

**ARTICLE X.
LANDSCAPE AND TREE CONSERVATION [~~PRESERVATION~~] REGULATIONS.**

Division 51A-10.100. In General.

SEC. 51A-10.101. DEFINITIONS.

In this article:

(1) AGE CLASS means a distinct group of trees originating from a single natural event or regeneration activity i.e., a 10-year age class, as used in inventory management.

(2) ANSI A300 means the American National Standard for Tree Care Operations, including all parts, as amended.

(3) APPROVED TREE LIST means a list of trees approved as replacement and landscape trees determined and maintained by the director.

(4) ARTIFICIAL LOT means an area within the building site that is delineated by the building official or the director of park and recreation for the sole purpose of satisfying the requirements of this article (see Section 51A-10.122).

(5) BOUNDARY TREE means a tree growing on a property boundary line between two private lots resulting in joint ownership by the adjacent property owners when the trunk exists on each property, or a tree that has 20 percent or more of its tree canopy cover extending over the property boundary and into an adjacent building site.

(6) BROWNFIELD means a building site, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

(7[2]) CALIPER means:

(A) for field grown stock, the measurement of a tree taken six inches above ground level;

(B) for container grown stock, the measurement of a tree taken six inches above soil level; which should be at or near the top of the root flare, and six inches above the root flare for bare root plants, up to and including the four-inch caliper size interval (i.e., from four inches up to, but not including, four and one-half inches);

(C) if the caliper measured at six inches is four and one-half inches or more, the caliper must be measured at 12 inches above the ground level, soil line, or root flare, as appropriate; and

(D) for trees with multiple stems, it is one-half of the combined caliper of the three largest trunks. [for a single stem tree, the diameter of the trunk measured 12 inches above the ground for a tree having a diameter up to and including eight inches, and measured at four and one half feet above the ground for a tree having a diameter of more than eight inches.

~~(B) for multi-stem trees, the diameter of the trunk measured at the narrowest point below branching when branching occurs higher than 12 inches above the ground. When branching occurs at or lower than 12 inches above the ground, caliper means the diameter of the largest stem plus the average diameter of the remaining stems, measured at four and one-half feet above the ground.]~~

(8[3]) CANOPY TREE means a species of tree that normally bears crown foliage no lower than six feet above ground level upon maturity.

(9) CLASS 1 TREE means a tree located in a primary natural area or geologically similar area measured to fifty feet above the escarpment zone.

(10) CLASS 2 TREE means a tree that is not otherwise classified.

(11) CLASS 3 TREE means Arizona ash, black willow, cottonwood, hackberry, honeylocust, mesquite, mimosa, mulberry, ornamentals, *pinus spp.*, Siberian elm, silver maple, sugarberry, or a small tree.

(12[4]) CLEARING means any activity that removes or seriously injures one or more trees or the vegetative ground cover of one or more trees, such as root mat removal or topsoil removal.

(13) COVERED SOIL AREA means an area of soil that is under nonpermeable pavement and is designed to accommodate tree root growth.

(14[5]) CRITICAL ROOT ZONE means the circular area of ground surrounding a tree extending a distance of one foot per ~~diameter~~ caliper inch of the tree, measured from the tree trunk or stem.

(15) DEVELOPMENT IMPACT AREA means the area of land or vegetation alteration within a property including, but not limited to, clearing, grading, excavating, filling, and any construction site operations, paving, or any other installation.

(16) DIAMETER means:

(A) the measure of a tree trunk measured at a height of four and one-half feet above the ground (diameter at breast height [“DBH”]), measured at the uphill side of the tree or as recommended in the Landscape and Tree Manual for special situations for tree fork, lean, or on slopes;

(B) for trees with multiple stems, the diameter of the trunk measured at the narrowest point below branching when branching occurs below DBH, or near DBH; and

(C) when branching occurs at or lower than 12 inches above the ground, diameter means the diameter of the largest stem plus the average diameter of the remaining stems, measured at DBH.

(17) DRIP LINE means a vertical line that runs from the outermost point of the crown of a tree to the ground.

(18[6]) ENHANCED PAVEMENT means any permeable or nonpermeable decorative pavement material intended for pedestrian or vehicular use approved by the director. Examples of enhanced pavement include, but are not limited to, brick or stone pavers, grass paver, exposed aggregate concrete, and stamped and stained concrete.

(19[7]) EVERGREEN TREE OR SHRUB means a tree or shrub of a species that normally retains its leaves throughout the year.

(20) FACADE PLANTING AREA means the portion of a lot abutting an active storefront or an office or mixed use building front.

(21[8]) FLOOD PLAIN means any land area susceptible to inundation by the hundred-year frequency flood.

(22) FOREST STAND DELINEATION (“FSD”) means a comprehensive assessment of the conditions of a property using multiple types of information, including, but not limited to, a tree survey, aerial imagery collected from private or public sources, natural resources assessments, topographic maps, management plans, a map of conservation areas, land use maps, etc., to provide the required data to determine tree replacement requirements and forest conservation objectives.

(23[9]) GRADING means any digging, scooping, removing, depositing or stockpiling, of earth materials.

(24) GREEN INFRASTRUCTURE means the ecological framework of trees and vegetation used in conjunction with engineered systems for the effective and resilient processes of stormwater management, climate adaptation, urban heat abatement, biodiversity, improved air quality, clean water, and healthy soils, for sustainable social, health, and economic benefits of the urban community.

(25[10]) GROUND COVER means natural mulch, or plants of species that normally reach a height of less than three feet upon maturity, installed in such a manner so as to form a continuous cover over the ground.

(26) HABITAT PRESERVATION AND RESTORATION AREA means a designated area on a landscape plan dedicated to the restoration and preservation of an undeveloped site either through active or passive management practices.

(27) HISTORIC TREE means a tree, or grove of trees, that has been recognized by resolution of the city council as having cultural or historical significance.

(28[41])HUNDRED-YEAR FREQUENCY FLOOD means the flood having a one percent chance of being equalled or exceeded in any given year. This flood is based upon the drainage area being fully developed to current zoning limitations.

(29) INTERIOR ZONE means the area of a lot not included in a street buffer zone or a residential buffer zone.

(30) INVASIVE PLANT means a plant that has been classified as invasive to the Dallas region by Texas Parks and Wildlife or the Texas Department of Agriculture.

(31[42])LANDSCAPE ARCHITECT means a person licensed to use the title of "landscape architect" in the State of Texas in accordance with state law.

(32[43])LANDSCAPE AREA means an open soil area covered by natural grass, ground cover, stone aggregate or river rock, or other plant materials for the purpose of landscaping or the growth and establishment of trees and other vegetation [~~an area at least 80 percent of which is covered by natural grass, ground cover, or other natural plant materials (excluding screening)~~].

(33[44])LANDSCAPE BUFFER STRIP means a landscape area that serves a buffer function.

(34[45])LARGE SHRUB means a shrub that normally reaches a height of six feet or more upon maturity.

(35[46])LARGE TREE means a tree [~~of a~~] species that typically attains [~~normally reaches~~] a height and width of at least 50 [~~30~~] feet at [~~or more upon~~] maturity, or as classified by the director.

(36) (36) LEGACY TREE means a large or medium tree planted in a landscape area in accordance with Section 51A-10.104 and Section 51A-10.135.

(37[47])LOT means:

- (A) a "lot" as defined in Section 51A-2.102; and
- (B) an "artificial lot" as defined in this section.

(38[48])LOT WITH RESIDENTIAL ADJACENCY means any of the following:

(A) A building site containing a multifamily use that is adjacent to or directly across:

- (i) a street 64 feet or less in width; or
- (ii) an alley;

from private property in a single family, duplex, townhouse, [Ø] CH [~~district~~], RTN district, or a residential planned development district.

(B) A building site containing a nonresidential use that is adjacent to or directly across:

- (i) a street 64 feet or less in width; or
- (ii) an alley;

from private property in an agricultural, single family, duplex, townhouse, CH, multifamily, [Ø] manufactured housing [~~district~~], RTN district, or a residential planned development district.

(C) An artificial lot containing a multifamily use if the lot is less than 200 feet from private property in a single family, duplex, townhouse, [Ø] CH [~~zoning district~~], RTN district, or a residential planned development district.

(D) An artificial lot containing a nonresidential use if the lot is less than 200 feet from private property in an agricultural, single family, duplex, townhouse, CH, multifamily, or manufactured housing [~~zoning district~~], RTN district, or a residential planned development district .

(39) MEDIUM TREE means a tree which may typically attain a canopy height of 30 feet or greater and between 15 feet and 50 feet in width at maturity, or as classified by the director.

(40[49])NONPERMEABLE COVERAGE means coverage with any pavement that is not "permeable pavement" as defined in this section.

(41) NURSERY STOCK means a plant grown in or obtained from a nursery.

(42) OPEN SOIL AREA means an unpaved area of soil.

(43) PEDESTRIAN PATHWAY means an area intended for use by pedestrians or non-motorized vehicles that is physically or visually distinguishable from parking and driving surfaces by concrete curbs, wheel stops, or other permanent barriers, landscape barriers, or a change in surface materials such as pavers, patterned concrete, or flagstones.

~~(44[20])~~PERMEABLE PAVEMENT means paving systems, pavers, or other structural surfaces that allow stormwater infiltration and are approved by the director [a paving material that permits water penetration to a soil depth of 18 inches or more. Permeable pavement may consist of nonporous surface materials poured or laid in sections not exceeding one square foot in area and collectively comprising less than two-thirds of the total surface area].

(45) PREVIOUSLY DEVELOPED SITE means a building site that has been substantially altered through paving, construction, or other activity that requires or required permitting or licensing through a regulatory agency.

(46) PRIMARY NATURAL AREA means an ecologically sensitive area including 100-year flood plain and riparian areas, wetlands or 50-foot wetland buffer, perennial and intermittent streams measured to 50 feet above top of bank, and the escarpment zone.

~~(47[24])~~PRIVATE PROPERTY means any property not dedicated to public use, except that "private property" does not include the following:

- (A) A private street or alley.
- (B) Property on which a utility and public service use listed in Section 51A-4.212 is being conducted as a main use.
- (C) A railroad right-of-way.
- (D) A cemetery or mausoleum.

~~(48[22])~~PROTECTED TREE means:

(A) a tree of any species that has a minimum diameter of eight inches that is not classified as unprotected in this article;

(B) any tree in a stand which projects a tree canopy over a building site when identified within a forest stand delineation review; or

~~[that has a caliper of eight inches or more and is not one of the following trees:~~

- ~~(i) *Acer saccharinum* (Silver Maple).~~
- ~~(ii) *Ailanthus altissima* (Tree of Heaven).~~
- ~~(iii) *Albizzia julibrissen* (Mimosa or Silktree).~~
- ~~(iv) *Celtis occidentalis/ laevigata* (Hackberry or Sugarberry).~~

- (v) ~~*Fraxinus velutina* (Arizona Ash).~~
- (vi) ~~*Juniperus virginiana* (Eastern Red Cedar) [unless protected under subparagraph (B)].~~
- (vii) ~~*Maclura pomifera* [female only] (Bois d'Arc or Horseapple).~~
- (viii) ~~*Melia azedarach* (Chinaberry).~~
- (ix) ~~*Prosopis glandulosa* (Mesquite) [unless protected under subparagraph (B)].~~
- (x) ~~*Salix nigra* (Black Willow).~~
- (xi) ~~*Sabium sebiferum* (Chinese Tallow).~~
- (xii) ~~*Ulmus pumila* (Siberian Elm).~~

(B) ~~an Eastern Red Cedar (*Juniperus virginiana*) or Mesquite (*Prosopis glandulosa*) tree that has a caliper of eight inches or more and the trunk is located:~~

(i) ~~in, or within 120 feet of the boundary of: a floodplain [as defined in Article V]; a wetland area [as defined in federal environmental regulations]; or an escarpment zone [as defined in Article V]; or~~

(ii) ~~within 50 feet of a natural channel setback line [as defined in Article V].~~

(C) ~~an Eastern Red Cedar (*Juniperus virginiana*) or Mesquite (*Prosopis glandulosa*) tree that has a caliper of at least 12 inches; or]~~

(C[~~D~~]) a tree that was planted as a replacement tree.

(49[23])REMOVE OR SERIOUSLY INJURE means an intentional or negligent action that will more likely than not cause a tree to decline and die within five years of the act. Actions that constitute removing or seriously injuring a tree include, but are not limited to: cutting down a tree; excessively pruning or topping a tree; compacting the soil above the root system of a tree; changing the natural grade above the root system of a tree; damaging the root system or the trunk of a tree (such as by operating machinery near, or by clearing or grading the area around, the trunk of a tree); failing to repair an injury to a tree from fire or other causes, which results in or permits tree infections or pest infestations into or on the tree; applying herbicidal or other lethal chemicals; and placing nonpermeable pavement over the root system of a tree.

(50[24])RESPONSIBLE PARTY means the property owner and any other person or entity responsible for removing or seriously injuring a protected tree.

(51[25])REPLACEMENT TREE means a tree that is planted in accordance with Section 51A-10.134.

(52) ROOT PATH means a path constructed using aeration or drainage strips providing roots a route under pavement from a tree to an adjacent landscape area.

(53[26])SCREENING means screening that complies with Section 51A-4.602, except as those regulations may be expressly modified in this article.

(54) SECONDARY NATURAL AREA means undisturbed areas on a building site other than primary natural areas.

(55) SIGNIFICANT TREE means a protected healthy tree whose age, size, unique type, or natural and historical character are of special importance to the city, and meets the following species and size requirements:

(A) Post oaks with a minimum diameter of 12 inches.

(B) Trees of the following species having a minimum 24-inch diameter: American elm, cedar elm, chittamwood, common persimmon, eastern red cedar, green ash, all other oaks, pecan, all walnut species, and white ash.

(56[27])SMALL TREE means a tree that typically attains a maximum height of 30 feet at maturity or is classified as a small tree by the director [of a species that normally reaches a height of less than 30 feet upon maturity].

(57[28])SOIL means a medium that plants will grow in.

(58) STAND means a group of trees or other growth occupying a specific area that is sufficiently similar in species composition, size, age, arrangement, and condition, to be distinguishable from adjacent forest.

(59) SUSTAINABLE DEVELOPMENT INCENTIVE (“SDI”) means a method of compliance that applies sustainable development, tree preservation practices, and tree mitigation reductions.

(60) TOPPING means the reduction of tree size using internodal cuts without regard to tree health or structural integrity. Topping is not an acceptable practice.

(61) TREE CANOPY COVER means the amount of ground area directly beneath a tree’s crown to the drip line or the combined crowns of a stand of trees, measured in square feet.

