

## Article 10 Landscaping and Tree Protection

### Division 10.100 Purpose and Applicability

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- A. **Purpose.** These standards are intended to protect and preserve the appearance and character of the community, to promote the health and quality of life of the residents of the City through the protection of specified trees located on property within the City and to protect the value of our natural heritage and conserve water by promoting the planting of native trees and shrubs, and to establish standards for removal, maintenance, and planting of trees. In establishing these procedures and standards, it is the City's intent to encourage the preservation of trees and their value to the community, increase the compatibility of adjacent uses, and to minimize the effects on the surrounding environment due to noise, dust, debris, artificial light intrusions, and other impacts of an adjoining or nearby use.
- B. **Applicability.** This Article provides the detailed landscaping standards for all development including landscaping for street trees, yards, open space, parking lots, and bufferyards. It also contains standards for installing and maintaining landscaping materials.

### Division 10.200 General Requirement

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#### Sec. 10.201 Permitted and Prohibited Landscape Material

- A. **General.** Landscaping for yards, open space, parking, and bufferyards is specified in three layers of plant material: large trees at the upper layer, small trees at the intermediate level, and shrubs at the ground level.
- B. **Permitted and prohibited landscape material.** Lists of permitted and prohibited plants are provided in Appendix A, *Technical Tree Manual*.
- C. **Other landscape material.** Landscaping material that is not listed in Appendix A may be installed provided that it is not prohibited by this Code, state, or federal regulations, but such material will not count toward the landscaping requirements of this Article.

#### Sec. 10.202 Calculation of Landscape Requirements

- A. **General.** The landscape requirements of this Article are computed as provided in this Section.
- B. **Per acre requirements.** Where the number of large trees, small trees, and shrubs are calculated on a per acre basis, the landscaping requirements are computed by multiplying the number of large trees, small trees, and shrubs required per acre by the number of acres (to the nearest 100<sup>th</sup> acre) of land in the category addressed by the regulation (*e.g.*, open space). All fractions are rounded up to the nearest whole number.
- C. **Per lot requirements.** Where the number of large trees, small trees, and shrubs are calculated on a per lot basis, each lot must meet the minimum requirement.
- D. **Per d.u. requirements.** Where the number of large trees, small trees, and shrubs are calculated on a per dwelling unit basis, the landscaping requirements are computed by multiplying the number of large trees, small trees, and shrubs by the number of dwelling units. Such landscaping must be provided on the same parcel as the dwelling units, within 200 feet of the residential buildings.

- E. **Large tree equivalents.** The *Technical Tree Manual* lists the large trees that may be used to satisfy the large tree requirements. For all applications except street trees, the *Technical Tree Manual* lists species of palms that may be used as large trees, provided that they are installed in groups of three, with all trunks no further than 8 feet apart.
- F. **Species diversity.**
1. In order to avoid large monocultures of trees and shrubs, no more than 20 percent of each category of required landscaping (large trees, small trees, and shrubs) on a site shall be of any one species; and no more than 40 percent of each category shall be of any one genera.
  2. Street trees shall be diversified to prevent large-scale losses in the event of disease or blight. Each street block shall have at least 3 genera of street trees, and no more than 40 percent of the street trees in the City shall be of the same genus.

