

Subsection 4.02. Landscape Requirements

4.02.01. Purpose

This Subsection 4.02 Landscape Requirements concerns providing landscape space, trees, vegetation and other materials for the purposes of the following.

(A) Site Design

Complementing the design and location of buildings, streets, and circulation systems and integrating and enhancing the overall site design.

(B) Buffering

Minimizing the impacts of light, noise, movement or activities from adjacent properties.

(C) Conservation

Protecting and conserving water resources and assisting in the management of storm water.

(D) Environmental

Improving air quality, moderating ambient temperatures and lowering energy consumption.

(E) Soil Protection

Protecting and conserving soils from erosion by wind or water or from excavation or grading and the promotion of healthy soil biology.

4.02.02. Scope

(A) Applicability

This [Subsection 4.02 Landscape Requirements](#) shall apply to the following.

- (1) All new developments and all existing developments that are expanding or redeveloping thirty (30) percent or more land area or building area
- (2) New Single Family (SF), Two Family (2F) and Townhome (TH) lots shall comply with [4.02.10. Landscaping Requirements for Single Family, Two Family, and Townhome Lots](#) (Page 133).
- (3) Homeowner Associations (HOAs) and Covenants, Codes and Restrictions (CCRs) for residential developments shall not overrule the requirements of this Subsection 4.02 by penalizing or restricting water conserving landscapes, or requiring landscape materials that do not comply with this Subsection 4.02.
- (4) All open space and landscape areas required by other regulations in the Zoning Ordinance and the Subdivision Ordinance shall comply with the standards of this Subsection 4.02.

(B) General Standards

The preparation of the Landscape and Irrigation plans shall be in accordance with the following standards.

- (1) Best management practices for tree pruning, ANSI A300, shall apply to this Subsection 4.02.
- (2) Nursery standards shall be the American Standard for Nursery Stock, ANSI Z60.1-2004.
- (3) Best management practices for stormwater management as approved by the Director of Engineering Services.
- (4) Irrigation Ordinance (No. 08-12-103, Frisco Code of Ordinances).
- (5) City Water Management Plan.

(C) Landscape Plan

- (1) A Landscape Plan is required for all applicable developments, as described above.
- (2) The Director shall establish and maintain a list of the required documents and elements for a Landscape Plan.
- (3) A Landscape Plan shall be prepared by a Landscape Architect and submitted for review.
- (4) Irrigation drawings shall be prepared by a licensed Irrigator.

(D) Equivalent or Superior Landscape Requirements

- (1) The Planning & Zoning Commission may approve modified landscape requirements that are equivalent to, or exceed, the requirements set forth in within this section in conjunction with the submittal Site Plan only if the following is met.
 - a. The following standards are met:
 - 1. The proposed landscape requirements represent a superior result than that which could be achieved by strictly following the requirements of this section; and
 - 2. The proposed landscape design complies with the stated purpose of this section; and
 - 3. Landscape elements and yard area requirements are provided elsewhere on the site.
 - b. The proposed landscape design either:
 - 1. Incorporates the retention of significant trees and naturally occurring undergrowth; or
 - 2. Better accommodates or improves the existing physical conditions of the subject property.

(E) Landscape Inspections

- (1) The approved landscape design shall be inspected and approved by the City’s Landscape Architect before a Certificate of Occupancy can be issued.
- (2) The landscape construction may be delayed up to six (6) months under special circumstances when the amount of the landscape improvement costs is escrowed with the City or a performance bond is initiated between the City and the property owner.

(F) Maintenance and Enforcement

- (1) The owner of the property shall maintain the landscape pursuant to the design intent and best management practices for landscape.
- (2) The owner of a property that does not comply with these requirements shall be notified and given thirty (30) calendar days to comply.
- (3) If, after thirty (30) calendar days, the landscape still does not comply with the approved Landscape Plan, the City may issue citations for the violation pursuant to code enforcement provisions.

(G) Process Overview

The general landscaping process can be summarized into the three major steps, as shown in [Figure 4.02.02.1: Landscaping Process General Overview](#).