(62) TREE REMOVAL PROPERTY means the lot, parcel, right-of-way, or tract of land where a protected tree will be or has been removed or seriously injured.

(63[29])TREE SURVEY means a report that meets all of the requirements for a tree survey in Section 51A-10.132.

~~[(30) UNDERSTORY means a grouping of natural low-level woody, herbaceous plant species, or plants that normally reach a height of less than three feet upon maturity.]~~

(64) UNPROTECTED TREE means the following:

(A) Callery pear (all cultivars).

(B) Chinaberry.

(C) Chinese tallow.

(D) Ilex species (except for yaupon holly and Possumhaw holly.)

(E) Palm (all plants in *Palmae*).

(F) Tree-of-heaven or *Ailanthus*.

(G) Other trees listed as invasive plants.

(65) UNRESTRICTED ZONE means the area on a lot where tree mitigation is not required.

(A) For front and rear yards, the unrestricted zone does not include required setbacks or the area 15 feet from the property line, whichever is greater.

(B) For side yards, the unrestricted zone does not include required setbacks or the area five feet from the property line, whichever is greater.

(66) URBAN STREETSCAPE means the pedestrian-oriented street environment between the back of curb and building facade for frontages that have required front yards with a depth of 0 to 15 feet.

~~[(31) VISIBILITY TRIANGLE means the term "visibility triangle" as defined in Section 51A-4.602.]~~

(67[32])WATER COURSE means a natural or constructed channel for the flow of water.

SEC. 51A-10.102.

PURPOSE.

The process of urban growth and development with its alteration of the natural topography, vegetation, and creation of impervious cover can have a negative effect on the ecological balance of an area by causing increases in air temperatures and accelerating the processes of runoff, erosion, and sedimentation. The economic base of the city can and should be protected through the conservation [~~preservation~~] and enhancement of the unique natural beauty, environment, and vegetative space in this area. Recognizing that the general objectives of this article are to promote and protect the health, safety, and welfare of the public, the city council further declares that this article is adopted for the following specific purposes:

- (1) To aid in stabilizing the environment's ecological balance by contributing to the processes of air purification, oxygen regeneration, ground-water recharge, and storm water runoff retardation and filtration, while at the same time aiding in noise, glare, wind, and heat abatement.
- (2) To provide visual buffering between land uses of differing character to alleviate the harshness of urban life.
- (3) To enhance the beautification of the city.
- (4) To safeguard and enhance property values and to protect public and private investment.
- (5) To conserve energy.
- (6) To provide habitat for wildlife.
- (7) To encourage the preservation of large trees which, once removed, can be replaced only after generations.
- (8) To conserve water.
- (9) To recognize and conserve the urban forest as part of the city's green infrastructure.

SEC. 51A-10.103.

ACCEPTABLE PLANT MATERIALS.

- (a) No artificial plant materials, including synthetic turf, may be used to satisfy the requirements of this article.
- (b) In satisfying the requirements of this article, the use of high-quality, hardy, and drought-tolerant plant materials is recommended and encouraged.

(c) For a lot or tract two acres in size or more, no one species of tree may constitute more than 35 percent of the replacement trees planted on the lot or tract.

(d) Palm trees may not be used to satisfy the requirements of this article.

(e) Invasive plant material is prohibited in required landscapes.

(f) A list of acceptable plant materials for required landscapes will be maintained by the director.

SEC. 51A-10.104. SOIL AND PLANTING AREA REQUIREMENTS.

(a) In general. Planting areas dedicated to the growth of roots may include open soil areas, covered soil areas, root paths, and drainage.

(b) Soil area requirements. Except as provided in this section, soil quality for all required landscape areas must meet the following conditions:

(1) Soil resource plan. A soil resource plan is required with the submission of a landscape plan or tree protection plan. A soil resource plan is used to distinguish soil zones for landscaping from zones for construction on the building site and to determine soil protection or soil modification for vegetation, if applicable. Zones that are required to be shown include:

(A) protected zones where existing soil and vegetation is not disturbed;

(B) zones for soil amendment or treatment with minimal disturbance;

(C) zones where construction traffic will be allowed; and

(D) zones for stockpiling topsoil and imported amendments.

(2) Soil resource assessment. A soil resource assessment is required in conjunction with sustainable development incentive requirements and legacy trees.

(A) A soil resource assessment must provide a complete soil profile analysis for planting conditions before submittal of building permit. A soil resource assessment may be included in other engineering site assessments for the property.

(B) A soil resource assessment must include the necessary information for all proposed landscape planting areas, to delineate, quantify, and characterize the topsoils and subsoils of a site prior to these materials being excavated for reuse on site.

(3) Additional minimum soil quality requirements.

(A) Soils used in landscape areas for tree planting must be shown in protected zones where existing soil and vegetation is not disturbed, or in zones modified to correct limiting factors for tree establishment and longevity.

(B) When a soil resource assessment is required, the ranges for physical, chemical, and biological indicators of soil quality for urban trees is determined from the *ISA Best Management Practices for Soil Management for Urban Trees*, or in another publication approved by the building official.

(c) Planting area requirements. Except as provided in this section, p[lanting] areas [in general] must meet [have] the following requirements [soil depths and dimensions]:

(1) For each [~~large shrub or~~] small tree installation, a minimum of 24 inches of soil depth and ~~25~~ [46] square feet of open soil [~~surface~~] area (total of ~~50~~ [32] cubic feet).

(2) For each large or medium tree installation, a minimum of 36 inches of soil depth and ~~160~~ [25] square feet of open soil [~~surface~~] area (total of ~~480~~ [75] cubic feet).

(3) Except as provided in this subsection, trees may share open soil areas.

(4) Except as provided in this section, large trees and medium trees must be planted a minimum of four feet from pavement.

(5) The planting areas must have native soils, prepared soils, or structural soils, and may include permeable pavement, sidewalk support, and soil cells.

(6) Required areas for plant materials must be protected from vehicular traffic through the use of concrete curbs, wheel stops, or other permanent barriers.

(7) Planters may be used to satisfy the requirements of this article provided that the soil requirements in Section 51A-10.104 are met.

(d) Legacy tree soil and planting area requirements.

(1) Except as provided in this paragraph, large legacy trees must be planted in a minimum 500 square foot open soil area with a minimum soil depth of 36 inches (1500 cubic feet) per tree. For locations with shallow soils of less than 30 inches in average depth, the open soil area must be a minimum 750 square feet.

(2) Except as provided in this paragraph, medium legacy trees must be planted in a minimum 400 square foot open soil area with a minimum soil depth of 36 inches (1200 cubic feet) per tree. For locations with shallow soils of less than 30 inches in average depth, the open soil area must be a minimum 750 square feet.

(3) Legacy trees must be a minimum of 30 feet measured horizontally from the closest point of a building or other structure on the property.

(4) Legacy trees may not share required minimum open soil areas with large or medium trees.

(e[~~b~~]) Alternative planting area requirements. Planting areas located above underground buildings or structures or in an urban streetscape must have the following open soil area depths and dimensions:

(1) For each [~~large shrub or~~] small tree installation, a minimum of 30 inches of soil depth and 25 square feet of open soil [~~surface~~] area (total of 62.5 cubic feet).

(2) For each large or medium tree installation, a minimum of 36 [~~40~~] inches of soil depth and 25 [~~36~~] square feet of open soil [~~surface~~] area and a combination of open soil area, covered soil area, and root paths for a minimum of 240 cubic feet of soil volume. Trees planted in less than 480 cubic feet of soil volume do not count as replacement trees [~~(total of 120 cubic feet)~~].

(3) Trees may share open soil areas.

(4) Trees must be planted a minimum of two-and-one-half feet from pavement.

(f[e]) Waiver. The building official may waive the minimum open soil and planting area requirements if a landscape architect certifies that:

(1) the proposed alternative soil depths and dimensions are sufficient to support the healthy and vigorous growth of the plant materials affected;

(2) the depth to impermeable subsurface prohibits minimum soil depth requirements; or

(3) that the proposed structural soils or suspended paving system are sufficient to support the healthy and vigorous growth of the plant materials.

(g) Adequate space. All required trees must be planted in adequate space to allow unobstructed growth to maturity.

(h) Tree locations.

(1) In general. At the time of planting all required trees must be measured horizontally from the center of the trunk and be located:

(A) a minimum distance of two feet from side yard and rear yard property boundaries;

(B) a minimum distance of 20 feet from traffic signs;

(C) a minimum distance of 20 feet from light poles;

(D) a minimum distance of five feet from underground local utility lines; and

(E) a minimum distance of five feet from fire hydrants, electrical transmission boxes, water meters, and other ground utility access.

(2) Distance from buildings:

(A) for large trees a minimum distance of 15 feet from buildings;

(B) for medium trees a minimum distance of 12 feet from buildings;
and

(C) for small trees a minimum distance of five feet from buildings;

(3) Distance from large trees:

(A) for large trees a minimum distance of 25 feet from large trees;

(B) for medium trees a minimum distance of 20 feet from large trees;
and

(C) for small trees a minimum distance of 10 feet from large trees;

(4) Distance from medium trees:

(A) for large trees a minimum distance of 20 feet from medium trees;

(B) for medium trees a minimum distance of 20 feet from medium trees; and

(C) for small trees a minimum distance of 10 feet from medium trees;

(5) Distance from small trees: except as provided in this paragraph, a minimum distance of 10 feet from small trees.

(6) Distance from overhead electric lines.

(1) Legacy trees must be planted a minimum of 30 feet from the closest point of an overhead electric line.

(2) Large trees must be planted a minimum of 20 feet from the closest point of an overhead electric line.

(3) Medium trees must be planted a minimum of 15 feet from the closest point of an overhead electric line.

SEC. 51A-10.105. RESERVED[PROTECTION OF PLANTING AREAS].

~~[Required areas for plant materials must be protected from vehicular traffic through the use of concrete curbs, wheel stops, or other permanent barriers.]~~

SEC. 51A-10.106. IRRIGATION REQUIREMENTS.

(a) In general.

(1) Except as provided in this section, automatic irrigation systems must be installed as part of new required landscaping for commercial and multifamily uses with combined landscape areas of 500 square feet or more.

(2) The automatic irrigation system must be:

(A) shown on a landscape plan or irrigation plan; and

(B) adequate to maintain the plant materials in a healthy, growing condition at all times.

(b) Renovations and additions. For properties on building sites or artificial lots less than two acres, with permits for renovations or additions that require landscaping all required plant materials must be a maximum of 100 feet from an irrigation source with a permanently installed threaded hose connection. ~~[All plant materials used as screening under this article must be irrigated by an automatic irrigation system installed to comply with industry standards. Other plant materials used to comply with this article must be located within 100 feet of a verifiable water supply.]~~ Proposed watering methods (irrigation or otherwise) must be:

(1[a]) shown [indicated] on the landscape plan, if any; and

(2[b]) capable of maintaining ~~[adequate to maintain]~~ the plant materials in a healthy, growing condition at all times.

(c) Alternate irrigation. The building official may authorize an alternate method of irrigation for required landscape areas if the alternate irrigation method is:

- (1) certified by a landscape architect or licensed irrigator;
- (2) shown on a stamped landscape plan or irrigation plan; and
- (3) capable of maintaining the plant materials in a healthy, growing condition at all times.

SEC. 51A-10.107. RESERVED[PLANTERS ALLOWED].

~~[Planters may be used to satisfy the requirements of this article provided that the soil requirements in Section 51A-10.104 are met.]~~

SEC. 51A-10.108. GENERAL MAINTENANCE.

(a) Required plant materials must be maintained in a healthy, growing condition at all times. The property owner is responsible for regular weeding, mowing of grass, irrigating, fertilizing, pruning, and other maintenance of all plantings as needed. Any plant that dies must be replaced with another living plant that complies with this article and the approved landscape plan, if any, within 90 days after notification by the city.

(b) Any damage to utility lines resulting from the negligence of the property owner or his agents or employees in the installation and maintenance of required plant materials in a utility easement is the responsibility of the property owner. If a public utility disturbs a landscaped area in a utility easement, it shall make every reasonable effort to preserve the plant materials and return them to their prior locations after the utility work. If, nonetheless, some plant materials die, it is the obligation of the property owner to replace the plant materials.

SEC. 51A-10.109. LANDSCAPE AND TREE MANUAL.

A landscape and tree manual is provided as a technical guide for conserving, protecting, maintaining, and establishing the green infrastructure, landscape, and urban forest of the City.

~~[References to this section, or paragraphs or subsections of this section, now refer to Section 51A-10.135, or corresponding paragraphs or subsections of Section 51A-10.135.]~~

SEC. 51A-10.110. SPECIAL EXCEPTIONS.

(a) In general.

(1[~~a~~]) The board may grant a special exception to the requirements of Division 51A-10.100 and Division 51A-10.120, other than fee and notice requirements, [~~this article~~] upon making a special finding from the evidence presented that:

(A[4]) strict compliance with the requirements of this article will unreasonably burden the use of the property;

(B[2]) the special exception will not adversely affect neighboring property; and

(C[3]) the requirements are not imposed by a site-specific landscape plan approved by the city plan commission or city council.

(2[~~b~~]) In determining whether to grant a special exception under Paragraph [Subsection] (1[a]), the board shall consider the following factors:

(A[4]) The extent to which there is residential adjacency.

(B[2]) The topography of the site.

(C[3]) The extent to which landscaping exists for which no credit is given under this article.

(D[4]) The extent to which other existing or proposed amenities will compensate for the reduction of landscaping.

(b) Tree conservation.

(1) The board may grant a special exception to the requirements of Division 51A-10.130 upon making a special finding from the evidence presented that:

(A) strict compliance with the requirements of this article will unreasonably burden the use of the property;

(B) the special exception will not adversely affect neighboring property; and

(C) the requirements are not imposed by a site-specific landscape plan or tree mitigation plan approved by the city plan commission or city council.

(2) In determining whether to grant a special exception under Paragraph (1), the board shall consider the following factors:

(A) The extent to which there is residential adjacency.

(B) The topography of the site.

(C) The extent to which landscaping exists for which no credit is given under this article.

(D) The ability to plant replacement trees safely on the property.

(E) The extent to which alternative methods of replacement will compensate for a reduction or extended time for tree replacement.

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Division 51A-10.120. Landscaping.

SEC. 51A-10.121. APPLICATION OF DIVISION.

(a) Except as provided in this Article, t[F]his division does not apply to the following:

(1) Property governed by a landscape plan approved by the board of adjustment, city council, or the city plan commission.

(2) Property lots in the following districts:

(A) The Dallas Arts District (Planned Development District Nos. 145 and 145-H/18).

(B) The Deep Ellum/Near East Side District (Planned Development District No. 269).

(C) The Oak Lawn Special Purpose District (Planned Development District No. 193).

