



DDC 7.7.4: Tree Preservation

Introduction

Tree Code Overview

- Applicability and exemptions
- Definitions
- Tree Preservation Plan
- Preservation Requirements
- Tree protection requirements during construction
- Tree replacement & preservation credits
- Incentives

Areas to Address

- Emphasis on Heritage trees
- Encroachment of Dripline
- Industry best standards
- Updates to definitions

Tree Preservation Purpose & Intent

- Protect trees and promote the **ecological, environmental, and aesthetic values** of the city;
- Maintain and enhance a positive image of the city through the preservation, mitigation, and planting of trees;
- **Prevent** the untimely and indiscriminate **removal** or destruction of trees and clear-cutting of land;
- Provide for a **permitting and enforcement** procedure;
- Preserve the **public health, safety, and general welfare** of citizens
- **Encourage the protection** of healthy trees and **provide for the replacement** and/or replanting of trees that are necessarily removed during construction, development, or redevelopment;
- Provide for the **preservation and protection of larger native and/or established trees**, which provide a valuable amenity to the urban environment and which, once destroyed, can only be replaced after generations, if at all;
- Enhance and preserve established tree stands adjacent to Environmentally Sensitive Areas in order to further **protect wildlife habitats and reduce impacts** from new developments;
- Provide for **shade, windbreaks, and the cooling of air**; thereby, reducing the requirements for air conditioning and heating and the utilization of nonrenewable energy sources; and
- Provide for **open space and more efficient drainage of land**; thereby, reducing the effects of soil erosion and the need for additional drainage facilities.

City-wide Canopy Goals

2020 Urban Forest Master Plan Goals:

- 40% City-wide tree canopy by 2040
- Diverse, healthy, and equitable canopy distribution across the City

The City's canopy goals are achieved by two things:

- Preservation of existing trees
- Landscape plantings

2019 DDC Goals (7.7.2)

2019 DDC Goals (7.7.2)	
City-Wide	30%
East of I-35	40%
West of I-35	20%

Applicability and Exemptions

Applicable

- Undeveloped land
- All non-residential and Multifamily property to be redeveloped
 - When building footprint will change
- Existing single-family (SFR) and duplex properties who apply for a demolition permit
 - Protected trees are 10" or greater

Exemptions

- Agricultural land
- SFR and duplex properties
 - Provided trees are not on a Tree Preservation Plan
- Dead/Diseased trees
- Trees causing risk to the public
- Trees listed on the Texas Department of Agriculture Noxious and Invasive Plant List
- Clearing of Understory to perform surveying
 - Boundary surveying
 - Soil borings
 - Tree Survey
 - Trees must be 10" or greater

Tree Definitions

- **Diameter at Breast Height (DBH)**: The tree trunk diameter measured in inches at a height of 4.5 feet above ground level. For multi-trunk trees, combine the diameter of the largest stem or trunk with one-half of the diameter of each additional stem or trunk, all measured at four and one-half 4.5 feet above ground level.
- **Heritage**: All quality trees with a DBH greater than 18 inches and all Post Oaks with a DBH of 6 inches or greater.
- **Quality**: All healthy non-secondary trees, except Post Oaks, that measure between 6 inches and 18 inches DBH.
- **Secondary**: A healthy Ash, Bois D'Arc, Hackberry, or Cottonwood tree, with a DBH greater than 6 inches.

00004/03/2016



Tree Definitions (cont.)

Non-Protected:

- Dead or Unhealthy Trees
- Trees that pose an imminent or immediate threat to persons or property
- Crape Myrtles and ornamental pears
- Mesquite and Honey Locust, unless part of a Preserved Habitat or Conservation Easement
- Any tree listed on the Texas Department of Agriculture Noxious and Invasive Plant List



Tree Definitions (cont.)