## **Division 10.300 Development Landscaping**

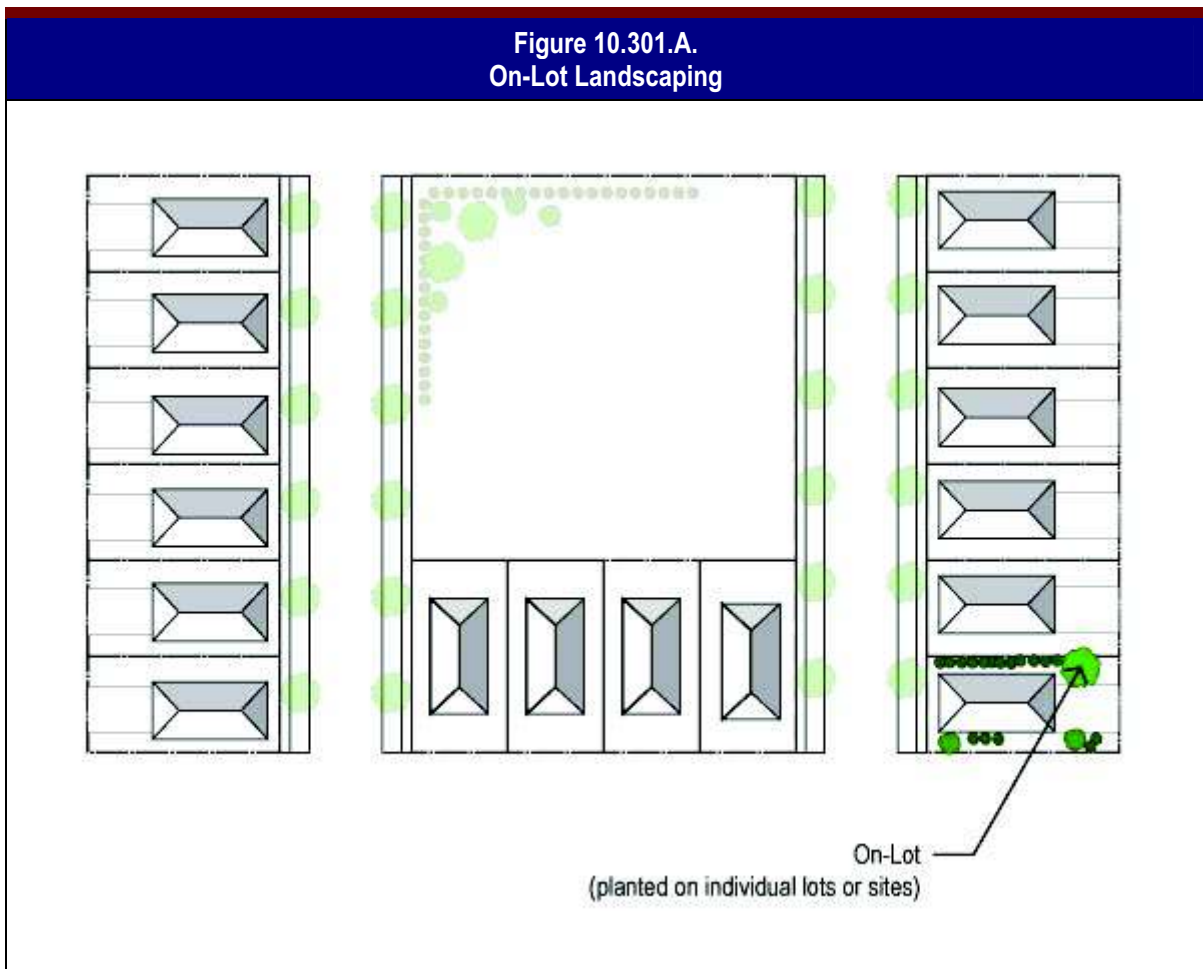
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This Division establishes the landscape standards for development, including the landscaping of the lot, common open space, parking lots, and street trees.

### **Sec. 10.301 On-Lot Landscaping**

- A. **General.** On-lot landscaping is that landscaping which is installed on property that is designated for development, such as single-family residential lots, multi-family residential lots, and non-residential lots (in landscape areas that are required pursuant to the applicable landscape area ratio (LSR)). It does not include landscaping in designated open space areas (*e.g.*, those provided pursuant to the applicable open space ratio (OSR)), which are subject to the landscaping requirements of Section 10.303, *Open Space Landscaping*. See Figure 10.301.A., *On-Lot Landscaping*.

**Figure 10.301.A.  
On-Lot Landscaping**



**B. Required.** On-lot landscaping shall be provided as described in Table 10.301.B., *On-Lot Landscaping Standards*.

| <b>Table 10.301.B.<br/>On-Lot Landscaping Standards</b> |                    |                    |               |
|---|--------------------|--------------------|---------------|
| <b>District and Development Type</b>                    | <b>Large Trees</b> | <b>Small Trees</b> | <b>Shrubs</b> |
| <b>Agriculture (AG)</b>                                 |                    |                    |               |
| Agriculture and Farmstead                               | N/A                | N/A                | N/A           |
| Residential (except farmstead)                          | 2 per acre         | 4 per acre         | N/A           |
| Non-residential (except agriculture)                    | 3 per acre         | 6 per acre         | 40 per acre   |
| <b>Suburban Residential (S)</b>                         |                    |                    |               |
| Residential (single-family detached)                    | 2 per lot          | 4 per lot          | N/A           |
| Residential (all other)                                 | 1 per d.u.         | 2 per d.u.         | 17 per d.u.   |

**Table 10.301.B.  
On-Lot Landscaping Standards**

| District and Development Type         | Large Trees | Small Trees | Shrubs       |
|---------------------------------------|-------------|-------------|--------------|
| Non-residential                       | 5 per acre  | 10 per acre | 170 per acre |
| <b>Auto-Urban Residential (AU)</b>    |             |             |              |
| Residential (single-family detached)  | 1 per lot   | 1 per lot   | N/A          |
| Residential (all other)               | 1 per d.u.  | 1 per d.u.  | 10 per d.u.  |
| Non-residential                       | 12 per acre | 24 per acre | 200 per acre |
| <b>Urban Residential (UR)</b>         |             |             |              |
| Residential (single-family detached)  | 14 per acre | 28 per acre | N/A          |
| Residential (all other)               | 14 per acre | 28 per acre | 238 per acre |
| Non-residential                       | 12 per acre | 24 per acre | 200 per acre |
| <b>Neighborhood Conservation (NC)</b> |             |             |              |
| Residential                           | 1 per d.u.  | 1 per d.u.  | N/A          |
| Non-residential                       | 8 per acre  | 16 per acre | 136 per acre |
| <b>Urban University (UU)</b>          |             |             |              |
| All uses                              | 12 per acre | 24 per acre | 200 per acre |
| <b>Commercial, Neighborhood (CN)</b>  |             |             |              |
| All uses                              | 16 per acre | 32 per acre | 270 per acre |
| <b>Commercial, General (CG)</b>       |             |             |              |
| All uses                              | 9 per acre  | 18 per acre | 150 per acre |
| <b>Urban Center (UC)</b>              |             |             |              |
| All uses                              | 5 per acre  | 10 per acre | 85 per acre  |
| <b>Business Park (BP)</b>             |             |             |              |
| All uses                              | 2 per acre  | 4 per acre  | 35 per acre  |
| <b>Industrial (I)</b>                 |             |             |              |
| All uses                              | 4 per acre  | 8 per acre  | 75 per acre  |

