorized by the approved grading and drainage plan in the residential setback envelope.
 4. An employee of a public utility or a person performing work authorized by an approved subdivision plat or a separate dedication instrument in a dedicated public right-of-way, drainage or utility easement.

Section 5.7 Approval Process and Administrative Procedures

The Administrative Official is responsible for the review and approval or disapproval of all requests for tree removal permits. The request shall be submitted in accordance with the requirements specified herein.

- A. Residential Subdivisions: The Administrative Official shall determine from a review of subdivision tree surveys, grading and drainage plans the following:
1. The trees outside of the exempted areas of the right-of-way, easement and residential setback envelope which are slated for removal.

2. The extent of tree replacement in accordance with these regulations.

The Planning and Zoning Commission may evaluate whether an alternate street layout and grading plan which complies with all City subdivision standards would result in substantially greater tree preservation. In the event such an alternate layout is determined by the Commission to be a reasonable use of the land then the applicant may substitute said alternative plan without being required to submit a new Preliminary Plat application. If, however, the applicant does not substitute said alternate layout or another acceptable plat to the Commission, failure of the applicant to do so shall be a basis for denial of the applicant's application.

Approval of the construction drawings by the Director of Public Services shall constitute approval of a tree removal permit for the street and utility construction phase of the subdivision.

- B. **Platted Residential Lots:** The Administrative Official shall review building permits for platted lots and determine the following:
 1. The trees outside of the exempted buildable area which are slated for removal.
 2. The extent of tree replacement in accordance with these regulations.

No building permit shall be issued unless the applicant signs an application or permit request which states that all construction activities shall meet the requirements of the tree preservation regulations.

- C. **Platted Commercial Lots:** The Administrative Official shall review building permits for commercial lots and determine the following:
 1. The trees outside of the exempted commercial building footprint which are slated for removal.
 2. The extent of tree replacement in accordance with these regulations.

If the tree removal permit application is made in conjunction with a site plan submitted for approval, the application will be considered as part of the site plan and no permit shall be issued without site plan approval.

- D. **Appeals:** Any decision made by the Administrative Official with regard to a request for a tree removal permit may be appealed by any party to the Planning and Zoning Commission. All actions of the Commission shall be final.
- E. **Permit Validity:** Permits for tree removal issued in connection with a building permit, subdivision plan and site plan shall be valid for the period of that building permit's or site plan's validity. Permits for tree removal not issued in connection with a building permit, subdivision or a site plan shall become void ninety (90) days after the issue date on the permit.

Section 5.8 Submittal Requirements

The Administrative Official shall establish administrative procedures necessary to facilitate the implementation and enforcement of this Chapter. These procedures shall include the following:

- A. **Tree Removal Permit:** A request for a tree removal permit must be submitted and approved prior to the removal of any tree.
- B. **Fees:** All tree removal permits shall be accompanied by a check made payable to the City of Colleyville in the amount established by the schedule of fees approved by the City Council.
- C. An application involving a limited portion of a site may be based on an exhibit showing only that portion of the site.

- D. Aerial photographs interpretation may supplant the ground survey for preliminary analyses of large scale developments, such as subdivisions, utility corridors and golf courses, at the discretion of the Administrative Official.
- E. The items required on a submitted exhibit:
1. Title Block: includes street address; legal description (lot and block, subdivision name); date or revised date, north arrow; graphic (and written) scale; name, address, telephone number of owner and of person preparing the exhibit.
 2. Location of all existing or proposed structures, improvements and site uses including pavement and landscaping, setback, easements and service connections, all properly dimensioned and referenced to property lines,
 3. Existing and proposed site elevations, grades and major contours. Construction details of permanent grade changes around all trees.
 4. Location of trunks and canopies of all existing trees, graphically differentiating between the trees to remain and those to be removed. A plus (+) character shall indicate trunk location and concentric circle shall indicate the size and canopy configuration.
 5. Proposed general areas or locations of the replacement trees.
- F. Tree information required shall be summarized in legend form on the plan and shall include:
1. The list of trees to be removed.
 2. The total diameter of trees to be removed.
 3. Replacement trees listed by species name, quantity, size and total diameter required for replacement of trees. (See Section 5.13 for replacement tree list.)
- G. Tree protection notes and details shall be included on site plans, subdivision plans or landscape plans and always included with the bid documents given to the contractor. (See Section 5.14)

Section 5.9 Tree Replacement Requirements

In the event that it is necessary to remove a tree which is three inches (3") or greater via permit approval, the applicant, as a condition to issuance of a tree removal permit, shall be required to replace the trees being removed with quality trees as defined herein. This mitigative measure is not meant to supplant good site planning. Tree replacement will be considered only after all design alternatives which could save more existing trees have been evaluated.

