

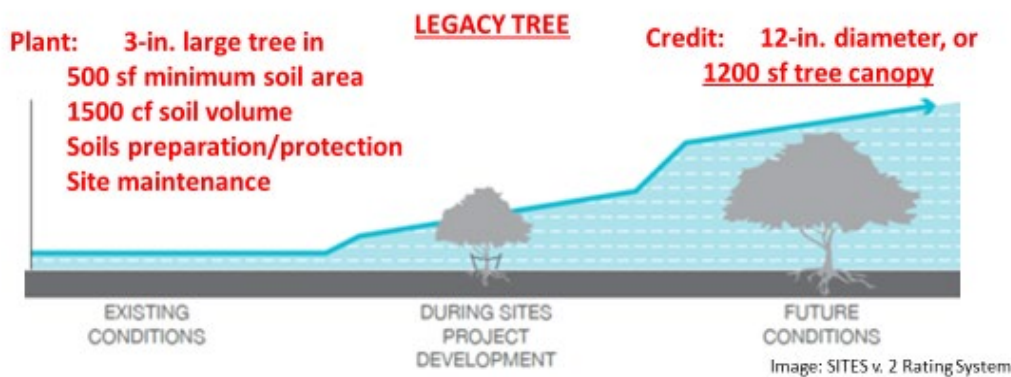
3.6 Alternative Methods of Compliance

Section 51A-10.135

(a) In general.

. If the building official determines that, due to restrictive site conditions, it would be impracticable or imprudent for the responsible party to plant a replacement tree on the tree removal property, the responsible party shall comply with one or more of the mitigation methods in this section

(b) Mitigation by legacy trees.



(1) Lots or artificial lots smaller than five acres on properties that 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) For lots containing a single-family or duplex use, credit will only be provided for legacy trees planted in the portion of the lot that abuts a street and extends across the width of the lot between the street and a main building and lines parallel to and extending outward from the front facade of a main building.

(c) Habitat preservation and restoration areas.

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

(2) *To receive credit, habitat preservation and restoration areas must be a minimum of 1,200 square feet of contiguous area, as shown on a landscape plan.*

(3) *Credit will only be given for a maximum of 2,400 square feet of habitat and preservation area or 20 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.*

(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 including compliance with a maintenance plan provided to the building official.*

(d) Sustainable Development Incentives. (see Appendix F)

*Sustainable development incentives must be calculated on a **form** provided by the director.*

(1) Requirements. *For a development to qualify for sustainable development incentives it must meet the requirements in this subsection.*

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

(B) *Properties must contain commercial or multifamily uses or a shared access development.*

(C) *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.

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

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

(F) 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.

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

(H) 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.

(I) 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.

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

(K) 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) Sustainable 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.