- C. **Distribution.** In general, on-lot landscaping may be distributed around the lot. For example, shrubs may be used as foundation plantings, as hedges, or planted in groups. Trees must be given adequate room for healthy growth and stability. Refer to the Technical Tree Manual for recommended tree spacing.
- D. **Front yards.** In all Districts except the AG, UC and CG Districts, lots that include buildings that are more than 60 feet wide or 2 stories tall shall be landscaped with trees that are arranged to break up the appearance of building mass so that the building is perceived to be divided into widths of no greater than 50 feet when viewed from street-level vantage points.
- E. **Sod.** Residential yards, including two and multi-family lots, shall be sodded with bermuda, carpet or other grass types.

- F. **Timing of installation.** Required trees, shrubs, and sod shall be installed on each lot prior to the issuance of a certificate of occupancy for that lot.

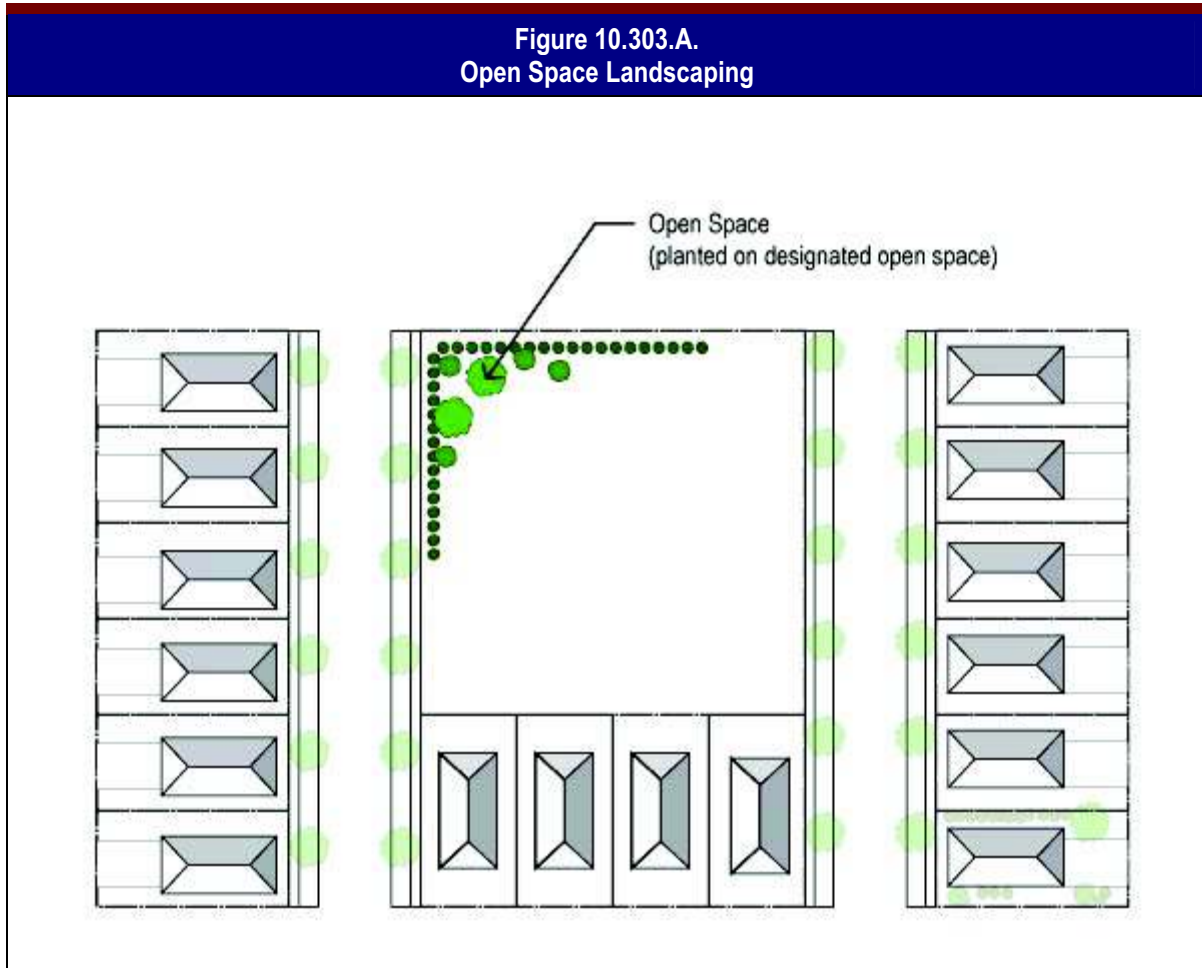
### **Sec. 10.302 Special Residential Landscaping**