Figure 4.02.02.1:
Landscaping Process General Overview

4.02.03. Approved Plant Materials and Landscape Standards

(A) Approved Plant Materials

- (1) The Director shall establish and maintain a list of approved plants for each landscape zone.
 - a. Plants shall be selected for the appropriate landscape zones as described [4.02.09. \(B\) Landscape Zones](#) (Page [132](#)).
 - b. Other species may be utilized with approval from the City's Landscape Architect.
 - c. Artificial plants are prohibited.
- (2) Tree and Shrub Planting Standards
 - a. Tree size options: All trees shall be one of the following options.
 1. A minimum three (3) inch caliper tree.
 2. A minimum two (2) inch caliper tree and verification that the tree has not been pruned in a "headed back" fashion, which is the pruning of the terminal bud.
 - b. Tree plantings shall not include more than forty-five (45) percent of the same tree species unless otherwise approved by the Director.
 - c. A four (4) foot minimum trunk distance from concrete pavement, utility lines, screening walls, or others structures unless approved or otherwise noted shall be maintained. A six (6) foot minimum trunk distance shall be maintained from back of street curbs.
 - d. Final locations of trees are subject to approval by the City's Landscape Architect.
 - e. Each landscape zone shall be designed to achieve complete coverage of the landscape while not being over planted (i.e., plant spacing on the planting plan shall represent not less than seventy five (75) percent of the mature plant size).
 - f. A layer of fibrous mulch shall be provided in shrub beds and around trees. The root flare on all trees shall be kept exposed.
- (3) Existing trees on-site shall count toward the total canopy coverage requirement, which is thirty-five (35) percent or as shown on the Trees Per Acre requirement in section [4.02.04. Landscape Area and Tree Requirements for Nonresidential, Mixed Use, and Multifamily Zoning Districts](#) (Page [125](#)) including non-protected trees in the [Riparian Buffer](#) (Page [304](#)). Consideration to the overall health of individual existing trees shall be at the discretion of the City's Landscape Architect.

(B) Soils

- (1) Native topsoil shall be protected from erosion or stockpiled.
- (2) Native site topsoil shall be laboratory tested by an accredited laboratory and amended per said laboratory's recommendations to achieve a healthy soil biology.

4.02.04. Landscape Area and Tree Requirements for Nonresidential, Mixed Use, and Multifamily Zoning Districts

All nonresidential, mixed use, and multifamily zoning districts shall comply with the following landscape standards.

REQUIRED AND OPTIONAL LANDSCAPING BY USE					
	Retail	Office/ Non-Retail	Multi- Family	Mixed- Use	OTC
Street Frontage Landscape Areas (Figures on Page 126)					
S1 Urban	O	O	O	R	R
S2 Slip Road ¹	O/R ¹	O/R ¹	O/R ¹	O/R ¹	O
S3 Double Row ²	O/R ²	O/R ²	O/R ²		
S4 Single Row	R	R	R		
Street Median	R	R	R	R	R
Water Resource Landscape Zones for Interior Landscape Areas (Figures on Page 129)					
Z1 Option One – Landscape Edge	R	R	R	R	
Z2 Option Two – Pervious Surface	O	O	O	O	
Façade Landscape Areas (Figures on Page 130)					
F1 Retail Façade	R			R	
F2 Office/Non-Retail Façade		R			
Drive Landscape Areas (Figures on Page 131)					
D1 Ceremonial Drive	O	O	O	O	
Screening/Buffer Areas (Figures on Page 137)					
B1 Solid Screening Wall	R	R	R		
B2 Screening Wall w/ Topographic Changes	R	R	R		
B3 Partially Solid Wall	O	O	O		
B4 Living Screen	O	O	O		
B5 Natural Area w/ Enhanced Buffer	R	R	R	R	
TREES PER ACRE	12	12	15	8	8
Notes: O = Optional; R = Required					
¹ Required in the Preston Road Overlay District.					
² Required in the Preston Road Overlay District where a slip road is not feasible.					

Required Landscape Elements

- 1** Streetscape
- 2** Ceremonial drive (optional)
- 3** Main drive aisle
- 4** Water Resource Zone
- 5** Screening Buffer

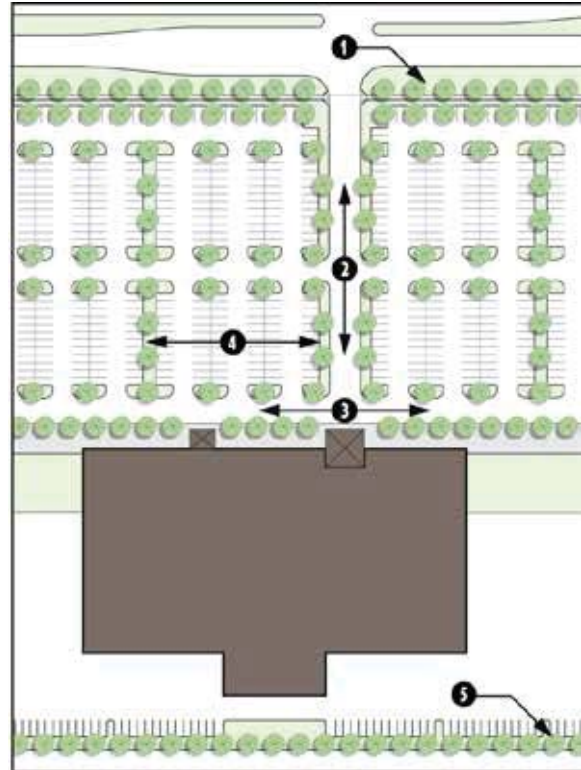


Figure 4.02.04.1: Landscape Areas

4.02.05. Street Frontage Landscape Areas

STREET TYPE S1

Urban Street Frontage

- 1** Thoroughfare Type A, B, C, D, F, or G
- 2** Sidewalk 15' minimum width to building; Continuous frontage
- 3** Trees 30' on center, in tree wells or grates; Minimum 500 square feet structural soil per tree or equivalent.
- 4** Median Where applicable
- 5** Build-to-line Applicable for all projects with a Build-to-Line

