TREE PRESERVATION ORDINANCE & TREE TECHNICAL MANUAL

ORDINANCE 585-D
ADOPTED BY THE SOUTHLAKE CITY COUNCIL ON NOVEMBER 20, 2007
HTTP://WWW.CI.SOUTHLAKE.TX.US/PLANNING/DEFAULT.ASP
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I. ABOUT THE TREE PRESERVATION ORDINANCE AND TREE TECHNICAL MANUAL

The City of Southlake places a high priority on environmental sustainability and stewardship. As the city faces build-out, identifying and protecting the remaining natural resources in the city becomes critical to maintain and enhance the quality of life the residents and businesses enjoy. To this end, the city’s currently adopted Comprehensive Master Plan, the Southlake 2025 Plan identifies and prioritizes environmental resources to be protected in conjunction with proposed development in the city. The city has always placed a high priority on preserving trees as demonstrated by the adoption of the first Tree Preservation Ordinance in 1993 and its subsequent amendments in 1997 and 2000.

This current ordinance, adopted on November 20, 2007, further strengthens the nexus between the city’s adopted policies as outlined in the Southlake 2025 Plan and its implementation through this ordinance. This Tree Protection Ordinance and Manual juxtaposes the adopted ordinance with the corresponding tree technical standards that clarify, expound on, and illustrate pertinent sections of the ordinance. The technical standards and illustrations are not regulatory, rather they are intended to help decision makers, city staff, developers, builders, and residents better understand the provisions of this ordinance and assist them in meeting its requirements.
II. TREE PRESERVATION ORDINANCE AND TREE TECHNICAL MANUAL

1.0 TITLE

This Ordinance shall be known as the City of Southlake Tree Preservation Ordinance.

2.0 FINDINGS

The Southlake City Council finds that:

2.1 Trees transpire considerable amounts of water, produce oxygen, and absorb carbon-dioxide, thus reducing air pollution;

2.2 Trees have an important role in improving water quality by neutralizing pollutants in ground water run-off;

2.3 Trees, through their root systems, stabilize the ground water tables, and play an important and effective part in soil conservation, erosion control, and flood control;

2.4 Trees are an invaluable physical and aesthetic asset to development and make cities more comfortable by providing shade, cooling the air and land, and reducing noise levels and glare;

2.5 Trees provide critically needed habitat and food source for wildlife; and

2.6 For the reasons stated above, preservation of mature tree stands and environmentally sensitive areas in conjunction with development has a significant impact on the desirability of land and therefore adds value to the individual development and the increases the livability of the City.

3.0 PURPOSE AND INTENT

The purpose of this Ordinance is to ensure environmentally sensitive site planning which furthers the preservation of mature 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 purpose of this Ordinance to achieve the following broader objectives:

3.1 Prohibit the clear-cutting of property;

3.2 Protect and increase the value of residential and commercial properties within the City;

3.3 Maintain and enhance a positive image for the attraction of new residences and business enterprises to the City;

3.4 Protect healthy quality trees and promote the natural, ecological, environmental, and aesthetic qualities of the City;

3.5 Implement the Environmental Resource Protection recommendations of the Southlake 2025 Plan; and

3.6 Maintain and enhance Southlake’s identity as a Tree City USA.

4.0 DEFINITIONS

GENERAL RULES: The following rules shall be applied in constructing, interpreting or otherwise defining the terms hereof:
a. Words used in the present tense shall include the future, words used in the singular number shall include the plural number and words used in the plural shall include the singular.

b. The word "shall" is mandatory and the word "may" is permissive.

c. The word “person” shall include any individual, firm, corporation, partnership, joint venture, organization, or any other entity.

DEFINITIONS: Certain words or terms applicable to this Ordinance are defined as hereinafter provided. Words and terms used in this Ordinance, but not defined in this Ordinance shall have the meanings contained in the Zoning Ordinance, Landscape Ordinance or other ordinances of the City. Words and terms defined in two ordinances shall be read in harmony unless there is an irreconcilable conflict, in which case the definition contained in this Ordinance shall control.

ADMINISTRATIVE OFFICIAL: The department director appointed by the City Manager to administer this Ordinance, or the department director’s designee.

AGRICULTURAL USE: Any use on property zoned “AG-Agricultural” that is related to active farming, livestock, or ranching, including using land as pasture or in the production of crops, or horticultural products, the keeping of livestock, including but not limited to poultry and hoofed animals such as cattle, horses, goats, and sheep, for commercial or noncommercial purposes, and the construction and maintenance of agricultural accessory buildings.

ALTER; ALTERS; ALTERATION: Any act which causes or may reasonably be expected to cause a tree to die, including but not limited to, any of the following: uprooting any portion of the tree’s root system; severing the main trunk of the tree; inflicting damage upon the tree’s root system by machinery, storage of materials, or the compaction of soil above the root system of a tree; changing the natural grade of the critical root zone of a tree or uphill from the critical root zone of the tree so as to divert the flow of water to or away from the critical root zone; applying herbicidal or other lethal chemicals to the tree or any portion of the critical root zone of the tree; placement of impermeable material over any portion of the critical root system of a tree; and trenching within the critical root zone. A protected tree shall be considered to be altered if one or more of the following occurs: more than twenty-five percent (25%) of the critical root zone is adversely affected, more than twenty-five percent (25%) of its canopy is removed, or the tree is disfigured to the extent a reasonable person would conclude the tree will not survive.

ALTERNATIVE TO A TREE SURVEY: A document that provides the location and details of trees and contains the information set forth in Appendix A (attached to and fully incorporated into this Ordinance), and which may be submitted in lieu of a tree survey where specifically allowed by this Ordinance.

BUILDING PAD: The actual foundation area of a building and a reasonable area not to exceed six (6) feet around the foundation necessary for construction and grade transitions.

BUILDING PERMIT: The official authorization by the City to allow any construction on any property in the City that increases the impervious cover on the lot, tract, or portion of land.

CALIPER: American Association of Nurserymen standard for trunk measurement of nursery stock. Caliper of the trunk shall be taken six (6) inches above the ground for up to four (4) inch caliper size and twelve (12) inches above the ground for larger caliper sizes.
CERTIFICATE OF OCCUPANCY (CO): An official City acknowledgement that indicates conformance with all applicable City regulations and authorizes the legal use and occupancy of the premises for which it is issued.

CERTIFIED ARBORIST: A specialist in the care of individual trees, knowledgeable about the needs of trees, and trained and equipped to provide proper care of trees, and certified by the International Society of Arboriculture as a Certified Arborist.

CRITICAL ROOT ZONE: The area of undisturbed natural soil around a tree defined by a horizontal circle drawn at grade with the center being the center of the trunk of the tree and a radius equal to the distance from the trunk to the outermost portion of the drip line.

CUT/FILL: Areas where the natural ground level has been modified either through excavation (cut) or fill.

DBH (DIAMETER AT BREAST HEIGHT): The diameter of a tree trunk, or, in the case of a multi-trunk tree, the total of the diameter of the largest trunk and one half (½) of the diameter of each additional trunk, measured at a height of 4 ½ feet above the ground.

DEVELOPMENT: Any construction activity for which a building permit or earth disturbance permit is required under the ordinances of the City.

DEVELOPMENT REVIEW COMMITTEE (DRC): A committee comprised of City staff, including the Administrative Official, charged with reviewing all development applications to ensure compliance with all of the City’s ordinances and regulations.

DRIP LINE: Whichever of the following encompasses the greatest area: (1) the irregular shape formed around a tree by a series of vertical lines that run through the outermost portion of the canopy of the tree and extend to the ground, or (2) a circular area with a radius of one-half (½) the height of the tree extending outward from the center point of the tree.

EARTH DISTURBANCE PERMIT: An official authorization by the City to allow any person to re-grade, excavate, disturb, or store spoils on any property in the City as required by the City’s adopted Building Code.

EASEMENT: The authorization by a property owner for the use by another, and for a specified purpose, of any designated part of such property. Easements may be temporary or permanent.
**EASEMENT, CONSERVATION:** A permanent deed restriction that limits development of property, or a transfer of an interest in property to a public or non-profit entity approved by the City, duly recorded in the deed records of the County and binding on all subsequent owners, and for the purpose of protecting and preserving environmentally sensitive natural resources, in which the landowner retains fee title to the property.

**EASEMENT, PERMANENT:** The permanent transfer by plat or written instrument of an interest in property or authorization by a property owner for the use by another, for a specified limited purpose.

**EASEMENT, TEMPORARY ACCESS:** An easement granting a right of access to property that is adjacent to a property being developed to provide temporary access for construction activities on the property being developed. The easement is granted only for the period of the construction activity.

**EASEMENT, TEMPORARY CONSTRUCTION:** An easement granting a right of use of property that is adjacent to a property being developed to provide temporary access required for the installation of required and approved utility lines and other infrastructure to serve the property being developed. The easement is granted only for the period of the construction activity.

**EASEMENT, UTILITY OR DRAINAGE:** An area designated on any plat or other instrument approved by the City for the location of utility lines or facilities for the flow of stormwater.

**ENVIRONMENTAL PRESERVE:** A natural open space reserved for land that is under permanent conservation, such as areas in the flood plain, woodlands to be preserved, creeks, water bodies, steep grades, and other environmentally sensitive lands, and including land protected through conservation easements.

**ENVIRONMENTAL RESOURCE PROTECTION (ERP) RECOMMENDATIONS AND MAP:** Sections of the City’s Parks, Recreation, and Open Space Plan, a component element of the Southlake 2025 Plan that provides the policy guidance for the protection of key environmentally sensitive resources in the City, and identifies priority areas for the protection of significant environmentally sensitive areas in the City.

**EXISTING TREE COVER:** The sum total of the area that is located beneath the canopies of all protected trees on the lot or tract on the date of development application, as measured by accepted forestry practices.
FOOTPRINT: An area not to exceed six feet (6’) in all directions around impervious surfaces as designated on an approved Site Plan.

HEAVILY WOODED AREA: An area of continuous wooded vegetation where trees are at a density of at least one protected tree per 325 square feet of land, where the branches and leaves form a continuous canopy, and which consists of at least five (5) trees.

LANDSCAPE ARCHITECT: A person licensed to use the title of “landscape architect” in the State of Texas in accordance with state law.

MULTIPLE TREE CLEARING: Alteration of one or more protected trees located on property zoned AG Agricultural, in excess of the seven (7) protected trees that may be altered in each calendar year in accordance with section 8.1.c.

MUNICIPAL/PUBLIC DOMAIN PROPERTY: Property owned by a governmental entity such as the City, county, state, federal government, school district or other such entity, such as City Hall, public parks, Corps of Engineers property, public rights of way (“R.O.W.”), libraries, fire stations, and water tower, water treatment and other public works facilities.

OWNER: Any person holding a legal or equitable interest in land, or a lessee, agent, employee, or other person acting on behalf of such person.

PARKS, RECREATION, & OPEN SPACE MASTER PLAN: The component element of the Southlake 2025 Plan that serves as the community’s blueprint for the City’s future parks and open space facilities.

PLANNING AND ZONING COMMISSION: A volunteer citizen body appointed by the City Council which is authorized to make recommendations on the physical development of the City including land use, zoning, and transportation issues.

PROTECTIVE FENCING: A physical and visual barrier installed around the critical root zone of a protected tree as required by Section 9.8 of this Ordinance in order to prevent damage to the tree and its root system.

REFORESTATION FUND: The fund established by the City for the purposes of implementing the environmental resource protection goals of the Southlake 2025 Plan including:

a. educating the public on the aesthetic and health benefits of conservation and environmental preservation;
b. planting, maintaining, and managing trees and landscaping on public property in the City;

c. creating and expanding wooded property within the City;

d. purchase of conservation easements and/or environmental preserves; and

e. other similar purposes indicated in this Ordinance and as approved by City Council

**REFORESTATION FUND ADMINISTRATOR**: The person appointed by the City Manager to administer the Reforestation Fund.

**RIGHT-OF-WAY**: (Abbreviated ROW) A strip of land, other than a drainage or utility easement occupied or intended to be occupied by a street, crosswalk, railroad, road, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer, or for another special use.

**SELECTIVE THINNING**: The process by which non-contiguous protected trees are identified and removed within a heavily wooded area to provide the maximum benefit to the remaining protected trees.

