



PLANNING AND ZONING AGENDA ACTION FORM

AGENDA DATE:	06/16/2022		
AGENDA SUBJECT:	Hold workshop to discuss Landscaping and Tree Ordinance / Landscape and Tree Manual		
PREPARED BY:	Kyle Reeves	DATE SUBMITTED:	05/20/2022
EXHIBITS:			
BUDGETARY IMPACT:	Required Expenditure:		\$00.00
	Amount Budgeted:		\$00.00
	Appropriation Required:		\$00.00
CITY ADMINISTRATOR APPROVAL:			
SUMMARY:	<ul style="list-style-type: none"> • 		
RECOMMENDED ACTION:			
	Move to approve or deny as presented.		

Landscaping and tree preservation.

- (a) *Purpose.* The purposes of the landscaping regulations, tree preservation regulations, and of the administrative rules adopted for their implementation are to:
- (1) Enhance quality of life and community character within Glen Rose neighborhoods and built environment, especially through the preservation and addition of pleasant streetscapes;
 - (2) Facilitate site design and construction such that they preserve mature trees and natural areas;
 - (3) Maximize the aesthetic, environmental, and economic value of development;
 - (4) Mitigate the impacts of development on air quality, groundwater recharge, storm water runoff, noise, and glare;
 - (5) Protect healthy, quality trees and promote the natural ecological environment of the city;
 - (6) Regulate the removal of trees when necessary; and
 - (7) Enable administrative rulemaking pursuant to title I, chapter 8 of the Official City Code of the City of Glen Rose to adopt and amend landscape and tree preservation related administrative rules located in the Landscape and Tree Manual.
- (b) *Applicability.*
- (1) Landscaping requirements apply to all new and existing development within the City of Glen Rose and shall be met according to the following schedule:
 - a. *Full compliance.* All quantitative standards shall be met at 100 percent whenever any of the following occurs:
 1. Construction of any new primary structure.
 2. Expansion of a primary structure, where such expansion increases the floor area by 50 percent or greater or adds an additional story.
 3. Increase in the number of off-street parking spaces by five spaces or 50 percent, whichever is greater.
 4. Ground disturbance greater than or equal to 10,000 square feet.
 - b. *Incremental compliance.* All quantitative standards shall be met proportionally whenever any of the following occurs. The requirements for incremental compliance shall apply to each successive instance until all quantitative requirements are met at 100 percent.
 1. Expansion of a primary structure, where such expansion increases the floor area by less than 50 percent, in which case requirements shall be applied to the new floor area only. For example, an increase in floor area of ten percent requires that a minimum of ten percent of the planting quantities specified herein shall be provided.
 2. Increase in the number of off-street parking spaces by fewer than five spaces or 50 percent, whichever is greater.
 3. Ground disturbance less than 10,000 square feet, when such disturbance exceeds 1,000 square feet or results in the removal of existing landscaping.
 - c. *Exceptions.* Landscaping standards shall not be applied to the following:
 1. Expansion of a one-family or two-family dwelling.
 2. Ground disturbances on property with a one-family or two-family dwelling.
 3. Renovations or repairs which do not increase floor area.

4. Accessory structures.
 5. Properties within the AG Agricultural District.
 6. Properties within the B-3 Central Business District, upon a determination by the Historic Preservation Officer that the purposes of this section and of historic preservation are met by existing conditions or proposed exterior treatments that are compatible with the character of adjacent structures or properties.
- (2) Tree preservation regulations apply to all trees and all land within the City of Glen Rose and shall be met whenever any of the following occurs:
- a. A tree is planted.
 - b. A tree is pruned.
 - c. A tree is removed.
 - d. A tree is within the development impact area of a project site.
 - e. Exceptions. Tree permits are not required to remove trees in any of the following situations:
 1. Any tree which is located on property less than one acre on which there is an occupied one-family or two-family residence, or is located within 100 feet of an occupied one-family residence on property larger than one acre, and which is neither a heritage tree nor a floodplain tree as defined by this title.
 2. Any tree which is located on the property of a commercial plant or tree nursery and which has been planted for the purpose of sale to the public in the ordinary course of the nursery's business.
 3. Any tree which, due to some catastrophe, is disrupting or will disrupt a public utility service, or which presents a danger to the public. Pruning or removal shall be performed by the city or utility, or agent thereof, and shall be limited to the extent necessary to restore and maintain reliable service or public safety.
 4. Park trees, as defined by this title, when the City of Glen Rose or its agent is performing maintenance of the city's parks or making improvements to the city's parks for enhanced landscaping, habitat or native species restoration, or pathways.
 5. Trees within the public right-of-way, when the City of Glen Rose or its agent is improving a public street to implement the City of Glen Rose Thoroughfare Plan or when removal is necessary to complete repairs or improvements in accordance with the city's Engineering Design and Construction Manual (EDCM).

(c) *Landscape quantity standards.*

- (1) Landscape is required to be installed in the quantities and locations specified in the following tables, when full or incremental compliance is required as indicated above.
- (2) The landscape types - L1, L2, L3 - refer to the plants and other treatments detailed in the Landscape and Tree Manual.

Table 2. Landscape Requirements.

Landscape Requirements			
	Total Landscape Area (L1+L2+L3)	L2: Shrubs and Groundcovers	L3: Trees
		A minimum of 50% of all required L2 and L3 must be planted in the streetscape area (defined as the area between the building and the street)	
Land Use			

Commercial	25% of lot area	250 plants per acre	6 trees per acre (first 10 acres) 1 tree each additional acre
Industrial	15% of lot area	150 plants per acre	6 trees per acre (first 5 acres) 1 tree each additional acre
One or two-family residential	10% of lot area	20 plants per dwelling	10 caliper inches OR 1 6" tree
Multifamily residential	20% of lot area	250 plants per acre	6 trees per acre (first 10 acres) 1 tree each additional acre
Accessory parking: multifamily and non-residential	648 square feet per required parking island	N/A	2 canopy, 2 ornamental trees per island; 1 tree per 12 spaces total

(d) *Landscape quality standards.*

- (1) All landscaping shall be designed, planted or otherwise installed, irrigated where required, and maintained according to the standards provided herein and, in the Landscape, and Tree Manual.
- (2) Plant materials shall be selected and planted in accordance with nursery industry standards.
- (3) Applicable landscape plans shall be provided and approved prior to issuance of construction permits. Plans shall be prepared in accordance with the standards provided in the Landscape and Tree Manual.
 - a. A landscape plan is required when multifamily or nonresidential landscape standards apply, when a buffer yard is required, or when alternatives to landscape standards are proposed.
 - b. A tree protection plan is required whenever trees are preserved during development.
 - c. A tree removal plan is required whenever a tree permit is required as provided below.
- (4) L2 and L3 landscape preserved or planted to meet the requirements of this section shall be chosen from the Preferred Plant List provided in the Landscape and Tree Manual unless another species included in the Texas Smart Scape plant database is approved by the planning director. L3 trees planted to meet the requirements in Table 2 above shall be selected from the canopy trees in the Preferred Plant List, except for ornamental parking lot trees, which are to be selected from the ornamental trees list. Nuisance species identified on the Nuisance Tree List in the Landscape and Tree Manual shall not be preserved or planted in any required landscape area.
- (5) L1 treatments may include approved L2 ground cover or shrubs, lawn, mulch, bark, decorative rock, outdoor furniture, art installations, and other landscape or hardscape features, and shall present a finished, orderly appearance and reasonably complete coverage of the landscape area. Creativity in combining multiple, complementary elements is encouraged.
- (6) No required landscape may be removed from multifamily or nonresidential development without an approved landscape plan, which provides for replacement conforming to all provisions of this section. Replacement of individual shrubs or small areas of living ground cover which have become damaged or diseased, or are dead, with identical materials which meet all specifications and planting requirements in the Landscape and Tree Manual is exempted from the landscape plan requirement.
- (7) Required landscaping shall be installed and shall pass inspection by the director prior to the issuance of a certificate of occupancy (CO), unless seasonal limitations or other special circumstances prevent planting. In such circumstances, a schedule for completion and security in the form of cash, performance bond, cashier's check, or irrevocable letter of credit equal to the cost of the landscaping and installation costs shall be provided. Any such deferral shall be limited to the minimum extent necessary and shall be at the discretion of the director. Should the permittee fail to complete the required landscaping as

required by the plan submitted and approved, the city shall use the security to complete the landscaping as required by the plan.

- (8) Plant materials which exhibit evidence of insects, pests, disease, and/or damage shall be appropriately treated.
- (9) Plant materials which die shall be replaced with healthy plant material meeting all specifications and planting requirements provided herein and in the Landscape and Tree Manual within six months.
- (10) The owner of the property shall be responsible to maintain all required landscaping. The maintenance requirement runs with the land over the life of the development until such time as new development occurs which is subject to review under these requirements.

(e) *Tree preservation.*

- (1) *Tree permit process.* Except as otherwise exempted above, a person must obtain a tree permit from the director before removing or altering any tree in the City of Glen Rose.
 - a. *Administrative review procedures.* The director shall be responsible for reviewing all requests for tree permits submitted in accordance with the requirements specified herein and, in the Landscape, and Tree Manual.
 1. *Submittal requirements.* Any person applying for an administrative tree permit shall provide sufficient information to demonstrate that one or more of the relevant approval criteria is met. The director may require additional documentation, including the report of a tree care professional, in order to determine that a criterion is met. At a minimum, administrative tree permit applications shall:
 - (i) A complete application form.
 - (ii) Include a Tree Removal Plan prepared in accordance with the standards in the Landscape and Tree Manual.
 - (iii) Include a Tree Mitigation Plan prepared in accordance with the standards herein and in the Landscape and Tree Manual.
 - (iv) Address the relevant approval criteria in sufficient detail for review.
 2. *Approval criteria.* The director shall approve an application for a tree permit to remove a tree if any one of the following criteria is met:
 - (i) The tree is dead.
 - (ii) The tree is in an advanced state of decline with insufficient live foliage, branches, roots, or other tissue to sustain life.
 - (iii) The tree is infested with pests or disease that if left untreated will cause the tree to die or enter an advanced state of decline or will cause other trees to die or enter an advanced state of decline.
 - (iv) The tree is a hazard tree as defined by this title and presents a credible hazard to persons or property requiring immediate removal to abate.
 - (v) The tree is listed on the Nuisance Tree List in the Landscape and Tree Manual.
 - (vi) The tree roots are causing verifiable damage to buildings, utilities, or pavement, and a tree care professional certifies that root pruning or other mitigation will not prevent further damage or will cause the tree to die or enter an advanced state of decline.
 - (vii) The tree location conflicts with areas of public street widening or extension as shown in the City of Glen Rose Thoroughfare Plan.

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- (viii) The tree presents a significant fire risk to a dwelling or limits emergency access for rescue workers, and the risk or access issue cannot be abated through pruning or other means that results in tree retention.
 - (ix) The tree is a stand-grown tree and is not a heritage tree, and an arborist or forester determines that selective thinning will promote overall stand health.
 - (x) The tree is located on a property zoned AG Agricultural and must be removed as part of an agricultural use.
 - (xi) The tree must be removed for new development, and a Tree Mitigation Plan which satisfies all mitigation requirements has been submitted.
3. *Director's determination.* The director's determination shall address the relevant approval criteria. The director shall approve, approve with conditions, or deny the requested tree permit in writing based on the relevant approval criteria.
 4. *Emergency tree permit.* If a hazard tree presents such a clear and present danger to persons, structures, infrastructure, or utilities that there is insufficient time to obtain a permit, a person may remove such a tree prior to obtaining a tree permit. The person completing the removal shall submit a retroactive permit application, including documentation of the hazard, no later than five days after commencing such removal. If the emergency is found not to be credible, the permit shall be denied and the person who removed the tree shall be found in violation of this title.
- b. *Discretionary review procedures.* An applicant may request discretionary review either upon initial application or on appeal to the director's determination on an administrative tree removal permit. The planning and zoning commission shall be responsible for reviewing all requests for a discretionary tree permit. The decision of the planning and zoning commission shall be final.
1. *Submittal requirements.* All discretionary tree permit review applications shall:
 - (i) Include a complete application form.
 - (ii) Include a Tree Removal Plan prepared in accordance with the standards in the Landscape and Tree Manual.
 - (iii) Include a Tree Mitigation Plan prepared in accordance with the standards in the Landscape and Tree Manual.
 - (iv) Include a narrative addressing the approval criteria for discretionary tree permit approval or the administrative approval criteria.
 - (v) Be accompanied by the required fee.
 2. *Approval criteria.* The planning and zoning commission shall approve, approve with conditions, or deny the requested tree permit based upon a determination of whether or not the proposal satisfies the purposes of this section. Relevant considerations for the commission's findings may include but are not limited to:
 - (i) The quality of trees proposed for removal.
 - (ii) Solar access to the subject property.
 - (iii) Views from or within the subject property.
 - (iv) Contributions to the natural environment and community amenities.
 - (v) Overall project aesthetics.
 3. *Approval.* If the planning and zoning commission approves or approves with conditions a proposal through discretionary review, the director shall issue a tree permit in accordance with the planning and zoning commission's determination.