Additional landscaping is required for single-family and two-family residential development where there is not *alley* access to parking areas or garages.

- A. **Front-Load Garages.** In addition to on-lot landscaping requirements set out in Section 10.301, *On-Lot Landscaping*, one small tree or shrub that is at least six (6) feet in height at the time of planting shall be installed in the front yard of a residential lot for each 10 linear feet of width of front-load garage door. For the purpose of this calculation, fractions shall be dropped.
- B. **Side-Load Front Garages.** In addition to the on-lot landscaping requirements set out in Section 10.301, *On-Lot Landscaping*, one small tree and 4 shrubs shall be planted along the street side of any side-load front garage that is closer than ten feet to the front property line.

### **Sec. 10.303 Open Space Landscaping**

- A. **General.** Open space landscaping is that landscaping which is installed on property that is designated as open space (*e.g.*, set aside pursuant to the required open space ratio (OSR), or designated as commonly owned open space even though open space is not required by this UDC). See Figure 10.303.A., *Open Space Landscaping*. Open space landscaping does not include:
1. On-lot landscaping, which is controlled by Section 10.301, *On-Lot Landscaping*.
  2. Landscaping within the areas of required bufferyards, which is controlled by Division 10.400, *Bufferyard Requirements*.



B. **Required.** Open space landscaping is required as described in Table 10.303.B., *Open Space Landscaping Standards*.

| <b>Table 10.303.B.<br/>Open Space Landscaping Standards</b> |             |             |             |
|---|-------------|-------------|-------------|
| District and Development Type                               | Large Trees | Small Trees | Shrubs      |
| <b>Agriculture (AG)</b>                                     |             |             |             |
| Agriculture and Farmstead                                   | N/A         | N/A         | N/A         |
| All uses (except agriculture and farmstead)                 | 2 per acre  | 4 per acre  | 34 per acre |
| <b>Suburban Residential (S)</b>                             |             |             |             |
| All uses  | 10 per acre | 15 per acre | 40 per acre |
| <b>Auto-Urban Residential (AU)</b>                          |             |             |             |
| Residential   | 10 per acre | 15 per acre | 40 per acre |
| Non-residential   | 10 per acre | 15 per acre | 68 per acre |

| <b>Table 10.303.B.<br/>Open Space Landscaping Standards</b> |                    |                    |               |
|---|--------------------|--------------------|---------------|
| <b>District and Development Type</b>                        | <b>Large Trees</b> | <b>Small Trees</b> | <b>Shrubs</b> |
| <b>Urban Residential (UR)</b>                               |                    |                    |               |
| All uses  | 10 per acre        | 15 per acre        | 68 per acre   |
| <b>Neighborhood Conservation (NC)</b>                       |                    |                    |               |
| Residential   | 10 per acre        | 15 per acre        | 68 per acre   |
| Non-residential   | 10 per acre        | 15 per acre        | 102 per acre  |
| <b>Urban University (UU)</b>                                |                    |                    |               |
| All uses  | 10 per acre        | 15 per acre        | 102 per acre  |
| <b>Commercial, Neighborhood (CN)</b>                        |                    |                    |               |
| All uses  | 10 per acre        | 15 per acre        | 136 per acre  |
| <b>Commercial, General (CG)</b>                             |                    |                    |               |
| All uses  | 10 per acre        | 15 per acre        | 40 per acre   |
| <b>Urban Center (UC)</b>                                    |                    |                    |               |
| All uses  | 3 per acre         | 6 per acre         | 40 per acre   |
| <b>Business Park (BP)</b>                                   |                    |                    |               |
| All uses  | 10 per acre        | 15 per acre        | 17 per acre   |
| <b>Industrial (I)</b>                                       |                    |                    |               |
| All uses  | 10 per acre        | 15 per acre        | 40 per acre   |

- C. **Distribution.** In general, open space landscaping may be distributed around the area of open space. Trees must be given adequate room for healthy growth and stability. Refer to Technical Tree Manual for recommended spacing.
- D. **Active recreation areas.** The area within play fields and ball fields shall be subtracted from the total acreage of open space for the purposes of computing open space landscaping requirements. However, where the perimeter of an active recreation area is within 30 feet of one or more residential lots, the perimeter shall be planted with a Class C Bufferyard as described in Section 10.401, *Bufferyard Classifications*.
- E. **Wetlands.** The area within delineated wetlands shall be subtracted from the total acreage of open space for the purposes of computing open space landscaping requirements. However, within wetland areas, invasive exotic plants shall be removed and replaced with native wetland species. Landscaping installed near wetlands shall be species that are water tolerant. Refer to the Technical Tree Manual for wetland species.
- F. **Open water.** All areas of open water shall be subtracted from the total acreage of open space for the purposes of computing open space landscaping requirements.
- G. **Timing of installation.** Required landscaping shall be installed prior to the acceptance of subdivision improvements, or if the development is not a subdivision, then prior to the issuance of the first certificate of occupancy.