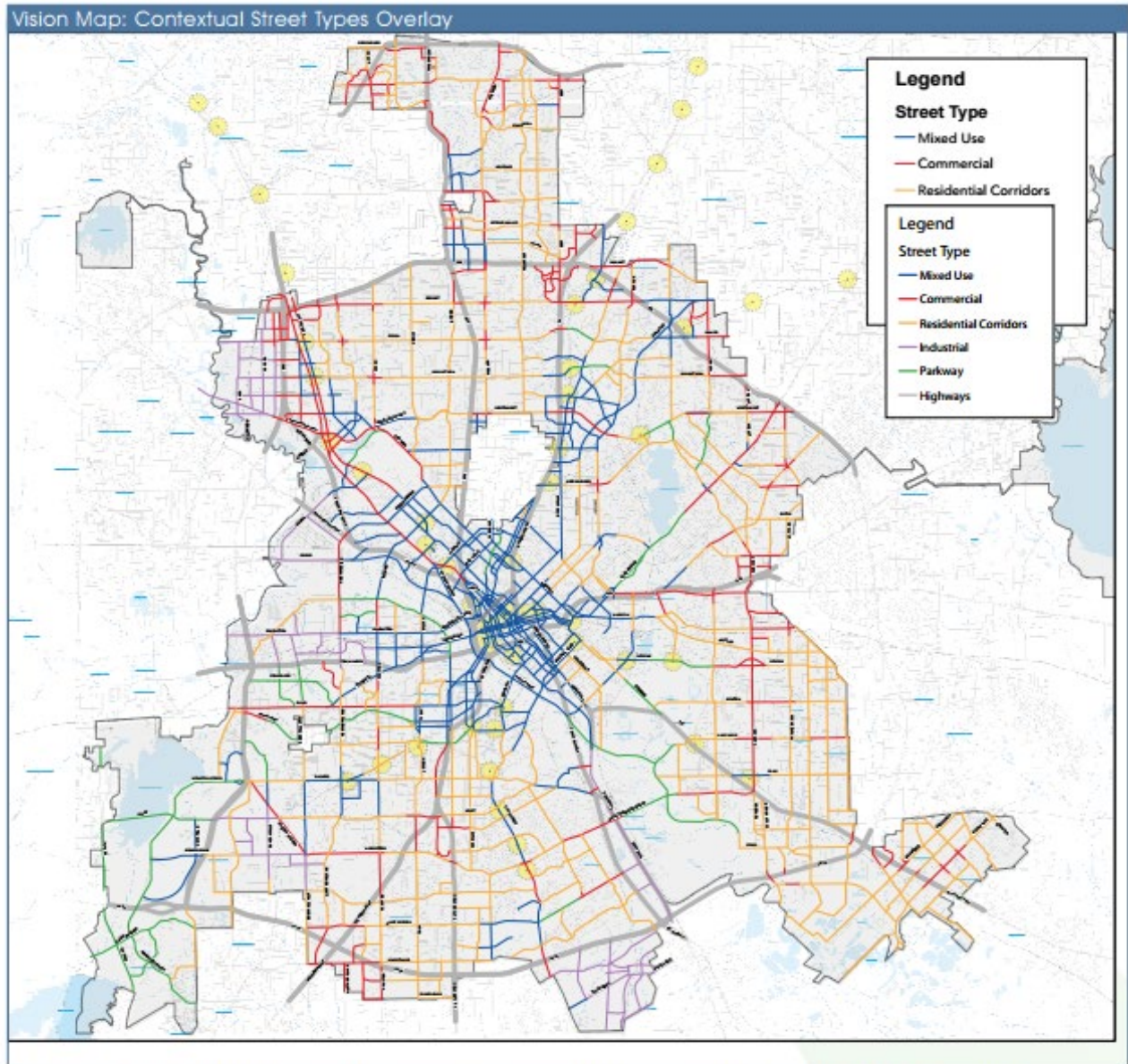
(i) The combined preserved and planted legacy and landscape tree canopy cover measured in square feet is compared to the tree canopy cover goal for the property to determine the percentage of tree replacement reduction to be provided.

(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>
Residential	40 percent
Mixed Use	35 percent
Commercial & Freeways	30 percent
Industrial	25 percent
Parkways	45 percent

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



This vision map is intended to be incorporated into the Thoroughfare Plan and periodically updated through the Thoroughfare Plan amendment process.

Complete Street Type	Complete Street Typology for Minor Streets
Mixed Use Streets	Streets located within Downtown, Urban Mixed Use, Transit Center, Campus District, or Urban Neighborhood Building Blocks Streets or street segments in any location that have a mix of existing and/or proposed land uses that may generate the potential for pedestrian trips between destinations on the street
Commercial Streets	Streets located within Business Corridor and Commercial Center or Corridor Building Blocks
Residential Streets	Streets located within Residential Neighborhood Building Blocks
Industrial Streets	Streets located within Industrial Area Building Blocks
Parkways	Streets or street segments located in or adjacent to natural features, parks or other open spaces
Bike Network Streets	Streets identified in the 2011 Bike Plan as updated

(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) Sustainable development credits.

(A) **Tree canopy cover credit.**

(i) 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.

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

(B) **Preserved tree canopy credit.**

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

(ii) 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 0.25:1.

(C) **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.

(D) **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:

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

(ii) 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 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 green site 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) **Development 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) For providing water conservation techniques 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) For providing 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) 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 five 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. Provide a maximum of 10 parking spaces between parking lot landscape islands. Five points.

(iii) Option 3. Increase the parking lot landscape area to a minimum of 200 square feet for each large or medium tree.

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

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

(iv) Option 4. Increase the parking lot landscape area to a minimum of 300 square feet for each large or medium tree.