- A. A sufficient number and diameter of replacement trees shall be planted in order to equal the total diameter inches or fraction thereof of trees three inches (3") or greater and slated for removal.
- B. Replacement trees shall be a minimum of three inches (3") diameter when measured one foot (1') above the soil line and a minimum of eight feet (8') in height when planted.

Examples-

1. A total of 18" diameter to be removed shall be replaced with 6 – 3" diameter trees.
 2. A total of 19" diameter to be removed shall be replaced with 7 – 3" trees or 5 – 3", trees and 1-4" tree.
- C. All replacement trees shall be guaranteed for one year from the date of the final inspection and acceptance of the project.

Section 5.10 Tree Protection

A major purpose of this Chapter is to protect all trees which are not removed and to allow approved construction to occur. The following procedures shall apply to all types of construction projects which involve development around trees.

The following procedures are deemed appropriate in the situations noted; however, unique circumstances may allow modifications if deemed necessary by the Administrative Official.

- A. Prohibited Activities: The following activities shall be prohibited within the limits of the drip line of any tree which is subject to the requirements of this Chapter.
1. Material Storage: No materials intended for use in construction or waste materials accumulated due to excavation or demolition shall be placed within the limits of the drip line of any tree.
 2. Equipment Cleaning / liquid disposal: No equipment may be cleaned or other liquids deposited within the limits of the dripline of a tree. This would include but not be limited to, paint, oil, solvents, asphalt, concrete, mortar or other materials.
 3. Tree Attachments: No signs, wires or other attachments, other than those of a protective nature shall be attached to any tree.
 4. Vehicular Traffic: No vehicular and construction equipment traffic or parking is allowed within the limits of the dripline of trees.
- B. Pre-Construction: The ensuing procedures shall be followed prior to construction.
1. Tree Flagging: All trees to be removed from the construction site shall be flagged with bright red vinyl tape wrapped around the main trunk at a height of four feet (4') or more such that the tape is visible to workers on foot or driving equipment.
 2. Protective Fencing: All trees shall have protective fencing located at the tree's drip line. The protective fencing may be comprised of snow fencing, orange vinyl construction fencing, chain link fence or other similar fencing with a four-foot (4') approximate height. The protective fencing may be located within the drip line of the specimen tree for approved construction only. The fencing shall follow the delineation of the approved construction.
 3. Bark Protection: in situations where a tree remains in the immediate area of intended construction, the tree shall be protected by enclosing the entire circumference of the tree's trunk with lumber encircled with wire or other means that does not damage the tree.
 4. Construction Pruning: In a case where a low hanging limb may be broken during the course of construction, the obtrusive limb may be cut. The limb shall be cut either flush to the trunk on or at the next joint of the limb. The wound shall then be sealed with pruning paint.

In no instance shall pruning involve a portion of the trunk or thirty percent (30%) of the entire canopy without the Administrative Official's prior approval.
- C. Improvement within the Critical Root Zone of a Tree: Design constraints often dictate that trees slated for preservation have some encroachment on their critical root zone. The following is the minimum design criteria which is allowed within the critical root zone of a tree. Development exceeding the criteria would put the tree at risk and therefore no longer be considered a preserved tree. In such a case replacement trees shall also be required.
1. Grade Changes: In the event that grade changes must be made around a tree or group of trees, the following should shall be implemented in order to maintain oxygen and water exchange within the tree's critical root zone.

- a. A minimum of seventy-five percent (75%) of the critical root zone must be preserved at natural grade with natural ground cover or landscaping for the tree to be considered a preserved tree.
 - b. No cut or fill greater than two inches (2") shall be located closer to the tree trunk than one half (1/2) of the radius of the critical root zone radius distance.
 - c. Increase Grade: Provide an aeration system just outside the tree's drip line. A dry well located a minimum of one-half (1/2) of the radius of the critical root zone.
 - d. Decrease Grade: Provide retaining walls outside the dripline to mitigate cuts.
2. Boring of Utilities: May be permitted under protected trees in certain circumstances. The minimum length of the bore shall be the width of the tree's canopy and shall be a minimum depth of forty-eight inches (48").
 3. Trenching: irrigation systems shall be designed to avoid trenching across the critical root zone of any tree.
 4. Paving: A maximum of twenty five percent (25%) of the critical root zone of a tree may be covered with impervious paving. The pavement and the cut and fill for the pavement is to not exceed one-half (1/2) of the critical root zone radius distance.