## Sec. 10.304 Parking Lot Landscaping

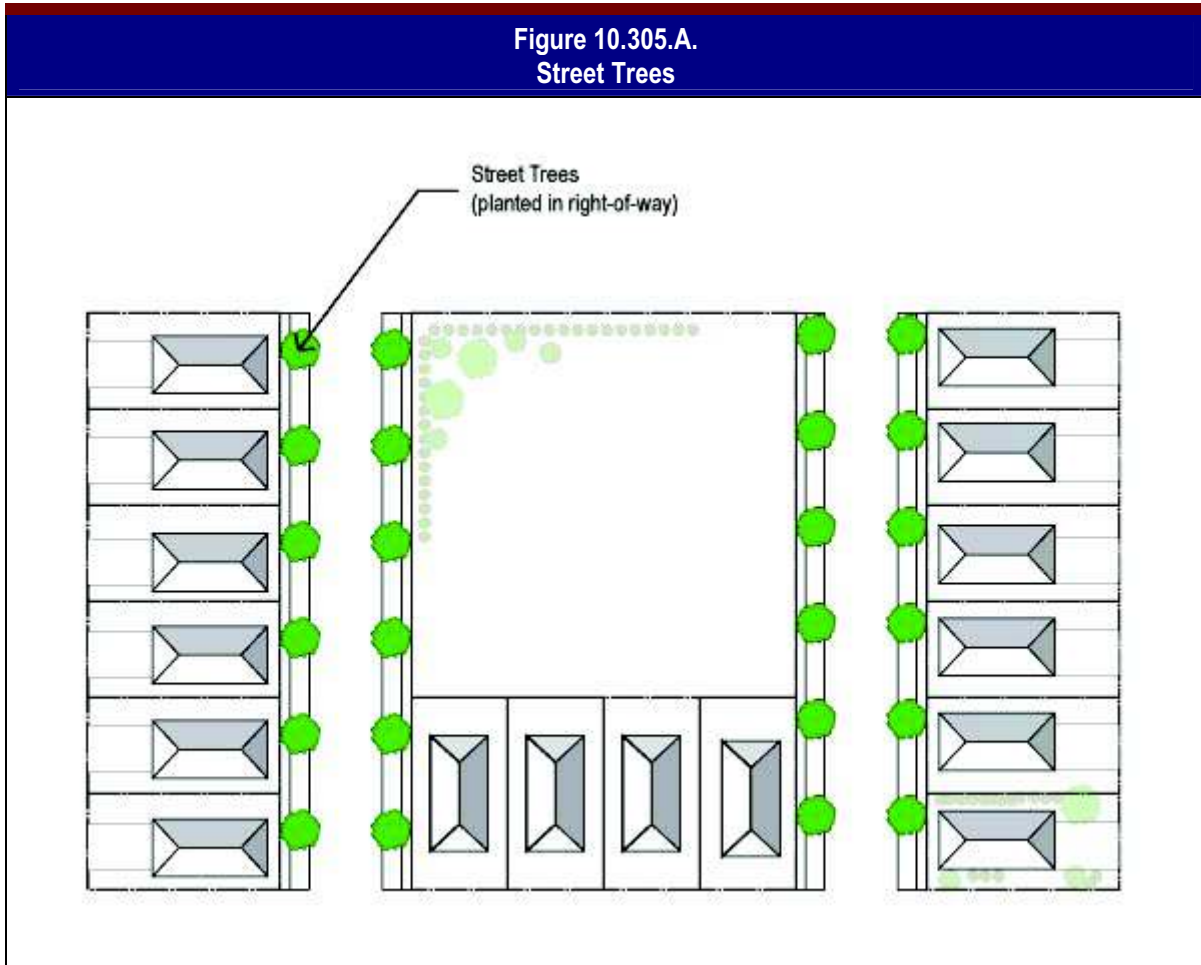
- A. **General.** Parking lot landscaping is that landscaping which is provided within parking lots that have more than 4 parking spaces. Farmsteads and single-family homes are not required to provide parking lot landscaping.
- B. **Required.** Parking lot landscaping shall be provided as described in Table 10.304.B., *Parking Lot Landscaping Standards*.