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

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

(v) Option 5. Each additional parking lot landscape island provided, Three points.

(vi) Option 6. 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. Provide 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. Provide 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. Provide a minimum of 2,500 square feet of contiguous open soil surface area to serve as a pocket park. 20 points.

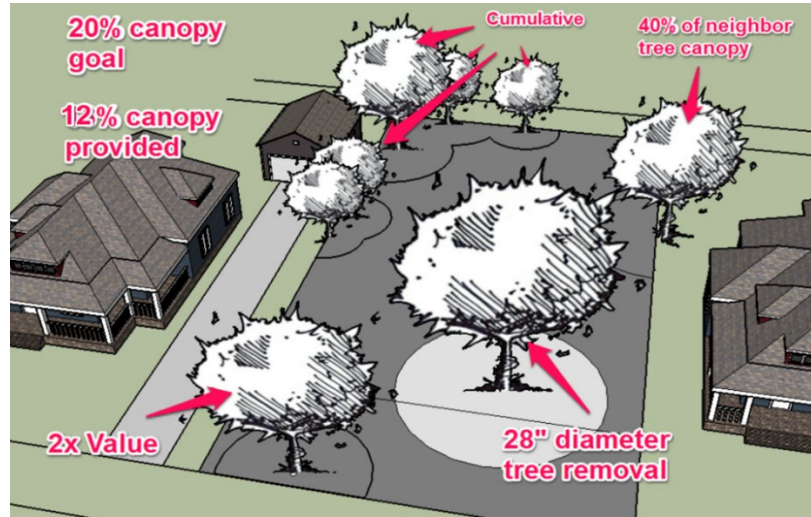
(F) **Conservation easement.** 10 points. The applicant may protect the primary and secondary natural areas on the building site adjacent to the development indefinitely through a conservation easement.

(G) **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.

See **Appendix F** for Sustainable Development Incentives Process

(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 required front yard setback may qualify for double the total square footage of preserved tree canopy coverage.

(5) Boundary trees located on adjacent 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.

(f) Conservation easement (see Section 9.0)

Tree mitigation requirements may be reduced by granting 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.*

(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;*

(B) *submission by the applicant of 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) *the suitability of the area as a wildlife habitat;*

(v) *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) *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.*

(7) *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) *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) *Conservation easement areas must be located wholly within the Dallas city limit.*

(g) Use of other property for tree replacement.

Replacement trees that cannot be planted on the tree removal property, and for which credit is not given through a conservation easement, may be replaced by the methods in this subsection. The applicant may:

(1) *provide a replacement tree to a city department for planting on city property, with the approval of the director of the city department.*

(2) *plant a replacement tree on property in the city that is within five miles of the tree removal property as long as the responsible party obtains the written approval of the building official and provides:*

(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 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.

(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) 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) Park land dedication. (Effective JULY 1, 2019)

Preserved protected trees on dedicated park land and private park land may be used to meet tree mitigation requirements in accordance with Subsection (f).

(1) Except as provided in this subsection, to be eligible for tree mitigation credits, dedicated park land and private park land must meet the conservation easement standards in Sections 51A-10.135(f)(1), 51A-10.135(f)(3), and 51A-10.135(f)(5).

(2) Park land dedication requirements may be met on an acre for acre basis for any land dedicated as a conservation easement under this section that meets the **conservation easement** standards in this section and the requirements for publicly accessible private park land in Section 51A-4.1007(b)(2)(A)(i) and is accepted by the director of the park and recreation department.

(i) Reforestation fund.

See Appendix D for Tree Mitigation Calculations

(1) Mitigation requirements may be met by making a payment into a special city account, to be known as the **Reforestation Fund** in accordance with this subsection.

(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 50 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 located within the city of Dallas.

The 9th Edition of the Guide for Plant Appraisal is currently applied.

The Reforestation Fund is administered as an 'in-lieu-of' process for the completion of tree replacement when other means of mitigation are not practicable. It is also allowed as a means of direct mitigation where replacement by planting cannot be completed on site at all.

Trees purchased through the Fund may be delivered to a location to be planted on public property.

For more information on the Dallas Reforestation Program, contact the chief arborist at 320 E Jefferson Boulevard in room 105, or check the City Arborist web page for the most recent program material.