**SOUTHLAKE 2025 PLAN**: The City of Southlake’s Comprehensive Master Plan, as amended, as adopted by the City Council.

**STREET TYPOLOGY MAP**: The component of the City’s adopted Mobility & Master Thoroughfare Plan, a component element of the Southlake 2025 Plan, showing street typologies, which are overlay designations to the functional classification system of the City’s roadway network linking street functionality with design priorities for all streets.

**TREE**: Any self-supporting woody perennial plant which will normally attain a trunk diameter of two inches or more when measured at a point four and one-half feet above ground level and an overall height of at least fifteen (15) feet at maturity.

**TREE, DISEASED, INFECTED OR DAMAGED**: A tree that is:

a. infected with a disease or a parasite making it reasonably likely that the tree will either die within three (3) years or pose a significant threat of infecting other trees of the same or similar species; or

b. damaged, in whole or part, to such an extent that
either the tree is reasonably likely to die within three (3) years; or

c. hazardous, in whole or part, to such an extent that it presents a significant danger to the general public.

TREE, PARK: Trees in public parks and all areas owned by the City to which the public has access as a park.

TREE, PROTECTED: Any tree that has a diameter at breast height of six (6) inches or greater.

TREE, STREET: A protected tree located within or directly adjacent to a public right-of-way.

TREE BOARD: A board appointed by the City Council to carry out specific duties and responsibilities as set forth in Article 15 of this Ordinance. The Zoning Board of Adjustment shall constitute the Tree Board unless the City Council appoints a different tree board.

TREE CONSERVATION ANALYSIS: A preliminary analysis that shows the general site design direction of the development including general placement of building pads, parking areas, and infrastructure based on the environmental features of the property.

TREE CONSERVATION PLAN: A plan that illustrates, in detail, the impact of all proposed development including the impact of buildings, parking areas, streets and all other infrastructure on all environmental features of the site such as protected trees, natural creeks, ponds, steep grades, and other critical resources.

TREE PERMIT: The official authorization by the City required to alter any protected tree not exempted by this Ordinance.

TREE PRESERVATION AREA: An area identified on any plan approved by the City Council denoting a significant tree stand(s) which is to be preserved during and after development of that property.

TREE PROTECTION SIGN: A sign furnished by the City’s building official which sign describes prohibited conduct detrimental to trees.

TREE SURVEY: A plan drawing that provides legend details about the location and details of trees and contains the information set forth in Appendix A (attached to and fully incorporated into this ordinance), including but not limited to drawings by a licensed surveyor, a licensed architect, or, if less than twenty (20) trees are involved, a person approved by the
Topped tree without a permit is unlawful. Sect. 11.4

Administrative Official.

TREE TECHNICAL MANUAL: The manual that contains the text of this Ordinance and any graphic depictions, tables, or other illustrative material created and approved by the Administrative Official to illustrate the requirements of this Ordinance.

TREE TOPPING: The sever cutting back of branches to stubs larger than three inches in diameter within the tree’s canopy to such a degree so as to remove the normal canopy and disfigure the tree.

UTILITY: The service or product provided by a utility provider, including but not limited to, the provision of gas, electric, water, waste water, drainage, storm water, telecommunications, cable, or telephone service for users within the City.

UTILITY, CITY: The City of Southlake public works department or City employee or entity employed on the behalf of the City providing a utility service.

UTILITY LINE: A conduit, channel, ditch, tube, duct, hose, wire, box, pipe, or similar conveyance device through which a utility is transported, provided, or conveyed, excluding utility service lines.

Channels, ditches, creeks, detention/retention ponds, and other drainage improvements shall constitute a utility line for purposes of this Ordinance only to the extent that such improvement is required by the City or other public entity as an integral and necessary part of an approved drainage plan, is located so as to avoid, to the greatest extent practical, altering protected trees, and is approved by the Administrative Official.

Ponds, channels, creeks, or other bodies of water intended or created primarily for decorative, scenic, or recreational purposes shall not constitute a “utility line” for purposes of this Ordinance, unless such improvement is required by the City engineer or by ordinance, even if such areas may serve some drainage purposes.

UTILITY SERVICE LINE: A conduit, channel, ditch, tube, duct, hose, wire, box, pipe, or similar conveyance device through which a utility is transported, provided, or conveyed to a single lot or tract, to the extent that the conveyance device is located on that lot or tract.

UTILITY PROVIDER: A company or entity, or agent for a company or entity, including a municipality that provides a utility service within the City.
5.0 TREE PERMIT REQUIRED

5.1 TREE PERMIT REQUIRED: Except as provided in Section 5.3, no person shall alter a protected tree unless the alteration is authorized by a valid tree permit or Multiple Tree Clearing permit.

5.2 OFFENSE: A person commits an offense if the person alters any protected tree without a tree permit, unless the alteration is exempted by this ordinance. A person commits an offense if the person alters any protected tree in violation of the terms of a tree permit.

5.3 EXEMPTIONS: Alteration of the following tree(s) shall be exempt from the provisions of this Ordinance:

a. Any tree that endangers the public health, welfare, or safety such that immediate alteration is required;

b. Any tree that has disrupted a public utility service due to a tornado, storm, accident, flood, or other act of nature, provided that alteration of such a tree shall be limited to the portion of the tree reasonably necessary to reestablish and maintain reliable utility service;

c. A tree located on the property of a licensed plant or tree nursery which has trees planted and growing on the premises for the sale or intended sale to the general public in the ordinary course of the nursery’s business;

d. Any tree, other than a street tree, located on a lot or tract shown on an application or plan for development submitted after the effective date of this Ordinance in any residentially zoned district, including but not limited to SF20, SF30, SF1, RE and the lots zoned for residential uses only in the Transition, Rural Conservation, Planned Unit Development, or Employment Center zoning and DT zoning districts, which the owner occupies as a homestead, shall be exempted from the application of this Ordinance except that any lot or tract, or portion thereof, designated as a tree preservation area, or tree designated as “protected” on a Tree Conservation Plan approved after the effective date of this Ordinance shall not be exempted from the provisions of this Ordinance.

e. Any lot shown on a plat application or plan for development submitted before the effective date of this Ordinance shall be subject to the provisions of Ordinance 585-B unless the application or plat expires or the project is abandoned or significantly altered, in which event the lot shall be subject to those provisions of this Ordinance which apply to the new project.

f. A tree located on property which is zoned AG (Agricultural) and being actively used for agricultural purposes or as a homestead, as long as the tree is located within a radius of 150 feet from the principal structure on the property or the owner’s residence that is used as a homestead.

6.0 TREE PERMIT: APPLICATION, STANDARDS FOR APPROVAL AND ISSUANCE

6.1 TREE PERMIT APPLICATION – UNRELATED TO DEVELOPMENT: An application for a Tree Permit that is unrelated to development shall include the following information:

a. The name, address and telephone number of those persons or entities who own the property and those persons or entities seeking the permit;

b. The address, existing use, and zoning of the property;
c. A detailed written statement stating the reasons for the requested alteration including citation to any relevant provision of this ordinance that may authorize the alteration and including the following:
   i. The amount of land to be disturbed, if any;
   ii. The method and equipment to be used; and
   iii. The dates the proposed alteration would take place;

d. A legible diagram or map indicating the following for the area reasonably likely to be affected if the permit is issued:
   i. Location of all existing structures, improvements, streets or rights-of-way, property lines, setback and yard requirements.
   ii. Location of all existing utility lines, utility service lines, and easements.
   iii. The common and botanical name, size and location of all trees specifically designated by number; and

e. Such additional information as the Administrative Official may reasonably require given the particular characteristics of the property.

6.2 TREE PERMIT APPLICATION – RELATED TO DEVELOPMENT: An application for a Tree Permit Application that is filed in conjunction with development shall include the following information:

a. City approved Tree Conservation Analysis or Tree Conservation Plan (when required by this Ordinance);

b. A tree survey clearly identifying whether each protected tree will be preserved after the proposed improvements are made, will be altered, or may be preserved based upon site specific conditions, including species and size;

c. Identification of Critical Environmental Features of the site:
   i. All individually protected trees
   ii. Existing streams, drainage creeks, ponds, and other water bodies (if any)

d. Detailed site plan of all proposed improvements with extent and location of proposed improvements, including building pads, parking areas, driveways, streets, and utilities (including storm water drainage facilities);

e. A tree protection plan identifying the required tree protection measures including fencing and signage;

f. Clear delineation of construction related parking, storage, staging, and access areas

g. Limits of clearing, grading, and trenching;

h. Approved grading and drainage plans;
   i. Proposed landscaping, bufferyards, and/or replacement areas;

j. Any information required by Section 7.3 for a Tree Conservation Plan;

k. Any conditions placed on the approval of the Tree Conservation Plan;

l. The names, addresses and telephone numbers of those persons or entities who own the property and those persons or entities seeking the permit; and

m. Such additional information as the Administrative Official may reasonably require given the particular characteristics of the property.
6.3 **FEES:** The applicant shall submit, with an application for a tree permit, payment of a fee to the City of Southlake in the amount specified by City Council in a fee schedule, with the following exceptions:

a. When altering any protected tree, the City is exempt from the tree permit fee, but must obtain a permit and comply with all tree replacement and tree protection procedures. Protected trees proposed to be altered must be shown on construction plans approved by the Administrative Official.

b. When altering any protected tree, a public utility is exempt from the tree permit fee, but must obtain a permit and comply with all tree replacement and tree protection procedures. Protected trees proposed to be altered must be shown on construction plans approved by the Administrative Official.

6.4 **AUTHORITY FOR REVIEW:**

a. The Administrative Official shall be responsible for reviewing all requests for tree permits submitted in accordance with the requirements specified herein.

b. The Administrative Official shall have no obligation to review an application for a tree permit until all required information has been submitted and the applicable fee, if any, has been paid. If any required information or fee has been omitted, the Administrative Official shall notify the applicant of that fact.

6.5 **STANDARDS FOR APPROVAL:**

a. When a complete application is filed under section 6.1, the Administrative Official shall grant a tree permit with regard to a particular protected tree if any of the following is true:

i. The tree must be altered in order to install or maintain a utility line or utility service line;

ii. The tree is located in a heavily wooded area and selective thinning is necessary to increase the likelihood of survival of the remaining trees, and will be carried out in accordance with standards promulgated by the American National Standards Institute for use by the International Society of Arboriculture;

iii. The tree is located on property zoned Agricultural “AG” that is being actively used for agricultural purposes, and the granting of the permit will not result in more than seven (7) protected trees being altered on the property in any calendar year;

iv. The tree is diseased, damaged, or hazardous;

v. The tree, if left unaltered, is reasonably likely to impair the structural integrity of existing structures or improvements;

vi. The tree is required to be altered by federal, state or local law, including an applicable regulation adopted by a federal, state, or local government agency;

vii. The tree must be altered to prevent significant risk of harm to the surrounding area caused by vermin infestation; or

viii. The tree must be altered to prevent a high risk of fire hazard as determined by the Fire Marshal.

b. When a complete application is filed under section 6.2, the Administrative Official shall grant a tree permit if all required tree protection and replacement procedures have been followed and the application conforms to the Tree Conservation Plan approved by the City Council. Where no Tree Conservation Plan is required, the tree permit shall be granted if all required tree protection and replacement measures have been followed and the application complies with the criteria established under Section 7.2.

6.6 **DEFERRAL TO CITY COUNCIL:** If the application for a tree permit seeks to alter a tree which is part of a Tree Conservation Plan approved by the City Council, the Administrative Official may defer the approval of the tree permit to the City Council after a recommendation from the Planning and Zoning Commission for any reason. In addition, if a request for a Tree Permit does not meet any standards for approval under 6.5.a, the Administrative Official may defer the approval of such a tree permit to City Council after a recommendation from the Planning and Zoning Commission.
6.7 PERMIT EXPIRATION: A tree permit issued in connection with any other permit or plan shall be valid for the period of that permit’s or plan’s validity. A tree permit not issued in connection with any other permit or plan shall become void 180 days after the issue date on the tree permit.

6.8 POSTING TREE PROTECTION SIGN: Prior to issuance of any building or tree permit, the “tree protection sign”, tree preservation sign”, tree preservation instruction detail sheet and approved tree conservation plan shall be posted at each entrance to the subject property, and at any other location designated by the Administrative Official.