| Table 10.304.B.<br>Parking Lot Landscaping Standards |                |                |
|--|----------------|----------------|
| District   | Large Trees    | Shrubs         |
| Agriculture (AG)                                     | 1 per 8 spaces | 1 per 4 spaces |
| Suburban Residential (S)                             | 1 per 4 spaces | 1 per 2 spaces |
| Auto-Urban Residential (AU)                          | 1 per 8 spaces | 1 per 4 spaces |
| Urban Residential (UR)                               | 1 per 8 spaces | 1 per 4 spaces |
| Neighborhood Conservation (NC)                       | 1 per 8 spaces | 1 per 4 spaces |
| Urban University (UU)                                | 1 per 6 spaces | 1 per 3 spaces |
| Commercial, Neighborhood (CN)                        | 1 per 5 spaces | 2 per 5 spaces |
| Commercial, General (CG)                             | 1 per 8 spaces | 1 per 4 spaces |
| Urban Center (UC)                                    | 1 per 6 spaces | 1 per 3 spaces |
| Business Park (BP)                                   | 1 per 8 spaces | 1 per 4 spaces |
| Industrial (I)                                       | 1 per 6 spaces | 1 per 3 spaces |

- C. **Distribution.** Parking lot landscaping shall be evenly distributed within interior parking lot islands or within islands in entrance and circulation drives. It may also be located in the perimeter or corners of the lot, as provided in Subsection E., *Small Parking Lots*. Trees must be given adequate room to for healthy growth and stability.
- D. **Area of planting islands.** One planting island of at least 324 square feet in area shall be provided for each 16 spaces in the parking lot. No planting island shall be less than 18 feet in any dimension, measured from the outside of the curb to the outside of the opposite curb.
- E. **Small parking lots.** In interior parking lots with fewer than 15 spaces, the island(s) may be the lot's corners. In parking lots requiring less than 6 canopy trees, the landscaping may be on the perimeter of the parking lot.
- F. **Groundcovers.** Landscape islands shall avoid the use of turf as groundcover. Instead, a combination of mulch and drought-tolerant groundcovers or shrubs shall be installed.
- G. **Timing of installation.** Required landscaping shall be installed prior to the acceptance of subdivision improvements, or if the development is not a subdivision, then prior to the issuance of the first certificate of occupancy.

**Sec. 10.305 Street Trees**

A. **General.** Street trees are those trees which are planted at regular intervals in the street right-of-way. See Figure 10.305.A., *Street Trees*.



**B. Required.**

1. A street tree plan shall be submitted to the City with the preliminary or final plat.
2. Street trees shall be planted within the parkways and medians (of sufficient width) of the public right-of-way or private street easements prior to acceptance of the subdivision improvements or recording of the subdivision plat.
3. The requirement for street trees may be waived for minor streets that provide access to fewer than 16 lots.

C. **Types and species of street trees.** To maintain a consistent appearance along individual street segments:

1. The type of trees (large or palm) which are planted in the parkways shall be the same on both sides of the street. The trees planted in a landscaped median may be different in type and shall be different in species from those which are planted in the parkways.

2. If large trees are installed, they shall be of the same general form.
3. If palm trees are installed, they shall be of the same species.

### D. Spacing.

1. Generally. Street trees shall be spaced as follows:
  - a. Large trees: 100 feet on-center; or
  - b. Palm trees: 50 feet on-center.
2. Wide parkways and medians.
  - a. If the parkway is greater than 20 feet in width, then large trees shall be installed in 2 rows, with trees staggered, each row spaced 100 feet on-center.
  - b. If the median is 18 feet or more in width, then it shall be planted with:
    - i. Large trees, spaced 100 feet on-center; or
    - ii. 2 rows of palm trees, spaced 50 feet on-center.

E. **Tree Quality and Size.** All trees planted within parkways shall have single-stemmed trunks and be branched no lower than six feet above the ground (for visibility purposes). No tree selected for planting shall be less than 2.5 inches in caliper, measured six inches above ground level. Palms must have 6 feet of clear trunk, as defined in the *Technical Tree Manual*.

F. **Minimum Spacing.** No trees (except palms) may be planted closer than 25 feet together, except that special plantings may be clustered if the cluster does not negatively affect the continuing health of the clustered trees, and the cluster is approved in the landscape plan of the plat or land development.

G. **Roads of Another Jurisdictions.** When determined by the Administrator, street trees may be located on lots if the adjacent roads are owned by another jurisdiction and that jurisdiction requires the trees to be located outside the right-of-way. In such cases, street trees shall be credited against the on-lot landscaping requirements of the lots that are adjacent to the street.

H. **Maintenance.** Street Trees required by this Code shall be maintained by a subdivider, lot owner, tenant, homeowners association or other entity having a legal interest in the ownership of the subdivision or lots in the subdivision.

I. **Timing of installation.** Required landscaping shall be installed prior to the acceptance of subdivision improvements, or if the development is not a subdivision, then prior to the issuance of the first certificate of occupancy.