Section 5.11 Tree Planting Regulations

- A. Easements and rights-of-way: The location of replacement trees is restricted from utility easements and rights-of-way. The location shall not be in an area such that the mature canopy of the tree will interfere with overhead utility lines. No trees shall be planted within ten feet (10') of a fire hydrant.
- B. Off-site Planting of Replacement Trees: Replacement trees should be planted on the site or easement from which existing trees are to be removed. If this is not feasible, an applicant may initiate a proposal to plant trees off-site. This may be approved if the planting site is in reasonable proximity to the project area.
- C. Replacement trees shall be planted prior to the issuance of the certificate of Occupancy or project release. Optimum planting times do not always correspond to project completion. For that reason, replacement tree plantings may take place after the project is released by the City; provided, that before project release, a fiscal security is posted in the amount equal to the prevailing rate for installed trees with a one (1) year guarantee, plus fifteen percent (15%) to cover administrative cost.

Section 5.12 Violations

Any person violating or failing to comply with any provision or requirement of this section shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall, without exception, be fined the maximum amount provided in this chapter. A separate offense shall be deemed committed upon each day during or on which each separate violation or failure to comply occurs or continues to occur and shall be punishable as such.

- A. A monetary penalty of \$100.00 per diameter inch of the tree(s) removed or damaged shall be assessed and paid to the City of Colleyville; and
- B. The tree which is removed or damaged shall be replaced with new trees having a total tree diameter width equal to the specimen tree removed or damaged.

Section 5.13 Replacement Tree List

The following is the list of appropriate and approved replacement trees which have been selected on the basis of their suitability in the urban environment of North East Tarrant County.

Replacement Tree List	
Common Name	Botanical Name
Pecan	<i>Carya illinoensis</i>
Cedar Elm	<i>Ulmus crassifolia</i>
Lacehark Elm	<i>Ulmus parvifolia</i>
Red Oak	<i>Quercus shumardii</i>
Live Oak	<i>Quercus virginiana</i>
Bur Oak	<i>Quercus macrocarpa</i>
Post Oak	<i>Quercus stellata</i>
Black Jack Oak	<i>Quercus marilandica</i>
Chinquapin Oak	<i>Quercus mulenbergii</i>
Chinese Pistache	<i>Pistacia chinensis</i>
Sweetgum	<i>Liquidambar styraciflua</i>
Austrian Pine	<i>Pinus nigra</i>
Southern magnolia	<i>magnolia grandiflora</i>
Bald Cypress	<i>Taxodium distichum</i>
Red Bud	<i>Cercis canadensis</i>

Section 5.14 Construction Plan Requirements

The following notes shall be required as a part of all construction plans.

1. All trees shown on this plan to be preserved shall be protected during construction with temporary fencing. Tree protection fences shall be installed prior to the commencement of any site preparation work (clearing, grubbing or grading).
2. Fences shall completely surround the tree or clusters of trees. The fence shall be located at the outermost limits of the tree branches or dripline. The fence will be maintained throughout the construction project in order to prevent the following.
 - A. Soil compaction in the critical root zone resulting from vehicular traffic or storage of equipment or materials.
 - B. Critical root zone disturbances due to grade changes greater than two inches (2") cut or fill or boring which was not authorized by the City.
 - C. Wounds to the trunk, limbs or exposed roots by mechanical equipment.
 - D. Other activities detrimental to trees such as chemical storage, cement trunk cleaning, and fires.
3. In cases of area constraints where the protective fence is closer to the trunk than four feet (4'), the trunk must be protected with strapped-on planking to a height of eight feet (8') or to the limits of the lower branching.
4. All grading within critical root zones of specimen trees shall be performed by hand or small equipment to minimize damage. Prior to grading, relocate the protective fencing to two feet (2') behind the grade change area.
5. Trees most heavily impacted by construction activities should be watered deeply once a week during periods of hot and dry weather. Tree crowns should be sprayed with water periodically to reduce dust accumulation on the leaves.
6. Trenching for landscape irrigation shall be located as far from the existing trunks as possible.
7. Pruning to provide clearance for structures, vehicular traffic and equipment shall take place before construction begins.

Section 5.15 Amendments

Reserved for listing of amendments to this Chapter.

Ord. Number	Date	Subject