

Sec. 7.05. - Landscaping requirements.

The provisions of this section:

1. Establish standards for landscaping of nonresidential and multifamily development and surface parking lots.
2. Establish tree-planting requirements for new single-family residential development.
3. Provide for reduction hydrocarbons to improve air quality.
4. Provide for reforestation of the urban area.
5. Establish standards and requirements for the installation of irrigation systems.

(Ord. No. 2721-3-08, § 1(Exh. A), 3-25-2008)

Sec. 7.05.1. - Standard planting materials.

1. Minimum caliper for trees required under this section is three inches.
2. Minimum height required:
 - a. Shade trees: Ten feet.
 - b. Ornamental trees: Eight feet.
3. Materials and planting standards must meet the American Association of Nurserymen, Inc., American Standard for Nursery Stock (latest edition).

(Ord. No. 2978-12-10, § 11, 12-14-2010)

Sec. 7.05.2. - Multifamily district and nonresidential landscaping requirements.

These standards shall apply to all multifamily and nonresidential districts and to any area within a planned development district containing less restrictive landscaping standards.

1. The minimum landscaping area for the following multifamily and nonresidential districts shall be not less than ten percent of the area of the site:

"MF-12" Multifamily

"MF-18" Multifamily

"CBD" Central Business District

"LR" Local Retail

"SC" Shopping Center

"LC" Light Commercial

"GB" General Business

"CC" Corridor Commercial

"IT" Industrial Technology

"LI" Light Industrial

"HI" Heavy Industrial

2. The minimum landscaping area for the following nonresidential districts shall be not less than 15 percent of the area of the site:

"GO" Garden Office

"O" Office

3. Landscaping along street rights-of way:

- a. A 15-foot landscape buffer strip shall be required adjacent to the right-of-way line of all dedicated public streets with a right-of-way of 100 feet or more, except when adjacent to United States Highway 75 and State Highway 121, where it shall be 25 feet in which no building structure or parking shall be permitted.
- b. Along dedicated public streets with less than 100 feet of right-of-way, the landscape buffer strip shall be a minimum of ten feet wide.

4. Landscape buffer planting requirements:

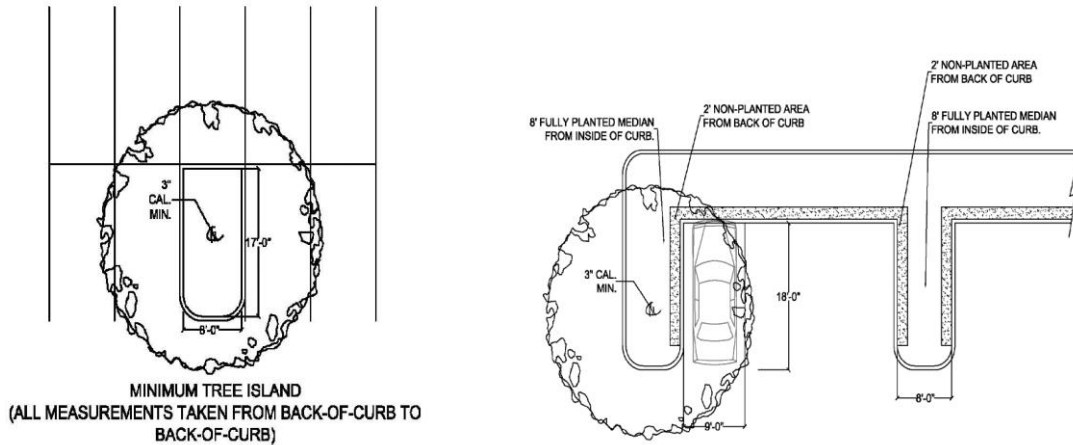
- a. For all lots one shade tree for every 40 feet of street frontage, or portion thereof and one ornamental tree for every two shade trees is required.
- b. No more than 50 percent of the landscape buffer area shall be planted with turf.
- c. For lots with greater than 100 feet of street frontage, one shade tree for every 40 feet of of street frontage, or portion thereof and onen ornamental tree for every two shade trees is also required.

Exception: The requirements for a landscape buffer and tree planting may be modified in the central business district by the planning and zoning commission with an approved landscaping plan allowing for adequate pedestrian circulation and handicap access.