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4. *Expiration.* An approved tree permit issued in connection with a building permit or site development permit shall be valid for the period of that permit's validity (i.e., until the permit expires, the improvements are accepted, or a certificate of occupancy is issued). All other tree permits shall expire one year after issuance. Nothing shall prevent a person from submitting another application for a tree permit if the conditions or circumstances have changed, if a new plan is proposed, or if discretionary review or appeal of the director's determination is sought.
- (2) *Mitigation.* It is a condition of all approved tree permits that removal shall be mitigated in accordance with the mitigation schedule below and the applicable planting standards in the Landscape and Tree Manual. The planning and zoning commission may condition the approval of a discretionary tree permit on alternative mitigation measures.
- a. Removal and mitigation standards.
 1. Tree removal shall be conducted in a manner consistent with tree care industry standards.
 2. When removing required landscape trees, stumps shall be removed below the surface of the ground so that the top of the stump shall not project above the surface of the ground.
 - b. Mitigation schedule. The removal of trees under permit shall be mitigated as follows:
 1. Heritage trees as defined by this title shall be mitigated by planting replacement trees with a total number of caliper inches at the time of planting equal to the total number of caliper inches removed.
 2. Streetscape trees as defined by this title, which are not heritage trees and which are greater than or equal to six-inch caliper, shall be mitigated by planting one replacement tree (minimum three-inch caliper) for each such tree removed.
 3. Unless exempted below, all trees, which are not heritage trees or streetscape trees, and which are greater than or equal to six-inch caliper, shall be mitigated by planting one inch for each 20 caliper inches removed.
 - c. Exemptions. No mitigation is required for the following:
 1. Any tree that is dead, diseased, or in an advanced state of decline.
 2. Any tree listed on the Nuisance Tree List in the Landscape and Tree Manual.
 3. Any tree removed for selective thinning within a stand of trees, as proposed by an arborist or forester.
 4. Any tree removed for agricultural use. However, if the agricultural use is discontinued within three years following issuance, the owner of the land shall be required to provide mitigation in accordance with the schedule above. This requirement runs with the land.
 5. Any tree, which is not a heritage tree, located within a proposed building pad associated with new development.
 - d. Replacement trees shall be selected from the canopy trees on the Preferred Species List and shall be planted and maintained in accordance with all applicable standards in the Landscape and Tree Manual.
 - e. Replacement trees required as mitigation shall be planted in the same or nearby location. If the planting standards in the Landscape and Tree Manual preclude planting a replacement tree within the same or nearby location as the tree that was removed, the director or the planning and zoning commission may require the applicant to plant a replacement tree in another location on the property or plant a replacement tree on public property.

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- f. Replacement trees required as mitigation for removal associated with new development shall be planted prior to issuance of a certificate of occupancy. All other replacement trees shall be planted within one year following issuance of a tree permit.
 - g. If the planning and zoning commission approves an alternative plan for mitigation under a discretionary tree permit, the alternative plan for mitigation shall specify whether and how any mitigation requirements herein apply.
 - h. Mitigation requirements shall remain with the land regardless of ownership.

(3) *Tree protection.*

- a. When any permit is requested which includes ground disturbance in its scope of work, and any trees within 25 feet of the development impact area are to be preserved, the application shall be accompanied by a tree protection plan satisfying the standards in the Landscape and Tree Manual.
- b. Tree protection measures satisfying the standards in the Landscape and Tree Manual shall be in place prior to and throughout all construction activities for all trees to be preserved within 25 feet of the development impact area.

(4) *Violations.*

- a. Violations of any these provisions or failure to comply with their requirements shall constitute a class C misdemeanor. Violations may include, but are not limited to:
 - 1. Removal or alteration of a tree without an approved tree permit, unless exempted.
 - 2. Failure to plant a replacement as required for mitigation.
 - 3. Failure to establish and maintain tree protection measures as required.
 - 4. Failure to plant or maintain any tree subject to the planting and maintenance standards specified in the Landscape and Tree Manual according to such standards.
 - 5. Committing an act or omission resulting in a hazard tree or allowing a hazard tree to exist on a property for which the person is owner or a responsible party.
- b. Each calendar day a violation persists shall be considered a separate offense.
- c. Each removal or alteration of a tree in violation of this section, and each hazard tree caused, shall be considered a separate offense.

(f) *Landscape and tree manual.*

- (1) The city manager is authorized to adopt and amend administrative rules to implement the details of landscape and tree related regulations in this section. These administrative rules shall be adopted by the city council pursuant to title I, chapter 8 and may be amended by the city manager without further action by the city council.
- (2) The administrative rules shall be known collectively as the Landscape and Tree Manual.
- (3) The Landscape and Tree Manual shall include the following:
 - a. Specifications for all types of required landscape.
 - b. A preferred plant list to incentivize the preservation and planting of desirable species suitable for flourishing in Glen Rose.
 - c. A nuisance tree list to establish tree species which are undesirable or harmful to desirable tree species and should therefore be exempt from the protections provided herein.
 - d. Landscape and tree protection, planting, and maintenance standards based on sound scientific principles to ensure plants are provided adequate spacing, soil volume, and protection during

development to grow to maturity and thrive, and to ensure trees do not disrupt other vegetation, the built environment, or functioning streets and pathways.

- e. Landscape and tree plan standards so that submittal requirements, measurements, calculations, and other requirements are clearly explained.
- f. Heritage tree designation standards for the identification of valuable trees.



Landscape
and
Tree Manual

Adopted August 25, 2020

City of Weatherford

Landscape and Tree Manual

First version adopted August 25, 2020.

Developed with the participation and review of the following:

City Council – Paul Paschall, Mayor

Planning and Zoning Commission – Rachel Pattillo, Chair

Pacheco Koch – Nicholas Nelson, Eric Wilhite, Tricia Woliver, Dorothy Witmeyer

For more information regarding landscape and tree preservation,
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Section 1: Introduction

The Landscape and Tree Manual provides a general overview of requirements for the installation and maintenance of landscaping and trees. The purpose of this document is to help property owners, developers, and contractors understand and adhere to all requirements to maximize the benefits of all plantings to the quality of life and character of the community.

This Landscape and Tree Manual combines landscape, screening, buffering, and tree related regulations from Title XII, Zoning Regulations, along with administrative rules for implementing such regulations, in one cohesive guide. Provisions contained within the Official City Code of the City of Weatherford shall override any conflicting policies found herein.

The City Manager has the authority to amend the administrative rules adopted in this Landscape and Tree Manual pursuant to Title I, Chapter 8 of the Official City Code of the City of Weatherford without further action by the City Council. The Planning and Zoning Commission shall complete an annual review of the Landscape and Tree Manual and administrative procedures and may recommend changes to this manual. The Planning Director has the authority to administer the Landscape and Tree Manual. Upon request of the Planning Director, the Planning and Zoning Commission may offer clarification of ambiguities, resolve conflicting requirements, or apply standards to novel situations or other matters requiring interpretation.

Unless stated otherwise, terms in the Landscape and Tree Manual are defined in the Definitions section of Title XII.

Section 2: Landscape Plan Standards

A landscape plan prepared in accordance with the following standards is required when multifamily (5 or more dwellings) or nonresidential landscape requirements apply, when a buffer yard is required, or when alternatives to landscape standards are proposed. For residential development (1-4 dwellings), landscape may be shown on a general site plan or on a separate landscape plan.

Except where otherwise indicated, the following standards apply to all landscape plans. **Refer to Exhibits 3-6 for examples.** An approved landscape plan is required prior to issuance of construction permits. A landscape plan shall include the following minimum information to determine compliance with all applicable landscape and screening requirements:

1. Plans shall be provided at a standard scale on 8.5" x 11", 11" x 17", or 24" x 36" paper.
2. Electronic copies of all plans shall also be provided in a format acceptable to the Planning Director.
3. Plans shall be drawn at a standard engineering scale and include a bar scale and numerical scale and include a directional north arrow.
4. When necessary for clarity, the plans shall be detailed separately on multiple sheets.
5. Plans shall include the following information:
 - Site address or other identifying location information.
 - Location of existing and proposed property lines.
 - Name and phone number of the person who prepared the plan.
 - The date on which the plan was prepared.
 - Label and show all existing and proposed structures and other permanent features
 - Label all existing and proposed utilities and easements.
 - Label and locate all proposed plants and other treatments.
 - Label and show existing trees to be preserved or removed. (Separate plans may be required for tree removal and tree protection; see Section 6 of this manual.)
6. Provide a plant schedule with all proposed plant materials (common and scientific name), size at time of planting, spacing, and quantities.
7. Provide a master materials schedule for any proposed hardscape elements (including but not limited to paving, outdoor furniture, water features, art, or other features).
8. Provide a Landscape Calculation Chart to document how the total landscape requirements (L1, L2, L3) are achieved. **Refer to Exhibit 1.**
9. If applicable, provide a Screening Calculation Chart to document how required screening (S1, S2, S3) is achieved. **Refer to Exhibit 2.**
10. Provide a note referencing the requirement for an irrigation system including rain, moisture, and freeze sensor controls to be installed in all landscaped areas.