7.0 TREE CONSERVATION ANALYSES (TCA) AND TREE CONSERVATION PLANS (TCP)

7.1 REQUIREMENT: A Tree Conservation Analysis (TCA) and subsequently, a Tree Conservation Plan (TCP) shall be required for any application for development described in Table 1.0 subject to the following:

a. The Administrative Official may waive any requirement established by Section 7.3 where the application is a Plat Showing submitted for four (4) or fewer lots, if the scope of the development makes the requirement either impractical or inapplicable to the development.

b. The Administrative Official may approve an alternative to a tree survey for heavily wooded areas, and may require a tree survey for smaller, specific areas of the property based upon the environmental sensitivity of the property being developed.

c. All proposed improvements shall be required to be shown only at the site plan stage, if any, for all development. Preliminary plats shall show building setbacks and general location of buildings and infrastructure.

d. A Tree Conservation Plan may be used to satisfy the requirements of a Tree Conservation Analysis.

e. A Tree Conservation Analysis is acceptable for all Preliminary Plats that require a City Council approved Site Plan for development. A Tree Conservation Plan shall be required at Preliminary Plat for all development that does not require City Council approval of a Site Plan.
to development, the percentage of existing tree cover at the time the first such permit was issued shall be used to calculate the minimum existing tree cover that must be preserved under this section.

Table 1.0 – Tree Conservation Analysis and Tree Conservation Plan by Activity Type

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<th>Type of Development Application</th>
<th>Requirement for Analysis or Conservation Plan</th>
<th>Criteria for Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concept or Development Plan</td>
<td>Tree Conservation Analysis</td>
<td>Section 7.2</td>
</tr>
<tr>
<td>Site Plan</td>
<td>Tree Conservation Plan</td>
<td>Based on the approved Tree Conservation Analysis or, if none, on Section 7.2</td>
</tr>
<tr>
<td>Preliminary Plat</td>
<td>Tree Conservation Analysis and, if application is not sought in conjunction with a concept, development or site plan, a Tree Conservation Plan is also required</td>
<td>Based on the approved Concept, Development, or Site Plan, or, if none, on Tree Conservation Analysis, or, if none, on Section 7.2</td>
</tr>
<tr>
<td>Final Plat</td>
<td>Tree Conservation Plan</td>
<td>Based on conformity with the approved Preliminary Plat</td>
</tr>
<tr>
<td>Plat Showing/Plat Revision</td>
<td>Tree Conservation Plan</td>
<td>Section 7.2</td>
</tr>
<tr>
<td>Earth disturbance permit/Building permit</td>
<td>Tree Permit Application</td>
<td>Based on the conformity with the approved site plan (non-residential) or preliminary plat (residential) or, if none, on Section 7.2</td>
</tr>
</tbody>
</table>

Table 2.0 – Existing Tree Cover Preservation Requirements

<table>
<thead>
<tr>
<th>Percentage of existing tree cover on the entire site</th>
<th>Minimum percentage of the existing tree cover to be preserved*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0% – 20%</td>
<td>70%</td>
</tr>
<tr>
<td>20.1 – 40%</td>
<td>60%</td>
</tr>
<tr>
<td>40.1% - 60%</td>
<td>50%</td>
</tr>
<tr>
<td>60.1% - 80%</td>
<td>40%</td>
</tr>
<tr>
<td>80.1% - 100%</td>
<td>30%</td>
</tr>
</tbody>
</table>

*The minimum percentage of existing tree cover to be preserved shall exclude any area in public rights-of-way as approved by City Council.

b. For property sought to be zoned for the Downtown zoning district or a planned development zoning district, including an S-P-1 Site Plan, S-P-2 Site Plan, Transition, Rural Conservation, Planned Unit Development, or Employment Center zoning district, the City Council shall consider the application for a Conservation Analysis or Plan in conjunction with the corresponding development application (as established in Table 1.0). The Planning and Zoning Commission shall review the application and make a recommendation to the City Council regarding the application. The City Council shall approve the Plan or Analysis if the Council finds that the Plan or Analysis provides for the:

i. placement of building pads, parking areas, driveways, streets, and utility easements so as to maximize the preservation of environmental features of the property including mature tree stands, natural creeks and ponds, and significant grades;
ii. maximizes the preservation of tree cover preservation areas indicated on the Environmental Resource Protection Map;
iii. maximizes the preservation of existing tree stands with the potential to buffer residential areas from the noise, glare, and visual effects of nonresidential uses;
iv. maximizes the preservation of existing trees, if any, adjoining a natural or man-made drainage creek;
v. maximizes the preservation of existing protected trees along rural roadways and other streets as identified and prioritized in the Street Typology designation; and
vi. mitigation of altered trees through proposed tree replacement procedures pursuant to this Ordinance.
7.3 INFORMATION REQUIRED: A Tree Conservation Analysis and Tree Conservation Plan shall include the following information:

a. Information required for Tree Conservation Analysis:
   i. Identification of Critical Environmental Features of the site:
      A. All grades over 5%
      B. Existing streams, drainage creeks, ponds, and other water bodies (if any)
   ii. Alternative to a Tree Survey
   iii. Critical Root Zones of groups of trees
   iv. Boundaries of any tree preservation areas as identified in the ERP Map
   v. Identification of areas of environmental constraints not suitable for development
   vi. Identification of areas of minimal environmental constraints that are suitable for development
   vii. Areas of encroachment into Critical Environmental Features areas identified on the site
   viii. Stream/Creek buffers, if any
   ix. The names, addresses and telephone numbers of those persons or entities who own the property and those persons or entities filing the application
   x. Such additional information as the Administrative Official may reasonably require given the particular characteristics of the property

b. Information required for Tree Conservation Plan:
   i. Identification of Critical Environmental Features of the site:
      A. All individually protected trees
      B. Existing streams, drainage creeks, ponds, and other water bodies (if any)
   ii. Tree Survey or alternative to a tree survey
   iii. 2-foot contour map of the site
   iv. Protected trees within the tree preservation area including tree size and type
   v. Critical Root Zones of groups of trees
   vi. Critical Root Zones for individual trees required for site plans only
   vii. Boundaries of any tree preservation areas as identified in the ERP Map
   viii. Identification of areas of environmental constraints not suitable for development
   ix. Identification of areas of minimal environmental constraints that are suitable for development
   x. Areas of encroachment into Critical Environmental Features identified on the site
   xi. Clear delineation, for each protected tree, of whether the tree will be preserved after the proposed development is constructed, altered due to proposed improvements, or could potentially be saved based upon site specific conditions
   xii. Stream/Creek buffers, if any
   xiii. Detailed site plan of all proposed improvements. (All proposed improvements shall be required to be shown only at the site plan stage for all development. Preliminary plats shall, however, show building setbacks and general location of buildings and infrastructure.)
   xiv. Setbacks, building lines, and buffer yards
   xv. The names, addresses and telephone numbers of those persons or entities who own the property and those persons or entities filing the application
   xvi. Such additional information as the Administrative Official may reasonably require
Southlake Tree Preservation Ordinance & Technical Manual

7.4 ACTION ON TREE CONSERVATION ANALYSIS AND TREE CONSERVATION PLAN:

a. An application that requires the submittal of either a Tree Conservation Analysis or a Tree Conservation Plan shall first be reviewed by the Development Review Committee in conjunction with the accompanying development application.

b. The Administrative Official shall prepare a report that evaluates the extent to which the proposed development is responsive to the Tree Preservation criteria outlined in Section 7.2 to the Planning and Zoning Commission.

c. The Planning and Zoning Commission shall make a recommendation on the proposed Tree Conservation Analysis or Tree Conservation Plan to the City Council. The City Council shall approve the proposed Tree Conservation Analysis and Tree Conservation Plan if it finds that it meets the criteria outlined in Section 7.2.

8.0 TREE REPLACEMENT AND TREE PROTECTION EXCEPTIONS AND APPLICABILITY

8.1 GENERALLY: For all trees that are authorized to be altered based on a duly approved Tree Conservation Plan, tree protection and tree replacement procedures set forth in this Ordinance shall be followed before a Tree Permit is granted, except as set forth below:

a. Tree Alteration for Public Utility Projects: All protected trees that the Administrative Official determines must be altered in order to install utility lines within public rights-of-way (R.O.W.) or within approved utility easements, including required drainage easements, shall be exempt from the tree replacement and tree protection requirements. Any protected trees within public R.O.W. or utility easements that the Administrative Official determines do not have to be altered shall be subject to the tree protection requirements but not to the tree replacement requirements.

b. Selective Thinning and Removal of Underbrush:

i. The Administrative Official may issue a tree permit authorizing the selective thinning of certain protected trees from a heavily wooded area under Section 6.5.a.2 of this Ordinance. If the Administrative Official issues a permit for selective thinning, the protected trees covered by the permit shall be exempt from the tree replacement and tree protection requirements.

ii. The Administrative Official may issue a permit allowing the clearing and grubbing of brush located within or under the drip lines of protected trees subject to reasonable conditions to insure the maximum protection of the trees. The permit holder shall clear or grub by hand or with push-type mowers within such drip lines, unless the use of dozers, loaders, or other moving equipment to clear or grub is expressly permitted in writing by the Administrative Official prior to performance of the work.
c. Limited Tree Alteration on “AG” Zoned Property: The Administrative Official shall, upon request of the owner of property zoned Agricultural “AG” and being actively used for agricultural purposes, issue a tree permit for the alteration of not more than seven (7) protected trees per calendar year on such property. If the Administrative Official issues such a permit, the protected trees covered by the permit shall be exempt from the tree replacement and tree protection requirements. However, protected trees altered in excess of seven (7) per calendar year are not exempted from the tree replacement and tree protection requirements. An owner wishing to remove more than seven protected trees in any calendar year shall apply for and obtain a tree permit or Multiple Tree Clearing permit and comply with this Ordinance.

d. Multiple Tree Clearing on “AG” Zoned Property:

i. An owner seeking a permit for Multiple Tree Clearing from property zoned Agricultural “AG” shall submit a request in writing to the Administrative Official, along with a survey, map or diagram showing the area to be cleared and the number, size and the location of protected trees in such area, a written statement from the applicant describing the purpose and reason for the Multiple Tree Clearing, such other information or documents as may be requested by the Administrative Official, and the appropriate fee as provided in the fee schedule.

ii. The Administrative Official shall refer such application to the Planning and Zoning Commission for recommendations. The Administrative Official may make an on-site inspection of the property to be cleared. After the Administrative Official and the Planning and Zoning Commission complete their recommendations, the application shall be submitted to the City Council for determination.

iii. The City Council shall grant the application and issue a permit if the Council determines that the Multiple Tree Clearing is for a legitimate, agricultural use, provided that if the land ceases to be used for agricultural purposes at any time within five (5) years after the permit is obtained to remove the trees, the owner of the land must comply with the tree replacement requirements. If the City Council authorizes the issuance of such a permit, the protected trees covered by the permit shall be exempt from the tree replacement and tree protection requirements. The requirement to replace trees shall be binding upon the person subject to such permit even if such person sells, assigns, or transfers the property. If the City grants the application for Multiple Tree Clearing, the permit shall be executed by the applicant and shall provide that in the event of a sale, assignment or transfer of the subject property, the owner may either obtain the consent of the person to whom the property was sold, assigned or transferred to permit the replacement on such property, or may make payment to the Reforestation Fund as provided in this Ordinance.

e. Alteration of Diseased, Damaged, or Hazardous Trees: If a tree permit is issued for alteration of a diseased, damaged or hazardous protected tree, the owner shall be exempt from the tree replacement and tree protection requirements for those trees covered by the permit. If such a diseased, infected or hazardous tree is not altered by the owner, the City may alter such a tree to reduce the chance of spreading the disease or infection to nearby healthy trees or to protect the healthy, safety, and welfare of the general public.