(D) Central area districts.

(3) Restoration of a building that has been damaged or destroyed by fire, explosion, flood, tornado, riot, act of the public enemy, or accident of any kind. For purposes of this section, "restoration" means the act of putting back into a former or original state.

(4) Property located within or in close proximity to an airport boundary if the city's director of aviation determines that the required landscape materials will threaten public health or safety.

(b) Only Section 51A-10.125(a) of this division applies to lots containing single family or duplex uses.

(c) This division only becomes applicable to a lot or tract when the nonpermeable coverage on the lot or tract is increased by more than 2,000 square feet within a 24-month period, not including portions of pedestrian pathways, that are between three feet in width and 15 feet in width, or when an application is made for a building permit for construction work that:

(1) increases the number of stories and increases the height of [it] a building on the lot; or

(2) increases by more than 35 percent or 10,000 square feet, whichever is less, the combined floor areas of all buildings on the lot within a 24-month period. The increase in combined floor area is determined by adding the floor area of all buildings on the lot within the 24 months prior to application for a building permit, deducting any floor area that has been demolished in that time or will be demolished as part of the building permit, and comparing this figure with the total combined floor area after construction.

(d) When this division becomes applicable to an individual lot or tract, its requirements are binding on all current and subsequent owners of the lot or tract.

(e) The city council shall, as a minimum, impose landscaping requirements that are reasonably consistent with the standards and purposes of this division as a part of any ordinance establishing or amending a planned development district, or granting or amending a specific use permit. (Note: This subsection does not apply to ordinances that merely renew a specific use permit when no substantive changes are made other than to extend the time limit of the permit.) All landscaping requirements imposed by the city council must be reflected in a landscape plan that complies in form and content with the requirements of Section 51A-10.123 and complies with Division 51A-10.100.

SEC. 51A-10.122. ARTIFICIAL LOT DELINEATION.

(a) In general. If the building site is over two acres in size, the applicant may request that the building official create an artificial lot to satisfy the requirements of this division. The building official shall not create an artificial lot which would, in his or her opinion, violate the spirit of the landscape regulations. Any artificial lot created by the building official must:

- (1) wholly include the area on which the construction work is to be done;
- [and]
- (2) have an area that does not exceed 50 percent of the area of the developed or undeveloped building site;
 - (3) include all new exterior paving additions except portions of pedestrian pathways, that are between three feet in width and 15 feet in width;
 - (4) include the street buffer zone for new construction or additions that are located wholly, or in part, within 60 feet of the nearest street frontage; and
 - (5) include the residential buffer zone for new construction or additions that are located wholly, or in part, within 60 feet of the nearest residential adjacency.

(b) In city parks over five acres. In city parks over five acres in size, the director of park and recreation may create an artificial lot to satisfy the requirements of this division.

(1) Except as provided in this subsection, a[A]ny artificial lot created by the director of park and recreation must wholly include the area on which the construction work is to be done.

(2) Portions of pedestrian pathways, that are between three feet in width and 15 feet in width, are excepted from this requirement.

(c) Platting not required. An artificial lot need not be platted; however, it must be delineated on plans approved by the building official prior to the issuance of a building permit.

SEC. 51A-10.123. LANDSCAPE PLAN SUBMISSION.

(a) If this division applies to a lot pursuant to Section 51A-10.121, a landscape plan must be submitted to the building official with the application for a building permit for work on the lot. For landscape plans that are not submitted electronically, a[A] landscape plan submission must consist of two blueline or blackline prints. The plan must have a scale of one inch equals 50 feet or larger (e.g. one inch equals 40 feet, one inch equals 30 feet, etc.) and be on a standard drawing sheet of a size not to exceed 36 inches by 48 inches. A plan which cannot be drawn in its entirety on a 36 inch by 48 inch sheet must be drawn with appropriate match lines on two or more sheets.

(b) Except as provided in this article, a[A]ny person may prepare the landscape plan required under this division. ~~[There is no requirement that the plan be prepared by a landscape architect or by a person engaged in the landscape business.]~~

(c) A landscape plan required under this division must contain the following information:

(1) Date, scale, north point, and the names, addresses, and telephone numbers of each property owner and the person preparing the plan.

(2) Location of existing boundary lines and dimensions of the lot, the zoning classification of the lot, and the zoning classification of adjacent properties. A vicinity map should also be attached to or made a part of the plan.

(3) Approximate centerlines of existing water courses and the location of the flood plain, the escarpment zone, and geologically similar areas, as those terms are defined in Article V, if applicable; the approximate location of significant drainage features; and the location and size of existing and proposed streets and alleys, utility easements, driveways, and sidewalks on or adjacent to the lot.

(4) Location of centerlines of overhead and underground utility lines adjacent to and within the building site, and the location of all utilities, utility easements, including the location of utility poles, generators, and equipment, and any items listed in Section 51A-10.104(h).

(5) Project name, street address, and lot and block description.

(6[5]) Location, height, and material of proposed screening and fencing (with berms to be delineated by one-foot contours).

(7[6]) Locations and dimensions of required [~~proposed~~] landscape areas [~~buffer strips~~].

(8[7]) Complete description of plant materials shown on the plan, including names (common and scientific name), locations, quantities, container or caliper sizes at installation, heights, spread, and spacing. The location and type of all existing trees on the lot over six inches in diameter [~~caliper~~] must be specifically indicated to be counted as required landscape trees.

(9[8]) Complete description of landscaping and screening to be provided in or near off-street parking and loading areas, including information as to the amount (in square feet) of landscape area to be provided internal to parking areas and the number and location of required off-street parking and loading spaces.

(10[9]) An indication of which protected trees will be removed during construction and how existing healthy trees proposed to be retained will be protected from damage during construction.

(11[10]) Size, height, location, and material of proposed seating, lighting, planters, sculptures, and water features.

(12[11]) A description of proposed watering methods or an irrigation plan.

(13[12]) Location of visibility triangles on the premises [~~lot~~] (if applicable).

(14) Trees transplanted on-site must be identified with their existing and proposed locations.

SEC. 51A-10.124.

LANDSCAPE PLAN REVIEW.

(a) In general. The building official shall review each landscape plan submitted to determine whether it complies with the requirements of this division. All landscape plans must comply with the mandatory provisions in Section 51A-10.125. In addition, all landscape plans must meet the minimum number of landscape design option points [~~comply with at least two "design standards" as~~] described in Section 51A-10.126. Except as provided in this article, ~~the~~ same landscape features and elements may be strategically placed so as to comply with more than one provision. (For example, the same large trees might be located so as to be classified as "street trees" and "parking lot trees.")

(b) Landscape plan revisions. If requested by the applicant the building official may approve revisions to staff-approved landscape plans and related permits if the revisions further the spirit and intent of this article. Revisions of elements required by this article are limited to:

- (1) Substitution of more appropriate plant species.
- (2) Revisions required by utility conflicts.
- (3) Locations of plant materials up to a maximum of 10 feet.

SEC. 51A-10.125.

MANDATORY LANDSCAPING REQUIREMENTS.

(a) Single family and duplex uses.

(1) General. Except as provided in Section 51A-10.127, a lot containing a single family or duplex use established after May 29, 1994, must comply with this subsection before the final inspection of any building on the lot. The minimum number of trees required on a lot is determined by the lot size. [~~The lot must have at least three trees with a caliper equal to or exceeding two inches. At least two of these trees must be located in the front yard. The trees must be species listed in Section 51A-10.134.~~] The trees may be located in the public right-of-way if all private licensing requirements of the city code and charter are met.

(A) For lots 7,500 square feet or greater in area: A minimum of three large or medium nursery stock trees per lot with a minimum of two nursery stock trees in front yard.

(B) For lots between 4,000 square feet and 7,499 square feet in area: A minimum of two large or medium nursery stock trees per lot with a minimum of one nursery stock tree located in the front yard.

(C) For lots 4,000 square feet or less in area: A minimum of one large or medium nursery stock tree per lot.

(D) Additional requirements:

(i) Nursery stock trees must be species listed in the approved tree list maintained by the Director.

(ii) Trees must be a minimum caliper of two inches.

(iii) Trees must be planted a minimum of 20 feet on center from the nearest point of an overhead electric line.

(iv) An existing, healthy, and protected tree on the lot or parkway may count as a required tree if it is not a boundary tree abutting adjacent private property.

(2) Shared access development.

(A) ~~[Single family districts. Shared access developments in single family districts must comply with the following requirements:~~

~~(i) Three trees with a caliper equal to or exceeding two inches are required for each individual lot in the shared access development. One of the three required trees per lot may be located on the individual lot, but at least two trees per individual lot must be located in the front yard of the shared access development, where all of the property in the shared access development is considered to be one lot ("shared trees").~~

~~(ii) If there is more than one front yard to the shared access development, where all of the property in the shared access development is considered to be one lot, the shared trees must be evenly distributed within those front yards.~~

~~(iii) The trees must be species listed in Section 51A-10.134. The trees may be located in the public right of way if all private licensing requirements of the city code and charter are met.~~

(B) Districts other than single family districts.] Shared access developments [in districts other than single family districts] must comply with the following requirements:

(i) A landscape plan meeting the requirements of Section 51A-10.104 and Section 51A-10.123 must be approved before a building permit for grading is issued or a private development contract pursuant to Section 51A-8.612 is approved for construction.

(ii) The minimum required landscape area for a shared access development is determined by the number of individual lots. Landscape areas in individual lots may be included in the total landscape area measurement for developments with a maximum of 36 individual lots. [A minimum of 20 percent of the shared access development must be designated as landscape area.] Permeable pavement does not count as landscape area.

(aa) Shared access developments with a maximum of 10 individual lots must provide a minimum landscape area equal to 10 percent of the total shared access development area.

(bb) Shared access developments with a minimum of 11 and a maximum 36 individual lots must provide a minimum landscape area equal to 15 percent of the total shared access development area.

(iii~~ii~~) One site tree must be provided for every 4,000 square feet within the shared access development. [Every site tree must have a planting area of at least 25 square feet.] The trunk of any site tree must be located at least two-and-one-half feet from any pavement. Site trees must be species listed in the approved tree list [Section 51A-10.134]. Large or medium nursery stock trees may not be planted within 20 feet on center of the nearest point of an overhead electric line.

(iv~~iii~~) [In addition to any site trees, o]ne plant group [large canopy street tree] must be provided for every 40 [25] feet of street frontage, [excluding shared access points, with a minimum of two street trees required]. Plant groups [Street trees] may be located within the front yard or parkway if all private licensing requirements of the city code and charter are met. In this subparagraph, parkway means the portion of a street right-of-way between the projected street curb and the front lot line or corner side lot line. If the director determines that a large or medium [canopy] tree would interfere with utility lines, one [a] substitute small [street] tree from a species listed in the approved tree list [Section 51A-10.134] may be provided.

(B) Plant groups for shared access developments must include the following:

- (i) one large tree and two small trees;
- (ii) one large tree and three large evergreen shrubs; or
- (iii) one large tree, two small trees, and one large evergreen shrub.

(b) Other uses. Lots containing a use other than single family or duplex must comply with the following requirements:

(1) Street buffer zone. Except as provided in this subsection, the landscape area provided along the entire length of the lot adjacent to a public right-of-way excluding paved surfaces at points of vehicular ingress and egress must meet the following minimum requirements:

<u>Right-of-way</u>	<u>Average Depth</u>	<u>Minimum Depth</u>	<u>Maximum Depth</u>
<u>Freeways</u>	<u>15 feet</u>	<u>5 feet</u>	<u>50 feet</u>
<u>Arterials and community collectors</u>	<u>10 feet</u>	<u>5 feet</u>	<u>30 feet</u>
<u>Local and residential collectors</u>	<u>7.5 feet</u>	<u>5 feet</u>	<u>25 feet</u>

(A) Urban streetscape. The building official may approve a landscape plan for an urban streetscape that meets the following requirements:

(i) A minimum six foot wide planting area is required that meets the minimum soil area and volume requirements in this article.

(ii) The planting area may be designed with open soil areas or covered soil areas.

(iii) The planting area is measured from the property line unless the building official determines that the planting area may be measured from the back of curb based on conditions on the property.

(iv) A minimum of at least one design option must be provided in the front yard or right-of-way area.

(B) Right-of-way. The right-of-way adjacent to the property line may be used to satisfy the required street buffer zone subject to:

(i) a minimum five foot depth maintained on the property as a street buffer zone;

(ii) local utility location;

(iii) appropriate planting conditions; and

(iv) city licensing and permit requirements.

(C) Required planting.

(i) Except as provided in this subparagraph, one large or medium street buffer tree must be provided for every 40 linear feet of frontage.

(ii) For frontages less than 20 linear feet, a large or medium street buffer tree is not required.

(iii) Large or medium trees must have a minimum caliper of three inches.

(iv) When existing conditions prohibit planting large trees or medium trees, two small trees may be substituted for each large tree or medium tree with building official approval.

(D) Buffer zone reduction. Properties less than 10,000 square feet may reduce the street buffer zone to the greater of:

(i) a minimum depth of five feet; or

(ii) an area no less than five percent of the total lot area.

(2) Residential buffer zone. A landscape area must be provided along that portion of the perimeter of a lot where residential adjacency exists. The residential buffer zone must have an average depth of 10 feet, a minimum depth of five feet, and a maximum depth of 30 feet. No portion of the residential buffer zone may exceed 10 percent of the lot depth excluding paved surfaces at points of vehicular and pedestrian ingress or egress.

(A) The residential buffer zone must include a minimum of one plant group every 40 feet. Plant groups must include:

(i) Where screening is required, one large or medium tree.

(ii) Where screening is not required:

(aa) one large or medium tree and three small trees;

(bb) one large or medium tree and three large evergreen shrubs;

(cc) one large or medium tree, two small trees, and one large evergreen shrub; or

(dd) one large or medium tree, one small tree, and two large evergreen shrubs.

(B) When the location of a local utility prohibits planting large trees or medium trees, two small trees may be planted for each large tree or medium tree.

(3) Interior zone.

(A) Surface parking lots.

(i) Required large and medium trees.

(aa) Minimum caliper is three inches.

(bb) Planting must be in a landscape area.

(cc) The center of the trunk at grade must be a minimum of four feet from pavement.

(ii) Minimum landscape area. Individual landscape areas must be a minimum of 160 square feet, with a minimum width of eight feet.

(iii) Parking lots with 21 to 100 spaces. No parking space may be located more than 70 feet from the trunk of a large tree or medium tree.

(iv) Parking lots with a minimum 101 spaces. Except as provided in Paragraph (B):

(aa) No parking space may be located more than 70 feet from the trunk of a large or medium tree.

(bb) Except as provided in in this item, a landscape area must be located at each end of a single row of parking spaces and contain a minimum of one tree.