Exhibit 1. Landscape Calculation Charts

Exhibit 1A. Landscape Tabulation Chart: Commercial

LANDSCAPE REQUIREMENTS TABULATION CHART		
COMMERCIAL USE		
SITE DATA		
SITE AREA: _____ ACRES (1 acre = 43,560 SF) _____ SQUARE FEET		
PARKING AREA: _____ SQUARE FEET DEPTH: _____ LINEAR FEET		
PARKING QUANTITIES: _____ ROWS _____ SPACES		
LANDSCAPE AREA (L1, L2, L3)	REQUIRED	PROVIDED (UNIT)
25% OF SITE IS REQUIRED TO BE LANDSCAPE AREA		
LANDSCAPE AREA (_____ SF SITE AREA x .25 = _____ SF)	_____ SF (MIN.)	_____ SF
CREDIT FOR TREE PRESERVATION: _____ TREES 6-23" DBH x (_____ SF REQUIRED X .05) = _____ CREDIT	CREDITS	
_____ TREES >23" DBH x (_____ SF REQUIRED X .10) = _____ CREDIT	_____ SF (50% MAX)	
LANDSCAPE PLANTINGS: L2 & L3**	REQUIRED	PROVIDED
L2 : MINIMUM SHRUBS/GROUNDCOVER: 250 PLANTS / ACRE		
L3: MINIMUM TREES PRESERVED OR PLANTED: 6 TREES / ACRE (for the first 10 acres; add 1 tree for each additional acre)		
**50% of all required L2 and L3 MUST be in Streetscape area (between the building and street)		
	50%	
PARKING LOT LANDSCAPE: L1, L2 & L3	REQUIRED	PROVIDED
PARKING LOT ISLANDS: 1 ISLAND IN EACH PARKING ROW PER 150' OF PARKING AREA DEPTH		
	__ (MIN.)	__
L3: MINIMUM PARKING LOT TREES: 1 PER EVERY 12 PARKING SPACES (INCLUDES 2 CANOPY, 2 ORNAMENTAL TREES PER ISLAND)		
PARKING LOT TREES (# OF SPACES / 12 = __)	__ (MIN.)	__

Exhibit 1B. Landscape Tabulation Chart: Industrial

LANDSCAPE REQUIREMENTS TABULATION CHART		
INDUSTRIAL USE		
SITE DATA		
SITE AREA: _____ ACRES (1 acre = 43,560 SF) _____ SQUARE FEET		
PARKING AREA: _____ SQUARE FEET DEPTH: _____ LINEAR FEET		
PARKING QUANTITIES: _____ ROWS _____ SPACES		
LANDSCAPE AREA (L1, L2, L3)	REQUIRED	PROVIDED (UNIT)
15% OF SITE IS REQUIRED TO BE LANDSCAPE AREA		
LANDSCAPE AREA (_____ SF SITE AREA x .15 = _____ SF)	_____ SF (MIN.)	_____ SF
CREDIT FOR TREE PRESERVATION: _____ TREES 6-23" DBH x (_____ SF REQUIRED X .05) = _____ CREDIT	CREDITS	
_____ TREES >23" DBH x (_____ SF REQUIRED X .10) = _____ CREDIT	_____ SF (50% MAX)	
LANDSCAPE PLANTINGS: L2 & L3**	REQUIRED	PROVIDED
L2 : MINIMUM SHRUBS/GROUND COVER: 150 PLANTS / ACRE		
(Provide calculations here)		
L3: MINIMUM TREES PRESERVED OR PLANTED: 6 TREES / ACRE (for the first 5 acres; add 1 tree for each additional acre)		
(Provide calculations here)		
**50% of all required L2 and L3 MUST be in Streetscape area (between the building and street)		
(Provide calculations here)	50%	
PARKING LOT LANDSCAPE: L1, L2 & L3	REQUIRED	PROVIDED
PARKING LOT ISLANDS: 1 ISLAND IN EACH PARKING ROW PER 150' OF PARKING AREA DEPTH		
(Calculate island requirements here)	__ (MIN.)	__
L3: MINIMUM PARKING LOT TREES: 1 PER EVERY 12 PARKING SPACES (INCLUDES 2 CANOPY, 2 ORNAMENTAL TREES PER ISLAND)		
PARKING LOT TREES (# OF SPACES / 12 = __)	__ (MIN.)	__

Exhibit 1C. Landscape Tabulation Chart: One and Two-Family Residential

LANDSCAPE REQUIREMENTS TABULATION CHART		
ONE OR TWO-FAMILY RESIDENTIAL USE		
SITE DATA		
LOT AREA: _____ SF		
LANDSCAPE AREA (L1, L2, L3)	REQUIRED	PROVIDED (UNIT)
10% OF SITE IS REQUIRED TO BE LANDSCAPE AREA		
LANDSCAPE AREA (_____ SF SITE AREA x .10 = _____ SF)	_____ SF (MIN.)	_____ SF
LANDSCAPE PLANTINGS: L2 & L3**	REQUIRED	PROVIDED
L2 : MINIMUM SHRUBS/GROUND COVER: 20 PLANTS PER DWELLING		
L3: MINIMUM TREES PRESERVED OR PLANTED: 10 CALIPER INCHES OR 1 - 6' TREE		
**50% of all required L2 and L3 MUST be in Streetscape area (between the building and street)		
	50%	

Exhibit 1D. Landscape Tabulation Chart: Multifamily Residential

LANDSCAPE REQUIREMENTS TABULATION CHART		
MULTIFAMILY RESIDENTIAL USE		
SITE DATA		
SITE AREA: _____ ACRES (1 acre = 43,560 SF) _____ SQUARE FEET		
PARKING AREA: _____ SQUARE FEET DEPTH: _____ LINEAR FEET		
PARKING QUANTITIES: _____ ROWS _____ SPACES		
LANDSCAPE AREA (L1, L2, L3)	REQUIRED	PROVIDED (UNIT)
20% OF SITE IS REQUIRED TO BE LANDSCAPE AREA		
LANDSCAPE AREA (_____ SF SITE AREA x .25 = _____ SF)	_____ SF (MIN.)	_____ SF
CREDIT FOR TREE PRESERVATION: _____ TREES 6-23" DBH x (_____ SF REQUIRED X .05) = _____ CREDIT	CREDITS	
_____ TREES >23" DBH x (_____ SF REQUIRED X .10) = _____ CREDIT	_____ SF (50% MAX)	
LANDSCAPE PLANTINGS: L2 & L3**	REQUIRED	PROVIDED
L2 : MINIMUM SHRUBS/GROUNDCOVER: 200 PLANTS / ACRE		
(Provide calculations here)		
L3: MINIMUM TREES PRESERVED OR PLANTED: 6 TREES / ACRE (for the first 10 acres; add 1 tree for each additional acre)		
(Provide calculations here)		
**50% of all required L2 and L3 MUST be in Streetscape area (between the building and street)		
(Provide calculations here)	50%	
PARKING LOT LANDSCAPE: L1, L2 & L3	REQUIRED	PROVIDED
PARKING LOT ISLANDS: 1 ISLAND IN EACH PARKING ROW PER 150' OF PARKING AREA DEPTH		
(Calculate island requirements here)	__ (MIN.)	__
L3: MINIMUM PARKING LOT TREES: 1 PER EVERY 12 PARKING SPACES (INCLUDES 2 CANOPY, 2 ORNAMENTAL TREES PER ISLAND)		
PARKING LOT TREES (# OF SPACES / 12 = __)	__ (MIN.)	__

Exhibit 2. Screening and Buffering Tabulation Charts

Exhibit 2A. Screening and Buffering Tabulation Chart: Commercial

SCREENING AND BUFFERING TABULATION CHART		
COMMERCIAL USE		
SITE DATA		
ADJACENT USES: (PROVIDE INFO)		
LOADING AREA: (YES / NO) OUTSIDE/ROOFTOP EQUIPMENT: ()		
PARKING LOT, LOADING AREA, AND EQUIPMENT SCREENING	REQUIRED	MATERIALS PROVIDED
PARKING LOT SCREENING ADJACENT TO STREET	S1	
LOADING AREA SCREENING	S2 / S3	
OUTSIDE/ROOFTOP EQUIPMENT SCREENING	S3	
SITE SCREENING	TYPE REQUIRED	MATERIALS PROVIDED
REFER TO SCREENING TABLE FOR REQUIREMENTS BY ADJACENT LAND USE		
SIDE YARD 1 SCREENING (PROVIDE A		
SIDE YARD 2 SCREENING (PROVIDE A		
REAR YARD SCREENING (PROVIDE A		
BUFFER YARD WIDTHS	REQUIRED	PROVIDED
SIDE YARD 1 BUFFER WIDTH (PROVIDE ADJACENT USE HERE)	___ FT (MIN.)	___ FT
SIDE YARD 2 BUFFER WIDTH (PROVIDE ADJACENT USE HERE)	___ FT (MIN.)	___ FT
REAR YARD BUFFER WIDTH (PROVIDE ADJACENT USE HERE)	___ FT (MIN.)	___ FT

Exhibit 2B. Screening and Buffering Tabulation Chart: Industrial

SCREENING AND BUFFERING TABULATION CHART		
INDUSTRIAL USE		
SITE DATA		
ADJACENT USES: (PROVIDE INFO)		
LOADING AREA: (YES / NO) OUTSIDE/ROOFTOP EQUIPMENT: (PROVIDE INFO)		
PARKING LOT, LOADING AREA, AND EQUIPMENT SCREENING	REQUIRED	MATERIALS PROVIDED
PARKING LOT SCREENING ADJACENT TO STREET	S1	
LOADING AREA SCREENING	S2 / S3	
OUTSIDE/ROOFTOP EQUIPMENT SCREENING	S3	
SITE SCREENING	TYPE REQUIRED	MATERIALS PROVIDED
REFER TO SCREENING TABLE FOR REQUIREMENTS BY ADJACENT LAND USE		
SIDE YARD 1 SCREENING (PROVIDE ADJACENT USE HERE)		
SIDE YARD 2 SCREENING (PROVIDE ADJACENT USE HERE)		
REAR YARD SCREENING (PROVIDE ADJACENT USE HERE)		
BUFFER YARD WIDTHS	REQUIRED	PROVIDED
SIDE YARD 1 BUFFER WIDTH (PROVIDE ADJACENT USE HERE)	___ FT (MIN.)	___ FT
SIDE YARD 2 BUFFER WIDTH (PROVIDE ADJACENT USE HERE)	___ FT (MIN.)	___ FT
REAR YARD BUFFER WIDTH (PROVIDE ADJACENT USE HERE)	___ FT (MIN.)	___ FT

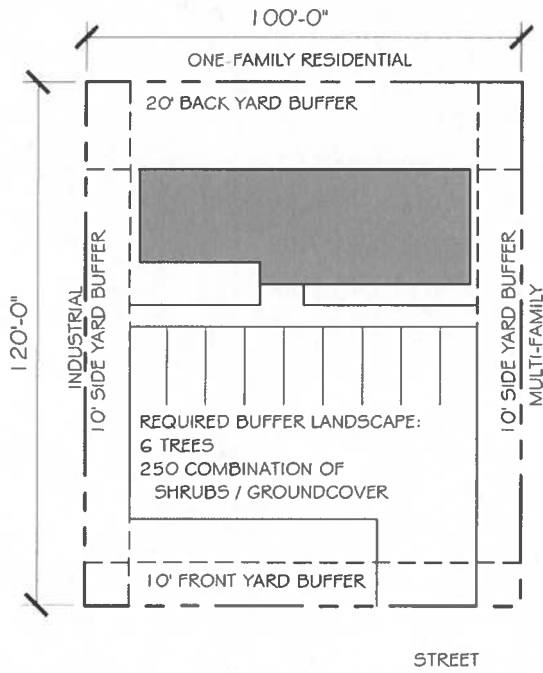
Exhibit 2A. Screening and Buffering Tabulation Chart: One and Two-Family Residential

SCREENING AND BUFFERING TABULATION CHART		
ONE AND TWO-FAMILY RESIDENTIAL USE		
SITE DATA		
OUTSIDE/ROOFTOP EQUIPMENT: (PROVIDE INFO)		
PARKING LOT, LOADING AREA, AND EQUIPMENT SCREENING	REQUIRED	MATERIALS PROVIDED
OUTSIDE EQUIPMENT SCREENING	S1 / S2 / S3	

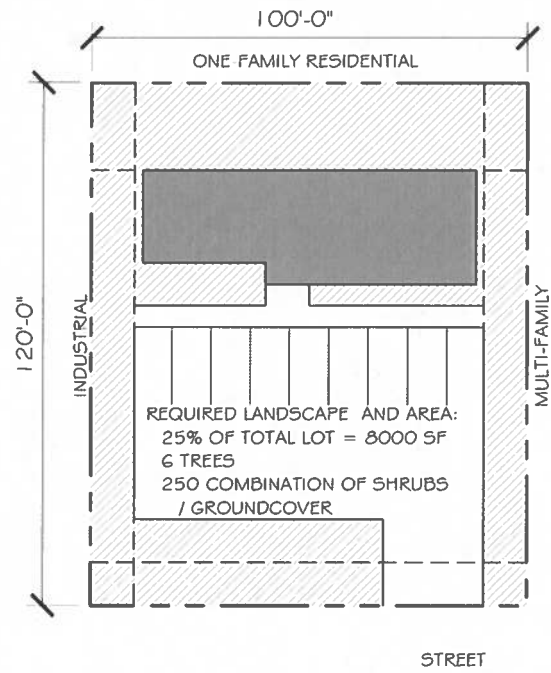
Exhibit 2A. Screening and Buffering Tabulation Chart: Multifamily Residential