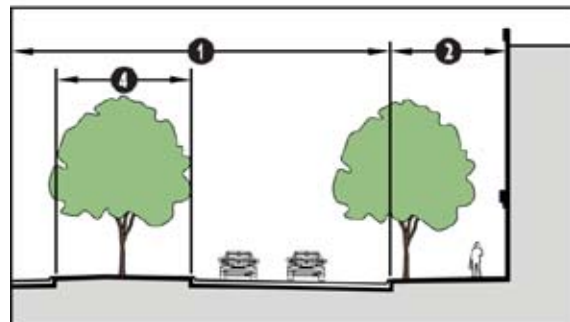
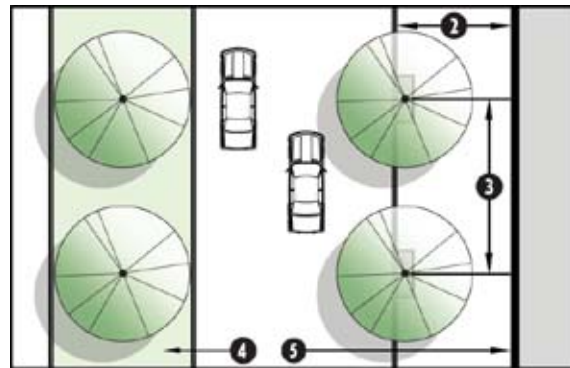


Figure 4.02.05.1: Urban Street Frontage

STREET TYPE S2

Slip Road Street Frontage

- 1** Thoroughfare Type A or B;
Required in Preston Road Overlay, optional in other zones ¹
- 2** Landscape edge 8' width
- 3** Parking 24' drive aisle;
2 rows of parking, with 20' parking stalls;
One 9' wide landscape space at every 4th parking space, as shown
- 4** Sidewalk 15' minimum to building
- 5** Trees 3 rows aligned and centered in landscape spaces
- 6** Enhanced paving bands Brick or concrete pavers

¹ If used in other zones, must be uniform in the development (prohibited as infill).

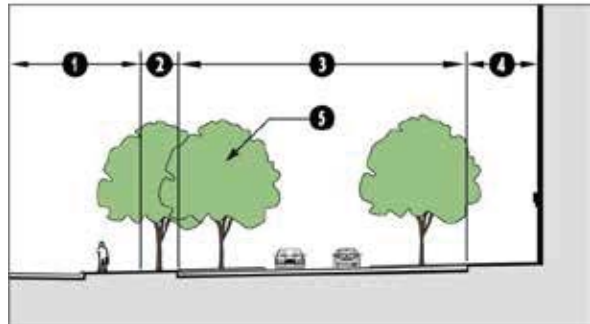
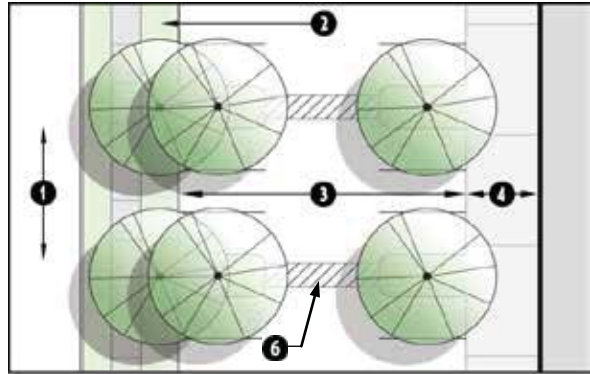


Figure 4.02.05.2: Slip Road Street Frontage

STREET TYPE S3

Double Row Street Frontage

- 1** Thoroughfare Type A or B
Required in Preston Road Overlay where slip road is not feasible. Optional in other zones
- 2** Landscape edge 30' width;
50' in Preston Road Overlay Rural Corridor
- 3** Trees 2 aligned rows, 4' minimum from pavement;
30' on center
- 4** Parking Edge 2' vehicle overhang, exclusive of landscape edge, required for 18' parking spaces (not required for 20' spaces with wheel stops);
No vegetation over 6' in height
- 5** Parking area