5. Surface parking lot landscaping:

a. Planting requirements:

- i. Retail uses: One shade tree and one ornamental tree for every 40 parking spaces shall be planted from the outside edge of the parking lot and dispersed within the parking lot area.



- ii. Nonretail uses: One shade tree and one ornamental tree for every 30 parking spaces shall be planted, starting from the outside edge of the parking lot, distributed such that one tree per 20 spaces is distributed in the parking lot and the remainder dispersed within the building site.
- iii. Required parking greater than 200 parking spaces shall be subdivided into separate parking areas of not more than 200 spaces. These parking areas shall be separated by a landscaped area with a minimum width of ten feet.
- iv. A two-foot-wide non-planted pervious surface area adjacent to the back of the curb shall be installed adjacent to all parking spaces. This area may include mulch, crushed granite, river rock, or similar material.
- v. No parking space shall be more than 50 feet from the center point of any city approved parking lot tree. These trees shall not include trees required for street right-of-way landscape buffer plantings or other landscape requirements.
- vi. All parking lot islands shall be no less than eight feet wide and a minimum of 17 feet in length or the length of the adjacent parking stall; totaling no less than 136 square feet in area. All dimensions are taken from back-of-curb to back-of-curb. This is the minimum landscape area required for tree islands. "Diamond" islands are not allowed. All islands must be fully landscaped.

- vii. A parking lot island, meeting the requirements of section vi., shall be located at both ends of every interior and peripheral parking row, regardless of the length of the row.
 - viii. Parking spaces adjacent to a street right-of-way shall be screened along the entire length of the parking area. Such screening shall extend and wrap around the entire side of all end parking spaces. The screen shall be of evergreen shrubs, berms or a combination of both. Both berms and shrubs must be a minimum of 42 inches above the average grade of the parking lot curbs. The slope of a berm shall not exceed a 4 to 1 gradient, and the top of the berm shall be rounded, without a "peaked" appearance. Shrubs, when used, shall be installed at a ratio of one per 50 square feet of landscape buffer, and shall be arranged so that by themselves or in combination with a berm, they create a continual, unbroken screen.
 - ix. The required width of landscaped buffer may be reduced by up to 50 percent during plan review when public improvements are necessary.
 - x. All landscaped areas shall have fully automated underground irrigation systems. Irrigation system plans and their approval shall be accomplished in accordance with section 7.05.5. of this Code and be consistent with the city water conservation ordinance.
 - xi. All landscaped areas shall be protected by a raised six-inch concrete curb. Pavement shall not be placed closer than the drip line of the tree at the time of installation, unless a root barrier approved by the director of parks and recreation is utilized.
 - xii. Where an existing parking area is altered or expanded to increase the total number of spaces by 1/3 or more of the total existing spaces, then the entire parking lot shall be updated to meet the current landscape standards. This shall include interior parking lot landscaping, parking screening, and required landscaping for street frontages.
 - xiii. All peripheral parking rows shall not contain more than ten continuous parking spaces without a landscape median.
 - xiv. Landscaped areas may include shrubs, trees and groundcover in combination with mulch, crushed granite, river rock, decorative pavers or similar material. Such materials shall be limited to 50 percent of the landscaped area and shall be approved by the parks department.
6. Landscaping for corner lots. Corner lots at the intersection of two major or larger thoroughfares classified as P8D, P6D, M6D, M4D, M4U, C4U shall comply with the following landscaping requirements in addition to the required plantings for the landscaped buffer and parking lot landscaping:
- a. A minimum 20-foot wide landscaped buffer shall be located along all street rights-of-way beginning at the corner and extending 175 feet or to the closest driveway. Beyond this

- point, the landscaped edge may be gradually reduced (over a distance of 25 feet) to 15 feet in width;
- b. Where the city traffic engineer has determined the need for a right-turn lane, the landscape easement may be reduced to a minimum of ten feet (see section 8.05.2., thoroughfare design standards); the total amount of landscape easement reduced (in square feet) must be relocated within the site;
 - c. A minimum landscaped area of 900 square feet shall be located at the intersection corner of the lot. This landscaped area shall be provided within an area measured a minimum distance of 40 feet from the projected corner of the intersection on both sides of the lot. No trees shall be planted in this area.
7. Landscaping/screening for parking lots adjacent to residential areas. Where parking is within 50 feet of property zoned for residential purposes and is not otherwise screened from view, a continuous screen of evergreen shrubs (five-gallon minimum) of not less than 42 inches in height shall be planted a maximum of three feet on center adjacent to the parking lot.
8. Additional requirements for multifamily districts:
- a. In addition to the required landscaped buffer, eight square feet of landscaping for each parking space shall be provided within the parking lot to include one shade tree per ten parking spaces; and
 - b. One shade tree per 1,000 square feet of required open space shall be provided.