SCREENING AND BUFFERING TABULATION CHART		
MULTIFAMILY RESIDENTIAL USE		
SITE DATA		
ADJACENT USES: (PROVIDE INFO)		
LOADING AREA: YES / NO OUTSIDE/ROOFTOP EQUIPMENT: (PROVIDE INFO)		
PARKING LOT, LOADING AREA, AND EQUIPMENT SCREENING	REQUIRED	MATERIALS PROVIDED
PARKING LOT SCREENING ADJACENT TO STREET	S1	
LOADING AREA SCREENING	S2 / S3	
OUTSIDE/ROOFTOP EQUIPMENT SCREENING	S3	
SITE SCREENING	TYPE REQUIRED	MATERIALS PROVIDED
REFER TO SCREENING TABLE FOR REQUIREMENTS BY ADJACENT LAND USE		
SIDE YARD 1 SCREENING (PROVIDE ADJACENT USE HERE)		
SIDE YARD 2 SCREENING (PROVIDE ADJACENT USE HERE)		
REAR YARD SCREENING (PROVIDE ADJACENT USE HERE)		
BUFFER YARD WIDTHS	REQUIRED	PROVIDED
SIDE YARD 1 BUFFER WIDTH (PROVIDE ADJACENT USE HERE)	___ FT (MIN.)	___ FT
SIDE YARD 2 BUFFER WIDTH (PROVIDE ADJACENT USE HERE)	___ FT (MIN.)	___ FT
REAR YARD BUFFER WIDTH (PROVIDE ADJACENT USE HERE)	___ FT (MIN.)	___ FT

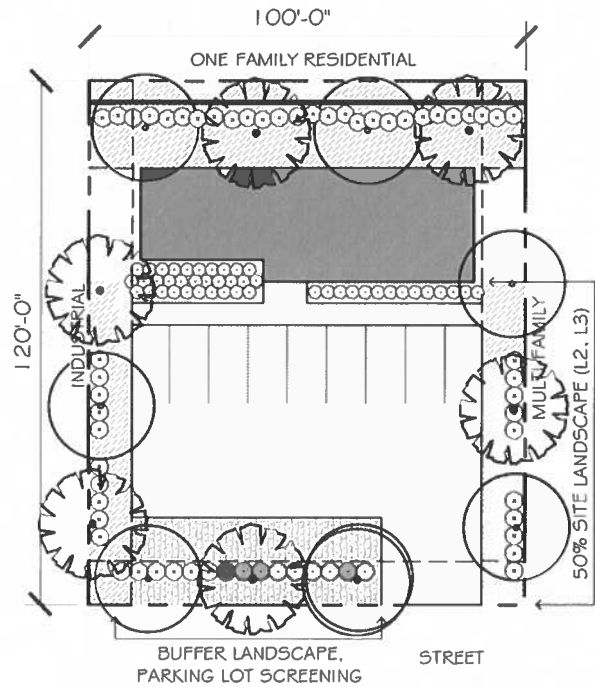
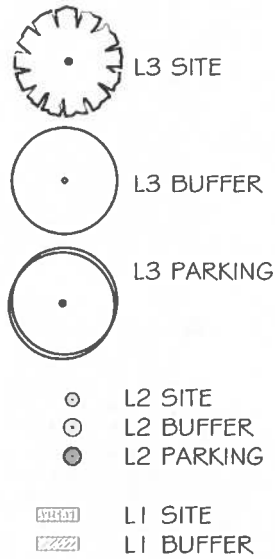
Exhibit 3: Example Landscape Plan – Commercial



CI (COMMERCIAL): BUFFER

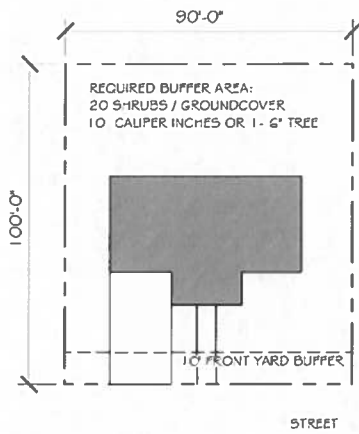


CI (COMMERCIAL): LANDSCAPE AREA

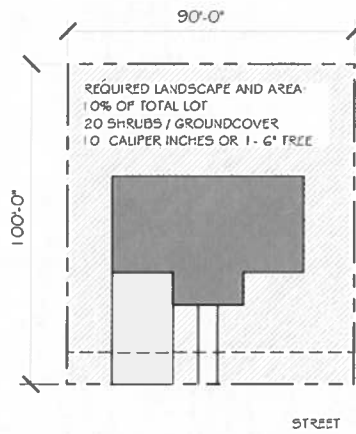


CI (COMMERCIAL): PLANTING REQUIREMENTS FOR SITE, BUFFER, PARKING

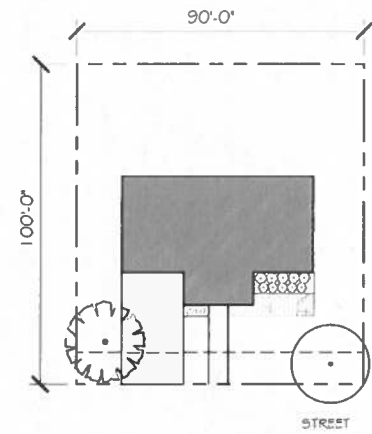
Exhibit 5: Example Landscape Plan – One-Family and Two-Family Residential



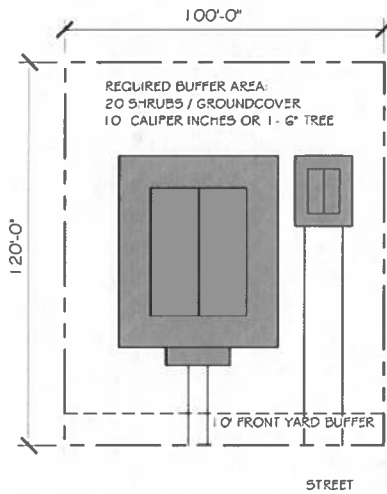
R1 (ONE-FAMILY): BUFFER



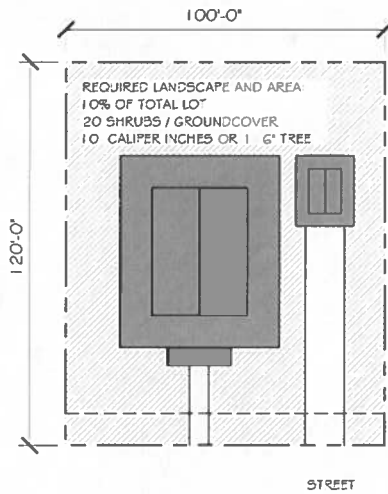
R1 (ONE-FAMILY): LANDSCAPE AREA



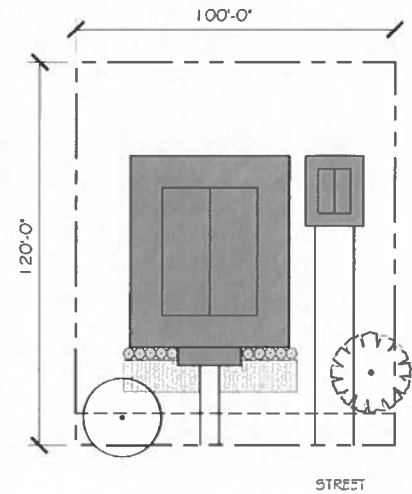
R1 (ONE-FAMILY): PLANTING REQUIREMENTS FOR SITE, BUFFER, PARKING



R2 (TWO-FAMILY): BUFFER

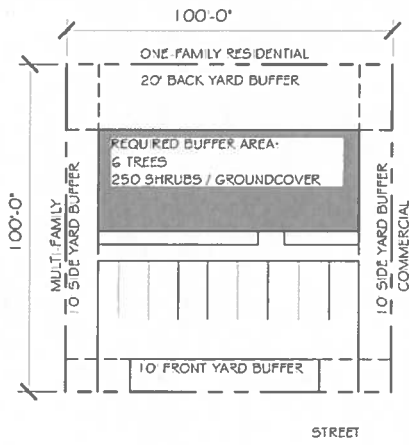


R2 (TWO-FAMILY): LANDSCAPE AREA

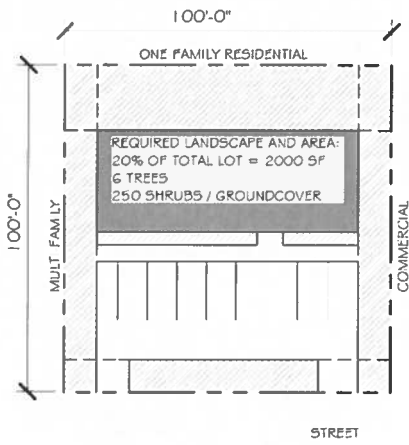


R2 (TWO-FAMILY): PLANTING REQUIREMENTS FOR SITE, BUFFER, PARKING

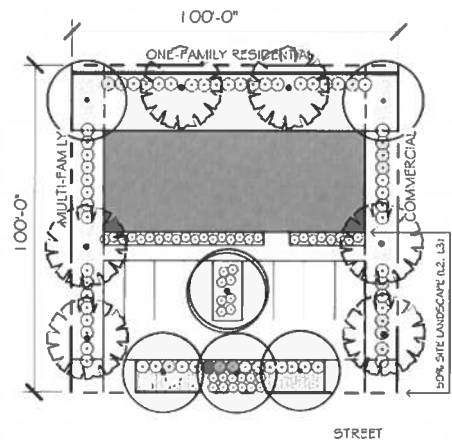
Exhibit 6: Example Landscape Plan – Multifamily Residential



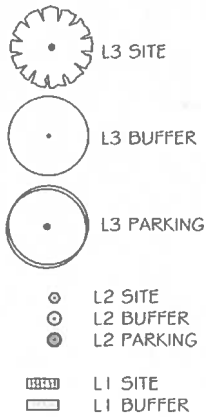
R3 (MULTI-FAMILY): BUFFER



R3 (MULTI-FAMILY): LANDSCAPE AREA



R3 (MULTI-FAMILY): PLANTING REQUIREMENTS FOR SITE, BUFFER, PARKING



Section 3: Landscape and Screening Requirements

Development shall be landscaped, screened, and buffered in accordance with **Tables 1-3** on the following page.

The planting and buffer yard requirements are applied to new development and multifamily and nonresidential expansions. In some instances, partial compliance is acceptable. Consult the Zoning Ordinance or contact Development and Neighborhood Services to determine whether and to what extent these requirements must be met for a specific project.

The screening requirements must be met for all multifamily and nonresidential new construction, expansions, or changes in use, as well as whenever new trash receptacles or mechanical equipment is installed outside.

Trees used to satisfy parking lot landscape requirements do not count toward other requirements.

All plantings shall meet the planting standards and landscape specifications in **Section 4**.