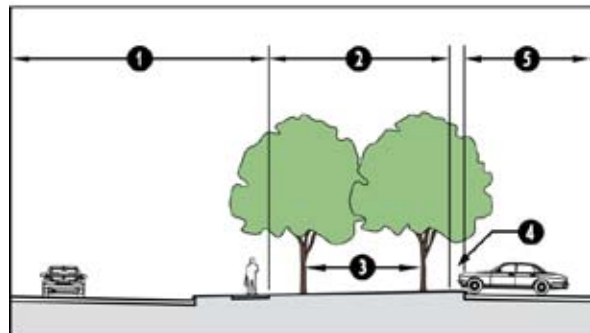
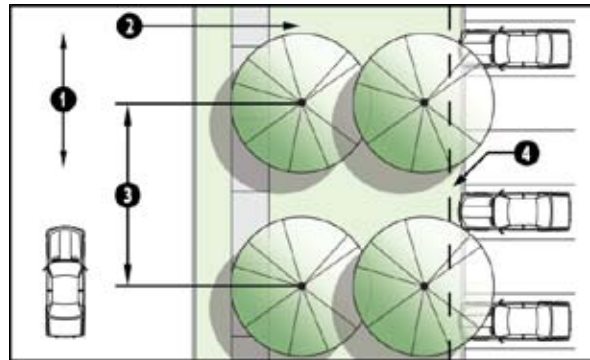


Figure 4.02.05.3: Double Row Street Frontage

STREET TYPE S4

Single Row Street Frontage

- 1** Thoroughfare Type A or B
- 2** Landscape edge 25' width
30' along U.S. Hwy. 380 and S.H. 121
- 3** Trees One row, centered in landscape edge;
30' on center
- 4** Parking Edge 2' vehicle overhang, exclusive of landscape edge, required for 18' parking spaces (not required for 20' spaces with wheel stops);
No vegetation over 6' in height
- 5** Parking area

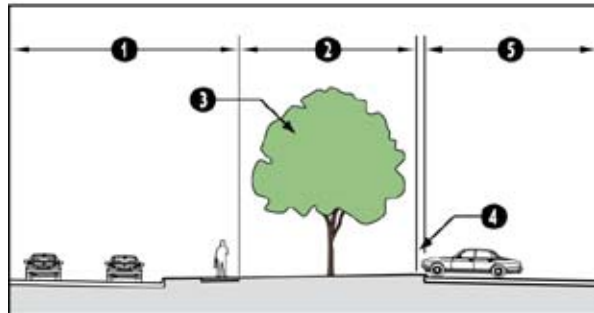
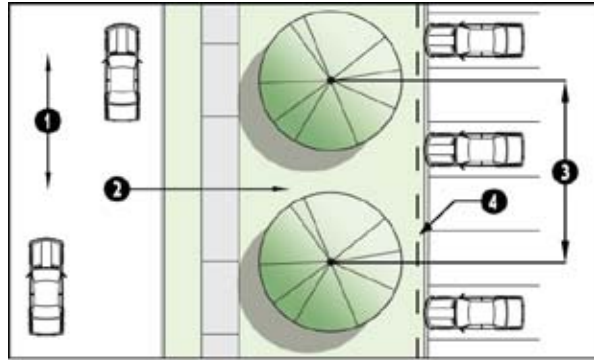


Figure 4.02.05.4: Single Row Street Frontage

STREET MEDIAN

Median in a Public Street

- 1** Thoroughfare Type A & B
- 2** Landscape median See Thoroughfare Design Standards Ordinance
- 3** Trees 35' on center;
Center in median
- 4** Median nose 50' clearance per Thoroughfare Standards

Development adjacent to Type 'A' and 'B' thoroughfares are required to provide, or pay a fee for, one 3" caliper large tree per 70 linear feet of frontage for each side of the street.

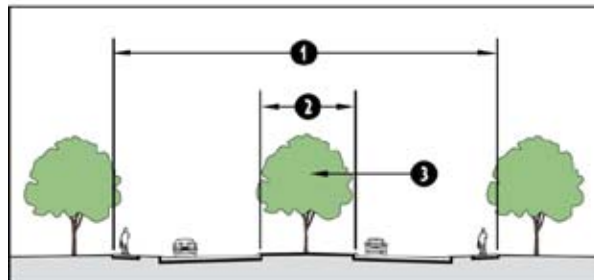
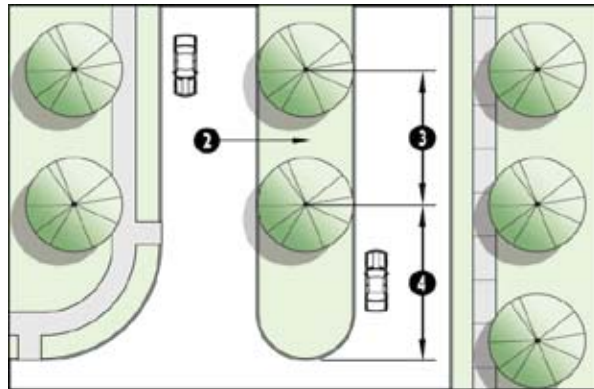


Figure 4.02.05.5: Median in a Public Street

4.02.06. Water Resource Landscape Zones for Interior Landscape Areas

WATER RESOURCE ZONE TYPE Z1

Option One – Landscape Edge

- 1** Landscape buffer 12' minimum width¹;
5 percent of the parking surface area, including drive aisles, for nonresidential;
7 percent of the parking surface area, including drive aisles, for multifamily;
- 2** Stormwater BMP Engineered bioswale or bioretention
- 3** Trees One tree per 500 square feet of landscape area
- 4** Parking lot Grade parking lot to drain towards landscape area
Design with wheel stops or curb cuts to allow drainage into landscape buffer

¹ May be wider based on stormwater runoff and exclusive of detention basis.