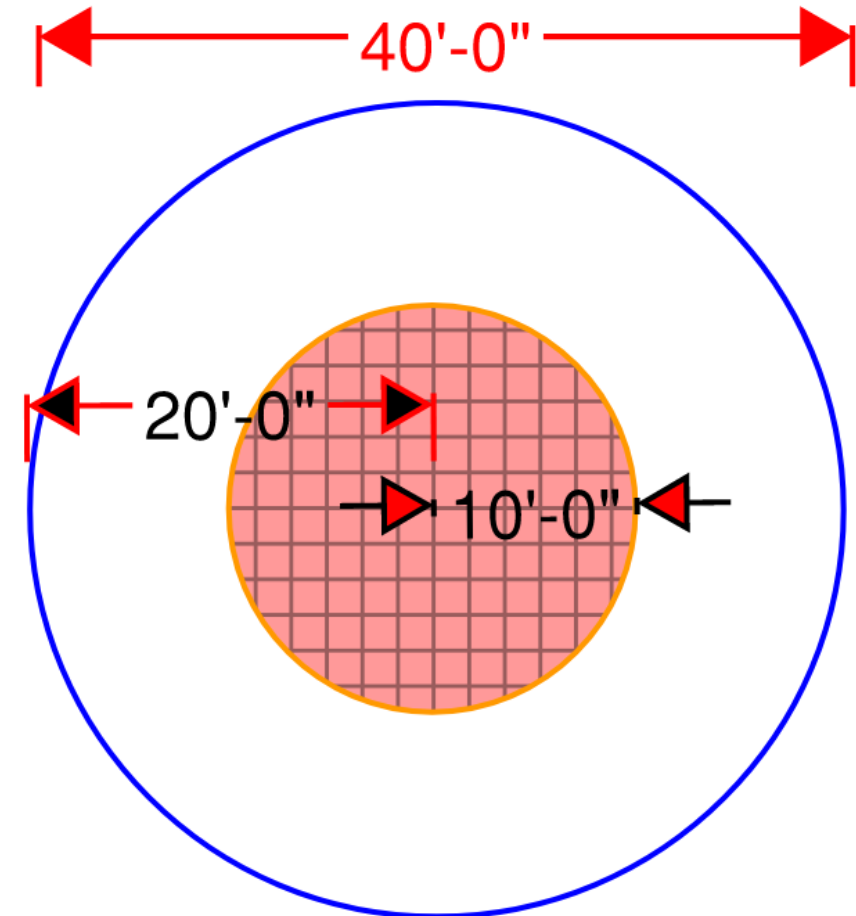
- **Landmark**: A healthy tree designated on the Texas Big Tree Registry; or a tree designated as a historic tree (event of historic significance occurred; at the home of a famous citizen; or has legendary stature in the community, is mentioned in literature/documents of historic value, or is considered unusual due to size, age, or other landmark status).
 - 3 in Denton County



Tree Definitions (cont.)

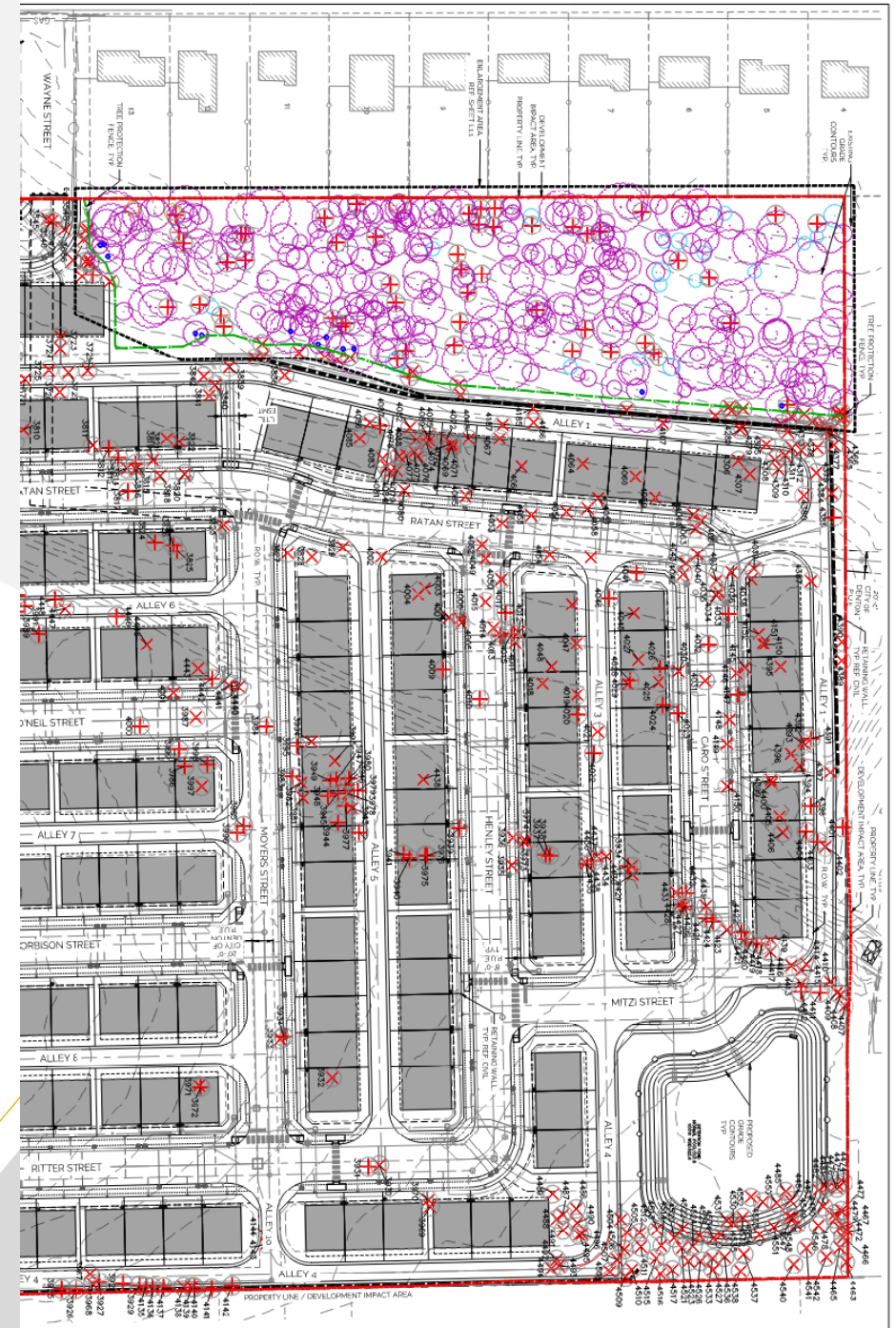
Not in the DDC (yet)