Table 1: Planting Requirements

LANDSCAPE REQUIREMENTS			
	TOTAL LANDSCAPE AREA (L1+L2+L3)	L2: SHRUBS & GROUNDCOVERS	L3: TREES
		A MINIMUM OF 50% OF ALL REQUIRED L2 AND L3 MUST BE PLANTED IN THE STREETScape AREA (defined as the area between the building and the street)	
LAND USE			
COMMERCIAL	25% of lot area	250 plants per acre	6 trees per acre (first 10 acres) 1 tree each additional acre
INDUSTRIAL	15% of lot area	150 plants per acre	6 trees per acre (first 5 acres) 1 tree each additional acre
ONE OR TWO-FAMILY RESIDENTIAL	10% of lot area	20 plants per dwelling	10 caliper inches OR 1 6" tree
MULTIFAMILY RESIDENTIAL	20% of lot area	250 plants per acre	6 trees per acre (first 10 acres) 1 tree each additional acre
ACCESSORY PARKING: MULTIFAMILY AND NON-RESIDENTIAL	648 square feet per required parking island	N / A	2 canopy, 2 ornamental trees per island; 1 tree per 12 spaces total

Table 2: Screening Requirements

SCREENING REQUIREMENTS			
	PARKING AREAS	LOADING AREAS	OUTSIDE EQUIPMENT
LAND USE			
COMMERCIAL	S1 adjacent to street	S2 or S3	S3
INDUSTRIAL	S1 adjacent to street	S2 or S3	S3
ONE OR TWO-FAMILY RESIDENTIAL	N / A	N / A	S1, S2, or S3
MULTIFAMILY RESIDENTIAL	S1 adjacent to street	S2 or S3	S3

Table 3: Buffer Yard Requirements

	SUBJECT LAND USE							
	COMMERCIAL		INDUSTRIAL		ONE OR TWO-FAMILY RESIDENTIAL		MULTIFAMILY RESIDENTIAL	
	BUFFER YARD	SCREENING	BUFFER YARD	SCREENING	BUFFER YARD	SCREENING	BUFFER YARD	SCREENING
ADJACENT LAND USE:								
COMMERCIAL	N / A	N / A	30'	S2	N / A	N / A	10'	S1
INDUSTRIAL	10'	N / A	10'	S2	N / A	N / A	10'	S1
ONE OR TWO-FAMILY RESIDENTIAL	20'	S2	50'	S2	N / A	N / A	20'	S2
MULTIFAMILY RESIDENTIAL	10'	S1	50'	S2	N / A	N / A	10'	S1
PUBLIC RIGHT-OF-WAY	10'	S1	20'	S1	10'	N / A	10'	S1

Section 4: Landscape and Screening Specifications

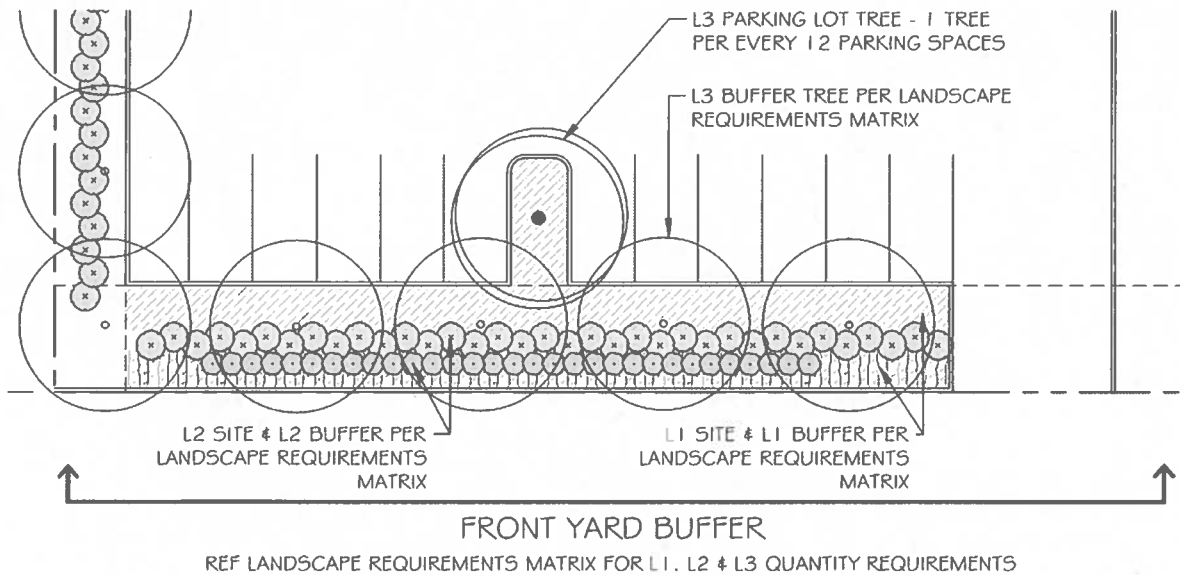
Landscaping and screening shall be designed, installed, and maintained according to the guidelines provided herein. Minimum requirements are determined by land use and zoning district as specified in Section 3 above.

Where possible, applicants shall satisfy all requirements with native and adaptive plant material.

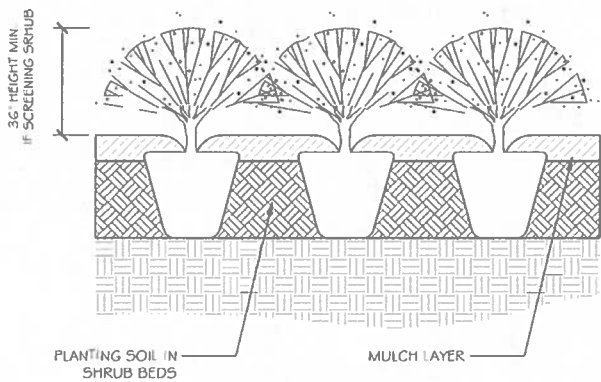
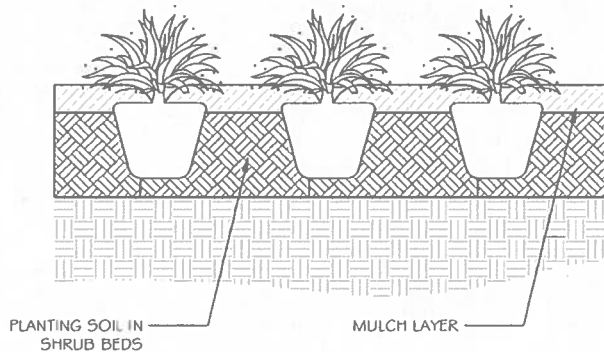
Refer to Section 8 of this manual for Preferred Native and Adaptive Plant Materials.

Part 1. Landscape Specifications

L3: Trees - woody perennial plants, typically having a single stem or trunk growing to a considerable height and bearing lateral branches at some distance above the ground. Installed for shade, buffering, aesthetic, or other purposes. To be provided in appropriate quantity and proportion as described herein. Required trees shall be selected from the Preferred Plant List in this manual and shall be no less than three-inch caliper at the time of planting. Refer to Landscape Requirements table for specific requirements and Preferred Native and Adaptive Plant Materials for approved plant materials.



L2: Shrubs and Ornamental Ground Covers – L2 landscape shall be selected from the evergreen shrub, perennial or seasonal flowering plant, or ornamental grass species on the Preferred Plant List in this manual. Shrubs include woody plant material smaller than a tree with several stems rising at or near the ground, installed for buffering, aesthetic, or other purposes. Ornamental ground covers include low growing, spreading plants, ornamental grasses covering open soil for aesthetic, storm water management, or other purposes. At least two species shall be selected for each 20 plants required. Refer to Landscape Requirements table for specific requirements and Preferred Plant List for approved plant materials.

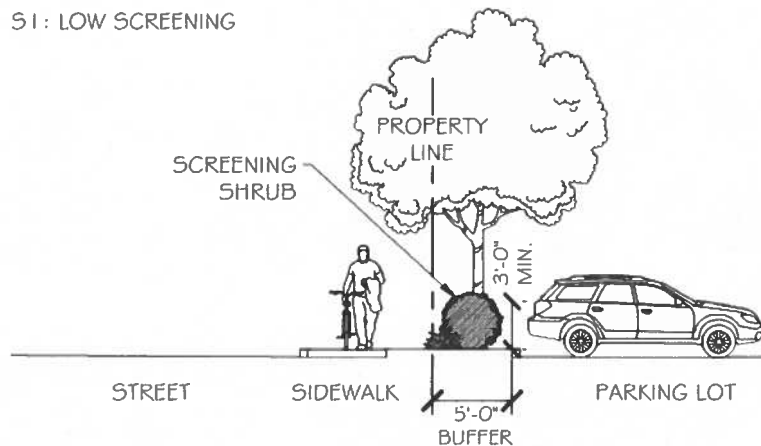


L1: Supplemental Landscape – L1 treatments may include approved L2 ground cover or shrubs, lawn, mulch, bark, decorative rock, outdoor furniture, art installations, and other landscape or hardscape features, and shall present a finished, orderly appearance and reasonably complete coverage of the landscape area. Creativity in combining multiple, complementary elements is encouraged. Except as approved by the Planning Director all landscape areas shall have a minimum area of 200 square feet with a minimum horizontal dimension of 7 feet, measured in any direction.

Part 2. Screening Specifications

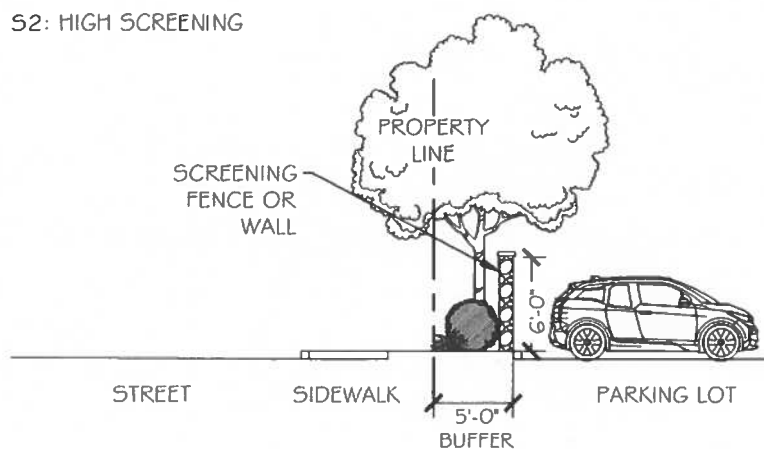
Applies to all new multifamily and nonresidential construction and expansions, change in use on property zoned for nonresidential uses, installation of exterior mechanical equipment. See Section 12-5-5(b)(2).

S1: Low Screening - A screen installed for limited sight-obstruction or access control purposes. S1 shall be shrubs, landscape berm, or other plants with minimum height of 3'-0", except that screening around parking lots in streetscape areas may be a masonry wall with a height of 3'-0" to 4'-0" in height consistent with the architecture of the main building or within a coherent hardscape theme.



S2: High Screening - A screen installed to eliminate clear sight lines between areas with minimal breaks where necessary for controlled access and to maintain required visibility triangles.

S2 screening shall include a berm or fencing such as wood, masonry, or other materials as approved by the Planning Director, along with evergreen shrubs densely planted so as to form a solid hedge or living wall.



S3: Equipment Screening – A screen installed to eliminate clear sight lines to any mechanical equipment, trash bins, loading areas, or storage areas on all sides. Screening shall be a solid plane which is architecturally consistent with the structure on or adjacent to which it is installed. Screening materials at ground level shall be masonry wall or wood fence material or a combination of the two in keeping with the architectural style of the development.

Screening of rooftop equipment shall be sufficient to conceal all such equipment entirely when viewed from any vantage point at the same or lower elevation and shall be provided with a parapet wall for new construction. A parapet wall or architecturally compatible solid materials will be considered for the addition of new equipment on existing rooftops.