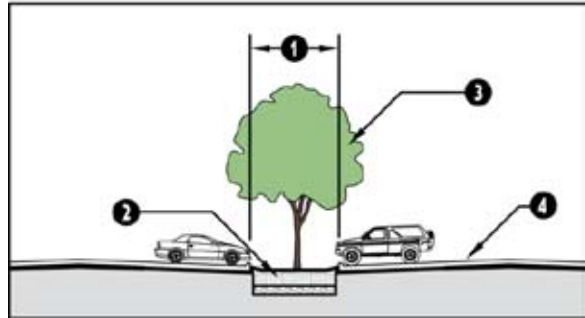
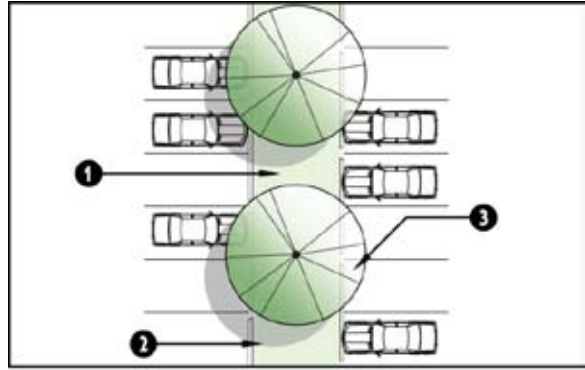


Figure 4.02.06.1: Water Resource Zone – Option One

WATER RESOURCE ZONE TYPE Z2

Option Two – Pervious Surface

- 1** Pervious pavers 5 percent of the parking surface area, including drive aisles, for nonresidential;
7 percent of the parking surface area, including drive aisles, for multifamily
- 2** Structural soil Per industry standards (provide details);
Provide drainage and details in Civil drainage plans
- 3** Small island Less than 500 square feet
- 4** Trees 36' on center;
One per 500 square feet of pervious paver plus the landscape island area

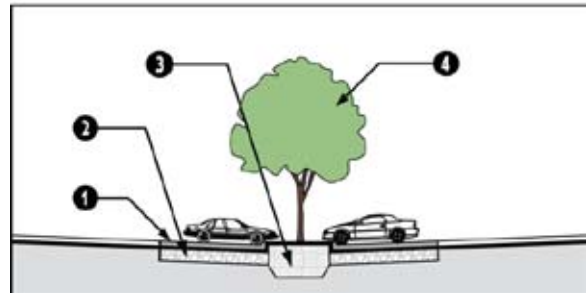
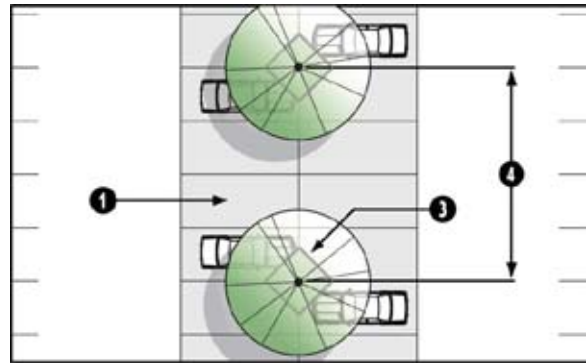


Figure 4.02.06.2: Water Resource Zone – Option Two

4.02.07. Façade Landscape Areas

FAÇADE TYPE F1

Retail Shopping Center Façade

- 1 Sidewalk 15' minimum to building
- 2 Main drive aisle 24' minimum width
- 3 Trees, façade 30' on center¹ in grates or tree wells²
- 4 Parking island 9' minimum width; Terminus of parking rows at main drive aisle
- 5 Trees, parking Center in landscape
- 6 Parking rows

¹ Structural soil or equivalent required per industry standard (provide details).
² Not required for section where an arcade is provided or hard awning (not fabric) extends over the sidewalk.