- **Dripline**: A circle around the trunk of the tree equivalent in diameter to 2 times the DBH, in feet.
- **Critical root zone (CRZ)**: A circle around the trunk of the tree equivalent in diameter to the DBH, in feet.



Tree Preservation Plan

- Prepared for any undeveloped land on which protected trees exist
- Tree Survey
- All improvements are noted on this plan
 - Tree Protection fencing
- Lives alongside a project throughout the life of the project



Tree Preservation Requirements

- **Standard Preservation**
 - A minimum of 30% preservation of the total dbh (diameter at breast height) of Heritage and Quality Trees
- **Lowest Preservation Allowed**
 - A minimum of 20% dbh preservation of Heritage and Quality trees with 10% higher mitigation
- **Only secondary trees on-site**
 - 20% preservation of the total dbh

Preservation Relief

- City Council approval
- Criteria for approval
 - Unique physical circumstance
 - Proposed design must minimize the loss of trees to the extent possible
 - Tree preservation and/or mitigation unduly burdens the development property

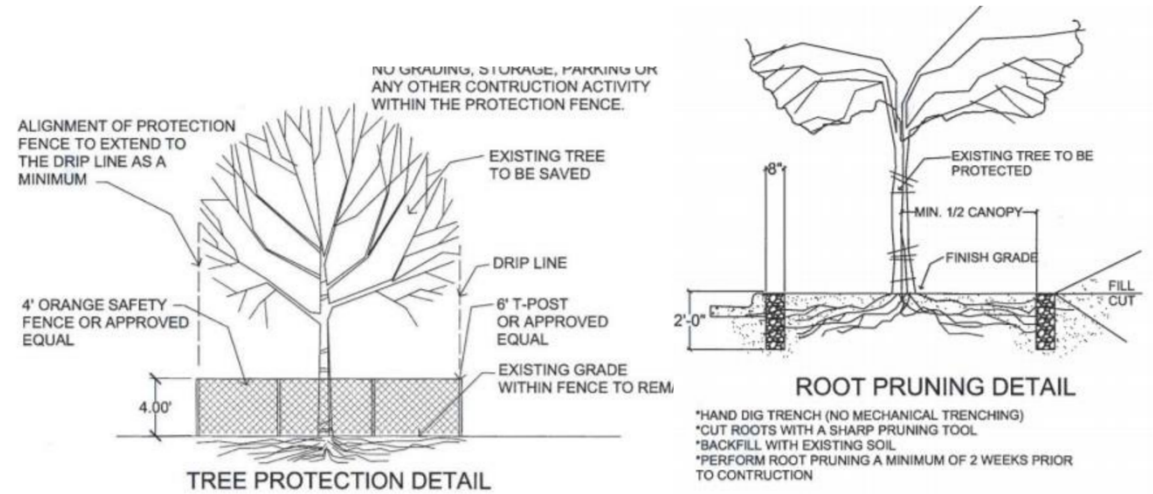
Tree Protection During Construction

- Trees to be preserved must be fenced during construction to protect from encroachment of equipment, waste, etc. within the drip line or Critical Root Zone (CRZ)
- If fill or excavation is to occur within the dripline, measures must be taken to ensure its survival:
 - Root pruning for retaining walls/tree wells
 - Porous paving or other means to ensure water and oxygen passage to roots if paving is to occur
 - Bark protection
- No work can be done within 5' of the trunk or 1' for every 2" of DBH, whichever is greater

Tree Protection Example



Figure 7.7-1: Tree Protection and Root Pruning Details



Tree replacement

	Ratio	If Below 30%
Heritage	2.5 : 1	2.75 : 1
Quality	2 : 1	2.25 : 1
Secondary	4":1 tree	4":1 tree

- Replacement totals are reduced
 - 50% for residential
 - 40% for non-residential uses

Tree Credits

- Tree Type
 - Heritage 3:1
 - Quality 2:1
 - Secondary 0.5:1
 - Landmark*
- Cluster Credit (additional credit for preserved trees within 10' of each other)
- Street Trees and other required landscape tree plantings can also be applied as credits if they have a minimum dbh of 2" (7.7.5 C.2.c.)