## Division 10.400 Bufferyard Requirements

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A. **General.** Bufferyards are required between districts, along major roads or railroads, and, in some cases, between individual developments. Bufferyards are described by classifications, from less opaque ("Class A") to more opaque ("Class E"). For the purposes of this Code, each successive classification is one "level" more opaque than the previous classification, that is, a Class C bufferyard is one level more opaque than a Class B bufferyard.

**B. Requirements.** Bufferyards are required for district boundaries (Section 10.402, *District Bufferyard Standards*) and along streets (Section 10.404, *Street Bufferyard Standards*), for parking lots (Section 10.405, *Parking Lot Bufferyards*), and for storage or loading areas (Division 9.300, *Parking and Loading Design*).

### Sec. 10.401 Bufferyard Classifications

Bufferyards are classified from less opaque (“Class A”) to more opaque (“Class E”). The width and composition of bufferyards shall be as set out in Table 10.401, *Bufferyard Classifications*.

| Table 10.401<br>Bufferyard Classifications |        |                    |                    |                     |   |
|--|--------|--------------------|--------------------|---------------------|---|
| Classification (% opacity)                 | Width  | Large trees        | Small trees        | Shrubs              | Berm or opaque wall or fence                                |
| Class A (10%)                              | 10 ft. | 1 / 100 linear ft. | 2 / 100 linear ft. | 17 / 100 linear ft. | na.   |
| Class B (25%)                              | 15 ft. | 2 / 100 linear ft. | 4 / 100 linear ft. | 34 / 100 linear ft. | na.   |
| Class C (50%)                              | 25 ft. | 5 / 200 linear ft. | 5 / 100 linear ft. | 45 / 100 linear ft. | 6 foot wall (masonry, brick, stone, or equivalent material) |
| Class D (65%)                              | 40 ft. | 3 / 100 linear ft. | 6 / 100 linear ft. | 50 / 100 linear ft. | 5 foot high berm  |
| Class E (80%)                              | 40 ft. | 7 / 200 linear ft. | 7 / 100 linear ft. | 60 / 100 linear ft. | 6 foot high berm  |

### Sec. 10.402 District Bufferyard Standards

**A. General.** Table 10.402, *District Boundary Bufferyard Standards*, sets out the classification of bufferyard that is required between zoning districts that are not separated by a public street. The table is a matrix in which all districts are shown -- the columns being the zoning of the adjoining land; the rows being the zoning of the lot that is proposed for development. The grey cells are where both properties have the same zoning classification. Two letters are shown for each condition (for example, A and C). A “-” means that no bufferyard is required. The bufferyard required for the proposed use is listed first. The letter listed second is the buffer that is required on the adjoining property.

| Table 10.402<br>District Boundary Bufferyard Standards |                    |       |       |       |       |       |       |       |       |       |       |
|--|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Zoning of Proposed Development                         | Adjoining District |       |       |       |       |       |       |       |       |       |       |
|  | AG                 | S     | AU    | UR    | NC    | UU    | CN    | CG    | UC    | BP    | I     |
| Agriculture (AG)                                       | - / -              | - / B | - / B | - / B | - / - | - / - | - / - | - / - | - / - | - / - | - / B |
| Suburban (S)   | B / -              | - / - | A / B | A / B | A / - | A / B | A / B | A / C | A / B | A / D | A / D |
| Auto-Urban Residential (AU)                            | B / -              | B / A | - / - | A / A | B / - | A / B | A / B | A / C | A / B | A / D | A / D |
| Urban Residential (UR)                                 | B / -              | B / A | A / A | - / - | B / - | A / B | A / B | A / C | A / B | A / D | A / D |
| Neighborhood Conservation (NC)                         | - / -              | - / A | B / - | B / - | - / - | - / C | - / B | - / D | - / C | - / D | - / E |
| Urban University (UU)                                  | B / -              | B / A | B / A | B / A | C / - | - / - | A / A | A / B | A / A | A / B | A / D |
| Commercial, Neighborhood (CN)                          | - / -              | B / A | B / A | B / A | C / - | A / A | - / - | A / B | A / A | A / B | A / C |

| Table 10.402<br>District Boundary Bufferyard Standards |                    |     |     |     |     |     |     |     |     |     |     |
|--|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Zoning of Proposed Development                         | Adjoining District |     |     |     |     |     |     |     |     |     |     |
|  | AG                 | S   | AU  | UR  | NC  | UU  | CN  | CG  | UC  | BP  | I   |
| General Commercial (CG)                                | -/-                | D/A | D/A | A/A | D/A | C/A | D/A | -/- | A/A | -/C | A/B |
| Urban Center (UC)                                      | -/-                | B/A | B/A | B/A | C/- | A/A | A/A | A/B | -/- | -/B | A/D |
| Business Park (BP)                                     | -/-                | D/A | D/A | D/A | D/- | B/A | B/A | B/- | B/A | -/- | A/B |
| Industrial (I)   | B/-                | D/A | D/A | D/A | E/- | D/A | C/A | B/A | D/A | B/A | -/- |