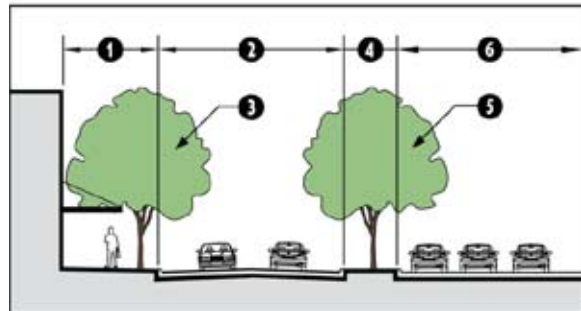
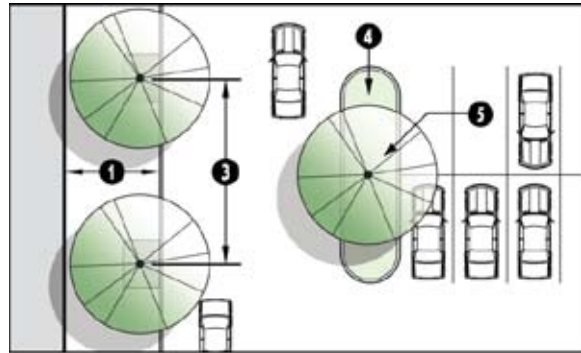


Figure 4.02.07.1: Retail Shopping Center Façade

FAÇADE TYPE F2

Office / Non-Retail Center Façade

- 1 Façade South and West Façades with glazing
- 2 Landscape area 15' minimum adjacent to structure
- 3 Trees, façade 30' on center or as appropriate for species
- 4 Sidewalk 6' minimum width
- 5 Main drive aisle 24' minimum
- 6 Parking island 9' minimum width; Terminus of parking rows along the main drive aisle; Equal to 2 parking spaces
- 7 Parking lot
- 8 Trees, parking Center in landscape island

Offices in Mixed-Use zone shall provide Retail Shopping Center Façade (Figure 4.02.07.1).

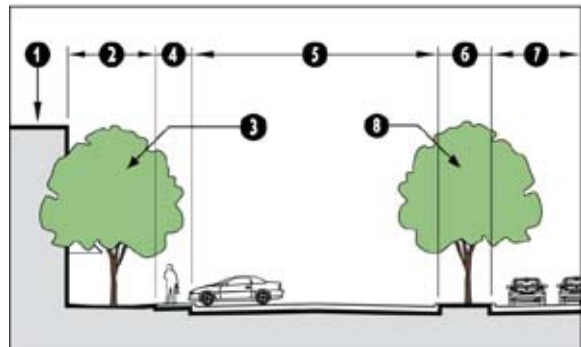
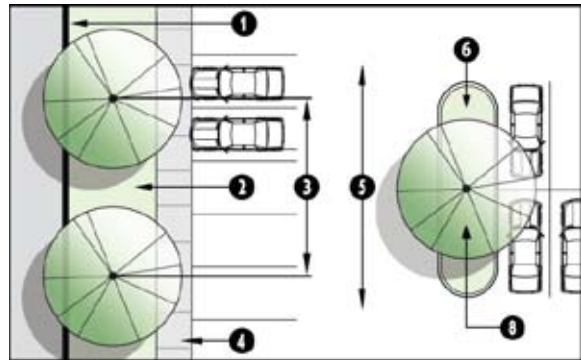


Figure 4.02.07.2: Office / Non-Retail Center Façade

4.02.08. Drive Landscape Areas

DRIVE AISLE TYPE D1

Ceremonial Drive (Optional)

- 1** Landscape area 10' minimum;
May include Water Resource Zone
- 2** Entry drive aisle 24' minimum;
On axis with building main entry
- 3** Parking rows Landscape terminus on main drive aisle
- 4** Trees, ceremonial drive 30' on center or as appropriate for species;
Center in 10' wide landscape area
- 5** Trees, façade 30' on center¹ in grates or tree wells²

¹ Structural soil or equivalent required per industry standard (provide details).

² Not required for section where an arcade is provided or hard awning (not fabric) extends over the sidewalk.

³ With Director approval, trees may be clustered and trees required by other various landscaping sections may be clustered within a Ceremonial Drive.

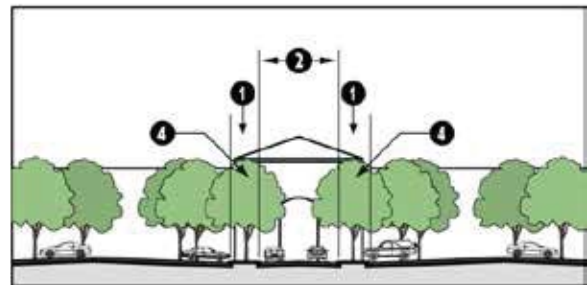
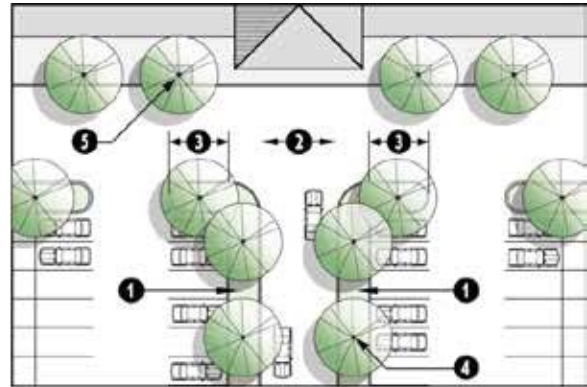