8.2 APPLICABILITY:

a. All protected trees that must be altered to construct the required and permitted improvements based on the City Council approved Tree Conservation Plan are exempted from the tree replacement and protection requirements of this section. Such improvements may include building pads, required parking areas, driveways, fire lanes, streets, and required utility and drainage infrastructure that are required by City ordinances and have been approved by the appropriate boards or officers of the City.

b. Any protected trees within a building footprint that the approved Tree Conservation Plan determines do not have to be altered shall be subject to the tree protection requirements contained in Section 9.8 of this Ordinance.
c. All other areas of the proposed development, including areas in utility easements and areas
designated for cut/fill for any purpose other than required drainage and infrastructure improvements,
shall be subject to both the tree protection and tree replacement requirements of this Ordinance.

d. For residential development, the building pad may be constructed at the same time as the installation
of the infrastructure if it provides a greater benefit to the environment and the grading plans have
been approved for both the installation of the infrastructure and the building pad. If the building pad
or footprint of the building is modified from the original plan, the owner shall be required to mitigate
any trees previously removed if the Administrative Official determines that the removal of the trees
would not have been required but for the modification.

e. Prior to the issuance of an earth disturbance permit for a single lot residential development, the
Administrative Official shall ensure that:

i. the proposed building and site plans meet the conditions of the City Council approved Tree
Conservation Plan; and

ii. given the limitations of required setbacks, proposed building footprints, and improvements, the
applicant has limited the impact on all protected trees on the site to the greatest extent possible.

8.3 TEMPORARY ACCESS AND CONSTRUCTION EASEMENTS:

a. A person commits an offense if the person owns real property and permits access across the person’s
property or grants a temporary access or construction easement across the owner’s property if such
right of access or easement intersects or comes within ten (10) feet of the critical root zone of a
protected tree.

b. It is a defense to prosecution for this offense that the Administrative Official determines that an
easement is the only reasonable means of access to the property being developed. If so, the
Administrative Official shall ensure that such an easement is of minimal size and situated within a
location designed to minimize tree damage and impact on the natural environment while still
providing a reasonable avenue of ingress and egress for construction purposes to the adjoining
property.

9.0 TREE REPLACEMENT AND TREE PROTECTION STANDARDS

9.1 GENERALLY: If required by Section 8.1, 8.2, or 8.3, the following procedures shall apply to any
person who alters a protected tree for which a permit is required. If a person alters a protected tree for
which a permit is required, the person shall replace the protected tree with an equivalent tree as
designated in the Landscape Ordinance and approved by the Administrative Official. This tree
replacement requirement 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
and reasonably rejected.

9.2. SIZE AND NUMBER: A sufficient number of trees shall be planted to equal or exceed, measured in
DBH, the diameter of each tree altered. Each replacement tree shall be a minimum of three inch (3”)
caliper at 6 inches above ground level, and seven feet in height when planted.

9.3. LOCATION: Each replacement tree should be planted on the same lot or tract as the tree which was
altered. However, if the replacement tree cannot be planted on the same lot or tract in accordance with
universally accepted arboricultural standards, the Administrative Official may require any or a
combination of the following:

a. replacement on other private property within the City of Southlake, with the approval of the owners
of both the property on which the protected tree was altered and the property on which the
replacement tree is to be planted. In such an instance, the owner of the property on which the
replacement tree is to be planted shall agree, in writing, to maintain the replacement tree to the
standards established in this Ordinance;
b. replacement on public property, or
c. payment to the Reforestation Fund as provided by Section 9.7, below.

9.4 RESPONSIBILITY FOR REPLACING PROTECTED TREE: The Administrative Official will determine the time of replacement, and the location of the replacement trees and approve the agent responsible for replacing a wrongfully altered protected tree. The requirement to replace trees shall be binding upon the person subject to such order even if such person sells, assigns, or transfers the property. In the event of such a sale, assignment or transfer of property, the person subject to such order may either obtain the consent of the person to whom the property was sold, assigned or transferred to permit the replacement on such property, or may make payment to the Reforestation Fund as provided in this Ordinance.

9.5 TIME OF REPLACEMENT: Any replacement trees required to be planted must be planted not later than ninety (90) days after the order of the Administrative Official, or within (30) thirty days of the date any appeal from such order becomes final, provided, however, that the Administrative Official may require the deferral of the planting of replacement trees up to an additional one hundred eighty (180) days based on weather and other arboreal considerations, and further provided that the Administrative Official may, upon request of the person subject to the requirement approve delaying the planting of replacement trees up to an additional one hundred eighty (180) days if the person subject to the order provides the City with a surety bond in an amount equal to the cost of purchasing and planting such trees or pay this amount into the Reforestation Fund within the earlier of the following: (1) within one hundred eighty (180) days of the last date approved for such delayed planting, (2) the date of issuance of the first certificate of occupancy on any portion of the subject property, or (3) other date as agreed by the City Council in an approved Tree Conservation Plan. The surety bond must be issued by a company licensed to do business in the State of Texas and shall be authorized by and approved by the City Attorney.

9.6 LONGEVITY AND DURATION: If a replacement tree dies within three years from the date it was planted, the person subject to the requirement to plant the replacement tree must replace the dead tree with another replacement tree within ninety (90) days of the order of the Administrative Official ordering such replanting. This requirement to replace trees shall be binding upon the person subject to such order even if such person sells, assigns, or transfers the property. In the event of such a sale, assignment or transfer of property, the person subject to such order may either obtain the consent of the person to whom the property was sold, assigned or transferred to permit the replacement on such property, or may make payment to the Reforestation Fund as provided in this Ordinance.

9.7 REFORESTATION FUND: A person required to comply with Section 9.1 and 9.4 may request to make a payment to the Reforestation Fund or other specifically dedicated fund approved by the City Council for such payments in accordance with the following requirements:

a. The amount of the payment required in lieu of each replacement tree shall be the average cost of a quality tree of similar size and type to the replacement tree which would otherwise have been required by this Ordinance, plus the cost of planting such a tree, as determined by the City Council and provided in a fee schedule published by the City.

b. The funds shall be used only for purchasing and planting trees on private property approved by the Administrative Official and the City Manager, on public property, for acquiring wooded property, including Conservation Easements or Environmental Preserves which shall remain in a naturalistic state in perpetuity, or for establishing a landscape or wildlife preserve or similar nature area as approved by City Council.

c. The Reforestation Fund Administrator shall submit quarterly reports to the City Council of the deposits and disbursements from the Reforestation Fund.
9.8 TREE PROTECTION PROCEDURES:

a. Unless otherwise exempted by this Ordinance, the following procedures shall apply to protect any protected tree for which a permit is required.

b. All persons submitting construction plans shall insure that such plans comply with the requirements of this Ordinance.

c. The following activities are prohibited within the limits of the critical root zone of any protected tree subject to the provisions of this Ordinance.

   i. Material Storage: No storage or placement of materials intended for use in construction or waste materials accumulated due to excavation or demolition shall be placed within the limits of the critical root zone of any protected tree.

   ii. Equipment Cleaning/Liquid Disposal: No equipment shall be cleaned or other liquids, including, without limitation, paint, oil, solvents, asphalt, concrete, mortar or similar materials deposited or allowed to flow into the critical root zone of a protected tree.

   iii. Tree Attachments: No signs, wires or other attachments, other than those of a protective nature, shall be attached to any protected tree.

   iv. Vehicular Traffic: No vehicular and/or construction equipment traffic or parking shall take place within the critical root zone of any protected tree other than on existing street pavement. This restriction does not apply to single incident access within the critical root zone for purposes of establishing the building pad and associated lot grading, vehicular traffic necessary for routine utility maintenance, emergency restoration of utility service, or routine mowing operations.

   v. Grade Changes: No grade changes shall be allowed within the limits of the critical root zone of any protected tree unless adequate protective construction methods are approved in advance in writing by the Administrative Official.

   vi. Impervious Paving: No paving with asphalt, concrete or other impervious materials shall be placed within the limits of the critical root zone of a protected tree except as otherwise allowed in this Ordinance.

d. No heavy equipment, including but not limited to trucks, tractors, trailers, bulldozers, bobcat tractors, trenchers, compressors, and hoists, shall be allowed inside the drip-line of any protected tree on any construction site without prior written approval of the Administrative Official.

e. The following procedures shall be followed on all types of construction projects (including residential, commercial, and municipal / public domain projects):

   i. Protective Fencing: Prior to the issuance of any building or earth disturbance permit, or commencing construction, the owner, contractor or subcontractor shall construct and maintain, for each protected tree on a construction site, a protective fencing which encircles the outer limits of the critical root zone of the tree to protect it from construction activity or in cases of heavily wooded sites, as approved by the Administrative Official.

   ii. All protective fencing shall be in place prior to commencement of any site work and remain in place until all exterior construction activity at the site has been completed.

   iii. Protective fencing shall be at least four (4) feet high, clearly visible, and shall have a tree protection sign affixed to the fence every twenty (20) feet in such a manner to be clearly visible to workers on the site.

   iv. The use of orange vinyl construction fencing or other similar fencing is generally permitted only if there is no construction or vehicular activity within ten (10) feet of the fence. If construction activity or vehicular traffic is expected within ten (10) feet of the fence, the fence shall be constructed of chain link or other similar metal, wooden material or semi-rigid vinyl tape fencing supported with a top support wire or equivalent support material affixed to metal or wooden posts, all of which shall be six (6) feet in height.
v. All protective fencing shall be supported at a maximum of ten (10) foot intervals by approved methods sufficient enough to keep the fence upright and in place for the duration of the construction.

vi. The owner shall cause the required fencing to be installed and maintained for the duration of the construction.

vii. For permits involving trenching such as sewer services, irrigation systems or underground electrical work, the applicant shall provide sufficient plans to provide protection of the trees in the vicinity of the work.

viii. The “tree protection sign”, tree preservation fencing installation detail sheet and approved tree conservation plan (if applicable) shall be posted on a temporary wooden sign or board that is adequate size to accommodate the required documentation at each entrance to the subject property upon which one or more trees subject to the permit is situated, and at any other location designated by the Administrative Official.

ix. All of the above conditions must adhere to and be inspected by a City inspector prior to the issuance of any building or earth disturbance permit.

f. In situations where a protected tree remains in the immediate area of intended construction and the Administrative Official determines the tree bark to be in danger of damage by construction equipment or other activity, the contractor or subcontractor shall protect the tree by enclosing the entire circumference of the tree trunk with two (2) inches x four (4) inches lumber encircled with wire or other means that do not damage the tree. The intent is to protect the bark of the tree against incidental contact by large construction equipment. The contractors shall comply with the requirements of this Ordinance regarding bark protection.

g. Construction Methods:

i. Boring: Boring of utilities under the critical root zone of a protected tree shall be required in those circumstances where it is not possible to trench around the critical root zone of the protected tree. When required, the bore shall be a minimum depth of forty-eight (48) inches.
ii. Grade Change: If the Administrative Official approves the grade change within the critical root zone of a protected tree, the procedures noted in the City’s standard detail sheet shall be followed.

iii. Trenching: No trenching shall cross the critical root zone of any protected tree, unless approved in writing by the Administrative Official or exempted from the application of this Ordinance. Trenching within the critical root zone shall require the issuance of a tree permit. The placement of underground utility lines is encouraged to be located outside of the critical root zone of protected trees. Irrigation system lines shall be placed outside of the critical root zone, except the minimum number of single head supply lines required to irrigate within the critical root zone. Any such irrigation line shall be installed along a horizontal line that bisects the tree trunk, in the manner that has the least possible encroachment into the critical root zone, and that extends no further into the critical root zone as is necessary to provide proper irrigation.

iv. 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 hours of initial exposure.

10.0 PUBLIC TREES

10.1 The City shall be responsible for the administration of all trees and associated vegetation located on all municipal / public domain property, including public street right-of-ways, City owned parks and City owned properties.

10.2 It shall be the responsibility of the Administrative Official to develop, and administer a written plan for care, preservation, pruning, removal or disposition of trees and associated vegetation on all municipal / public domain property.

11.0 TREE PRUNING STANDARDS

11.1 PRUNING TECHNIQUE: All pruning shall be conducted in accordance with the most recent Arboricultural Specifications and Standards of
When removing a branch, always cut outside the branch bark ridge and collar. Do not make a flush cut.

When removing heavy limbs, first make an undercut several inches outside of the collar. Then remove limb by a second cut an inch or so outside of the first cut. Remove stub with a third cut just outside of the collar.

Practice of the International Society of Arboriculture as published from time to time by the American National Standard for Tree Care Operations (ANSI A300).