(Ord. No. 1984-9-01, 9-6-2001; Ord. No. 2338-9-04, § 1, 9-28-2004; Ord. No. 2593-2-07, § 1(Exh. A), 2-13-2007; Ord. No. 2721-3-08, § 1(Exh. A), 3-25-2008; Ord. No. 2978-12-10, § 11, 12-14-2010)

Sec. 7.05.3. - Tree planting requirements for new single-family residential development (attached and detached).

These standards shall apply to all new attached and detached single-family residential developments and to any area within a planned development district containing less restrictive landscaping standards:

1. Two shade trees shall be planted for each dwelling unit.
2. All required trees shall be planted prior to request for final building inspection of the dwelling unit.
3. Landscape buffer planting requirements:
 - a. Where screening walls are required by section 7.07.4, the following requirements shall be applied:
 - i. One shade tree and one ornamental tree shall be required for every 40 feet of street frontage or portion thereof.

(Ord. No. 2425-7-05, § 1, 7-26-2005)

Sec. 7.05.4. - Landscape maintenance requirements.

1. Where a landscape plan has been approved, all plant material shall be maintained in a healthy and growing condition, and must be replaced with plant material of similar variety and size if damaged, destroyed, or removed.
2. Where a landscape plan has been approved, landscaped areas shall be kept free of trash, litter, weeds, and other such materials and plants not a part of the landscaping. Materials including mulch, rocks and decorative pavers shall be maintained in accordance with the approved landscape plan.
3. Except in single-family (attached or detached) districts, an automatic irrigation system must be installed in all required landscaped areas and all front yards along thoroughfares with a right-of-way in excess of 80 feet. All irrigation systems shall be maintained in proper operating condition and in accordance with the requirements of this Code.
4. Any person desiring to install and maintain landscaping materials and irrigation facilities within the city right-of-way must first enter into and execute a median right-of-way landscape and irrigation agreement with the city.
5. Entryway or amenity features within city right-of-way shall be developed under the responsibility of a homeowners' association or commercial property owners' association. Documents shall be filed in accordance with section 8.20, mandatory homeowners' association, of this Code.
6. Diameters of existing trees are measured at four feet above grade. If the tree is on a slope, measurement shall be from the high side of the slope. Measure above unusual swells in the trunk.
7. To determine the diameter of a multitrunk tree, measure all the trunks; add the total diameter of the largest trunk to one-half the diameter of each additional trunk. Diameter measurements should be accurate to the nearest one-half inch. Trees may be measured with a caliper, cruise stick, standard tape measure or diameter tape

(Ord. No. 2721-3-08, § 1(Exh. A), 3-25-2008)

Sec. 7.05.5. - Landscape plan approval.

1. The applicant shall submit landscape plans with all applications for non-single family residential building permits to the planning and development department.
2. The applicant shall submit landscape plans for areas which include public rights-of-way, parks, and greenbelts to the department of parks and recreation. The applicant shall also submit as-

built plans for areas which include public rights-of-way, parks, and greenbelts drawn to scale upon completion but prior to final acceptance.

3. The landscape plan shall be sealed by a Texas registered landscape architect. The city shall provide the applicant with a landscape review checklist and shall evaluate the appropriateness of the landscape plan and may approve it, or approve it subject to stipulations.
4. New landscape plans shall be submitted and landscaping shall be updated to meet the requirements of this Code when:
 - a. The site is being redeveloped; or
 - b. There is an increase in the existing square footage of building area of 25 percent.

(Ord. No. 2338-9-04, § 1, 9-28-2004; Ord. No. 2721-3-08, § 1(Exh. A), 3-25-2008)

Sec. 7.05.6. - Irrigation plan requirements.