Areas to Address

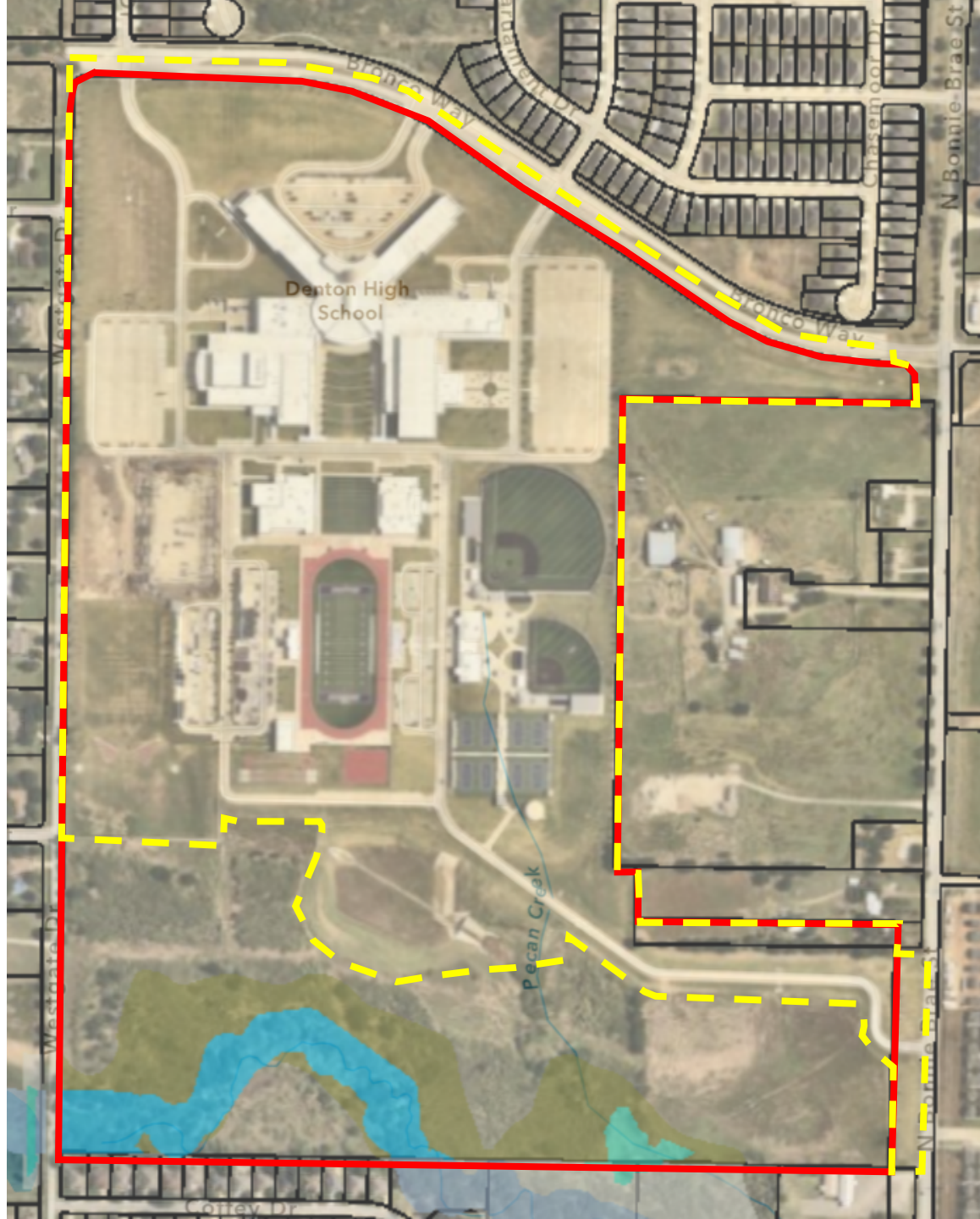
Staff Recommendations

- Emphasis on Heritage trees
- Encroachment of Dripline
- Industry best standards
- Updates to definitions

DCRC Additional Areas to explore

Questions





Property Boundary ———
DIA - - -