11.2 REQUIRED PRUNING: The owner of land abutting on any public street right-of-way shall be required to provide reasonable and routine care of trees and vegetation in or adjacent to the right-of-way, and shall promptly take action to remove all dead, diseased or hazardous trees, or broken or decayed limbs which may constitute a threat or danger to the safety of the public. Such owners shall maintain a minimum clearance of fourteen feet (14’) above the traveled pavement or curb of a public street or as approved by the Fire Marshal and a clearance of eight feet (8’) above the surface of a sidewalk.

11.3 GROUND LEVEL CUTS: Where protected tree removal is allowed by this Ordinance, but the root system of the tree to be removed is intertwined with the root system of any protected tree whose removal is prohibited by this Ordinance, the tree shall be removed by flush cutting with the natural level of the surrounding ground. Where stump removal is also desired, stump grinding shall be allowed or, upon written approval by the Administrative Official, a trench may be cut between the two trees sufficient to cut the roots near the tree to be removed, thereby allowing removal of the remaining stump with minimal damage to the root system of the tree to be saved.

11.4 TREE TOPPING: It shall be unlawful for any person to top any tree without first obtaining a Tree Permit, unless an exception listed in Section 5.3 of this Ordinance applies. If it is determined that topping the tree is necessary because the tree has been severely damaged by storms or other causes, or in a circumstance making other pruning practices impractical as listed in Section 6.5 of this Ordinance, a permit allowing the topping may be issued. However, tree replacement regulations may apply.

12.0 TREE PLANTING AND REMOVAL STANDARDS

12.1 ACCEPTABLE TREES: The list of trees acceptable for planting on public property or on private property to meet tree replacement requirements is set forth in Appendix B (attached to and fully incorporated into this Ordinance). Trees other than those listed as acceptable may only be planted as replacement trees only upon written approval of the Administrative Official.
12.2 STREET TREE SPACING: Any person planting a street tree shall comply with the requirements contained in this Ordinance, and the spacing of street trees from the nearest intersecting curb shall be based upon the street typology designation.

12.3 STUMP REMOVALS: All stumps of street and park trees shall be removed below the surface of the ground so that the top of the stump shall not project above the surface of the ground, except that the City may maintain wilderness or naturalistic areas in which naturally occurring stumps may be permitted to extend above ground level.

12.4 OFFENSE: A person commits an offense if the person:

a. plants any required replacement tree within an area such that the mature canopy of the tree will interfere with existing or proposed overhead utility lines;

b. plants any required replacement tree or street tree within an area such that the mature critical root zone of the tree will interfere with existing or proposed underground public utility lines (including water lines, sewer lines, transmission lines or other utilities), or such that the installation and/or maintenance of such utility lines will, in reasonable probability, require activity in the mature critical root zone of such tree;

c. plants a tree within an area such that the tree, when mature, can reasonably be expected to block or interfere with a designated sight triangle area (either vertically or horizontally), unless approved in writing in advance by the Administrative Official;

d. plants a tree within ten feet (10’) of an existing or proposed fire hydrant unless approved in writing by the Fire Department; or.

e. prunes, treats, removes, damages, or destroys any park tree unless the person has been authorized by the City to do so. The City shall grant such authorization where the tree must be affected in order to install or maintain a utility line or utility service line.

<table>
<thead>
<tr>
<th>Street Typology</th>
<th>Minimum distance to intersection street curb*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Boulevard</td>
<td>40 feet</td>
</tr>
<tr>
<td>Boulevard</td>
<td>35 feet</td>
</tr>
<tr>
<td>Avenue</td>
<td>30 feet</td>
</tr>
<tr>
<td>Rural Road</td>
<td>30 feet</td>
</tr>
<tr>
<td>Main Street</td>
<td>25 feet</td>
</tr>
<tr>
<td>Residential Street</td>
<td>25 feet</td>
</tr>
</tbody>
</table>

* Measured from the point of nearest intersecting curbs or curblines to the center of the tree.
13.0 PENALTY FOR VIOLATION

13.1 CRIMINAL PENALTIES:

a. Any person who: (1) violates Article 5 of this Ordinance by altering a protected tree without first obtaining a tree permit from the City, or by altering trees in violation of the permit, or (2) violates Articles 8 or 9 of this Ordinance by failing to follow the tree replacement procedures shall be guilty of a misdemeanor and upon conviction shall be fined Two Hundred Dollars ($200.00) per diameter inch of the tree(s) altered, not to exceed Two Thousand Dollars ($2,000.00) per violation. The unlawful alteration of each protected tree shall be considered a separate incident and each incident subjects the violator to the maximum penalty set forth herein for each tree. A person is criminally responsible for a violation of this Ordinance if the person alters, or permits or causes to be altered, a protected tree without complying with the requirements of this Ordinance.

b. A person who violates any provision of Article 10 or 11 of this Ordinance shall be guilty of a misdemeanor and upon conviction shall be fined an amount not to exceed Two Thousand Dollars ($2,000.00).

13.2 CIVIL PENALTIES: Any person who: (1) violates Section 5.2 of this Ordinance by altering a protected tree without first obtaining a tree permit from the City, or by altering a tree in violation of the permit, and (2) violates Article 9 of this Ordinance by failing to follow the tree replacement procedures, shall be assessed a civil penalty equal to Two Hundred Dollars ($200.00) per diameter inch of the tree(s) altered, not to exceed Two Thousand Dollars ($2,000.00) per incident. The alteration of each protected tree shall be considered a separate incident and each incident subjects the violator to the maximum civil penalty set forth herein for each tree. The civil penalties assessed shall not exceed two times the amount of the payment the person would be required to make into the Restoration Fund or other specifically dedicated fund as provided in Section 9.7.

13.3 PROCEDURES FOR ASSESSING CIVIL PENALTIES:

a. The Administrative Official shall calculate the amount of the civil penalties as provided for in this Article. Before assessing any civil penalties as provided in this section, the Administrative Official shall send written notice to the person who violated this Ordinance by personal delivery or certified mail, return receipt requested. The notice shall contain:

i. a statement of the violations of this Ordinance for which a civil penalty is being sought;

ii. if possible, a statement of the amount of the civil penalties to be assessed;

iii. a statement that the person may request an administrative hearing before the City Manager to challenge the assessment of the civil penalty;

iv. a statement that if an administrative hearing is not timely requested as provided in this section, or the trees replaced or payment made pursuant to Article 9, civil penalties will be assessed.

b. A person may request an administrative hearing before the City Manager by filing a request for a hearing with the City Manager within 15 days after the notice provided for in subsection (a) is delivered. Within ten (10) days of the receipt of the request, the City Manager shall set a time and place for a hearing on the appeal which shall be not later than thirty (30) days from the date of receipt of the request.

c. Not less than 10 days prior to the date on which the administrative hearing is set, the property owner shall be sent a notice of the hearing by personal delivery or certified mail/return receipt requested. The notice shall contain the date, time and place of the hearing and the information specified in subsections (a)(i) and (ii).

d. After giving the property owner an opportunity to be heard, the City Manager shall weigh all evidence presented and determine whether to assess civil penalties. If civil penalties are assessed, the City Manager shall sign a written order setting forth the amount of the civil penalty. In
determining the amount of the civil penalty, the City Manager shall take into consideration the cost of replacement of protected trees.

e. A civil penalty under this section is final and binding and constitutes *prima facie* evidence of the penalty in any suit. The City Secretary shall file with the district clerk of the county in which the property is located, a certified copy of the order assessing the civil penalty stating the amount of the penalty.

f. The City Attorney is authorized to file suit to enforce collection of a civil penalty assessed under this Article.

14.0 **ENFORCEMENT**

14.1 DEVELOPER’S AGREEMENT: The City shall not approve a developer’s agreement unless the developer’s agreement provides that all construction activities shall meet the requirements of this Ordinance, including any conditions placed by City Council at the time of approval of the Tree Conservation Analysis or Tree Conservation Plan.

14.2 BUILDING PERMIT: 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 this Ordinance. The Building Official shall make available to the applicant upon request:

a. a copy of the Tree Preservation Ordinance or a condensed summary of the relevant aspects pertaining to the type of permit requested; and

b. tree protection sign(s) in such quantity as required by this Ordinance.

14.3 ACCEPTANCE OF IMPROVEMENTS AND ISSUANCE OF PERMITS: The City may refuse to accept any public improvements or issue any permits or certificates relating to the subject property until the applicant meets all requirements and pays all civil penalties and other monetary obligations assessed for violations of this Ordinance, provided, however, that acceptance of public improvements and issuance of permits may be authorized if, with the Administrative Official’s approval, the person furnishes the City with a cash deposit or surety bond in a sufficient amount to satisfy all civil penalties and monetary obligations assessed and, if any obligation to plant replacement trees applies, to pay to the City the approximate amount of the cost to replace the trees, as provided in the current schedule established by the City. Neither the acceptance of public improvements nor the issuance of any permits or certificates shall constitute a waiver of any violation, a compromise or satisfaction of any fines, penalties, or other obligations, or otherwise prevent the City from enforcing the terms of this Ordinance.

14.4 CERTIFICATE OF OCCUPANCY: No Certificate of Occupancy (“C.O.”) shall be issued until applicant meets all requirements and pays all civil penalties and other monetary obligations assessed for violations of this Ordinance, provided, and until all replacement trees required to be planted due to violations of this Ordinance by the applicant have been planted or appropriate payments have been made to the Reforestation Fund; provided, however, that a Certificate of Occupancy may be granted before all trees have been replaced if, with the Administrative Official’s approval, the person furnishes the City with a cash deposit or surety bond in a sufficient amount to satisfy all civil penalties and monetary obligations assessed and, if any obligation to plant replacement trees applies, to pay to the City the approximate amount of the cost to replace the trees, as provided in the current schedule established by the City.

14.5 ILLUSTRATIVE NATURE OF TREE TECHNICAL MANUAL: The illustrative portions of the Tree Technical Manual are for informational purposes only, and to the extent of any conflict between the terms of this Ordinance and other material in the manual, the terms of this Ordinance shall control, and reliance upon any illustrative material shall not be a defense in any action, whether civil or criminal, to enforce this Ordinance.
15.0 APPEALS AND VARIANCES

15.1 APPEALS:

   a. A person affected by an interpretation or decision of the Administrative Official under this Ordinance may appeal to the Tree Board. Such appeal must be received in writing within ten (10) days after the interpretation or decision has been rendered in writing and delivered to the property owner, or within ten (10) days of the postmark date if the decision was sent in U.S. Mail to the property owner. The person shall file the appeal with the Administrative Official and must describe both the decision being appealed and the specific grounds on which the appeal is based, including references to relevant provisions in the ordinance on which such appeal is based.

   b. The Administrative Official shall then schedule a hearing of the appeal at the next available Tree Board meeting and transmit all the documents pertaining to the appeal to the Tree Board at a reasonable time prior to the meeting. The Tree Board shall hear the appeal to determine whether the decision of the Administrative Official was in accordance with all the provisions of this Ordinance. The decision of the Tree Board shall be final. No decision of the City Council can be appealed to the Tree Board.

   c. If the Tree Board affirms the decision of the Administrative Official, the applicant shall amend the approved concept, development, or site plan or plat to conform to the requirements of this Ordinance within thirty days of the Board’s decision. If the Tree Board overturns the decision of the Administrative Official, the development application or plat shall conform to the Board’s decision.