(I) The building official may waive this requirement in order to preserve existing trees and natural features or due to unique natural site features.

(II) Parking island landscape areas are not required adjacent to handicapped parking spaces.

(cc) Except as provided in this romanette, maximum number of parking spaces allowed between parking island landscape areas is 12. The building official may waive this requirement in order to preserve existing trees and natural features or due to unique natural site features.

(dd) No maximum number of parking spaces when a parking row:

(I) abuts a median landscape area running the length of the parking row with a minimum of one tree per 40 linear feet;

(II) abuts a residential buffer zone landscape area; or

(III) abuts a street buffer zone landscape area.

(B) Parking lots in industrial districts. The requirements in Section 51A-10.125(b)(3)(B)(iv) for parking lots greater than 100 spaces, do not apply to industrial and warehouse uses in IM or IR districts that provide a minimum of one tree meeting the requirements for trees in the street buffer zone for each 25 feet of frontage.

~~[(1) Perimeter landscape buffer strip. A landscape buffer strip must be provided along the entire length of the portion of the perimeter of the lot where a residential adjacency exists, exclusive of driveways and accessways at points of ingress and egress to and from the lot. The buffer strip must be at least 10 feet wide, except that:~~

~~(A) any portion of the buffer strip adjacent to public street frontage need not exceed 10 percent of the lot depth; and~~

~~(B) any portion of the buffer strip in the front yard and adjacent to the side lot line need not exceed 10 percent of the lot width.]~~

(4) Additional provisions

(A[2]) Screening of off-street loading spaces.

~~(i[A]) All off-street loading spaces on a lot with residential adjacency must be screened from that residential adjacency.~~

~~(ii[B]) In all districts except CS and industrial districts, all off-street loading spaces on a lot must be screened from all public streets adjacent to that lot.~~

~~(iii[C]) The screening required under Subparagraphs (A) and (B) must be at least six feet in height measured from the horizontal plane passing through the nearest point of the off-street loading space and may be provided by using any of the methods for providing screening described in Section 51A-4.602(b)(3).~~

(B[3]) Site trees.

~~(i[A]) One tree having a caliper of at least two inches must be provided for each 4,000 square feet of lot area, or fraction thereof, [with a minimum of four trees being provided,] except for industrial and warehouse uses in IM and IR districts, where one tree having a caliper of at least two inches must be provided for each 6,000 square feet of lot area, or fraction thereof [, with a minimum of four trees being provided].~~

(ii[B]) Existing trees that are determined by the building official to be healthy may be used to satisfy the site tree requirement, in accordance with the tree credit chart below:

<u>CALIPER OF RETAINED TREE</u>	<u>NUMBER OF SITE TREES CREDIT GIVEN FOR RETAINED TREE</u>
Less than 2 inches	0
2 inches or more but less than 8 inches	1
8 inches or more but less than 14 inches	2
14 inches or more but less than 20 inches	4
20 inches or more but less than 26 inches	8
26 inches or more and less than 32 inches	10
32 inches or more but less than 38 inches	18
38 inches or more	20

~~(4) Street trees. A large tree must be provided for each 50 feet of frontage, with a minimum of two trees being provided. These trees must be located within 30 feet of the projected street curb. The trees may be located in the public right of way provided that all private licensing requirements of the city code and charter are met. For purposes of this paragraph, "projected street curb" means the future location of the street curb consistent with the city thoroughfare plan as determined by the director of public works.~~

~~(5) Parking lot trees.~~

~~(A) No required parking space may be located more than 120 feet from the trunk of a large canopy tree. No parking space in excess of required parking may be located more than 100 feet from the trunk of a large canopy tree, and the tree must be located in a landscape area of a minimum of 120 square feet. Each tree required by this subparagraph must have a caliper of at least two inches and may not be planted closer than two and one-half feet to the paved portion of the parking lot.~~

~~(B) An industrial use in an IM or IR district need not comply with Subparagraph (A) if it provides at least one tree meeting the requirements for street trees in Paragraph (4) for each 25 feet of frontage.]~~

(C[6]) Minimum sizes. Except as provided in Subsection[s] (b) [(a), (b)(3), and (b)(5)] of this section, plant materials used to satisfy the requirements of this division must comply with the following minimum size requirements at the time of installation:

(i[A]) Large and medium trees must have a minimum caliper of two [three] inches, or a minimum height of six feet, depending on the standard measuring technique for the species.

(ii[B]) Small trees must have a minimum height of six feet.

(iii[€]) Large evergreen shrubs must have a minimum height of two [~~three~~] feet.

For purposes of this paragraph, "height" is measured from the top of the root ball or, if the plant is in a container, from the soil level in the container.

(7) Buffer plant materials.

(A) ~~If a fence with a buffer strip is required along any part of the perimeter of a lot, the buffer strip must contain either one large canopy tree or two large non-canopy trees at a minimum average density of one large canopy tree or two large non-canopy trees for each 50 linear feet of the buffer strip, with new trees spaced no less than 25 feet apart.~~

(B) ~~In all other cases, a landscape buffer strip provided to comply with this section or Section 51A-10.126 must contain one of the following groups of plant materials at a minimum average density of one group for each 50 linear feet of the buffer strip:~~

- ~~(i) One large canopy tree and one large non-canopy tree.~~
- ~~(ii) One large canopy tree and three small trees.~~
- ~~(iii) One large canopy tree and three large evergreen shrubs.~~
- ~~(iv) One large canopy tree, two small trees, and one large evergreen shrub.~~
- ~~(v) One large canopy tree, one small tree, and two large evergreen shrubs.~~
- ~~(iv) Two large non-canopy trees.]~~

SEC. 51A-10.126. LANDSCAPE DESIGN OPTIONS [STANDARDS].

(a) Points required for building site. The minimum number of landscape design option points required for a building site are:

<u>Lot size</u>	<u>Points required</u>
<u>0 to 999 sf</u>	<u>0</u>
<u>1,000 sf to 1,999 sf</u>	<u>1</u>
<u>2,000 sf to 9,999 sf</u>	<u>2-9</u>
<u>(One point for every 1000 sf)</u>	
<u>10,000 sf to 19,999 sf</u>	<u>10</u>
<u>20,000 sf to 39,999 sf</u>	<u>15</u>
<u>40,000 sf to 2.99 acres</u>	<u>20</u>
<u>3 acres to 9.99 acres</u>	<u>30</u>

<u>10 acres to 19.99 acres</u>	<u>35</u>
<u>20 acres to 49.99 acres</u>	<u>40</u>
<u>50 acres and greater</u>	<u>50</u>

(b) Points. Points are obtained by meeting design option requirements in order to achieve the total number of points required for the property.

(c) Design options. Design options and possible points are listed below. Examples of the design options and their application are provided in the Landscape and Tree Manual.

(1) Plant material bonus. Points may be provided for plant materials added to the landscape design when the required amount of points for a standard design option is deficient by five points or less. All added plant materials must be provided in the front yard. Maximum five points.

(A) Large or medium tree caliper increase: One point per additional caliper inch for each required tree (up to a maximum caliper of six inches.)

(B) Additional small tree: 0.5 points.

(C) Additional large shrub plant: 0.25 points.

(D) Additional large or medium tree: one point.

(2) Buffer zones enhancements. Maximum of 20 points.

(A) Large enhanced buffer zone. Each required buffer zone depth may be increased by a minimum of five feet. This design option is not available if the buffer zone is reduced to no more than five percent of the lot area. Five points.

(B) Small enhanced buffer zone. A required buffer zone depth may be increased by a minimum of two feet. This design option is not available if the buffer zone is reduced to no more than five percent of the lot area. Two points.

(3) Application of engineered solutions for soil volume. Points may be obtained when using engineered solutions for soil volume when required trees are planted in impervious environments and meet the minimum requirement for soil volume for a maximum total of 10 points. A minimum of 75 percent of required street buffer trees must meet the soil volume minimum for credits to apply.

(A) Minimum required soil volume: five points

(B) Increase in soil volume 10 percent above minimum requirement: six points

seven points (C) Increase in soil volume 15 percent above minimum requirement:

eight points (D) Increase in soil volume 20 percent above minimum requirement:

nine points (E) Increase in soil volume 25 percent above minimum requirement:

(F) Increase in soil volume 30 percent or greater above minimum requirement: 10 points.

(4) Screening. An applicant may provide screening from all adjacent public streets for all surface parking lots on a building site or artificial lot that meets the following requirements.

(A) The screening may not be required screening.
(B) The screening must extend along the entire street frontage of the parking lot, excluding:

and from the lot; and
(i) driveways and accessways at points of ingress and egress to

(ii) visibility triangles.

(C) Underground parking and enclosed garage parking structures are not considered to be surface parking lots for purposes of this subsection.

(D) The screening may be designed with the following options for a maximum total 20 points:

(i) Option 1. Standard design is provided with screening materials per Section 51A-4.602 and shrubs with a minimum height of two feet at time of installation and a single row of material. Five points for complete frontage.

(ii) Option 2. Enhanced design is provided by a landscape architect and may include a minimum of two plant species in order to provide the full screening effect. 10 points for complete frontage.

(iii) Option 3. Grouped beds may be added to Option 1 or Option 2 to complement the screening row with planting beds placed at intervals of a minimum of one per 50 feet of frontage. Five points for complete frontage.

(iv) Option 4. A short screening wall or fence a minimum of three feet in height may be provided along with the screening plant materials of Option 1 or Option 2. Five points.

(v) Option 5. A berm with groundcover and a minimum height of three feet may complement standard screening materials or be used to replace Option 1 or Option 2. Five points.

(5) Building facade. Facade planting areas on a building site or artificial lot adjacent to public streets or private driveways may be designed with the following options for a maximum total of 15 points:

(A) Option 1. Design is provided along the foundation of the structure. The planting area for the shrubs must be a minimum of three feet in depth and extend along at least 50 percent of the portion of the foundation that faces a street. The shrubs must be spaced no more than six feet apart measured from trunk to trunk. Five points.

(B) Option 2. An enhanced design may be provided as designed by a landscape architect. The design may vary from the standard foundation row to create depth and layering of landscaping for visual enhancement contiguous to and extending 15 feet or more from the building facade to complement and soften the foundation of the building. The planting area must be a minimum of five feet in depth. A minimum of two perennial plant species and water conservation irrigation method is required. The landscape area must extend for a minimum of 50 percent of the street facing facade or a combination of the street facing facade and the building facade facing a surface parking lot. 10 points.

(C) Option 3. An additional grouping of medium or small trees may be added to the enhanced landscape design to provide an improved pedestrian environment a maximum of 25 feet from the facade of the structure. A minimum of one tree per 50 feet of front or side yard building facade is required. Five points.

(D) Option 4. One small tree or two large shrubs per 30 feet of front yard facade located a maximum of 15 feet from the facade. Five points.

(6) Pedestrian uses. An applicant may provide private or publicly accessible special pedestrian facilities and features. These facilities and features must occupy a minimum of five percent of the lot area. The facilities may be designed for the following options for a maximum total of 25 points.

(A) Option 1. Urban streetscape. At least two of the following types of pedestrian amenities must be provided along street frontages. This option may only be used in an urban streetscape in the street buffer zone. 10 points.

(i) Benches located at one per 60 feet of street frontage (minimum of two.)

(ii) Pedestrian street lamps (free-standing or wall mounted) at one per 50 feet of street frontage.

(iii) Enhanced sidewalk with stamped concrete or brick pavers for pedestrian uses for the full width of the sidewalk, along the entire frontage. Pavement cannot be used to meet the enhanced pavement option in Paragraph (7).

(iv) Minimum unobstructed sidewalk width of eight feet.

(v) Water feature.

(B) Option 2. Special amenities. An applicant may provide private or publicly accessible special amenities to the building site including plazas, covered walkways, fountains, lakes and ponds, seating areas, and outdoor recreation facilities. The credited facilities must occupy at least five percent of the lot area provided in no more than two locations on the lot. The special amenities area must be fully identified on a landscape plan. Private or interior courtyards are excluded. Five points for private amenities and 10 points for publicly accessible amenities.

(C) Option 3. Adjacent to habitat restoration areas. Special amenities built contiguous to habitat preservation and restoration areas will be credited for their location in or around the habitat when constructed according to a design supporting or enhancing habitat protection. 10 points for private amenities and 15 points for publicly accessible amenities.

(D) Option 4. Athletic fields. Open spaces maintained for athletic fields which are a minimum of five percent of the lot. 10 points. For athletic fields on lots greater than 10 acres. 20 points.

(7) Pavements. An applicant may provide enhanced or special pavement. The same pavement cannot satisfy multiple categories. (Note: All vehicular pavement must comply with the construction and maintenance provisions for off-street parking in this chapter.) Maximum total of 15 points.

(A) Option 1. Enhanced vehicular pavement.

(i) Area. Pavement must be a minimum of 25 percent of all outdoor vehicular pavement on the lot.

(ii) Enhanced texture: Stamped concrete, sand-blasted, rock-salt finished, pavers on concrete base, stone, etc.: Three points.

(iii) Enhanced color: Color is integrated into textured pavement: Three points.

(B) Option 2. Permeable vehicular pavement. Pavement must be a minimum of 25 percent of all outdoor vehicular pavement on the lot. Five points.

(C) Option 3. Enhanced pedestrian walkways.

(i) In general. Enhanced pedestrian walkways must consist of enhanced pavement intended for pedestrian use and occupy at least five percent of the lot.

(ii) Enhanced texture: Stamped concrete, sand-blasted, rock-salt finished, pavers on concrete base, stone, etc.: Three points.

(iii) Enhanced color: Color is integrated into textured pavement: Three points.

(8) Conservation. The applicant may conduct conservation programs on the property. The conservation program must occupy at least five percent of the lot area. Maximum of 25 points.

(A) Option 1. Tree preservation in the development impact area. Large or medium trees maintained in the development impact area may be used to meet design option requirements and to meet the requirements for site tree credit in Section 51A-10.125. The trees must be protected and maintained in areas required by this article. Two points for each tree up to a maximum of 10 points. Significant trees may attain five points.

(B) Option 2. Habitat preservation. The applicant must preserve existing healthy native and mixed species grassland or woodland areas. Five points.

(C) Option 3. Habitat preservation and restoration using an active management plan. The applicant may create or restore natural habitat conditions if designed and implemented by a qualified professional. Site maintenance must be continual for the purpose of sustaining the vegetated area. The option may be combined with low impact development design for the drainage functions of the property. 10 points.

(D) Option 4. Habitat preservation and restoration - adjacent to primary natural areas. The applicant may preserve and restore land areas adjacent to wetlands, creeks, floodplain, and slopes which help buffer the protected creeks, habitat, slopes, and woodland in primary natural areas from the site construction. This option may be combined with pedestrian amenities. The area must be at least 5 percent of building site area. 15 points.