Figure 4.02.08.1: Ceremonial Drive

4.02.09. Landscape Type Requirements for Nonresidential, Mixed Use, and Multifamily Zoning Districts

(A) Intent

This section 4.02.09. establishes the landscape types (i.e., landscape zones) to be used to fulfill the landscape area requirements established in [4.02.04. Landscape Area and Tree Requirements for Nonresidential, Mixed Use, and Multifamily Zoning Districts](#) (Page [125](#)).

(B) Landscape Zones

A landscaping zone is a portion of the landscape area having plants with similar water requirements, site conditions or functions. The following are the three types of landscape zones.

(1) Natural Landscape Zone

A landscape zone composed of native and adapted plants that do not require irrigation after establishment.

(2) Water Resource Landscape Zone

A landscape zone that is designed to capture, filter, reuse or infiltrate rainwater with the purpose of protecting and conserving water resources and can be one of the following.

- a. Equal to at least five (5) percent for nonresidential and at least seven (7) percent for multifamily of the impervious parking area, the Water Resource Zone shall be located adjacent to parking surfaces and shall be used to capture, slow, filter and absorb storm water before entering the storm water system. Acceptable Best Management Practices include bio-retention, filter strips, and bio-swales as specified by locally accepted standards.
- b. Rainwater Harvesting: A system for collecting rainwater and or graywater in cisterns or water bodies and using it for irrigation and/or other purposes.

(3) High Water Usage Landscape Zone

A Landscape Zone composed of high-water usage or non-drought tolerant turf and other plants may be used within the landscape design. This is not a required zone.

(C) Water Use Requirements

(1) Exemptions

- a. Cemeteries;
- b. Ecological restoration projects and landscape designs that do not require a permanent irrigation system;
- c. Landscapes that are irrigated solely with reclaimed water or storm water where a connection to the City water system is not proposed; and
- d. City parks, and recreation areas, golf courses, street medians and school athletic fields and play areas.

(2) Implementation of Water Use Requirements

- a. Landscape zones shall be used in the landscape design and water use calculations.
- b. If the [Landscape Water Allowance \(LWA\)](#) (Page [291](#)) is not exceeded, then various combinations of landscape zones may be used on any given property including a water resource zone equal to five (5) percent of the impervious parking surface.

(3) Landscape Water Allowance (LWA)

- a. For design purposes, the LWA establishes the upper limit of annual applied water for the established landscape area.
- b. The [Landscape Water Allowance \(LWA\)](#) (Page [291](#)) shall be calculated for each [Landscape Plan](#) (Page [123](#)) with a "Calculator [Form](#)" maintained by the Director.

- (4) Estimated Landscape Water Use (ELWU)
The [Estimated Landscape Water Use \(ELWU\)](#) (Page [285](#)) shall be calculated using the “Calculator Form.”
- (5) Alternative Plant Coefficient (Pc) or Irrigation Efficiency (IE) Approval
An alternative [Plant Coefficient \(Pc\)](#) (Page [300](#)) or [Irrigation Efficiency \(IE\)](#) (Page [290](#)) may be approved by the Director in calculating the ELWU if:
 - a. The calculations are based on a methodology or test data that has generally been endorsed or approved by the landscape profession; or
 - b. Specific microclimate or soil conditions or landscape design elements warrant their adjustment.

(D) Irrigation Hydro-Zones

Each irrigation zone shall apply water to plants with similar water and light requirements (e.g., plants in a High Water Usage Zone shall be watered separately from plants in a Natural Landscape Zone). Areas within ten (10) feet from the curb may be irrigated only with one of the following:

- (1) Drip irrigation, or
- (2) Efficient low precipitation nozzles as may be approved by the Director.

4.02.10. Landscaping Requirements for Single Family, Two Family, and Townhome Lots

Single Family (SF), Two Family (2F), or Townhome (TH) developments shall comply with the following:

(A) Residential Tree Requirements: Landscape Plans and drawings are not required.

Residential Zoning District	Number of Medium or Large Trees Required Per Lot
RE	6
SF-16	5
SF-12.5	4
SF-10	4
SF-8.5	3
SF-7	2
OTR	2
PH	1
2F	2
TH	1

(B) Model home landscaping: Home builder shall submit the following drawings and information prepared by a Landscape Architect with an application for a Building Permit.

- (1) Provide Landscape Water Use calculations, pursuant to [4.02.09. \(C\) Water Use Requirements](#) (Page [132](#)).
- (2) Landscape and irrigation drawings that use of Natural Landscape, Water Resource and High Water Usage (optional) landscape zones.