15.2 VARIANCES:

   a. The City Council may authorize a variance to any provision of this Ordinance following a recommendation from the Planning and Zoning Commission. A request for a variance to any provision in this Ordinance shall be accompanied by a Tree Conservation Analysis or Tree Conservation Plan as outlined in Article 6, or other documentation requested by the Administrative Official, and the following factors shall be considered in evaluating the variance request:

      i. Whether a literal enforcement of the Ordinance will create an undue hardship or an unreasonable practical difficulty on the applicant;

      ii. Whether the situation causing the unnecessary hardship or practical difficulty is unique to the affected property and is not self-imposed;

      iii. Whether a reasonable accommodation or alternative solution can be made to accomplish the desired activity without the alteration of the tree;

      iv. Whether the variance will injure or be wholly compatible with the use and future or existing development of adjacent properties;

      v. Whether the increased development costs caused by preserving the tree create an undue hardship on the development of the site;

      vi. Whether there is any identified adverse effect of the alteration or preservation on erosion, soil moisture retention, flow of surface water, and drainage systems;

      vii. Whether there is any substantial impact to the buffering of residential areas from the noise, glare, and visual effects of non-residential uses;

      viii. The costs versus the benefits of relocating required utility service infrastructure and easements based on preservation or alteration of protected trees;

      ix. Whether the proposed tree replacement procedures adequately mitigate the alteration of the tree;
x. Whether the alteration adversely affects the public health, safety or welfare; and

xi. Whether the granting of the variance will be in harmony with the spirit and purpose of this Ordinance to the greatest degree reasonably possible.

b. A person requesting a variance from the provisions of this Ordinance shall do so in writing to the Administrative Official. All variance requests shall be accompanied by a completed application and non-refundable filing fee in the amount specified in the current fee schedule adopted by City Council. In absence of such a fee schedule, the filing fee shall be $250.

c. The Administrative Official shall then schedule a hearing of the variance at the next available Planning and Zoning Commission meeting and transmit all the documents pertaining to the appeal to the Planning and Zoning Commission at a reasonable time prior to the meeting. The Planning and Zoning Commission shall hear the variance to determine whether it should be granted or denied, and make a recommendation to the City Council. After the Planning and Zoning Commission makes its recommendation, the decision was in accordance with all the provisions of this Ordinance. The Administrative Official shall then request that the City Manager schedule a hearing of the variance at the next available City Council meeting and transmit all the documents pertaining to the appeal to the City Council at a reasonable time prior to the meeting. The City Council shall hear the variance to determine whether it should be granted or denied, and the decision of the City Council shall be final

16.0 SEVERABILITY

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

17.0 CONFLICTING ORDINANCES

This Ordinance shall be and is hereby declared to be cumulative of all other ordinances of the City; and this Ordinance shall not operate to repeal or affect any of such other ordinances except insofar as the provisions thereof might be inconsistent or in conflict with the provisions of this Ordinance, in which event such conflicting provisions, if any, in such other ordinance or ordinances are hereby repealed except as follows. Specifically, Section 3.4 of Ordinance No. 585-A, which provides that all developments which have not submitted final construction plans as of December 17, 1997 shall be subject to the requirements for tree protection and replacement specified in said Ordinance, is saved from repeal, so that it will continue to apply to projects in construction. Further, the first sentence in Section 3.5 c. of Ordinance No. 585-A, which provides that all builders who have not submitted a request for a building permit as of December 17, 1997 are subject to the requirements of the Ordinance, is hereby saved from repeal. Said sections shall continue in full force and effect for such purpose. Further, the provisions of Ordinance No. 585-B shall continue to be effective and applicable to those developments as described in and set forth in Section 19. Such provisions shall continue in full force and effect for such purpose.

18.0 SAVINGS CLAUSE

All rights and remedies of the City of Southlake are expressly saved as to any and all violations of the provisions of any ordinances affecting the regulations for the preservation of trees 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 and criminal, whether pending in court or not, under such ordinances, same shall not be affected by this Ordinance but may be prosecuted until final disposition by the courts.
19.0 PUBLICATION CLAUSE

The City Secretary of the City of Southlake is hereby directed to publish the proposed ordinance or its caption and penalty together with a notice setting out the time and place for a public hearing thereon at least ten (10) days before the second reading of this Ordinance, and if this Ordinance provides for the imposition of any penalty, fine or forfeiture for any violation of any of its provisions, then the City Secretary shall additionally publish this Ordinance in the official City newspaper one time within ten (10) days after passage of this Ordinance, as required by section 3.13 of the Charter of the City of Southlake.

20.0 EFFECTIVE DATE

This Ordinance shall be in full force and effect from and after its passage and publication as required by law, and it is so ordained. A person who has applied for approval of a preliminary plat, development plan, concept plan or site plan before the effective date of this Ordinance shall be required to comply with the provisions of Ordinance No. 585-B and shall not be required to comply with the requirements imposed by this Ordinance unless one of the following occurs:

20.1 An application for preliminary plat approval for the project being developed was filed before September 1, 2005 and expires without a final plat being approved on or before the second anniversary of the date of approval of the preliminary plat; or if a final plat is approved on a portion of the property, the remaining property included within the plat expires without a final plat being approved on or before the first anniversary of the date of approval of a portion of the preliminary plat;

20.2 The project being developed was initiated by a preliminary plat application filed on or after September 1, 2005, but no progress has been made on the project before the second anniversary of the date of the application. For purposes of this section, “progress” shall have the meaning described in Tex. Local Gov’t Code Sec. 245.005 (Vernon 2005); or

20.3 The project is abandoned or significantly altered such that it is a new project. For purposes of this Ordinance, a project shall be deemed to be abandoned or altered in the event the applicant files an application for approval of another permit for the property for which a project is pending and the permit sought is for different uses or for a different configuration of the property.

20.4 Should the conditions in any subsection set forth above be met, or should the applicant request, the provisions of this Ordinance shall be controlling and shall apply to the applicant’s project.
### III. APPENDIX A

Requirements for Alternative to Tree Surveys and Tree Surveys

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Alternative to a Tree Survey</th>
<th>Tree Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Appropriate title</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2. Title Block with project name, address, lot and block number, subdivision, city, and date of preparation</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>3. North arrow, graphic, and written scale (no larger than 1” = 200’)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>4. Prepared by licensed surveyor, landscape architect, or other person as approved by the Landscape Administrator</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>5. Name, address, contact information of the owner and the person preparing the document</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>6. Location of all R-O-W lines, property lines, and easements (easement locations required for tree surveys only)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>7. Identification of areas with environmental constraints including tree stands, creeks, steep grades (over 5%), view sheds, ponds, wetlands, etc.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>8. Aerial photography of the site showing existing tree canopy on the site clearly</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>9. All individual trees shown on a plan tied by horizontal control (i.e. dimensions from lot lines, or placed through coordinates determined via a site survey)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>10. Tree preservation areas as identified by a Tree Conservation Analysis or Tree Conservation Plan</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>11. All individual protected trees shown with the caliper size and species</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>12. All protected tree stands with average caliper sizes of trees and species distribution</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>13. Location of all improvements proposed on the lot (buildings, parking lots, pools, etc.)</td>
<td>Yes*</td>
<td>Yes</td>
</tr>
<tr>
<td>14. Areas of cut and fill, if any, on the site</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>15. Final grading and drainage plans</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>16. Status of all individual trees on the lot after proposed improvements have been made (trees that protected, removed, or can possibly be saved based upon site specific conditions)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>17. General status of tree stands on the lot after proposed improvements have been made (trees that protected, removed, or can possibly be saved based upon site specific conditions)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>18. Identification of existing vegetative buffers adjoining existing development</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>19. Stream/creek buffers, if any</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>20. 2-foot contours</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

* Required for site plans only.
## IV. APPENDIX B

**RECOMMENDED TREE PLANTING LIST**

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Botanical Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pecan</td>
<td>Carya illinoensis</td>
</tr>
<tr>
<td>Cedar Elm</td>
<td>Ulmus crassifolia</td>
</tr>
<tr>
<td>Shumard Red Oak</td>
<td>Quercus shumardii</td>
</tr>
<tr>
<td>Texas Red Oak</td>
<td>Quercus texana</td>
</tr>
<tr>
<td>Live Oak</td>
<td>Quercus virginiana</td>
</tr>
<tr>
<td>Bur Oak</td>
<td>Quercus macrocarpa</td>
</tr>
<tr>
<td>Post Oak</td>
<td>Quercus stellata</td>
</tr>
<tr>
<td>Black Jack Oak</td>
<td>Quercus marilandica</td>
</tr>
<tr>
<td>Lacebark Elm</td>
<td>Ulmus parvifolia</td>
</tr>
<tr>
<td>Chinese Pistache</td>
<td>Pistacia chinensis</td>
</tr>
<tr>
<td>Sweetgum</td>
<td>Liquidambar styraciflua</td>
</tr>
<tr>
<td>Austrian Pine</td>
<td>Pinus nigra</td>
</tr>
<tr>
<td>Chinquapin Oak</td>
<td>Quercus muhlenbergii</td>
</tr>
<tr>
<td>Southern Magnolia</td>
<td>Magnolia grandiflora</td>
</tr>
<tr>
<td>Bald Cypress</td>
<td>Taxodium distichum</td>
</tr>
<tr>
<td>Caddo Maple</td>
<td>Acer barbatum 'Caddo'</td>
</tr>
<tr>
<td>Texas Hickory</td>
<td>Carya texana</td>
</tr>
<tr>
<td>Western Soapberry</td>
<td>Sapindus drummondii</td>
</tr>
<tr>
<td>Red Cedar</td>
<td>Juniperus virginiana</td>
</tr>
<tr>
<td>American Elm</td>
<td>Ulmus amiricana</td>
</tr>
</tbody>
</table>

*Ordinance 585-D  Adopted November 20, 2007*
V. SUPPLEMENT TO THE TREE TECHNICAL MANUAL - 1
VISUAL GUIDE TO TREES

This document is a visual guide of the most commonly found and/or recommended protected trees in the city of Southlake. This guide is not intended to be all inclusive but is intended to assist users in identifying and selecting the right tree to meet the requirements of the city’s Tree Preservation Ordinance. This guide is divided into two main sections: the first section deals with shade and canopy trees and the second section deals with accent/understory trees.

1. SHADE/CANOPY TREES

- Blackjack Oak
- Bur Oak
- Chinquapin Oak
- Live Oak
- Post Oak
- Red Oak
- Cedar Elm
- Lace Bark Elm
- Pecan
- Bald Cypress
- Chinese Pistachio
- Golden Rain Tree
Blackjack Oak

Botanical Name: *Quercus marilandica*
Growth Habit: Slow
Mature Size: Medium 25’ to 40’ tall, 15’ – 40’ spread

The Blackjack Oak is one of the smaller Oaks, rarely reaching 60 feet, most commonly 25 to 40 feet, with a trunk diameter of 2 feet. The bark is reddish brown, usually nearly black, and has furrow and broken ridges. The leaves are thick and broad, dark green above, and paler beneath. They are 4-6 inches long and wedge-shaped with three bristle-tipped lobes at the wide tip. The acorn is globular, with a top-shaped cup covering half the nut that is about 3/4 inch long.

The canopy is rounded, with lower branches hanging downward. Blackjack oak grows on poor, dry, and rocky or sandy soils. It is a relatively short lived, slow growing species that cannot grow in shade. It is drought tolerant, has dark green leaves, and pleasing brown fall color, but it is intolerant of poorly draining or compacted soils.
Bur Oak

**Botanical Name:** *Quercus macrocarpa*

**Growth Habit:** Moderate to fast

**Mature Size:** Large 60’ to 80’ tall, 30’ to 50’ spread.

Bur Oak is one of the most widely adaptable oaks and native to Southlake. It is a large rounded tree with bold limbs and thick trunk. The leaves are large and deep dark green turning yellow-brown in the fall. The acorns can be up to 2” in size and have a thick mossy cap. Because of its large size it is best suited for large yards to provide it with room to develop. Aphids, spider mites and sooty mold occasionally affect it but are not serious.
Chinquapin Oak

Botanical Name: *Quercus muhlenbergii*
Growth Habit: slow to moderate
Mature Size: Large 40’ to 60’ tall, 30’ to 50’ spread.

Chinquapin Oaks grow naturally in the Dallas-Fort Worth area on either limestone outcroppings or in moist bottomlands although they are not very common. They are more prevalent to the North, West and South of the Fort Worth Metroplex area. They can grow very big but in most conditions stay about the same size as our native Post Oaks in either an up right or spreading form depending on its planted location. Chinquapin Oaks have a unique leaf which can grow fairly large, and is dark green and glossy giving the tree a thick lush look. Chinquapin Oaks also sometimes have exfoliating bark on their trunk and branches and as the tree grows older and larger gives it a big burly look adding to the lushness of its leaves. They have very few problems but can sometimes be difficult to transplant and become established.

These plants are relatively slow-growing as younger plants, becoming massive with age. Fruit which is borne heavily every three to five years is less a problem with this oak than most since the fruit is smaller and secondly, more sought after as a food source than other oaks. The preference of animals for the fruit of this plant has made it difficult for the nursery industry to get seed reliably. The ability to prosper on dry sites and withstand construction activity also contributes to its value in the urban scene.
Live Oak

**Botanical Name:** Quercus virginiana  
**Growth Habit:** Moderate  
**Mature Size:** Medium 40’ to 50’ tall, 40’ to 60’ spread.