(9) Low impact development (LID). The applicant may improve the property with low impact development design to manage stormwater flow and provide surface heat abatement. The improvements may be combined for a maximum of 20 points.

(A) Rain garden. Maximum six points.

(i) 1 to 5,000 square feet: three points; and

(ii) each additional 1,000 square feet: one point.

(B) Bioswale. Maximum 10 points per bioswale.

(i) 50 to 100 feet long: three points; and

(ii) each additional 50 feet: one point.

(C) Water-wise plant materials and planting beds. The applicant may provide landscaping that uses water conservation techniques including water-wise plants, mulch, and efficient irrigation. Maximum 10 points.

three points;

(i) in a minimum of 50 percent of landscape areas:

five points;

(ii) in a minimum of 80 percent of landscape areas:

turf surfaces: three points: and

(iii) low-water consumption grasses for 80 percent of

percent of turf surface: five points.

(iv) low-water consumption grasses for all turf surfaces

(10) Parking lots. The applicant may improve the surface parking and vehicle outside display and storage areas in an interior zone on the property to provide wider landscape areas and an improved shade tree environment. The improvements may be combined for a maximum of 30 points for development impact areas 10 acres or larger and 20 points for development impact areas less than 10 acres.

(A) Option 1. Provide a protected pedestrian pathway, that is between three feet in width and 15 feet in width, through a parking lot to a building from a public or private street or the expansion of a wide landscape area median with trees and a walkway through the parking lot. A minimum of one large or medium tree is required for each 40 linear feet of pedestrian pathway or landscape area median. Five points.

(B) Option 2. Parking islands. Providing a maximum of 10 parking spaces between landscape areas. Five points.

(C) Option 3. Parking islands. Increasing the landscape area to a minimum of 200 square feet for each large or medium tree.

(i) Increase landscape area of 50 percent of the required parking islands. Five points.

(ii) Increase landscape area of 75 percent of the required parking islands. 10 points.

(D) Option 4. Parking islands. Increase the landscape area at least 300 square feet for each large or medium tree.

(i) Increase landscape area of 50 percent of the required parking islands. Seven points.

(ii) Increase landscape area of 75 percent of the required parking islands. 12 points.

(E) Option 5. Parking islands. Each additional parking island provided - Three points.

(F) Option 6. Landscape medians. Provide a minimum 10 foot wide landscape median with large or medium trees extending the length of a minimum 12 space parking row. Five points for each full median for a maximum of 20 points on the lot.

(G) Option 7. Landscape medians. Providing a 12 foot wide landscape median with large or medium trees extending the length of a minimum 12 space parking row. Seven points for each full median for a maximum of 28 points on the lot.

(H) Option 8. Landscape medians. Providing a 16 foot wide landscape median with large or medium trees extending the length of a minimum 12 space parking row. 10 points for each full median for a maximum of 30 points on the lot.

(I) Option 9. Large trees located in a minimum of 500 square feet dedicated open soil area. Two points for a maximum of 20 points.

(J) Option 10. Pocket park. Provide a minimum of 2,500 square feet of contiguous open soil landscape area. 20 points.

(11) General. The applicant may provide documentation and demonstrate ability to achieve certain conditions.

(A) Option 1. Provide Sustainable SITES Initiative documentation and demonstrate ability to attain SITES certified level or greater. 10 points.

(B) Option 2. Provide and implement a landscape maintenance plan for a minimum three year period. Three points.

[An applicant shall comply with at least two of the following design standards:

(a) Enhanced perimeter buffers. An applicant may enhance the perimeter landscape buffer strip to a minimum average width equal to or greater than 15 feet.

~~(b) Street buffers. An applicant may provide a landscape buffer strip along public street frontage. The landscape buffer strip must:~~

~~(1) be provided along the entire adjacent public street frontage, exclusive of driveways and accessways at points of ingress and egress to the lot; and~~

~~(2) have a minimum width of 10 feet or 10 percent of the lot depth, whichever is less.~~

~~(c) Screening of off-street parking. An applicant may provide screening for all parking lots on the building site or artificial lot, whichever is applicable, from all adjacent public streets in accordance with the following paragraphs:~~

~~(1) The screening must be voluntary (not required by ordinance).~~

~~(2) The screening must extend along the entire street frontage of the parking lot, exclusive of:~~

~~(A) driveways and accessways at points of ingress and egress to and from the lot; and~~

~~(B) visibility triangles.~~

~~(3) The screening must be at least three feet in height.~~

~~(4) Underground parking is considered to be screened for purposes of this subsection.~~

~~(d) Enhanced vehicular pavement. An applicant may provide enhanced pavement. This pavement must be at least 25 percent of all outdoor vehicular pavement area on the lot. The same pavement cannot satisfy both Subsections (d) and (e). (Note: All vehicular pavement must comply with the construction and maintenance provisions for off-street parking in this chapter.)~~

~~(e) Permeable vehicular pavement. An applicant may provide permeable enhanced pavement. This pavement must be at least 25 percent of all outdoor vehicular pavement on the lot. The same pavement cannot satisfy both Subsections (d) and (e). (Note: All vehicular pavement must comply with the construction and maintenance provisions for off-street parking in this chapter.)~~

~~(f) Pedestrian facilities. An applicant may provide publicly accessible special pedestrian facilities and features such as plazas, covered walkways, fountains, lakes and ponds, seating areas, and outdoor recreation facilities. These facilities and features must occupy at least five percent of the lot area.~~

~~(g) Foundation planting strip. An applicant may plant large shrubs along the foundation of the main building. The planting area for the shrubs must be a minimum of three feet in width and extend along at least 50 percent of the portion of the foundation that faces a street. The shrubs must be spaced no more than six feet apart measured from trunk to trunk.~~

~~(h) Understory preservation. The applicant may preserve existing healthy understory. The preserved understory must occupy at least five percent of the lot area.~~

~~(i) Enhanced pedestrian walkways. The applicant may provide enhanced pedestrian walkways. These walkways must consist of enhanced pavement intended for pedestrian use and occupy at least five percent of the lot.]~~

SEC. 51A-10.127. WHEN LANDSCAPING MUST BE COMPLETED.

(a) Except as otherwise provided in Subsection (b), all landscaping must be completed before the final inspection of any building on the lot. If there is an approved landscape plan for the lot, the landscaping must comply with that plan before the final inspection.

(b) If the property owner provides the building official with documented assurance that the landscaping will be completed within six months, the building official may permit the property owner to complete his landscaping during the six-month period. For purposes of this subsection, "documented assurance" means:

(1) a copy of a valid contract to install the landscaping in accordance with the landscape plan within the six-month period; or

(2) a set of deed restrictions containing a covenant to install the landscaping in accordance with the landscape plan within the six-month period. The deed restrictions must:

(A) expressly provide that they may be enforced by the city of Dallas;

(B) be approved as to form by the city attorney; and

(C) be filed in the deed records of the county in which the land is located.

(c) If, at the end of the six-month period, the landscaping has not been installed in accordance with the landscape plan, the owner of the property is liable to the city for a civil penalty in the amount of \$200 a day for each calendar day thereafter until the landscaping is properly installed. The building official shall give written notice to the property owner of the amount owed to the city in civil penalties, and shall notify the city attorney of any unpaid civil penalty. The city attorney shall collect unpaid civil penalties in a suit on the city's behalf.

(d) The civil penalty provided for in Subsection (c) is in addition to any other enforcement remedies the city may have under city ordinances and state law.

SEC. 51A-10.128. ENFORCEMENT BY BUILDING OFFICIAL.

Whenever any work is being done contrary to the provisions of this division, the building official may order the work stopped by notice in writing served on any person engaged in the work or causing the work to be done. A person issued this notice shall stop work immediately until authorized by the building official to proceed with the work.

DRAFT

Division 51A-10.130. Urban Forest Conservation [~~Tree Preservation, Removal, and Replacement~~].

SEC. 51A-10.131. APPLICATION OF DIVISION.

(a) This division applies to all property in the city except for:

(1) lots smaller than two acres in size that contain single-family or duplex uses in residential districts; and

(2) lots in an [a] overlay district or a planned development district with [~~landscaping and~~] tree preservation regulations that vary appreciably from those in this article, as determined by the building official.

(b) In this section, a tree removal property two acres or less, in a residential district is considered to be vacant when an application is made for a demolition permit for a single family or duplex structure. The tree removal property is considered to be vacant until:

(1) the demolition permit is closed (not expired) by the building inspector (being proof of the return of the single family or duplex use); or

(2) a certificate of completion is provided to the tree removal property owner for a new single family or duplex structure for occupancy on the property.

SEC. 51A-10.132. TREE REMOVAL APPLICATIONS.

(a) Tree removal application and posting [~~When a tree removal application must be approved and posted~~].

(1) Except as provided in this subsection, a [A] responsible party must post either an approved tree removal application in accordance with this section or a building permit in a conspicuous place at the entrances to the tree removal property [~~lot or tract~~], before removing or seriously injuring a protected tree on that tree removal property [~~lot or tract~~].

(2) A tree removal application must be posted in a conspicuous place at the entrance to the tree removal property in conjunction with a demolition permit or a grading permit.

(3) For trees removed from a public right-of-way, it is not necessary to post the required tree removal application.

(b) Application for review. An application required under this section must be filed with the building official on a form furnished by the city for that purpose. The application must include the following:

(1) The name, address, telephone number, and signature of the applicant. The applicant may be the owner of the tree removal property or a contracted agent acting for the owner [~~If the applicant is not the owner of the lot or tract, he shall submit a letter from the owner authorizing him to act on the owner's behalf~~].

(2) The name, address, and telephone number of each tree removal property owner [~~of the lot or tract~~].

(3) The street address, zoning district, or overlay district of the tree removal property [lot or tract].

(4) A tree survey that shows the location, caliper, and name (both common and scientific) of all trees on the lot or tract (trees in close proximity that all have a diameter [~~caliper~~] of less than eight inches may be designated as a "group of trees" with only the number noted), or an estimate of the total diameter [~~caliper~~] inches of protected trees, calculated and documented using a tree sampling method [~~in a manner~~] determined by the building official to be reasonably accurate. The survey does not have to be prepared by a registered surveyor, architect, or landscape architect. Trees not proposed for removal or serious injury, or located further than 20 [~~within 50~~] feet from [~~of~~] proposed construction activity need not be shown on the survey unless the building official determines it would help evaluation of the application.

(5) A forest stand delineation may be used for the purpose of calculating the total square footage of forest canopy coverage of building sites and providing an ecological assessment of a property. An FSD must be approved by the building official. Required information in an FSD is determined by the building official. The FSD is applicable to and may be used to calculate:

(A) Tree canopy cover assessment for old-field and undeveloped lots, two acres or larger, in early succession stages when:

(i) a stand, or partial stand, a minimum of 60 percent Class 3 and unprotected trees is located in a proposed development impact area;

(ii) the forest stand delineation excludes areas within 50 feet of a 100-year floodplain, 50 feet of a wetland, 50 feet of an escarpment zone, and 150 feet of a stream bank;

(iii) the trees in the stand, or partial stand, is designated in an age class of 60 years or less by the building official based on site and historical data; and

(iv) the stand is assessed and surveyed using tree sampling methods which provide general species quantity and tree size determinations based on the use of quadrat plots, a transect line sampling method, point-quarter sampling method, or other method approved by the building official.

(B) Tree canopy cover credit for single family and duplex construction.

(C) Tree canopy cover assessment of development impact areas in conjunction with sustainable development incentives.

(D) Tree canopy cover assessment on properties five acres or larger with institutional and community service uses or recreation uses when the measured tree canopy coverage is the baseline for determining the number of trees required for replacement when using the canopy cover replacement calculation for legacy trees in Section 51A-10.135(c)(1)(F)(iv).

(E) Forest analysis for baseline documentation to create a conservation easement.

(F) Tree canopy cover assessment where trees are removed without authorization.

(6) All permits and approvals related to floodplain, wetland, or escarpment regulations required by city departments or other agencies.

(7[6]) Any other reasonable and pertinent information that the building official determines to be necessary for review.

(c) Form of approval of tree removal application. A tree removal application is not approved until it has been signed by the building official.

(d) Separate offense for each tree removed or seriously injured without a permit. A responsible party commits a separate violation of this section for each tree removed or seriously injured without authorization by a building permit or approved tree removal application [~~that is posted at the lot or tract~~].

(e) Decision of the building official. The building official shall deny a tree removal application if the removal or serious injury is not in the public interest. This decision must be based on the following factors:

(1) The feasibility of relocating a proposed improvement that would require the removal or serious injury of the tree.

(2) The cost of preserving the tree.

(3) Whether the lot or tract would comply with this article after the removal or serious injury.

- (4) Whether the removal or serious injury is contrary to the public health, safety, or welfare.
- (5) The impact of the removal or serious injury on the urban and natural environment.
- (6) Whether an economically viable use of the property will exist if the application is denied.
- (7) Whether the tree is worthy of preservation, is a significant tree, or a historic tree.
- (8) Whether the tree is diseased or has a short remaining life expectancy.
- (9) The effect of the removal or serious injury on erosion, soil moisture retention, flow of surface waters, and drainage systems.
- (10) The need for buffering of residential areas from the noise, glare, and visual effects of nonresidential uses.
- (11) Whether a landscape plan has been approved by the board of adjustment, city plan commission, or city council.
- (12) Whether the tree interferes with a utility service.
- (13) Whether the tree is near existing or proposed structures.
- (14) Whether the proposed mitigation for tree removal or serious injury is sufficient.

Staff Recommendation

Staff does not support including Section 51A-10.132(f). We do not believe a waiver is necessary because of the many tree mitigation reductions available and incentive based options provided in sections 10.132, 10.133.1, 10.134, 10.135, and 10.137.

ZOAC Recommendation

(f) Development impact area waiver. Except as provided in this section, if tree removal is authorized by a building permit for construction of a main structure, a property owner may apply for a waiver of the tree replacement requirements in Section 51A-10.134. The waiver applies to protected trees in the development impact area on properties not listed in Sections 10.131 and 10.134(b), all single family and duplex permits, and properties excepted from Article X landscape requirements in Section 10.121.

(1) Qualifications. The owner must demonstrate a good faith effort to design the building project to preserve the most, the biggest, and the best trees, by providing the following:

(A) a tree survey and a tree protection plan implemented as required by this division; and

(B) proof of consultation with a qualified consulting arborist or landscape architect for planning and implementing best management practices to reduce the negative impacts of construction on protected trees before submitting the building permit for approval.

(2) Tree removal property requirements.