(C) Basic Home Builder landscape packages for individual lots

Provide drought tolerant plants able to survive stage three drought restrictions pursuant to the City Drought Contingency Plan. Bermuda will be allowed as a drought tolerant turf; however, alternative native drought tolerant grasses, which will remain green while using fifty (50) percent less water, shall be offered as an alternative.

(D) Required Landscaping for Rights-of-Way (see Thoroughfare Design Standards [TSD] Ordinance)

RESIDENTIAL STREET TYPE R1

Front Entry

- 1** Front Yard
- 2** R.O.W. Type F per TDS Ordinance
- 3** Pavement 30' width F/F
- 4** Trees 35' on center;
3 ½ - inch caliper;
6' minimum from the face of curb;
4' minimum from sidewalk
- 5** Sidewalk easement 2' wide

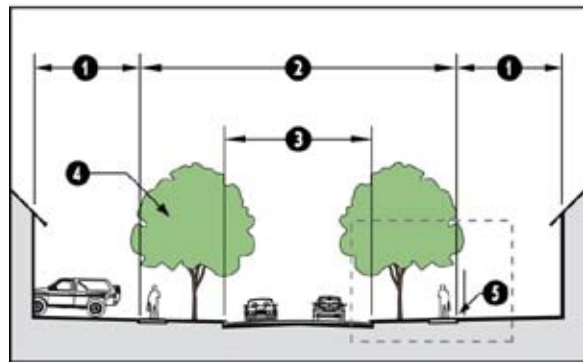
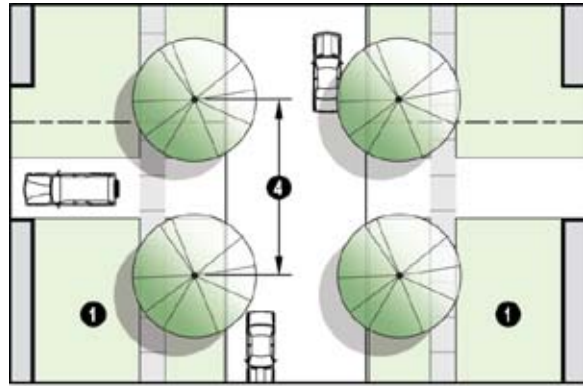
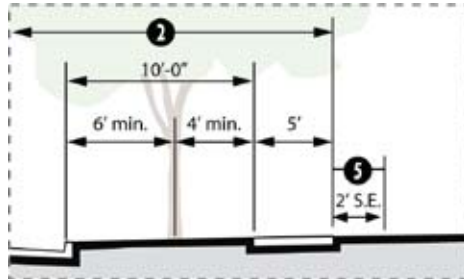


Figure 4.02.10.1: Residential Street, Front Entry

RESIDENTIAL STREET TYPE R2

Rear Entry

- 1** Front Yard
- 2** R.O.W. Type G per TDS Ordinance
- 3** Pavement 26' width F/F
- 4** Trees 35' on center;
3 ½ - inch caliper;
6.5' minimum from the back of curb;
4' minimum from sidewalk
- 5** Sidewalk easement 2' wide

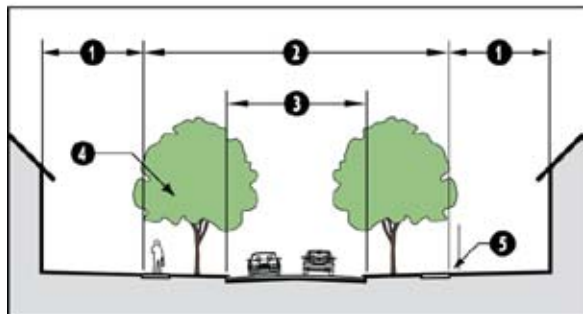
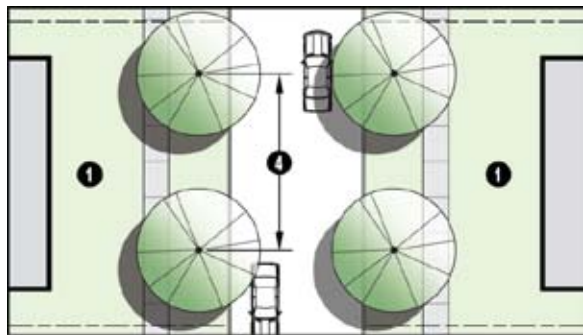
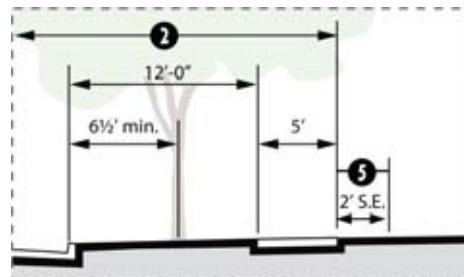


Figure 4.02.10.2: Residential Street, Rear Entry