This is a spreading evergreen shade tree with small glossy leaves and small dark brown glossy acorns. It is easy to establish in almost any soil and comes in both single and multi-trunk form. If left unpruned it has a dense branching pattern and can sometimes be hard to maintain. Once well established it is relatively drought tolerant.
Post Oak

**Botanical Name:** Quercus stellata

**Growth Habit:** Slow

**Mature Size:** Large 40’ to 60’ tall, 35’ – 50’ spread

Post Oaks occur in all areas of Texas except the High Plains and Trans-Pecos. A shrub or tree ranging from 20 to 75 feet tall with stout limbs and a dense rounded canopy, it grows in dry, gravelly, sandy soils and rocky ridges. It often grows along with Blackjack Oak, and like it has been considered an indicator tree of poor soils when seen in native conditions. It is extremely sensitive to root disturbance and lack of oxygen in the root zone, so construction activities that compact the soil, pave over the roots, or change the soil grade can kill existing trees, as can overwatering, such as when a lawn has been planted around an existing tree. Post Oak leaves have a distinctive cross shape; the bark is thick with platelike scales.

Post oaks are not sold commercially since they grow too slowly and their transplant survival is too poor for the nurseryman to deal with. So, priority should be placed on preserving all naturally growing post oaks found on site.
Red Oak

**Botanical Name:** *Quercus shumardii* or *Quercus texana*

**Growth Habit:** Moderate to fast

**Mature Size:** Large 50’ to 70’ tall, 40’ to 60’ spread.

Red Oaks are great trees with outstanding fall color of brilliant red and yellows. They come in many shapes and sizes from conical with central leaders to wide spread and multi-trunked depending on their species. Their leaves and acorns also vary from species to species. Texas Red Oaks generally have smaller leaves and smaller brown acorns that are sometimes striped and are almost always smaller in growth stature. Shumard Red Oaks have larger, wider leaves that range from pale to dark green and large green acorns which turn solid brown as they mature and are generally faster growing and larger than Texas Red Oaks. Often in the nursery trade Red Oaks are mixed crossbreds with Southern Red Oak (*Quercus falcate*) and/or Pin Oaks (*Quercus palustris*), both which will not grow well in the Southlake area. Your best bet is to purchase either a true Shumard Red Oak or a Texas Red Oak.
Cedar Elm

**Botanical Name:** *Ulmus crassifolia*

**Growth Habit:** Moderate

**Mature Size:** Large 60’ to 80’ tall, 30’ to 50’ spread.

Cedar Elms are a widespread native to the North Texas Area. They are one of the most prevalent growing trees in the Southlake area and sometimes consist on a site in entire stands. In Southlake, they mostly grow on higher grade elevations and rocky sandstone sites. They are one of the most adaptable trees available and make excellent street trees and trees for restricted sites where you need height from a tree.

In the nursery trade Winged Elms, which for some reason do not seem to grow very well in Southlake, are often mistaken for Cedar Elms. Although when young, both trees sometimes have corky wing structures on their stems, you can differentiate the two by rubbing a few of their leaves. The top of a Cedar Elms leaf will be rough like sand paper and a Winged Elms leaves will generally be smooth and slick. Most Cedar Elms generally have no problems but sometimes they can develop aphids, spider mites, sooty mold and mistletoe.
Lace Bark Elm

**Botanical Name:** *Ulmus parvifolia sempervirens*

**Growth Habit:** Fast

**Mature Size:** Large 40’ to 60’ tall, 30’ to 40’ spread.

A native to China, this tree is often called Drake elm. It has a distinctive patterned bark that gives the tree its name. It often fairs better in old age than the American elm. Lace bark is easy to care for and is a striking yard or street tree. It can reach a height of 50 feet. Lace bark elms are deciduous to semi-evergreen, moderate to rapid growth to 30 to 50 feet tall and wide (9-15 m); attractive grey and orange flaking bark; 0.7 to 2.5 inches long elliptic toothed leaves (1.7-6.2 cm), turning yellow or reddish in the fall. They need regular water, moist, well drained soil, tolerates poor soil. Lace bark elms are tough durable trees; easy to transplant; good street tree; resistant to Dutch elm disease and air pollution; great variability among seedlings.

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Pecan

**Botanical Name:** *Carya illinoiensis*

**Growth Habit:** slow to moderate

**Mature Size:** Large 70’ – 100’ tall

The pecan is a large tree native to North America. It bears sweet edible nuts, deep brown in color, that range from 1 to 2 inches in length. The mature pecan tree is usually 70 to 100 feet tall, as shown above, but can grow as tall as 150 feet and higher. The native pecan trees shown are estimated to be over 150 years old. Their trunks are more than three feet in diameter. Texas is the largest producer of native pecans, and is second only to Georgia in the production of hybrid (orchard grown) varieties. The pecan became the Texas state tree by act of the Texas Legislature in 1919.

The disadvantage of pecan is they require care in the form of foliar sprays of fungicides insecticides and zinc to be successful either as a landscape tree. The pecan is susceptible to several foliage and nut diseases. Varieties planted in the landscape, should be disease resistant and productive. Even with resistant varieties, there will be a need to spray the trees 2-4 times a year to control the insects.
Bald Cypress

**Botanical Name:** *Taxodium distichum*
**Growth Habit:** moderate
**Mature Size:** Large 50’ – 75’ in height and 20’ wide

Used as a specimen or in small groves, particularly in wet areas. Makes a good dense screening and windbreak plant. Bald cypresses are unusual and interesting trees often growing over 100 ft. in height. They are broadtipped in the wild, but young and middle-aged trees are pyramidal. Looks like an evergreen but is actually a deciduous tree and drops its leaves in the fall. Foliage is lacy and yellow-green, turning golden brown and then red before falling. Its bark is brown and fibrous similar to that of cedars.

Good shade in summer and allows full sunlight after leaf fall in winter. No flowers, insignificant fruit. The wood of the bald cypress is fairly durable and has many uses in outdoor construction.
Chinese Pistachio

**Botanical Name:** *Pistacia chinensis*
**Growth Habit:** moderate to fast
**Mature Size:** Medium 30’ in height and 25’ in width

The Chinese Pistachio is highly recommended by horticultural experts. It is a medium sized ornamental tree from China and Taiwan that is extremely winter hardy and has a superior level of drought, heat and wind tolerance. This is the first shade tree to receive the coveted "Earth-Kind" designation from the Texas Agricultural Extension Service for its high levels of genetic resistance to insect and disease problems.

It has extremely hard, durable wood which helps protect the tree from wind, ice and decay. It has a medium to fine textured foliage that remains an attractive deep green color during the growing season and a spectacular fall color in shades of orange, red, orange and crimson. In the summer female trees produce panicles of inconspicuous red dish flowers that are followed by small green berries that turn red to reddish-purple in the fall, which are relished by birds.
Golden Rain Tree

**Botanical Name:** *Koelreuteria paniculata*

**Growth Habit:** Moderate

**Mature Size:** Medium 20’ to 30’ tall, 15’ to 20’ spread

Golden rain tree is a fast-growing, deciduous tree reaching about 30' in height. At maturity, it has a rounded crown, with a spread equal to or greater than the height. It has compound leaves that give it an overall lacy appearance. The leaves turn yellow before falling. The bark is light gray-brown and becomes furrowed with age. Golden rain tree is perhaps most striking in the fall with its large clusters of showy yellow flowers. These are followed by 2” red-purple seed pods, which are equally dramatic. The fruit is a papery three-compartment, bladder-like structure full of seeds. In warm climates seed is produced in great quantities and there are always seedlings beneath a mother tree. The tree is invasive under these conditions. Golden rain tree is best grown in cooler zones where the shorter growing season prevents formation of seed.
2. **Accent/Understory Trees**

- **Vitex**
- **Red Bud**
- **Mexican Plum**
- **Mexican Buckeye**
- **Eve’s Necklace**
- **Eastern Red Cedar**
- **Crape Myrtle**
Vitex

**Botanical Name:**  *Vitex agnus-castus*

**Growth Habit:**  Moderate

**Mature Size:**  Small 15’ to 20’ tall, 10’ – 25’ spread.

Vitex is native to Europe and Asia but has adapted to and fits in so well in the Texas landscape that it might as well be considered a native to Texas. It likes the full sun and is very drought tolerant once established. Although it is mostly seen in its multi-stemmed form, it can be easily grown into a small tree. The leaves of the Vitex are an interesting palmate; five leaflet structure that have a strong lavender smell when crushed. Both purple and white blooming varieties are available which produce spike florets that cover the tree in the mid to late summer.
Red Bud

**Botanical Name:** *Cercis Canadensis*  
**Growth Habit:** moderate to fast  
**Mature Size:** Small 10’ to 20’ tall, 10’ to 15’ spread.

Red Bud is the official tree of Southlake. It grows naturally throughout the eastern U.S. and Texas and is generally a forest understory tree. Its leaves are heart shaped and glossy green. It grows in sun or shade and can be grown as either a multi-stemmed or single trunk tree. Native ones bloom pinkish purple on bare branches in early spring. There are several different varieties available that have either smooth dull green or shiny crinkled edged leaves and bloom the standard pink or white.
Mexican Plum

**Botanical Name:**  *Prunus mexicana*

**Growth Habit:**  Moderate

**Mature Size:**  Small 15’ tall, 10’ to 15’ spread.

Mexican Plums are native to the North Texas area and along with Red Bud is one of the first ornamental trees seen blooming in the spring. Its flowers are bright white on bare branches before the leaves appear. As Mexican Plums mature their bark becomes somewhat exfoliating like a birch, with bands of dark bluish-purple-gray running horizontal around the trunk. They are generally easy to grow in any soil but can develop problems with bores when stressed and occasional eating of the leaves by insects.

Mexican Plum is deciduous and leaves will turn yellow in the fall. The Mexican Plum can tolerate sun but does better with afternoon shade since it naturally grows as an understory plant. Mexican Plum does best in a deep well drained soil.
Mexican Buckeye

**Botanical Name:** Ungnadia speciosa  
**Botanical Name:** Moderate  
**Mature Size:** Small 15’ tall, 15’ spread

Mexican Buckeyes grow naturally north, south and west of Tarrant County. They have pinkish purple flowers that bloom in the spring and yellow fall color. Their leaves are compound somewhat like a Pecan but not as large. Mexican Buckeyes are generally multi-stemmed forming a somewhat cluster of skinny trunks. They are perhaps one of the best undiscovered Texas native trees. They grow in practically any soil, sun or shade, are very drought tolerant and have great flowers and interesting tri-seeded pods that hang on the branches in the winter.
Eve’s Necklace

**Botanical Name:** *Sophora affinis*
**Growth Habit:** Slow to moderate
**Mature Size:** Small 30’ tall and 20’ spread depending on location.

Eve’s Necklace is often confused with Mesquite because of it slightly Mesquite looking compound leaves and it’s interesting black bead like seed pods which it is name for. It blooms in the late spring with a wisteria-like flower and is closely related to the Texas Mountain Laurel (*Sophora secundiflora*) of the Texas Hill Country. Eve’s Necklace is native to Southlake but has mostly been removed because of development. They can grow either tall and slender, or short and wide depending on the location they are planted. They grow naturally as an understory tree among the native Post Oaks and Cedar Elms but establish very easily and grow excellent in the full sun areas and are extremely drought tolerant. Eve’s Necklace is also one of the best Texas native secrets.
Eastern Red Cedar

**Botanical Name:** *Juniperus virginiana*  
**Growth Habit:** Moderate to fast  
**Mature Size:** Medium 15’-20’+ in height and 6’-10’ in width

Eastern Red Cedar is native throughout the upper Midwest including north and east Texas. It is a very dense columnar ornamental that is excellent for wildlife habitat and as a windbreak. Foliage varies in shades of green. Foliage usually develops a purple to brownish cast during winter months. Trees are pyramidal in shape. Typical trees of the species are much larger and less dense in growth habit than are the selected cultivars that are usually planted in landscape situations.