(A) Tree removal properties two acres and larger must:

(i) meet the qualification requirements of Section 51A-10.135(d)(1) for sustainable development incentives;

(ii) reduce mitigable inches of protected trees on the tree removal property by a minimum of 50 percent through application of tree canopy coverage credit using Sustainable Development Incentives procedures; and

(iii) develop and implement a sustainable landscape plan and a tree preservation plan, as specified in Section 51A-10.135(d)(4).

(B) Tree removal properties less than two acres. The owner must meet all qualifications in Section 51A-10.132(f)(1).

(3) Waivers. The building official may waive tree replacement requirements for protected trees within the development impact area.

(A) Limitations. Except as provided in this subsection, the waiver is limited to protected trees in the development impact area on the tree removal property growing within the building footprint, minimum required parking spaces, driveways, sidewalks, utility easements, detention areas, areas of grading, excavation areas, and staging areas necessary for construction.

(B) Waiver calculations. Except as provided in this subparagraph, the number of inches to be waived is determined by providing the total number of inches of protected trees in the applicable locations in the development impact area.

(i) The building official shall not waive mitigation of protected trees for non-required off-street parking spaces. The amount of inches waived must be reduced on a pro-rata basis determined by the percentage of non-required parking spaces provided in the parking area. (Example: If the number of parking spaces required is 450; and 521 spaces are being provided on the lot, then the tree mitigation requirements shall not be waived for the 71 excess parking spaces. $[71/450=15.78\%]$).

(ii) The building official shall not waive mitigation of protected trees for an area greater than 70 percent of the tree removal property. Trees must be mitigated on a pro-rata basis if the development impact area exceeds 70 percent of the tree removal property. (Example: If the development impact area is 85 percent of the tree removal property, 15 percent of the trees removed must be mitigated, $[0.85-0.70=0.15]$).

(C) Any significant tree on the tree removal property removed or seriously injured must be replaced.

(D) The development impact area waiver may not include trees within a primary natural area.

(E) A tree removal property with a waiver must fully comply with the minimum landscape requirements without a special exception.

(F) No waiver is complete until the tree removal property passes a final tree mitigation inspection or landscape inspection and obtains a permanent certificate of occupancy.

(G) The building official shall deny a development impact area waiver if the building official determines that initial review until final tree mitigation or landscape inspection, any of the applicable requirements of this division are in violation by the owner. If a waiver is denied, the required tree replacement must be completed in accordance with Section 51A-10.134.

SEC. 51A-10.133. HISTORIC TREES [RESERVED].

(a) The agreement of the property owner where the proposed historic tree is located is required for an historic tree designation to be approved by city council.

(b) Except as provided in this section, historic status lasts for the life of the tree.

(c) A certified copy of the resolution must be filed in the deed records of the county where the historic tree is located.

(d) Historic trees may only be removed by authorization of the city council or as outlined in Section 51A-10.140.

SEC. 51A-10.133.1. TRANSPLANTED TREES.

(a) Procedure. Established and healthy protected trees on a tree removal property may be transplanted within the city. The transplanting process must conform to operational and safety standards stated in ANSI A300 (Part 6), as amended, and with ISA Best Management Practices for Tree Planting, as amended.

(1) A protected tree that meets the requirements of this section is not considered removed, or seriously injured, if the transplanted tree is planted and maintained in a healthy growing condition.

(2) Building official approval is required before beginning the transplantation for credit as a landscape tree, for tree replacement, or for acceptance in tree canopy coverage measurements.

(3) The following information is required to obtain building official approval in this section.

(A) An initial assessment report must be provided to the building official describing transplanting practices from beginning to end of the process, including post-planting care practices.

(B) A tree survey or landscape plan must be provided to the building official prior to transplanting which identifies the original and final locations of the protected tree after transplant, as applicable.

(C) Names and contact information of the owners and contractors.

(D) Contractor credentials must be provided and a statement of equipment and procedures to be used for the operation must be identified.

(E) Other information required by the building official.

(b) Credit for transplanted trees.

(1) Healthy large and medium protected trees six inches in diameter or less qualify for one inch of replacement credit for each inch of the transplanted tree.

(2) Healthy large and medium protected trees between 7 inches and 12 inches in diameter qualify for two inch replacement credit for each inch of the transplanted tree.

(3) Healthy large and medium protected trees between 12 inches and 24 inches in diameter qualify for three inch replacement credit for each inch of the transplanted tree.

(4) Healthy large and medium protected trees 24 inches or more in diameter qualify for five inch replacement credit for each inch of the transplanted tree.

(5) Healthy small trees qualify for one inch replacement credit for each inch of the transplanted tree.

(c) Transplanted trees may be measured as part of the overall tree canopy coverage of a property in a forest stand delineation as a preserved tree.

SEC. 51A-10.134. REPLACEMENT OF REMOVED OR SERIOUSLY INJURED TREES.

(a) In general. Except as provided in this section, i[f] a [the] tree removal application is approved, a building permit is issued, an unauthorized tree removal occurs, or when a tree is removed from a public right-of-way in conjunction with a private development, one or more healthy replacement trees must be planted in accordance with the [following] requirements in this article.

(b) Exception. Trees removed in conjunction with a building permit for construction of a single family or duplex dwelling on a lot one acre or less in a residential district are not required to be replaced if the tree was located in the unrestricted zone on the tree removal property. Trees not in the unrestricted zone are subject to replacement.

(c) Requirements.

(1) Quantity.

(A) Except as provided in this section, t[he] minimum total caliper of replacement trees must equal or exceed the total classified diameter inches [caliper] of the protected trees removed or seriously injured as listed below.

(B) Tree classification for mitigation:

- | | | |
|--------------|------------------------|--------------|
| <u>(i)</u> | <u>Historic trees:</u> | <u>3:1</u> |
| <u>(ii)</u> | <u>Significant:</u> | <u>1.5:1</u> |
| <u>(iii)</u> | <u>Class 1:</u> | <u>1:1</u> |
| <u>(iv)</u> | <u>Class 2:</u> | <u>.7:1</u> |
| <u>(v)</u> | <u>Class 3:</u> | <u>.4:1</u> |

(2) Species.

(A) A replacement tree must be an approved tree determined by the director.

(B) For a lot or tract two acres in size or more, [must be one of the following trees, and] no one species of tree may constitute more than 35 [30] percent of the replacement trees planted on the [a] lot or tract.

[APPROVED REPLACEMENT TREES]

SCIENTIFIC NAME

COMMON NAME

<i>Acer barbatum</i> var. <i>Caddo</i>	Caddo Maple
<i>Acer grandidentatum</i>	Bigtooth Maple
<i>Acer buergerianum</i>	Trident Maple
<i>Carya illinoensis</i>	Pecan
<i>Cercis canadensis</i>	Redbud
<i>Chilopsis linearis</i>	Desert Willow
<i>Diospyros texana</i>	Texas Persimmon
<i>Diospyros virginiana</i> [male only]	Common or American Persimmon
<i>Fraxinus americana</i>	White Ash
<i>Fraxinus texensis</i>	Texas Ash
<i>Gleditsia triacanthos</i> var. <i>inermis</i>	Thornless Honeylocust
<i>Gymnocladus dioica</i>	Kentucky Coffeetree
<i>Hex decidua</i>	Possumhaw or Deciduous Holly
<i>Hex vomitoria</i>	Yaupon Holly
<i>Juglans microcarpa</i>	Texas Black Walnut
<i>Juniperus ashei</i>	Ashe Juniper
<i>Juniperus virginiana</i>	Eastern Red Cedar
<i>Lagerstroemia indica</i>	Crepe Myrtle
<i>Liquidambar styraciflua</i>	Sweetgum
<i>Magnolia grandiflora</i>	Southern Magnolia
<i>Pinus eldarica</i>	Eldarica, Mondell, or Afghan Pine
<i>Pinus nigra</i>	Austrian or Black Pine
<i>Pinus thunbergii</i>	Japanese Black Pine
<i>Pistacia chinensis</i>	Chinese Pistachio
<i>Prosopis glandulosa</i>	Mesquite
<i>Prunus mexicana</i>	Mexican Plum
<i>Quercus buckleyi</i>	Texas Red Oak
<i>Quercus durandii</i>	Durrand Oak
<i>Quercus fusiformis</i>	Escarpment Live Oak
<i>Quercus macrocarpa</i>	Bur Oak
<i>Quercus muhlenbergii</i>	Chinkapin Oak
<i>Quercus shumardii</i>	Shumard Oak

Quercus virginiana
Sapindus drummondii
Sideroxylon lanuginosum
Sophora affinis
Taxodium ascendens
Taxodium distichum
Ulmus crassifolia
Ulmus parvifolia
Viburnum rufidulum

Live Oak
Western Soapberry
Chittamwood or Gum Bumelia
Eve's Necklace
Pond Cypress
Bald Cypress
Cedar Elm
Lacebark Elm
Rusty Blackhaw]

(3) Location. The replacement trees must be planted on the lot from which the protected tree was removed or seriously injured, except as otherwise allowed by Section 51A-10.135. Replacement trees may not be planted within a visibility triangle, a water course, in an area within 15 feet horizontally to the closest point of an overhead electric line, or an existing or proposed street or alley unless the tree is authorized by a license and permit and is required to be in that location by other ordinance.

(4) Minimum size. A replacement tree must have a caliper of at least two inches.

(5) Timing.

(A) Except as provided in this section, all replacement trees must be planted within 30 days of removal.

(B) If the property owner provides the building official with an affidavit stating that all replacement trees will be planted within six months, the building official may allow the replacement trees to be planted during that six month period.

(i) If the property owner submits an application for a building permit for construction on the tree removal property within the six month period, the tree replacement requirements may be transferred to the building permit for final completion of all tree replacement prior to a final certificate of occupancy or certificate of completion for the property.

(ii) If the property owner does not submit an application for a building permit for construction within the six month period, all tree replacement must be completed within 30 days after the six month period.

(C) For residential subdivision developments and multi-phase commercial developments, the tree replacement may be completed in accordance with a comprehensive tree replacement plan for the development. The building official may allow the property owner additional time to complete the development project to plant the replacement trees, with the following restrictions:

(i) A proposed landscape plan identifying all conceptual landscaping for the properties within the subdivision must be provided by a landscape architect and designed according to the soil and area requirements of this article. The proposed plan will specify the minimum tree size and general species distribution for the properties in accordance with this article. The tree replacement for the development identified on the proposed plan must be completed prior to the final certificate of occupancy or certificate of completion for the project.

(ii) All required tree replacement which is not scheduled by an approved design for the property under the comprehensive tree replacement plan must be completed within six months of issuance of the tree removal application or building permit for removing trees.

(6) Forest stand delineation exceptions for old-field and undeveloped lot. When an FSD, under Section 51A-10.132(b)(5)(A) is used to assess tree canopy coverage:

(A) Except as provided in this paragraph, no mitigation is required for a tree stand when:

(i) at least 60 percent of the trees in the stand are Class 3 and unprotected species; and

(ii) the average tree diameters are less than 12 inches DBH.

(B) Significant trees in a stand located on an old-field or undeveloped lots must be mitigated.

(7) Additional requirements for forest stand delineation for properties five acres or greater with institutional uses or recreational uses. When an FSD, under Section 51A-10.132(b)(5)(D) is used to assess tree canopy coverage:

(A) the tree removal property must maintain or increase the tree canopy coverage for the property recorded in the most recent FSD; and

(B) significant trees that are included in the FSD tree canopy coverage must be replaced according to the diameter standards for significant trees in this article.

~~[Except as otherwise provided in Subparagraphs (B) and (C), all replacement trees must be planted within 30 days after the removal or serious injury of the protected trees.]~~

~~(B) If the property owner provides the building official with an affidavit that all replacement trees will be planted within six months, the building official may permit the property owner to plant the replacement trees during the six-month period.~~

~~(C) If the property owner provides the building official with a performance bond or a letter of credit in the amount of the total cost of purchasing and planting replacement trees, the building official may permit the property owner up to 18 months to plant the replacement trees, with the following restrictions:~~

~~(i) for single family or multifamily developments, at least 50 percent of the total caliper of replacement trees must be planted before 65 percent of the development has received a final building inspection or a certificate of occupancy, and all replacement trees must be planted prior to the completion of the development; and~~

~~(ii) in all other cases, the replacement trees must be planted prior to the issuance of a certificate of occupancy.]~~

~~(C[D]) A replacement tree that dies within five [two] years of the date it was planted must be replaced by another replacement tree that complies with this section.~~

SEC. 51A-10.135. ALTERNATIVE METHODS OF COMPLIANCE WITH TREE REPLACEMENT REQUIREMENTS.

(a) In general. If the building official determines that, due to restrictive site conditions ~~[inhospitable soil conditions or inadequate space]~~, it would be impracticable or imprudent for the responsible party to plant a replacement tree on the ~~[lot where the protected tree was removed or seriously injured (the "tree removal property")]~~, the responsible party shall comply with one or more of the ~~[following]~~ requirements in this section.~~:]~~

(1) ~~Donate the replacement tree to the city's park and recreation department. If the director of the park and recreation department does not accept the tree, the responsible party must comply with one or more of the other alternative methods of compliance listed below.~~

(2) ~~Plant the replacement tree on other property in the city that is within one mile of the tree removal property, as long as the responsible party obtains the written approval of the building official for:~~

~~(A) a site plan indicating the location of the tree to be removed or seriously injured, the address of the property where the replacement tree will be planted, and a site plan indicating the location of the replacement tree; and~~

~~(B) a written agreement between the owner of the property where the replacement tree will be planted and the responsible party, to assume mutual responsibility for the replacement tree under this article.~~

~~(3) Make a payment into a special city account, to be known as the Reforestation Fund, in accordance with Subsection (c).~~

~~(4) Grant a conservation easement to the city in accordance with Subsection (d) and the following paragraphs:~~

~~(A) The conservation easement area must contain protected trees with a combined caliper equal to or exceeding the caliper for which replacement tree credit is being requested.~~

~~(B) If the conservation easement area is 25 percent or less than the area of the tree removal property, the responsible party will get credit for trees in the conservation easement area, on an inch for inch basis, up to a maximum of 50 percent of the total caliper of replacement trees required.~~

~~(C) If the conservation easement area is more than 25 percent and less than 50 percent of the area of the tree removal property; the responsible party will get credit for trees in the conservation easement area, on an inch for inch basis, up to a maximum of 65 percent of the total caliper of replacement trees required.~~

~~(D) If the conservation easement area is 50 percent or more of the area of the tree removal property, the responsible party will get credit for trees in the conservation easement area, on an inch for inch basis, up to a maximum of 80 percent of the total caliper of replacement trees required.~~

~~The replacement trees that cannot be planted on the tree removal property, and for which credit cannot be given through a conservation easement under this paragraph, must be replaced by other methods set forth in this subsection, such that the replacement trees equal in total caliper the total caliper of the trees removed or seriously injured.~~

(b) Mitigation by legacy trees.