Dumpster or Storage Screening Sample



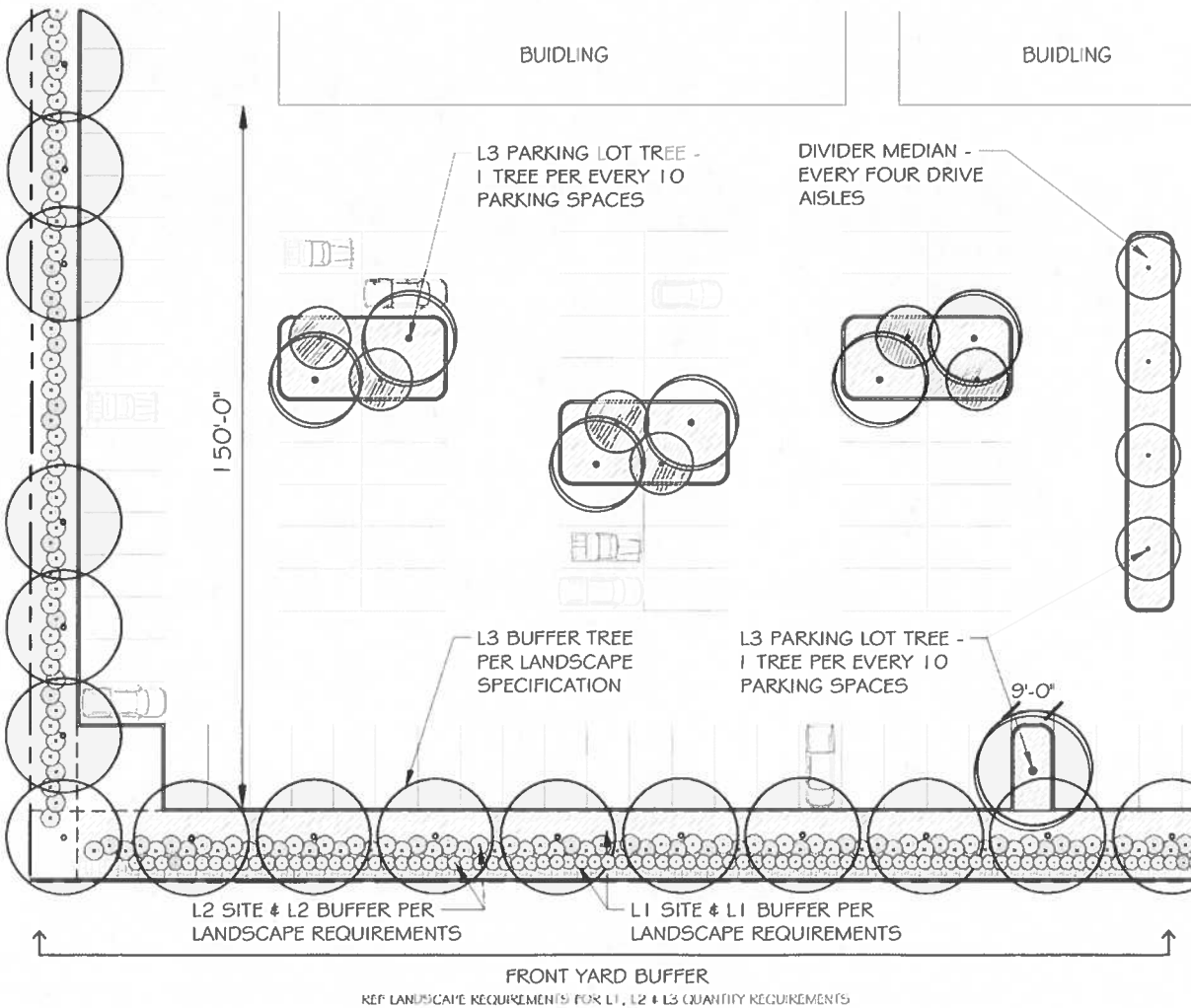
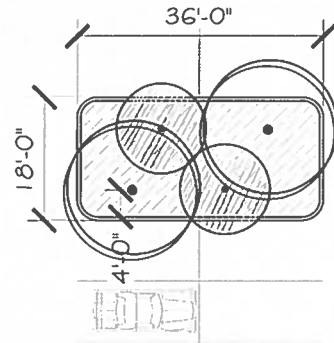
Rooftop Equipment Screening Sample

Part 3. Parking Lot Landscape Specifications

Canopy trees shall be preserved or planted according to the schedule in **Section 3** using a combination of interior or endcap islands or divider medians depending on lot dimensions, number of spaces, other site considerations, and the following parking lot landscape specifications.

Islands with two canopy trees and two ornamental trees shall be provided every 150 linear feet of parking area, including any combination of parking stalls, rows, and drive aisles. Island dimensions shall equal four parking spaces. For example, an island adjacent to 90-degree parking spaces will measure 18 feet wide, 36 feet long, and 648 square feet, as shown at right.

Divider medians shall be provided every four drive aisles, have a minimum width of 10 feet, and provide canopy trees every 20 feet on center.



Part 4. Credits and Substitutions

The Planning Director may approve credits against the requirements above or allow substitutions for certain plantings to incentivize preservation of existing trees or to facilitate creativity or flexibility on challenging or unique sites. A landscape plan is required whenever credits or substitutions are applied.

The preservation of healthy, mature trees is strongly encouraged. Qualifying trees preserved during development will receive credit against L3 tree planting requirements and, for multifamily and nonresidential uses, against total landscape area requirements. In order to qualify, trees shall meet all of the following criteria:

1. The tree is not a nuisance species.
2. The tree is a minimum 6-inch DBH.
3. The tree is located on the subject property, within 75 feet of the public right-of-way.
4. The tree meets all planting requirements of this manual.
5. The tree is healthy and protected from direct and indirect root damage and truck and crown disturbance prior to, during, and following development.

Table 4: Credit for Preservation of Existing Trees

Tree Preserved (DBH)	L3 Tree Credit	Total Landscape Area Credit
UNDER 6"	0	0
6-8"	1	5%
9-23"	2	5%
24-30"	3	10%
31"+	4	10%

Minimum parking requirements for multifamily and nonresidential uses may be reduced by 10% when the minimum L2 and L3 planting requirements are exceeded by at least 15%. This may include the preservation of native or adapted ground covers on unimproved (prairie) portions of lots when an inventory of the plants is provided on the landscape plan.

Substitutions are subject to approval by the Planning Director and may only be applied in the specific situations described:

1. Canopy trees may be substituted for shrubs at the rate of one canopy tree for five L2 plants when a cohesive landscape design provides trees exceeding the L3 requirements.
2. Ornamental trees may be substituted for shrubs at the rate of one ornamental tree for three L2 plants when a cohesive landscape design provides trees exceeding the L3 requirements.
3. Ornamental trees may be substituted for canopy trees at the rate of two ornamental trees for every canopy tree when an overhead utility line prevents planting a canopy tree within a required buffer yard or area where S2 screening is required.

Section 5: Tree Plan Standards

Applies to any site development permit or building permit which includes ground disturbance in its scope of work, or when a tree permit for the removal of two or more trees is requested. All such applications shall be accompanied by tree plans which satisfy all the following requirements.

Part 1. General Standards

Except where otherwise indicated, the following standards apply to all tree removal plans and tree protection plans.

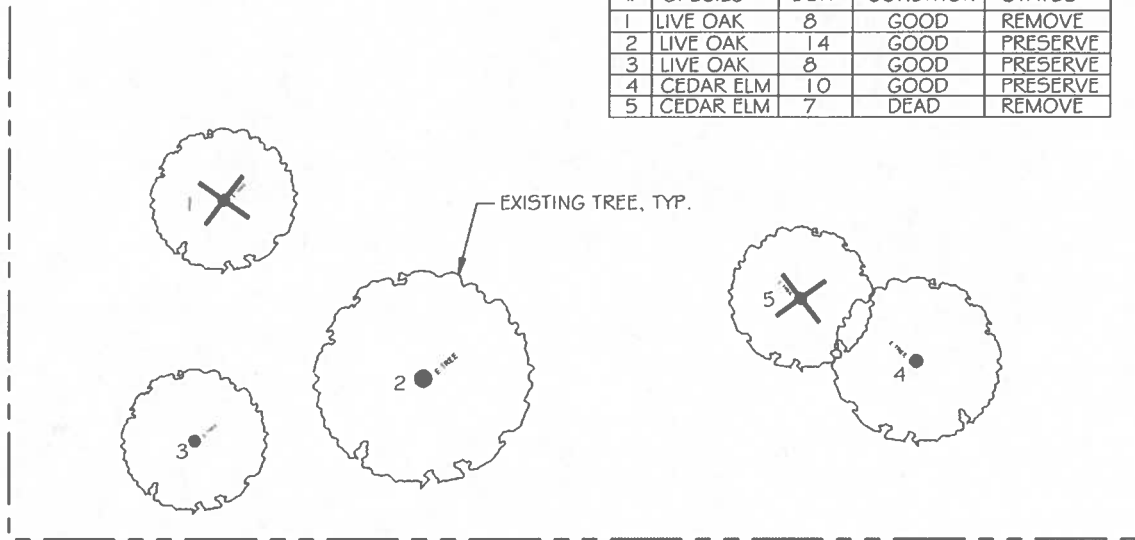
1. All plans shall be provided at a standard scale on 8.5" x 11", 11" x 17", or 24" x 36" paper.
2. Electronic copies of all plans shall also be provided in a format acceptable to the Planning Director.
3. All plans shall be drawn at a standard engineering scale and include a bar scale and numerical scale and include a directional north arrow.
4. All plans shall include the following information:
 - a. Site address or other identifying location information.
 - b. Location of existing and proposed property lines.
 - c. Name and phone number of the person who prepared the plan
 - d. The date on which the plan was prepared.
5. When necessary for clarity, the applicable required plans shall be detailed separately on multiple sheets. When few trees are present, the information may be on a single sheet.
6. At the discretion of the Planning Director, aerial photography, with trees proposed for removal marked with an "X" and proposed replacements clearly indicated, may be substituted for plans meeting the requirements in Parts 1-3 when any of the following applies to a tree permit application:
 - a. No ground disturbance is proposed except for the removal of trees under permit.
 - b. All trees will be preserved and are located more than 25 feet outside of the development impact area.
 - c. Trees are to be removed for agricultural purpose on property zoned AG Agricultural.

Part 2. Tree Removal Plan

Applies to any tree permit for which the removal of two or more trees is requested. All such applications shall be accompanied by a tree removal plan which includes:

1. The subject site and adjacent public rights-of-way.
2. All trees proposed for removal (excluding trees which are exempted from permit requirements) marked with an "X" and indicating species and caliper size.
3. A table indicating each tree proposed for removal under permit, including species, caliper, condition, and whether mitigation is required. The sum total number of trees and caliper-inches requiring mitigation shall also be shown.
4. All tree removal plans associated with new development shall include the location of existing and proposed buildings, utilities, pavement, and other site features.
5. Plan and table shall provide sufficient information to determine whether developer has made all reasonable effort to preserve, protect and maintain existing trees and whether all proposed removal meets the approval criteria.

#	SPECIES	DBH	CONDITION	STATUS
1	LIVE OAK	8	GOOD	REMOVE
2	LIVE OAK	14	GOOD	PRESERVE
3	LIVE OAK	8	GOOD	PRESERVE
4	CEDAR ELM	10	GOOD	PRESERVE
5	CEDAR ELM	7	DEAD	REMOVE



Part 3. Tree Mitigation Plan

Applies to any tree removal for which mitigation is required. All such applications shall be accompanied by a tree mitigation plan which includes:

1. The subject site and adjacent public rights-of-way.
2. All required mitigation trees proposed, including species and size in caliper at time of planting. For proposed streetscape or parking lot trees, distances to existing trees, buildings, hardscape, and utilities shall be shown.
3. A table indicating each proposed mitigation tree, including species and caliper at time of planting, along with a schedule for completion of all plantings required. The sum total number of trees and caliper-inches proposed shall also be shown.

Part 4. Tree Protection Plan

Applies to any grading permit, site development permit, or building permit for which any trees within the development impact area will be preserved. All such applications shall be accompanied by a tree protection plan which includes:

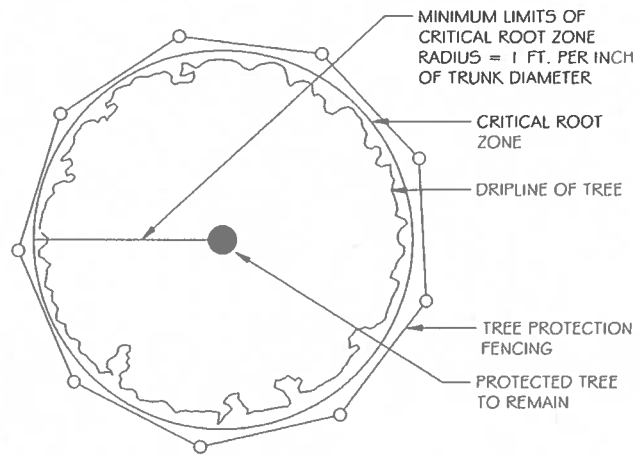
1. The subject site and adjacent public rights-of-way.
2. The location of existing and proposed buildings, utilities, and hardscape.
3. The extent of the development impact area and, specifically, the locations of:
 - a. Construction or demolition of structures and walls.
 - b. Grading and filling.
 - c. Paving.
 - d. Utility and irrigation installation.
 - e. Construction parking.