Eastern Red Cedars require full sun and a well drained soil for best results. Trees become quite open and leggy in shade. It is adaptable to a wide range of soil pH and tolerates dry, rocky soil. These trees are susceptible to cedar-apple rust.
Crape Myrtle

**Botanical Name:** *Lagistromia indica*

**Growth Habit:** Moderate to fast

**Mature Size:** 6’-10’ in height and 6’ – 8’ in width

The deciduous crape myrtle is among the longest blooming trees in existence with flowering periods lasting from 60-120 days. Crapes come in heights as short as 18 in (46 cm) and as tall as 40 ft (12 m). Leaves are alternate and smooth, but leaf size depends on variety. Flowers are borne in summer in big showy clusters and come in white and many shades of pink, purple, lavender and red. The fruits that follow are brown or black. When mature they dry and split releasing disk shaped seeds.

Depending on variety, crapes grow as large shrubs or as trees that may be either upright or spreading. Large varieties are very fast growing and can put on several feet in a single growing season. Many types have interesting bark that exfoliates in thin flakes exposing lovely cinnamon or gray inner bark. Crapes tend to produce many suckers that should be removed as they appear if you want to maintain them as trees with distinct trunks.

Crape myrtle likes moist soil, where it will grow exceedingly fast, but it tolerates dry conditions once established.
THE RIGHT TREE

The trees that we plant provide immeasurable benefits to our properties and community. They provide oxygen and absorb carbon dioxide and other pollutants to help clean the air. They prevent erosion, help filter rain and ground water and provide food and shelter for wildlife. Most of all they add beauty and color to our surroundings.

Choosing the correct tree to plant in the right place can sometimes be a very difficult decision. Most often man made or environmental factors mandate what species and type of tree you can choose. Factors such as location, soil type and pH, overhead power lines or underground utilities, other surrounding trees and vegetation, and purpose for planting the tree. Planting a tree is also a definite investment for the future. Throughout our lives we invest either money or time into something that means a lot to us or provides for our future or our families future. Planting a tree is no exception to this norm. Each tree planted is an investment in assuring for cleaner air, cleaner water, shade to cool our surroundings, food and shelter for wildlife, maintaining soil erosion, improved social well being, and of course jobs. Those who plant and maintain trees get the satisfaction of seeing something achieved in a short time and over a long time. Planting trees and watching them grow to maturity provides you with a sense of achievement that nothing else can provide.
VI. SUPPLEMENT TO THE TREE TECHNICAL MANUAL - 2

Example of a Tree Survey

### TREE SURVEY SUMMARY

<table>
<thead>
<tr>
<th>#</th>
<th>SPECIES</th>
<th>DBH</th>
<th>CONDITION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Post Oak</td>
<td>15</td>
<td>Save</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Cedar Elm</td>
<td>12</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>3</td>
<td>Post Oak</td>
<td>8</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>4</td>
<td>Black Jack Oak</td>
<td>7</td>
<td>2</td>
<td>Save</td>
</tr>
<tr>
<td>5</td>
<td>Post Oak</td>
<td>6</td>
<td>2</td>
<td>Save</td>
</tr>
<tr>
<td>6</td>
<td>Cedar Elm</td>
<td>6</td>
<td>2</td>
<td>Save</td>
</tr>
<tr>
<td>7</td>
<td>Post Oak</td>
<td>6</td>
<td>3</td>
<td>Remove for Driveaway</td>
</tr>
<tr>
<td>8</td>
<td>Maple Tree</td>
<td>7</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>9</td>
<td>Post Oak</td>
<td>6</td>
<td>2</td>
<td>Save</td>
</tr>
<tr>
<td>10</td>
<td>Dogwood Holly</td>
<td>2</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>11</td>
<td>Cedar Elm</td>
<td>8</td>
<td>2</td>
<td>Save</td>
</tr>
<tr>
<td>12</td>
<td>Mexican Plum</td>
<td>3</td>
<td>1</td>
<td>Transplant</td>
</tr>
<tr>
<td>13</td>
<td>Post Oak</td>
<td>6</td>
<td>4</td>
<td>Remove for Driveaway</td>
</tr>
<tr>
<td>14</td>
<td>Post Oak</td>
<td>11</td>
<td>2</td>
<td>Save</td>
</tr>
<tr>
<td>15</td>
<td>Post Oak</td>
<td>9</td>
<td>2</td>
<td>Save</td>
</tr>
<tr>
<td>16</td>
<td>Black Oak</td>
<td>12</td>
<td>2</td>
<td>Remove for House</td>
</tr>
<tr>
<td>17</td>
<td>Cedar Elm</td>
<td>10</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>18</td>
<td>Red Bud</td>
<td>3</td>
<td>1</td>
<td>Transplant</td>
</tr>
<tr>
<td>19</td>
<td>Post Oak</td>
<td>10</td>
<td>2</td>
<td>Save</td>
</tr>
<tr>
<td>20</td>
<td>Dogwood Holly</td>
<td>2</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>21</td>
<td>Black Jack Oak</td>
<td>7</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>22</td>
<td>Juniper</td>
<td>3</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>23</td>
<td>Cedar Elm</td>
<td>9</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>24</td>
<td>Chilnium Wood</td>
<td>7</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>25</td>
<td>Cedar Elm</td>
<td>8</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>26</td>
<td>Post Oak</td>
<td>8</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>27</td>
<td>Juniper</td>
<td>4</td>
<td>3</td>
<td>Remove for House</td>
</tr>
<tr>
<td>28</td>
<td>Red Bud</td>
<td>3</td>
<td>3</td>
<td>Remove for House</td>
</tr>
<tr>
<td>29</td>
<td>Post Oak</td>
<td>16</td>
<td>4</td>
<td>Remove for House</td>
</tr>
<tr>
<td>30</td>
<td>Mexican Plum</td>
<td>3</td>
<td>3</td>
<td>Remove for House</td>
</tr>
<tr>
<td>31</td>
<td>Black Jack Oak</td>
<td>7</td>
<td>3</td>
<td>Remove for House</td>
</tr>
<tr>
<td>32</td>
<td>Red Oak</td>
<td>4</td>
<td>1</td>
<td>Transplant</td>
</tr>
<tr>
<td>33</td>
<td>Cedar Elm</td>
<td>10</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>34</td>
<td>Cedar Elm</td>
<td>7</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>35</td>
<td>Post Oak</td>
<td>18</td>
<td>3</td>
<td>Save</td>
</tr>
<tr>
<td>36</td>
<td>Mulberry</td>
<td>10</td>
<td>4</td>
<td>Remove, Diseased</td>
</tr>
<tr>
<td>37</td>
<td>Post Oak</td>
<td>8</td>
<td>2</td>
<td>Save</td>
</tr>
<tr>
<td>38</td>
<td>Cedar Elm</td>
<td>6</td>
<td>2</td>
<td>Save</td>
</tr>
<tr>
<td>39</td>
<td>Cherry Laurel</td>
<td>3</td>
<td>1</td>
<td>Transplant</td>
</tr>
<tr>
<td>40</td>
<td>Post Oak</td>
<td>10</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>41</td>
<td>Juniper</td>
<td>4</td>
<td>1</td>
<td>Save</td>
</tr>
<tr>
<td>42</td>
<td>Persimmon</td>
<td>6</td>
<td>1</td>
<td>No disturbance zone</td>
</tr>
</tbody>
</table>

**Condition Codes:**
1 = Excellent, 2 = Good, 3 = Fair, 4 = Poor, 5 = Dead

**STATEMENTS:**

1. Tree Grouping less than four inch (4") DBH; consists of approximately 10 Cedar Elms and Post Oaks. This area will be selectively thinned allowing the best trees to remain.
2. A one-time clearing of underbrush on the entire site will occur before construction begins.
3. All protected trees on the property shall be surrounded by 4' high orange vinyl fencing at the Critical Root Zone.
4. Trees within the immediate area of construction shall have bark protection.
5. The entire width of the No Disturbance Zone will be flagged off with orange vinyl tape, and no workers or construction equipment will be allowed to intrude, except for the one time clearing of underbrush.
6. All trees to be removed will be cut at ground level and stumps will be ground below grade. Prior to any stumps being removed, trenching will occur around root collar to sever any roots.
7. All transported trees will be contained on site for the duration of the construction and utilized in the finished landscape.
Example of an Alternative to a Tree Survey
### VII. Supplement to the Tree Technical Manual - 3

**Informational Requirements for all permits and applications**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Tree Conservation Analysis (TCA)</th>
<th>Tree Conservation Plan (TCP)</th>
<th>Tree Permits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identification of Critical Environmental Features of the site</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>o All protected tree stands</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>o All individually protected trees</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>o All grades over 5%</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>o Existing streams, drainage creeks, ponds, and other water bodies (if any)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>o View sheds</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>2. Tree survey</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>3. 2-foot contour map of the site</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>4. Alternative to a Tree Survey†</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>5. Protected trees within the tree preservation area including tree size and type</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>6. Critical Root Zones of groups of trees</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>7. Critical Root Zones of individual trees</td>
<td>No</td>
<td>Yes (for site plans)</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No (for preliminary plats)</td>
<td></td>
</tr>
<tr>
<td>8. Boundaries of any tree preservation areas as identified in the ERP Map</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>9. Identification of areas of environmental constraints not suitable for development</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>10. Identification of areas of minimal environmental constraints that are suitable for development</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>11. Areas of encroachment into environmentally sensitive areas identified on the site</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>12. Stream/Creek buffers, if any</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>13. Detailed site plan of all proposed improvements</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>14. Setbacks, building lines, buffer yards</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>15. Clear delineation of the status* of all protected trees after the proposed development is constructed</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>16. Preliminary grading, clearing, and trenching plans</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>17. Final grading plans</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>18. Required tree protection plan measures</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>19. Replanting/reforestation areas, if any</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>20. Clear delineation of construction related parking, storage, staging, and access areas</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

† The Administrative Official may waive any requirement if the scope of the project makes such a requirement either impractical or does not impact the decision making on the project.

‡ See Appendices A & B for acceptable alternatives to the Tree Survey.

* An alternative to the tree survey may be used in heavily wooded areas, however, a detailed tree survey may be required for smaller, specific areas based upon the environmental sensitivity of the property being developed.

* All proposed improvements shall be required to be shown only at the site plan stage for all development. Preliminary plats shall show building setbacks and general location of buildings and infrastructure.

* Status of the protected trees shall be based upon trees that are to be preserved, trees to be altered due to proposed improvements, and trees that could potentially be saved based on site specific conditions.
### VIII. SUPPLEMENT TO THE TREE TECHNICAL MANUAL - 4

**Summary of Tree Replacement and Tree Protection requirements by Project Type**

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Tree Replacement Applies?</th>
<th>Tree Protection Applies?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Utility Projects</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Trees must be altered to install utility lines in public ROW or utility easements</em></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><em>Trees within R-O-W that do not need to be altered</em></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Selective Thinning and Removal of Underbrush</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Diseased, Damaged, or Dangerous Trees</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>AG Zoned Property</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Multiple Tree Clearing for agricultural reasons (City Council approval required)</em></td>
<td>No*</td>
<td>No</td>
</tr>
<tr>
<td><em>Removal of up to 7 trees/calendar year on land used for agricultural purposes</em></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><em>Tree alteration other than clear cutting or removal of 7 trees/calendar year</em></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>All New Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Trees that must be altered to install required utility lines within public ROW or public utility or drainage easements based on the approved Tree Conservation Plan</em></td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td><em>Trees in the areas described above that the Landscape Administrator determines do not need to be altered</em></td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><em>Trees in all other areas of the development</em></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>New Single Lot Residential Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Trees within building pad site, driveways, public sidewalks, patios, septic tank and lateral lines, parking area, and pool and associated deck (based on the approved Tree Conservation Plan)</em></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><em>Trees not in any of the areas described above</em></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Pruning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Pruning is necessary to allow construction or demolition of a structure</em></td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><em>Pruning for other purposes</em></td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>All other conditions</strong></td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Unless land ceases to be used for agricultural purposes within five years.*
IMPORTANT WARNING!

DESIGNATED TREE PRESERVATION AREA

**DO NOT**

- Alter ANY tree without a permit
- Enter ANY area within a tree protection fence
- Park ANY vehicles or store anything under any tree
- Clean ANY equipment or dispose of anything under any tree
- Regrade or cut and fill under ANY tree without City approval

Failure to comply is a CRIMINAL MISDEMEANOR and violators will be prosecuted to the full extent of the law

By order of the City of Southlake
Call 817-748-8069 for more information