(1) Lots or artificial lots smaller than five acres on properties which are not using sustainable development incentives may attain replacement credit for planting legacy trees on the tree removal property.

(2) Each tree planted and designated as a legacy tree is given a 12 inch replacement credit.

(3) Legacy tree may be planted only in the front yard of a lot containing an single-family or duplex use.

(c) Habitat preservation and restoration areas.

(1) Habitat preservation and restoration areas which are established to provide a dedicated open landscape area for native flora and fauna habitat preservation or restoration may be credited to the legacy tree mitigation reduction.

(2) To receive credit, habitat preservation and restoration areas must be a minimum of 1,200 square feet of contiguous area, or twenty percent of the tree canopy cover goal for the property, as determined by the street typology of the adjacent street in Section 51A-10.135(d)(2)(A), whichever is greater.

(3) Credit will only be given for a maximum of 2,400 square feet of habitat and preservation area.

(4) Every 1,200 square feet of habitat preserved that is not under a tree canopy may be counted as 12 diameter inches of tree replacement credit.

(5) These areas must be actively monitored and managed to be fully sustained as a protected habitat area and provided a maintenance plan.

(d) Sustainable development incentives.

(1) Requirements. For a development to qualify for sustainable development incentives it must meet the following requirements.

(A) Properties must be a minimum of two acres with no residential uses except multifamily uses and shared access developments.

(B) Before a building permit is issued, a consulting arborist or landscape architect must provide the following to the building official:

(i) A forest stand delineation.

(ii) A conceptual landscape plan identifying tree preservation, areas, natural features, landscape areas, proposed buildings, and any other site elements or improvements in as much detail as possible.

(iii) A soil resource assessment for all landscape areas.

(C) All healthy top soils disturbed during construction must be restored.

(D) Development must be fitted to the topography and soils to minimize cut-and-fill sections.

(E) Grading and clearing in or around the development impact area may not encroach in a primary natural area, except in conjunction with the construction of drainage facilities, approved through engineering review.

(i) Grading near preserved trees and around the edge of the development impact area must be planned and implemented to insure minimal impact to natural topography, watercourses, vegetation, and wildlife.

(ii) Indigenous vegetation must be retained and protected except in development impact areas or to control or remove invasive plants.

(F) Utility easement planning and locations must be designed to insure minimal impact to preserved trees and primary natural areas.

(G) All tree preservation and legacy tree plantings must fully comply with the tree protection requirements and soil area and tree spacing standards of this article.

(H) A consulting arborist is required;

(i) for design and implementation of a tree protection plan and soil resource assessment;

(ii) to periodically inspect preserved trees;

(iii) to insure the standards for legacy tree plantings are implemented; and

(iv) to confirm compliance with these requirements to the building official before the final landscape inspection.

(I) Irrigation standards must be designed for efficient water conservation management on the property including dedicated irrigation for all legacy trees.

(J) A site maintenance schedule and implementation plan for site sustainability covering a minimum of five years must be approved by a consulting arborist or landscape architect and fully implemented. The schedule and plan must be available at the property

(2) Pre-development assessment.

(A) Tree canopy cover goal and credit. The combined tree canopy cover of existing preserved trees, planted legacy trees, and planted landscape trees, shown on the final approved landscape plan, determines the tree canopy cover credit for sustainable development incentives.

(i) The combined preserved and planted legacy and landscape tree canopy cover measured in square feet is compared to the tree canopy cover goal for the property to determine the percentage of tree replacement reduction to be provided.

(ii) The tree canopy cover goal for the property is determined by the street typology of the adjacent streets. In this subsection, street typology is determined using the *Complete Streets Manual*, unless another publication is designated by the building official. Where a building site faces two or more street frontages with differing typologies, the greater canopy cover goal controls.

<u>Street Typology</u>	<u>Canopy Cover Goal</u>
<u>Residential</u>	<u>40 percent</u>
<u>Mixed Use</u>	<u>35 percent</u>
<u>Commercial & Freeways</u>	<u>30 percent</u>
<u>Industrial</u>	<u>25 percent</u>
<u>Parkways</u>	<u>45 percent</u>

Canopy cover goal percentages are converted to square feet by multiplying the percent and the total square footage of the building site.

(B) Tree mitigation deductions. Tree mitigation deductions are subtracted from the total replacement tree requirements for the building site to calculate the base mitigation requirement in diameter inches. Available tree mitigation deductions are:

(i) Old-field mitigation reduction credit under Section 51A-10.134(c)(6).

(ii) Transplanted tree on site credit under Section 51A-10.133.1(c).

(3) Site development.

(A) Sustainable development credits.

(i) Tree canopy cover credit.

(aa) Canopy cover credit square footage is divided by the tree canopy goal for the building site, measured in square feet, to obtain the percentage reduction.

(bb) The base mitigation requirement is reduced by the percentage above to determine the number of inches of mitigation remaining due.

(ii) Preserved tree canopy credit.

(aa) Preserved tree canopy cover is determined by completing a forest stand delineation and a conceptual landscape plan showing the protected trees to be preserved.

(bb) Preserved tree canopy cover credit, measured in square feet, must be confirmed before final inspection. Preserved tree canopy cover in a primary natural area is calculated at a rate of .25:1.

(iii) Landscape tree canopy credit. Large and medium nursery stock landscape trees may be counted towards the tree canopy cover total for a building site at a rate of 300 square feet per tree.

(iv) Legacy tree canopy credit. Large or medium legacy trees may be installed in enhanced landscape areas for legacy tree credit. Legacy tree credit is determined as follows:

(aa) Large legacy trees are counted towards the tree canopy cover total at a rate of 1,200 square feet per tree.

(bb) Medium legacy trees are counted towards the tree canopy cover total at a rate of 750 square feet per tree.

(4) Green site points.

(A) Additional tree mitigation reductions are available through enhanced site planning and design, landscape, and water conservation improvements that directly promote urban forest conservation.

(B) Required green site points are calculated by determining the percentage of the tree canopy cover goal or the percentage of existing tree canopy cover compared to the overall building site area before to development. The percentage is rounded and converted to points at a 1:1 ratio (i.e., 30 percent = 30 points).

(i) For building sites three acres or less, the required number of points is determined by the tree canopy cover goal or the tree canopy cover before construction, whichever is greater.

(ii) For all other building sites, the required number of points is determined by the tree canopy cover before construction, but must be a minimum of 50 points.

(C) Green site points from enhanced landscaping are determined as follows:

(i) Green site landscape plan. Five points. A landscape plan must meet the minimum standards of this article, be designed by a landscape architect, and include the following:

(aa) a plan for the design, implementation, and maintenance of a water-wise program and water-wise planting materials on a minimum of 75 percent of development impact area; and

(bb) a soil resource assessment throughout development for all landscape areas and required trees.

(ii) Tree preservation plan. Five points. A tree preservation plan must include a tree protection plan, soil resource assessment, and a complete tree survey performed by a consulting arborist. The tree preservation plan must be implemented and monitored by a consulting arborist. A report of soil planting conditions and tree protection during construction is required before a final landscape inspection.

(iii) Engineered solutions in an urban streetscape for replacement trees. 10 points maximum. A building site must have a minimum of five landscape design option points to qualify. Green site points are awarded when engineered solutions allow required large or medium trees in the street buffer zone to be planted in impervious environments. Soil volume must be a minimum of 480 cubic feet per required tree. A minimum of 75 percent of required street buffer trees must meet the soil volume minimum for credits to apply.

(aa) Minimum required soil volume: five points

(bb) Increase in soil volume 10 percent above minimum requirement: six points

(cc) Increase in soil volume 15 percent above minimum requirement: seven points

(dd) Increase in soil volume 20 percent above minimum requirement: eight points

(ee) Increase in soil volume 25 percent above minimum requirement: nine points

(ff) Increase in soil volume 30 percent or greater above minimum requirement: 10 points.

(iv) Enhanced buffer zone and increased landscape area. 15 points maximum. A building site must have a minimum of 10 landscape design option points in street buffer zone and residential buffer zone enhancements to qualify. A street buffer zone or residential buffer zone may be enlarged by a minimum average of five feet deeper than the required average buffer depth. Five points for each five feet average increase in depth along each buffer zone on the building site.

(v) Conservation through tree preservation or habitat restoration. 20 points maximum. A building site must have a minimum of 10 landscape design option points to qualify. Conservation or preservation programs on the tree removal property may qualify for credits where primary natural areas and secondary natural areas are retained for conservation purposes. Each individual area must be identified on the landscape plan and must be a minimum of five percent of the building site.

(aa) Habitat preservation. Five points. The applicant must preserve existing healthy native and mixed species grassland or woodland areas.

(bb) Habitat preservation and restoration using an active management plan. 10 points. The applicant may create or restore natural habitat conditions if designed and implemented by a qualified professional. Site maintenance must be continual for the purpose of sustaining the vegetated area. Five additional points is available for each additional area.

(cc) Habitat preservation, restoration, and maintenance of natural forest edge using an active management plan - adjacent to primary natural areas. 15 points. The applicant may preserve and restore land areas adjacent to wetlands, creeks, floodplain, and slopes which help buffer the protected creeks, slopes, habitat and woodland in primary natural areas from the development impact area. An additional five points may be allotted if 90 percent of the development impact area boundary adjacent to the primary natural area is a minimum of 100 feet from the primary natural area.

(D) Low impact development. 20 points maximum. A building site must have a minimum of six landscape design option points to qualify.

(i) Rain garden. Maximum 10 points.

(aa) One to 5,000 square feet: three points; and

(bb) each additional 1,000 square feet: one point.

(ii) Bioswale. Maximum 15 points per bioswale.

(aa) 50 to 100 feet long: three points; and

(bb) each additional 50 feet: one point.

(iii) Water-wise plant materials and planting beds. Maximum 10 points. The applicant may provide landscaping that uses water conservation techniques including water-wise plants, mulch, and efficient irrigation:

(aa) in a minimum of 50 percent of landscape areas: three points; or

(bb) in a minimum of 80 percent of landscape areas: five points.

(cc) Low water consumption grasses for 80 percent of turf surfaces: three points; or

(dd) low water consumption grasses for all turf surfaces: five points.

(E) Surface parking lots. The applicant may improve the interior zone to provide wider landscape areas and an enhanced shade tree environment. The enhancements may be combined for a maximum of 30 points. An additional 5 points are available if the building site achieves a 50 percent or greater projected tree canopy coverage over the parking lot with combined existing trees, legacy trees, and landscape trees.

(i) Option 1. Provide a protected pedestrian pathway that is between three feet in width and 15 feet in width, through a parking lot to a building from a public or private street or the expansion of a wide landscape median with trees and a walkway through the parking lot. A minimum of one large or medium tree is required for each 40 linear feet of pedestrian pathway or landscape median. Five points.

(ii) Option 2. Parking islands. Providing a maximum of 10 parking spaces between landscape islands. Five points.

(iii) Option 3. Parking islands. Increasing the landscape area to a minimum of 200 square feet for each large or medium tree.

(aa) Increase landscape area of 50 percent of the required parking islands. Five points.

(bb) Increase landscape area of 75 percent of the required parking islands. 10 points.

(iv) Option 4. Parking islands. Providing a planting area of at least 300 square feet for each large or medium tree.

(aa) Increase landscape area of 50 percent of the required parking islands. Five points.

(bb) Increase landscape area of 75 percent of the required parking islands. 10 points.

(v) Option 5. Parking islands. Each additional parking island provided, Three points.

(vi) Option 6. Landscape medians. Provide a minimum 10 foot wide landscape median with large or medium trees extending the length of a minimum 12 space parking row. Five points.

(vii) Option 7. Landscape medians. Providing a 12 foot wide landscape median with large or medium trees extending the length of a minimum 12 space parking row. 10 points for each full median for a maximum of 20 points on the lot.

(viii) Option 8. Landscape medians. Providing a 16 foot wide landscape median with large or medium trees extending the length of a minimum 12 space parking row. 15 points for each full median for a maximum of 30 points on the lot.

(ix) Option 9. Pocket park. Provide a minimum of 2,500 square feet of contiguous open soil surface area. 20 points.

(F) Conservation easement. 10 points. The applicant may protect the primary and secondary natural areas on the building site adjacent to the development indefinitely through a conservation easement.

(G) Public deed restriction. Five points. The applicant may protect the primary and secondary natural areas on a building site with a public deed restriction for a minimum time-period of 25 years with 25 year automatic renewal provisions.

(e) Tree canopy cover credit for single family and duplex uses. To reduce tree replacement requirements a portion of existing tree canopy coverage over a single family or duplex construction building site must be preserved.

(1) The tree canopy cover goal is 40 percent of the building site.

(2) Healthy large and medium trees preserved on the building site, including boundary trees, may be included in tree canopy cover calculations. Invasive trees and trees located within 20 feet on center of the nearest overhead public electric line are not included in the calculation.

(3) Each large and medium nursery stock tree planted as landscaping may also qualify as 300 square feet of tree canopy cover. If the tree canopy cover goal is met, additional landscape trees are not required, except that one tree must be provided in the front yard.

(4) Healthy large and medium trees preserved in the front yard setback may qualify for double the total square footage of preserved tree canopy coverage.

(5) Boundary trees located on private property must be protected to the drip line according to the tree protection plan.

(6) The tree canopy cover must be measured by a forest stand delineation, verified and approved by the building official. The forest stand delineation must be provided by a consulting arborist.

~~[Use of other property for tree replacement. A responsible party who obtains permission to plant the replacement tree on other tree replacement property in the city shall ensure that the planting and maintenance of the tree on the other tree replacement property complies with the requirements of this article. The building official shall maintain a list of publicly or privately owned properties for which replacement trees are sought by groups such as homeowner's associations or school districts.~~

~~(e) Reforestation fund.~~

~~(1) The director shall administer the reforestation fund to purchase trees to plant on public property. to acquire conservation easements or wooded property.~~

~~(2) The amount of the payment required is calculated by using the formula for appraising the value of a tree, as derived from the most recent edition of the *Guide for Establishing Values of Trees and Other Plants* published by the Council of Tree & Landscape Appraisers, unless another publication is designated by the building official. If more than one tree is being removed or seriously injured or not planted, the values of the trees are added when calculating the payment required.~~

~~(3) All property purchased through this fund must be in or partly in the city of Dallas and may not extend further than five miles from the Dallas city limit.]~~

~~(f[~~d~~]) Conservation easement. Grant a conservation easement to the city in accordance with this subsection.~~

~~(1) The conservation easement area must contain protected trees with a combined diameter equal to or exceeding the classified diameter inches for which replacement tree credit is being requested.~~

~~(2) The conservation easement area must be a minimum of 20 percent of the size of the development impact area on the tree removal property and must be:~~

~~(A) configured primarily for urban forest conservation and preservation by protecting natural topography, waterways, forest vegetation, and wildlife habitation; and~~

(B) a suitable size, dimension, topography, and general character for its intended purpose.