1. No person shall install an irrigation system in the city without first having obtained a permit authorizing such installation from the office of the city's department of building and code compliance. In addition to the permit fee established by the city and such other information as may be required by the chief building official, an application installation of an irrigation system must be accompanied by a full set of plans setting forth the design and operation parameters of the irrigation system to be installed, which plans must comply with this section 7.05.6
2. The city shall provide the applicant with an irrigation system plan review checklist, shall evaluate the appropriateness of the irrigation system plan, and shall approve the plans or approve the plans subject to stipulations. Irrigation plans must comply with all State of Texas design and installation requirements including, but not limited to, applicable provisions of V.T.C.A., Administrative Code tit. 30, ch. 344. In addition, the installation and operation of all irrigation systems must comply with the requirements of the city's water conservation ordinance, as amended, as described in the Code of Ordinances section 14-14.1.
3. In addition to the provisions of V.T.C.A., Administrative Code tit. 30, ch. 344, as amended, all new irrigation systems shall meet the following requirements:
 - a. The irrigation plan shall be sealed by a licensed irrigator or Texas registered landscape architect.
 - b. The system must include an automatic controller and sensors that prevent the operation of irrigation during rainfall or in freezing weather.
 - c. All non-turf landscape areas shall be designed with drip irrigation and/or pressure compensating tubing (no above-ground spray).
 - d. All landscaped areas (including areas of turf-grass), regardless of size, located between the sidewalk and curb/pavement edge for any development shall be designed with drip irrigation and/or pressure compensating tubing (no above-ground spray).

- e. All drip irrigation and/or pressure compensating tubing shall be designed and installed according to manufacturer's specifications. For subsurface installation, application rate shall not exceed .21 inches per hour.
 - f. Turfgrass areas utilizing irrigation rotors are to be designed and installed using low-angle nozzles.
 - g. Irrigation heads shall be installed to provide maximum distribution uniformity. The system shall be designed and installed to provide a distribution uniformity of 63 percent DULQ or better.
 - h. The irrigation design shall prevent overspray on impervious surfaces and excessive runoff.
 - i. Irrigation systems that vary from the standards of this Code and are designed to minimize water usage may be reviewed and approved by the city, provided, however, the design and installation requirements must at all times comply with V.T.C.A., Administrative Code tit. 30, ch. 344, as amended.
4. New irrigation systems for non-single family developments installed in landscaped areas (including turfgrass) that are less than ten feet in width and adjacent to impervious surfaces, or installed in landscape islands with an area of 200 square feet or less shall be designed with drip irrigation and/or pressure compensating tubing (no above-ground spray).
5. All new irrigation systems for single-family homes shall have separate zones for a drip system (drip irrigation and/or pressure compensating tubing) around the foundation.
6. A certified landscape irrigation auditor shall conduct the following required irrigation audits and inspections:
- a. Installation audit and inspection: Immediately following installation, an irrigation system audit and inspection shall be required for all new irrigation systems. For new developments, documentation of the audit and inspection shall be submitted to the city prior to issuing a certificate of occupancy. The audit and inspection must include an evaluation of the system distribution uniformity and actual zone precipitation rate. The audit shall be performed according to the latest edition of the Recommended Audit Guidelines, published by the Irrigation Association, 6540 Arlington Boulevard, Falls Church, Virginia 22042-6638. Distribution uniformity shall be measured on the largest turfgrass area zone of the irrigation system. Forms for submission and documentation of audit and inspection information shall be made available by the city.
 - b. Recurring inspections: An irrigation system audit and inspection shall be required for all irrigation systems, new and existing, in non-single-family developments and shall be submitted to the city once every three years and shall be conducted in the same manner as set forth in subparagraph a., above, regarding the installation audit and inspection. The city shall establish a timeline and procedures for all developments to submit irrigation system audit and inspection documentation to the city for review. Forms for submission and documentation of inspection information shall be made available by the city.

7. When existing irrigation systems are expanded by more than 25 percent (25 percent of the land area covered by the system); or more than 25 percent (25 percent of the land area covered by the system) of the irrigation system is replaced, the portion being expanded or replaced shall meet the requirements of this Code.

(Ord. No. 2721-3-08, § 1(Exh. A), 3-25-2008; Ord. No. 2900-3-10, § 10, 3-23-2010)