- f. Materials and equipment storage.
- g. Trenching and boring.
- h. Any other activities requiring excavation or soil disturbance.

4. The trunk locations, driplines, and critical root zones for all trees within the development impact area and within 25 feet of the development impact area, except for any trees proposed for removal, which shall be marked with an "X" indicating removal. The **critical root zone** includes all the area within a radius equal to one foot for every one inch diameter of the tree trunk (as measured at breast height) and is not the same as the dripline. The critical root zone radius is measured outward from the root flare at ground level.

5. The location and type of tree protection fencing compliant with the requirements in this manual and the figure at right, along with any additional preservation measures determined to be necessary for the continued viability of the trees to be preserved.

6. Non-disturbance areas containing trees to be preserved, indicated by shading, and labeling as off-limits to all grading and construction activity.



Section 6: Tree Protection Measures

Applies to any permit which includes ground disturbance in its scope of work, or when a tree permit for the removal of two or more trees is requested, on any site which has existing trees which are not proposed for removal within 25 feet of any proposed ground disturbance or tree removal.

Prior to any ground disturbance other than what is necessary for the installation of tree protection measures and erosion, sediment, and pollutant control measures, the applicant shall:

1. Mark all trees to be preserved with brightly colored vinyl tape or other uniformly brightly colored marking at a height of approximately four feet, such that the marking is visible to workers on foot or driving equipment.
2. Install tree protection fencing such as chain linking fencing, vinyl construction fencing, or other similar fencing, at least four feet in height and supported at intervals of no greater than ten feet, at approximately the drip line around all trees to be preserved within the development impact area or within 25 feet of the development impact area (where tree stands are to be preserved, the fencing shall surround the entire stand), and to remain in place throughout all ground disturbance and construction activities; and
3. Perform a site inspection and document compliance or non-compliance with the tree plan and the tree protection measures described herein and send verification to the Planning Director within one week of the inspection.

Following the completion of items above and throughout all construction activities involving ground disturbance, the following protection measures shall be observed:

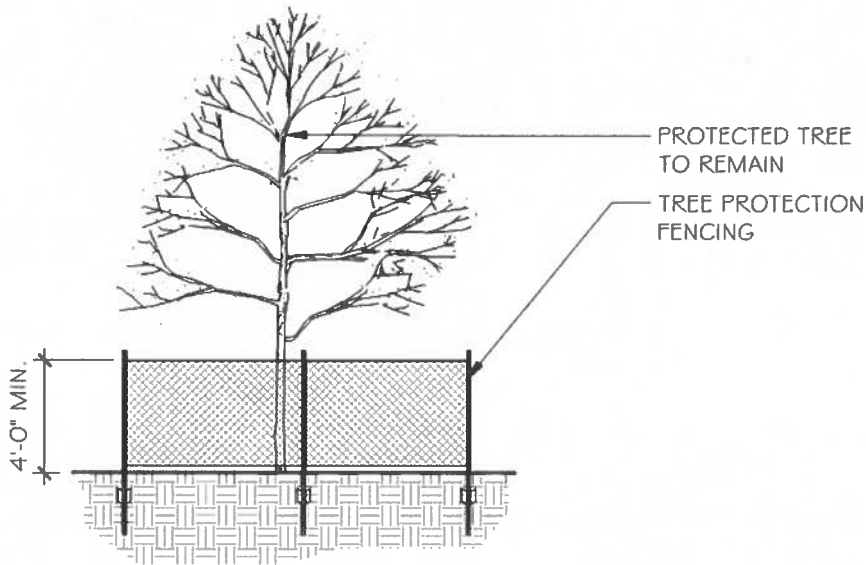
1. The applicant shall perform a monthly (except as otherwise approved by the Planning Director) site inspection and document compliance or non-compliance with the tree plan and the tree protection measures described herein and send verification to the Planning Director within one week of the inspection;
2. No materials intended for use in construction or waste materials accumulated due to excavation or demolition shall be placed within the limits of the critical root zone of any tree which is to be preserved.
3. No equipment shall be cleaned or other liquids (including, but not limited to paint, oil, solvents, asphalt, concrete, mortar or similar materials) deposited or allowed to flow overland within the limits of the critical root zone of any trees to be preserved;
4. No signs, wires or other attachments, other than fencing attachments, shall be placed on trees to be preserved.
5. No vehicular and/or construction equipment traffic or parking shall take place within the limits of the critical root zone of any tree to be preserved other than on existing street pavement, except for purposes of clearing underbrush, establishing the building pad and associated lot grading, vehicular traffic necessary for routine utility maintenance, emergency restoration of utility service, and routine mowing operations;
6. No grade changes shall be allowed within the limits of the critical root zone of any tree to be preserved unless adequate construction methods are approved by the landscape administrator.
7. No paving with asphalt, concrete or other impervious materials that may reasonably be expected to kill a tree shall be placed within the limits of the critical root zone of any tree to be preserved.
8. No heavy equipment, including but not limited to trucks, tractors, trailers, bulldozers, bobcat tractors, trenchers, compressors, and hoists, shall be allowed inside the drip-line

of any tree to be preserved without the specific approval of the Planning Director for limited, incidental access.

For all underground utilities, the following construction methods shall be observed:

1. Boring of utilities under trees to be preserved shall be required in those circumstances where it is not possible to trench around the critical root zone of the tree. When required, the length of the bore shall be the width of the critical root zone at a minimum and shall be a minimum depth of 48 inches.
2. All trenching shall be designed to avoid trenching across the critical root zone of any tree, unless otherwise approved. The placement of underground utility lines such as electric, telecommunications, gas, etc., shall be located outside of the critical root zone of trees to the extent possible. Trenching for an irrigation system shall be placed outside of the critical root zone, except the minimum required single head supply line as allowed to extend into the critical root zone perpendicular to the tree trunk and in the manner that has the least possible encroachment into the critical root zone.
3. All roots two inches or larger in diameter which are exposed because of trenching or other excavation shall be cut off square with a sharp medium tooth saw and covered with pruning compound within two hours of initial exposure.

Upon completion of all construction activities and/or site work, the applicant shall perform a final site inspection and document that all trees subject to the tree protection requirements described herein remained protected throughout construction activities and/or site work and remain unaffected by all such work at the time of its completion. Prior to issuance of a certificate of occupancy for a building permit or acceptance of improvements for a site development permit, the applicant shall send verification of the final inspection to the Planning Director.



NOTE: TREE PROTECTION FENCING SHALL BE PLACED AT OR BEYOND THE DRIP LINE OR CRITICAL ROOT ZONE, WHICHEVER IS GREATER.

Section 7: Planting and Maintenance Standards

Applies to all trees, shrubs, living groundcover, or other materials planted to meet the requirements of this manual and the Weatherford Municipal Code.

The quality and quantity of soil, spacing between plants and other features in or on the ground, and adequate maintenance are integral to the long-term life of all planted materials. The following are minimum guidelines to ensure newly planted landscape and trees are successfully established and maintained to meet the intent of all tree and landscape requirements adopted by ordinance.

Part 1. Landscape Planting Standards

1. All landscape preserved or planted to meet the requirements of this chapter shall be chosen from the Preferred Plant List provided in this manual unless another species included in the Texas SmartScape plant database is approved by the Planning Director.
2. All trees and shrubs preserved or planted to meet the requirements of this chapter shall have well developed leaders and tops and roots characteristic of the species and shall show evidence of proper nursery pruning. All plant materials shall be free of insects, diseases, mechanical injuries, and other objectionable features at the time of planting.
3. Soil for all L2 landscape areas shall be tilled to a depth of 8-12" prior to installation of landscape. All plantings therein shall be mulched to a depth of 2". Trees planted within these areas shall additionally meet the tree planting standards in Part 3 below.
4. Grasses may be sodded, plugged, sprigged, or seeded. In swales, berms, or other areas subject to erosion, solid sod shall be used.
5. Shrubs preserved or planted to meet L2 landscape requirements shall be a minimum of 18" in height. Shrubs preserved or planted to meet S1 or S2 screening requirements shall achieve the applicable sight obstruction within one year of planting.
5. Parking lot landscape areas and any other landscape adjacent to parking or driving surfaces shall be protected from vehicle encroachment by curb or other approved stopping devices.
6. All required landscape areas, including landscape islands or tree wells within parking areas, shall be irrigated with an automatic conventional irrigation system equipped with rain and freeze sensor controls. The irrigation system shall be installed by a licensed irrigator or master plumber.
7. Irrigation of all landscaped area adjacent to any parking and/or driving surfaces shall be installed such that a minimum amount of water is applied to parking and/or driving spaces.

Part 2. Landscape Maintenance Standards

All landscaping and related maintenance shall be the responsibility of the property owner. The following minimum standards shall be required:

1. Landscape areas shall be kept free of trash, litter, weeds, and other such material or plants that are not a part of the landscape.
2. All required plant materials shall be watered by an automatic irrigation system with moisture and rain sensors to ensure minimal water waste and runoff. Alternative irrigation methods consistent with nursery industry standards and verified by a landscape professional may be approved by the Planning Director.

3. All plant materials shall be maintained in a healthy and growing condition as appropriate for the season of the year. The property owner is responsible for regular weeding, mowing of grass, irrigation, fertilizing, pruning, and other maintenance of all plantings as needed.
4. Landscape, including landscape installed to meet S1 or S2 screening requirements, shall not encroach on the sight visibility triangle at intersecting streets or preclude visibility during ingress or egress of driveways and parking lots. The standard clear sight triangle for private drives will normally be 15 feet and the standard clear sight triangle for intersection of streets is 25 feet.
5. Plant materials which exhibit evidence of insects, pests, disease, and/or damage shall be appropriately treated.
6. Plant materials which die shall be replaced with healthy plant material meeting all specifications and planting requirements provided herein within six months.

Part 3. Tree Planting Standards

Trees planted to meet any landscape or tree mitigation requirement shall be chosen from the Preferred Plant List in this manual unless another native or adapted species included in the Texas SmartScape plant database is approved by the Planning Director. Nuisance species identified on the Nuisance Tree List in this manual shall not be preserved or planted in any required landscape area.

Required canopy trees, including any tree required to be planted for mitigation, shall have a minimum height of 10 feet and minimum caliper of 3 inches at the time of planting. Ornamental trees must have a minimum caliper of 2 inches or 65 gal. container size and 8 feet at time of planting.

Trees shall be provided adequate soil volumes to ensure their successful establishment and growth to maturity:

1. Canopy trees shall have a soil volume of at least 600 cubic feet.
2. Ornamental trees shall have a soil volume of at least 400 cubic feet.
3. Topsoil (2 inches) shall have 4%-6% organic matter by weight.
4. To avoid settling issues, no soil mix shall contain more than 15% compost by volume.

Trees shall be provided adequate spacing from new and existing trees, structures, hardscape, and utility infrastructure according to the following standards wherever possible:

1. Ornamental trees shall be spaced not closer than 15 feet on center from other newly planted trees or any existing tree that has been in the ground for over three years.
2. Canopy trees shall be spaced not closer than 30 feet on center from other newly planted canopy trees or any existing tree that has been in the ground for over three years, and not closer than 15 feet of center from other newly planted ornamental trees;
3. Trees shall be planted with the center of their trunks not closer than 2.5 feet from any hard surface paving.
4. Trees shall be planted with the center of their trunks not closer than 4 feet from any underground utility, utility box, or utility pole.
5. Trees shall be planted with the center of their trunks not closer than 15 feet from existing or planned overhead utility lines.
6. Trees shall be planted with the center of their trunks not closer than 10 feet from any fire hydrant or streetlight.
7. Trees shall be planted with the center of their trunks not closer than 10 feet from the furthest protrusion (e.g. roof overhang, wall-mounted equipment) of an existing or

- proposed single-story building and not closer than 15 feet from the furthest protrusion of any existing or proposed multistory building; and
8. Trees shall be planted with the center of their trunks not closer than 35 feet from the intersection of two streets or other rights-of-way.