(3) No portion of the conservation easement may be narrower than 50 feet in width when necessary for site conditions.

(4) A conservation easement must have frontage on an improved public street or have public access through private property to a public street.

(5) The city manager is authorized to accept and approve on behalf of the city a conservation easement to conserve trees and other natural features, upon:

(A) approval as to form by the city attorney; [and]

(B) a metes and bounds property description prepared by a licensed surveyor; and

(C) a determination by the building official that the easement area is suitable for conservation purposes, based on:

(i) the submission of baseline documents prepared by a qualified professional describing the property's physical and biological conditions, the general age of any tree stands, locations of easements and construction, and the conservation values protected by the easement;

(ii) the likelihood that the proposed conservation easement area would preserve vegetation on a parcel otherwise attractive for development;

(iii) the overall health and condition of the trees on the conservation easement property, and the extent of invasive and exotic plants on the property and a strategy to manage the population;

(iv[~~ii~~]) the suitability of the area as a wildlife habitat; [~~and~~]

(v[~~i~~]) other unique features worthy of preservation, e.g. water channels, rock formations, topography, or rare herbaceous or woody plant species; and[-]

(vi) the preservation of undeveloped areas located in a flood plain on a building site before and after construction, except as authorized by the director for engineering infrastructure.

(6[2]) The conservation easement may be structured to be monitored and managed by a nonprofit association dedicated to the conservation of land, with the city as a joint grantee having the right, but not the duty, to monitor the management of the conservation area. [~~The joint grantee of a conservation easement may be an eligible grantee such that the grantor~~

~~will have the option of receiving a property tax benefit on the assessed value of the conservation easement area.]~~

(7[3]) The city manager may not accept a sole or joint conservation easement on behalf of the city, unless and until the owner provides the building official with:

(A) a tree survey as set forth in Section 51A-10.132, or an estimate of the caliper and type of protected trees documented in a manner determined to be reasonably accurate by the building official, or a forest stand delineation verified and approved by the building official; and

(B) a preservation strategy for the conservation easement area.

(8[4]) No person may place playground equipment or park amenities in a conservation easement area unless the building official has made a written determination that the amenities indicated on a site plan are unlikely to be detrimental to the conservation easement area.

(9[5]) Conservation easement areas must be in ~~in~~ or partly in the city of Dallas and may not extend further than five miles from the Dallas city limit.

(g) Use of other property for tree replacement. The replacement trees that cannot be planted on the tree removal property, and for which credit is not given through a conservation easement must be replaced by the methods set forth in this subsection.

(1) Provide [Donate] the replacement tree to a city department for planting on city property [the city's park and recreation department], with the approval of the director of the city department. [If the director of the park and recreation department does not accept the tree, the responsible party must comply with one or more of the other alternative methods of compliance listed below.]

(2) Plant the replacement tree on other property in the city that is within five ~~one~~ miles of the tree removal property, the responsible party obtains the written approval of the building official for:

(A) a site plan indicating the location of the tree to be removed or seriously injured, the address of the property where the replacement tree will be planted, and a site plan indicating the location of the replacement tree; and

(B) a written agreement between the owner of the property where the replacement tree will be planted and the responsible party, to transfer ~~assume mutual~~ responsibility for the replacement tree under this article to the receiving party.

(i) The agreement may be structured to allow a non-profit association dedicated to tree advocacy or the conservation of land to monitor and manage the replacement trees; and

(ii) The agreement must include a written affidavit by the owner of the property where the replacement tree will be planted agreeing to maintain the tree for five years and to be the responsible party for the replacement tree.

(C) Use of other property for tree replacement. A responsible party who obtains permission to plant the replacement tree on other tree replacement property in the city shall ensure that the planting and maintenance of the tree on the other tree replacement property complies with the requirements of this article.

(h) Reforestation fund.

(1) Make a payment into a special city account, to be known as the Reforestation Fund.

(2) The director shall administer the reforestation fund to purchase trees to plant on public property, to create an urban forest master plan and to update it periodically, to fund a staff position for managing and directing the fund for planting and urban forest education, or to acquire conservation easements or wooded property. A minimum of fifty percent of all funds provided for each fiscal year must be available to planting trees on public property or to acquire conservation easements or wooded property.

(3) The amount of the payment required is calculated by using the formula for appraising the value of a tree, as derived from the most recent edition of the *Guide for Plant Appraisal* published by the Council of Tree & Landscape Appraisers, unless another publication is designated by the building official. If more than one tree is being removed or seriously injured or not planted, the values of the trees are added when calculating the payment required.

(4) All property purchased through this fund must be in the city of Dallas

SEC. 51A-10.136. CONSERVATION AND MAINTENANCE [PRESERVATION] OF PROTECTED TREES DURING CONSTRUCTION OR OTHER DISTURBANCE.

(a) City property. Except as provided in this section, trees on city property:

(1) must be established and maintained in accordance with ANSI A300 standards for tree care operations and the ISA Best Management Practices; or

(2) the American Standard for Nursery Stock Z60.

(b) In general. Where a property owner plans to retain protected trees on a site to be developed or otherwise disturbed in a manner that may affect protected trees, the following requirements must be met:

(1[~~a~~]) Tree protection plan in general. A tree protection plan submitted to the building official must meet the specifications found in ANSI A300 Standards for Tree Care Operations, as amended, and ISA Best Management Practices.

(2) Tree protection plan additional requirements. A tree protection plan must include the following:

(A[4]) A site plan drawn to scale, indicating the location of land disturbance, clearing, grading, trenching, tree protection zones, general projection of the tree canopy area over the property, proposed underground utilities, staging areas for parking, material storage, concrete washout, and debris burn and burial holes where these areas might affect tree protection, and areas where soil compaction is likely to occur in a tree protection zone due to traffic or materials storage.

(B[2]) A complete tree survey in accordance with the requirements set forth in Section 51A-10.132, or a forest stand delineation approved by the building official. Significant and historic trees must be specifically designated on the survey.

(C[3]) Detailed drawings and descriptions of any of the following tree protection measures that will be used during development.

(i[A]) Tree protection fencing. Tree protection fences must be constructed as follows within the development impact area unless an alternative is approved by the building official on the tree protection plan:

(aa) In general. Except as provided in this subparagraph, tree protection fences must be a minimum of four feet high, constructed with adequate, durable material (e.g. orange plastic construction fencing) approved by the building official, and located at the drip line or the edge of the critical root zone, whichever is farthest from the trunk, unless the building official determines that a fence line closer to the trunk will not be likely to result in damage to the tree. The building official may require an expansion of the critical root zone or approved encroachment. Once established, the fence line must remain in place as approved.

(bb) Additional requirements. Tree protection fences located in the development impact area within 15 feet of construction activity must be a minimum of six-feet-high and be constructed of chain-link, wire-mesh, or wood fence materials, and be solidly anchored to the ground if:

(I) a required tree protection fence located with the critical root zone of a protected tree on the Property is determined by the building official to be in violation of this subsection;

(II) a significant or historic tree is located within a development impact area;

(III) a tree preservation plan for sustainable development incentives is designed for the preservation of protected trees within the area of construction activity; or

(IV) tree canopy cover credit for single family or duplex uses is applied to protected trees in the construction activity area.

~~[For purposes of this subsection, "drip line" means a vertical line that runs from the outermost portion of the crown of a tree to the ground.]~~

~~(ii[B])~~ Erosion control fencing or screening. All protected trees or stands of trees, and tree protection zones must be protected from the sedimentation of erosion material. Silt screening must be placed along the outer uphill edge of tree protection zones.

~~(iii[C])~~ Tree protection signs.

~~(iv[D])~~ Transplanting specifications. Trees to be transplanted on property, or relocated from a remote property, must conform to the specifications found in ANSI A300 Standard for Tree Care Operations, as amended.

~~(v[E])~~ Tree wells, islands, retaining walls, and aeration systems.

~~(vi[F])~~ Staking specifications.

(vii) Soil and root protection.

(viii) Trunk protection.

(ix) Tree and site watering plan.

(c) Clearing. For clearing invasive, exotic, or unprotected vegetation on a building site, a forest stand delineation is required. The building official may require a tree protection plan to be provided on all or a portion of the building site.

(d[~~b~~]) Implementation of tree protection plan.

(1) The responsible party must install and maintain all tree protection measures indicated in the approved plan prior to and throughout the land disturbance process and the construction phase.

(2) No person may disturb the land or perform construction activity until the required tree protection measures have been inspected by the building official.

(3) The responsible party must mulch areas where soil compaction is likely to occur as indicated on the plan with a minimum four-inch layer of [~~processed pine bark or~~] wood chip[s] mulch, or by other options listed in ISA Best Management Practices, or methods and materials recommended by a consulting arborist and approved by the building official[~~a six inch layer of pine straw~~].

(4) If a cut is made to the root of a tree that is not intended to be removed or seriously injured as indicated on the plan, the cut must be made at a 90 degree angle.

(5) The responsible party must tunnel utilities if utilities are to run through a tree protection zone, rather than being placed along corridors between tree protection zones.

(6) The responsible party must provide water to the tree protection zone as needed due to weather or site conditions, with penetration between six and 18 inches of soil.

(e) Damage to protected trees. Where the building official has determined that irreparable damage has occurred to trees within tree protection zones, the responsible party must remove and replace those trees. The building official may determine that irreparable damage to a tree has occurred based on, but not limited to, the following factors:

(1) site evaluation;

(2) visible extensive damage to a tree root system;

(3) extensive soil compaction around the tree protection zone;

(4) visual evidence that required tree protection has been removed or is in disrepair; or

(5) a tree risk assessment by a consulting arborist that includes the current condition and proposed remedial measures.

SEC. 51A-10.137.

VIOLATION OF THIS DIVISION.

(a) Stop work order. Whenever any work is being done contrary to the provisions of this division, the building official may order the work stopped by notice in writing served on any person engaged in the work or causing the work to be done. A person issued this notice shall stop work immediately until authorized by the building official to proceed with the work.

(b) Mitigation. The building official may require mitigation for the removal, or serious injury, of protected trees without a tree removal application or a building permit upon written notice of a violation of this division.

(1) Mitigation may include:

(A) replacement of nursery stock trees on the property based on a tree mitigation plan provided by the responsible party, if it is determined by the building official that it is practicable to plant trees on the tree removal property;

(C) other alternative methods of compliance in this article when approved by the building official; or

(B) a fee to be applied to the Reforestation Fund, with the amount determined in Section 51A-10.135.

(2) The responsible party must provide a tree survey or a forest stand delineation identifying all tree sizes and species, or tree canopy coverage, on the property.

(A) If the responsible party fails to provide the required information within 30 days of the notice of violation the building official may conduct a forest stand delineation using aerial imagery, field analysis, or other reasonable and pertinent information to review and identify the square footage of tree canopy coverage on the property.

(B) Required mitigation is calculated as follows:

(i) When tree size and species are identified in a verifiable survey provided by a consulting arborist and approved by the building official. Mitigation is required under Section 51A-10.134.

(ii) When protected trees have been removed with no measurable remaining evidence.

(aa) The tree canopy coverage area is estimated by measuring the tree canopy coverage area shown in an aerial image no older than three years before notice of violation.

(bb) The estimated tree canopy coverage area, in square feet, on the tree removal property is divided by 1,200 square feet to determine an estimated number of trees for the area.

(cc) The number of trees is multiplied by eight inches as the estimated average of trees to determine the inches of the trees to be replaced.

(iii) Reforestation fund.

(aa) The number of inches to be replaced for trees not located in a primary natural area is multiplied by the Class 2 base rate (.7:1) to calculate reforestation fund value.

(bb) The number of inches to be replaced for trees located in a primary natural area is multiplied by the Class 1 base rate (1:1) to calculate reforestation fund value.

(3) Upon a finding by the building official that tree canopy coverage removal has occurred, the building official shall give written notification to the responsible party. Tree replacement or mitigation must be completed within 90 days of the date of the notification.

SEC. 51A-10.138. APPEALS.

In considering an appeal from a decision of the building official made in the enforcement of this division, the sole issue before the board of adjustment shall be whether or not the building official erred in his or her decision. The board shall consider the same standards that the building official was required to consider in making the decision.

SEC. 51A-10.139. FINES.

A person convicted of violating this division shall be subject to a fine of not less than \$2,000.00 per protected tree removed or seriously injured without authorization, and not less than \$2,000.00 per day for any other violation of this division.

SEC. 51A-10.140. CRIMINAL RESPONSIBILITY, AND DEFENSES TO PROSECUTION.

- (a) A person is criminally responsible for a violation of this division if the person:
- (1) removes or seriously injures, or assists in the removal or serious injury of, a protected tree without complying with the requirements of this division; or
 - (2) owns part or all of the land where the violation occurs.

(b) It is a defense to prosecution under this section that the act is included in one of the enumerated categories listed in this section. A[No approval of a] tree removal application or tree replacement is not required if the tree:

(1) was dead and the death was not caused by an intentional or negligent act of the owner or an agent of the owner;

(2) had a disease or injury that threatened the life of the tree and was not caused by an intentional act of the owner or an agent of the owner;

(3) was in danger of falling or had partially fallen and the danger or the fall was not due to an intentional act of the owner or an agent of the owner;

(4) was in a visibility triangle (unless the owner was legally required to maintain the tree there) or obstructed a traffic sign;

(5) interfered with service provided by a public utility within a public right-of-way;

(6) threatened public health or safety, as determined by one of the following city officials:

(A) the chief of the police department;

(B) the chief of the fire-rescue department;

(C) the director of public works;

(D) the director of street services;

(E) the director of sanitation services;

(F) the director of code compliance;

(G) the director of park and recreation; ~~[or]~~

(H) the director of sustainable development and construction; or

(I) the director of aviation.

(7) was designated for removal without replacement in a landscape plan approved by the city council, city plan commission, or board of adjustment;

(8) interfered with construction or maintenance of a public utility or public right-of-way; or

(9) was removed or seriously injured to allow construction, including the operation of construction equipment in a normal manner, in accordance with infrastructure engineering plans approved under Article V of Chapter 49 or street paving and grading in a public right-of-way, storm drainage easement, detention or retention pond designation, or bridge construction, for private development. [Section 51A-8.404; or]

~~[(10) was removed or seriously injured to allow construction of improvements in accordance with a building permit.]~~

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