Where trees are planted within 5 feet of any hard surface paving or utility box, root barriers extending a minimum of 6" below depth of pavement or utility box shall be installed according to the manufacturer's specifications.

Part 4. Tree Maintenance Standards

Trees shall be maintained so as not to become hazard trees as defined in the Tree Preservation chapter.

Trees shall be maintained such that their canopies do not impede the safe use of public streets, sidewalks, paths, or parking areas and shall meet the following minimum clearance standards:

1. 8 feet above a sidewalk or other pedestrian or multiuse path.
2. 13 feet above any travel lane or curb of a local street or any parking space or drive aisle.
3. 15 feet above any travel lane or curb of a collector street; and
4. 18 feet above any travel lane or curb of an arterial street.

Section 8: Preferred Native and Adaptive Plant Materials

Table 5a: Preferred Native and Adaptive Canopy and Ornamental Tree List

CANOPY TREES - DECIDUOUS				
COMMON NAME	SCIENTIFIC NAME	MIN. SPACING	CANOPY SPREAD AT MATURITY	REMARKS
Bald Cypress	<i>Taxodium distichum</i> var. <i>distichum</i>	40' o.c.	70'	Fall Red-brown foliage
Bur Oak	<i>Quercus macrocarpa</i>	40' o.c.	60'	Fall Color
Cedar Elm	<i>Ulmus crassifolia</i>	40' o.c.	70'	Fall Color
Chinquapin Oak	<i>Quercus muehlenbergii</i>	40' o.c.	60'	Native, Fall Color
Eve's Necklace	<i>Sophora affinis</i>	25' o.c.	15'	Spring Pink flowers, Partial Shade
Goldenrain Tree	<i>Koeleruteria paniculate</i>	30' o.c.	30'	Spring Flowers, Fall Color
Lacebark Elm	<i>Ulmus parvifolia</i>	30' o.c.	40'	Lacey bark, Summer Fall color
Pecan	<i>Carya illinoensis</i>	40' o.c.	60'	Native, State Tree of Texas, Nut
Texas Red Oak	<i>Quercus buckleyi</i>	30' o.c.	50'	Fall Red foliage

CANOPY TREES - EVERGREEN				
COMMON NAME	SCIENTIFIC NAME	MIN. SPACING	CANOPY SPREAD AT MATURITY	REMARKS
Afghan Pine	<i>Pinus eldarica</i>	20' o.c.	20'	Fast grower
Arizona Cypress	<i>Cupressus arizonica</i>	20' o.c.	20'	Good Screening
Eastern Redcedar	<i>Juniperus virginiana</i>	20' o.c.	12'	Screening, Spring Blue berries
Japanese Black Pine	<i>Pinus thunbergiana</i> Deodar	25' o.c.	30'	Dark green needles
Southern Live Oak	<i>Quercus virginiana</i>	45' o.c.	70'	Deep green leaves

ORNAMENTAL TREES - DECIDUOUS				
COMMON NAME	SCIENTIFIC NAME	MIN. SPACING	CANOPY SPREAD AT MATURITY	REMARKS
Crape Myrtle	<i>Lagerstroemia indica</i> (cultivars)	12' o.c.	20'	Spring, Summer Spikes of Flowers
Desert Willow	<i>Chilopsis linearis</i>	12' o.c.	20'	Spring, Summer, Fall Flowers
Flowering Crabapple	<i>Malus</i> spp	12' o.c.	30'	Fall color, Spring White, Pink or Red Flower
Japanese Maple	<i>Acer palmatum</i> (cultivars)	12' o.c.	15'	Fall foliage, Shade
Mexican Plum	<i>Prunus Mexicana</i>	12' o.c.	25'	Fall Color, Spring White Flowers, Fruits
Mexican Redbud	<i>Cercis canadensis</i> var. <i>mexicana</i>	12' o.c.	15'	Spring Deep Purple flowers
Prairie Flameleaf Sumac	<i>Rhus lanceolata</i>	12' o.c.	15'	Fall Red Foliage
Redbud	<i>Cercis canadensis</i> var. <i>texensis</i>	12' o.c.	20'	Spring Flowers
Vilox	<i>Vilox agnus-castus</i>	15' o.c.	15'	Spring, Summer, Fall Purple Flowers

ORNAMENTAL TREES - EVERGREEN				
COMMON NAME	SCIENTIFIC NAME	MIN. SPACING	CANOPY SPREAD AT MATURITY	REMARKS
Texas Mountain Laurel	<i>Sophora secundiflora</i>	12' o.c.	8'	Spring - Summer Drooping Flowers
Yaupon Holly	<i>Ilex vomitoria</i> Eldarica	12' o.c.	15'	Summer Red Berries

Table 5b: Preferred Native and Adaptive Shrubs, Grasses, Perennials, and Groundcover List

SHRUB - EVERGREEN			
COMMON NAME	SCIENTIFIC NAME	MIN. SPACING	REMARKS
Barberry	<i>Berberis thunbergii</i>	4' o.c.	Red foliage year round
Compact Burning Bush Hedge	<i>Euonymus alatus 'Compactus'</i>	6' o.c.	Red Fall Color
Chinese Fringe Flower	<i>Loropetalum chinensis</i>	4' o.c.	Winter, Spring Pink Flowers
Indian Hawthorne	<i>Raphiolepis indica</i>	4' o.c.	Spring white flowers
Red Yucca	<i>Hesperaloe parviflora</i>	3' o.c.	Spring, Summer flower spikes
Dwarf Yaupon Holly	<i>Ilex vomitoria 'Nana'</i>	2' o.c.	Summer Red Berries

ORNAMENTAL GRASS			
COMMON NAME	SCIENTIFIC NAME	MIN. SPACING	REMARKS
Chinese Silver Grass	<i>Miscanthus sinensis</i>	24" o.c.	Variogated leaves
Inland Sea oats	<i>Chasmanthium latifolium</i>	3' o.c.	Sun or Shade, Seed spikelets
Little Bluestem	<i>Schizachrium scoparium</i>	3' o.c.	Blue grey stalks to Bronze in Fall
Mexican Feather Grass	<i>Stipa (Nasella) tenuissima</i>	18" o.c.	Foxlike showy plumes
Muhly Grass	<i>Muhlenbergia linheimeri</i>	4' o.c.	Purple/White panicles of seeds

PERENNIALS			
COMMON NAME	SCIENTIFIC NAME	MIN. SPACING	REMARKS
Autumn Sage	<i>Salvia greggii</i>	24" o.c.	Perennial, Spring, Summer Flower
Blackfoot Daisy	<i>Melampodium leucanthum</i>	12" o.c.	Perennial, Summer Yellow Flowers
Mountain Sage	<i>Salvia regia</i>	24" o.c.	Perennial, Spring, Summer Flower
Texas Lantana	<i>Lantana horrida</i>	12" o.c.	Spring, summer, fall yellow flowers, Perennial
Verbena	<i>Verbena canadensis</i>	12" o.c.	Perennial, Summer Purple Flowers

GROUNDCOVER / VINES			
COMMON NAME	SCIENTIFIC NAME	MIN. SPACING	REMARKS
Asian Jasmine	<i>Trachelospermum asiaticum</i>	12" o.c.	Evergreen, Glossy green groundcover
Carolina Jasmine	<i>Gelsemium sempervirens</i>	18" o.c.	Spring yellow flowers, climber
Creeping Fig	<i>Ficus pumila</i>	12" o.c.	Perennial,
Liriope	<i>Liriope muscari</i>	18" o.c.	Evergreen, Groundcover, Summer Purple flowers
Winter Creeper	<i>Euonymus fortune 'Colorata'</i>	12" o.c.	Perennial, Shade tolerant, Groundcover, climber

Section 9: Nuisance Tree List

The following species have been selected as nuisance trees for their undesirable characteristics, shall not be planted in the City of Weatherford or counted towards any tree or landscape requirements, and are exempt from replacement requirements when removed under an approved tree permit:

Table 6: Nuisance Tree List

NUISANCE PLANT LIST	
COMMON NAME	SCIENTIFIC NAME
African Tamarisk	<i>Tamarix Africana</i>
Alamo Blanco	<i>Populus Alba</i>
Athel Tamarisk	<i>Tamarix Aphylla</i>
Beach Sheoak	<i>Causuarina Equisetifolia</i>
Brazilian Peppertree	<i>Schinus Terebinthifolius</i>
Callery (Bradford) Pear	<i>Pyrus Calleryana</i>
Camphor Tree	<i>Cinnamomum Camphora</i>
Carrotwood Tree	<i>Cupaniopsis Anacardioides</i>
Chinaberry Tree	<i>Melia Azedarach</i>
Chinese Parasoltree	<i>Firmiana Simplex</i>
Chinese Tallow Tree	<i>Triadica Sebifera</i>
Fivestamen Tamarisk	<i>Tamarix Chinensis</i>
French Tamarisk	<i>Tamarix Gallica</i>
Japanese Raisin Tree	<i>Hovenia Dulcis</i>
Melaleuca	<i>Melaleuca Quinquenervia</i>
Paper Mulberry	<i>Broussonetia Papyrifera</i>
Peepul Tree	<i>Ficus Religiosa</i>
Popinac	<i>Leucaena Leucocephala</i>
Princess Tree	<i>Paulownia Tomentosa</i>
Salt Cedar	<i>Tamarix Ramosissima</i>
Siberian Elm	<i>Ulmus Pumila</i>
Smallflower Tamarisk	<i>Tamarix Parviflora</i>
Tree of Heaven	<i>Ailanthus Altissima</i>
White Mulberry	<i>Morus Alba</i>

Section 10: Heritage Tree Designation Procedure

Part 1. Heritage Tree Designation

A tree or stand of trees not already designated as a heritage tree by the definition in the Tree Preservation chapter may be nominated for heritage tree designation by the property owner. The nomination shall be submitted to the Planning Director and shall include the following:

1. Letter addressed to the Planning and Zoning Commission providing reasons why the tree or stand of trees merit heritage tree designation and describing how such designation may affect proposed or future development of the subject site.
2. Site plan showing the location of the tree or trees nominated for heritage tree designation; and
3. Any documentation which supports the special significance of the tree or trees.

The Planning Director shall review the complete nomination submittal and present the provided materials and any appropriate supplemental information to the Planning and Zoning Commission with a recommendation to approve or deny the heritage tree designation.

The Planning and Zoning Commission shall review the nomination and the Planning Director's recommendation and determine whether the tree or stand of trees are of landmark importance due to age, size, species, horticultural quality, or historic significance.

Any tree determined by the Planning and Zoning Commission to be of landmark importance following the above procedure shall be designated as a heritage tree.

Part 2. Removal of Heritage Tree Designation

Heritage tree designation shall be removed if a tree permit is approved for the removal of the subject tree or trees.

A tree which is designated as a heritage tree following the procedure in Part 1 above may have such designation removed by the Planning and Zoning Commission. The property owner shall petition the Planning and Zoning Commission to remove heritage designation and shall submit the following to the Planning Director:

1. Letter addressed to the Planning and Zoning Commission providing reasons why heritage tree designation is no longer appropriate, describing the circumstances for bringing the petition to remove heritage tree designation, and disclosing any proposed or future development plans for the site.
2. Site plan showing the location of the heritage tree or trees; and
3. Any documentation which supports the petition to remove heritage tree designation.

The Planning Director shall review the petition and present the provided materials and any appropriate supplemental information to the Planning and Zoning Commission with a recommendation to approve or deny the removal of heritage tree designation.

The Planning and Zoning Commission shall review the petition and the Planning Director's recommendation and determine whether removal of heritage tree designation is warranted.