- B. Existing adjacent development without bufferyards.** Where the adjoining property is already developed and does not have the required bufferyard, the proposed development shall provide either:
1. A bufferyard equal in width and plant material to the sum of the bufferyards required on the lot proposed for development and the adjoining lot; or
  2. A bufferyard of the next most opaque classification than the more opaque of the two bufferyards required (*e.g.*, if the requirement is D / A, and the adjoining property is already developed and does not have a bufferyard, then the developer could choose to install a Class E bufferyard).
- C. Additional requirements.** Some Limited or Conditional Uses may have a requirement for greater bufferyard opacity or depth, as specified in Division 2.400, Limited and Conditional Uses.

## Sec. 10.403 Existing Trees, Fences, and Walls on Developed Property

- A. Use of existing trees.** If an applicant is required to provide the bufferyard that is required on adjoining property (*see* Section 10.402, *District Bufferyard Standards*), the applicant may document the existing plant material that is within fifteen feet of the property line with photographs and aerial photographs. Such existing material, if in good condition, may be counted towards the landscaping that is required of the adjoining property. In some cases this might mean that all required plant material on the adjacent property is present.
- B. Buffers shall be provided on the site on which they are required.** In no case shall any plant material from the adjoining property count towards the requirements for the applicant's site.
- C. Existing fences and walls.** If a fence or wall is required and there is already a fence or wall on the property line, then the City may temporarily waive the fence or wall requirement, provided:
1. The Administrator verifies that the existing fence or wall is sturdy and in good condition;
  2. The height, opacity, and extent of the fence or wall meets the intent of this Article with regard to buffering;
  3. The applicant records an agreement with the City that includes appropriate assurances that if the fence or wall deteriorates, or is damaged, destroyed, or removed, the applicant will cause it to be repaired or replaced with a fence or wall that meets the standards of this Article;
  4. The applicant's final plat or, if no plat is required, development approval, includes an annotation regarding the applicant's responsibilities under the agreement required by C3 above.

**Sec. 10.404 Street Bufferyard Standards**

A. **General.** The bufferyard standards in Table 10.404, *Bufferyard Requirements for Roads and Railroads*, address the classification of the bufferyard that is required along arterial, collector, and local streets or railroads (for classifications, see Table 10.401, *Bufferyard Requirements*). The standards are in addition to the street tree requirements in Section 10.305, *Street Trees*. Some Limited or Conditional Uses may have additional bufferyard requirements, as specified in Division 2.400, *Limited and Conditional Uses*.

| <b>Table 10.404<br/>Bufferyard Requirements for Roads and Railroads</b>  |                                   |                  |                          |                 |
|--|-----------------------------------|------------------|--------------------------|-----------------|
| <b>Zoning of Proposed Development</b>  | <b>Adjoining Road or Railroad</b> |                  |                          |                 |
|  | <b>Arterial</b>                   | <b>Collector</b> | <b>Perimeter / Minor</b> | <b>Railroad</b> |
| Agriculture (AG) Agricultural Uses   | -                                 | -                | -                        | -               |
| Agriculture (AG) All Other Uses  | C                                 | B                | -                        | D               |
| Suburban Residential (S)   | C                                 | B                | A                        | D               |
| Auto-Urban Residential (AU)  | C                                 | B                | A                        | D               |
| Urban Residential (UR)   | B                                 | A                | -                        | D               |
| Neighborhood Conservation (NC)   | -                                 | -                | -                        | D               |
| Urban University (UU)  | B                                 | B                | B                        | B               |
| Commercial, Neighborhood (CN)  | B                                 | B                | B                        | B               |
| Commercial, General (CG)   | B                                 | B                | B                        | -               |
| Urban Center (UC)  | -                                 | -                | -                        | (*)             |
| Business Park (BP)   | B                                 | B                | C                        | (*)             |
| Industrial (I)   | C                                 | C                | B                        | (*)             |
| (*) Generally, no buffer is required. However, where there is unbuffered residential on the other side of the railroad right-of-way, a Class B buffer is required. |                                   |                  |                          |                 |

B. **Walls.** Notwithstanding the provisions of Table 10.401, *Bufferyard Requirements*, no walls shall be permitted in front street yard bufferyards, except in the Industrial (I) District.

**Sec. 10.405 Parking Lot Bufferyards**

- A. **General.** Parking lot bufferyards are located along the perimeter of parking lots between the parking lots and rights-of-way and adjoining lots.
- B. **Required.** Parking lot bufferyards are required where the parking lot is located within a residential district and a lot that is located within 15 feet of the perimeter of the parking lot is within the same residential district.
- C. **Width and composition.** Parking lot bufferyards shall have the following minimum width and composition:
  - 1. Width: 25 feet

2. Large trees: 2 per 100 linear feet
3. Small trees: 2 per 100 linear feet
4. Other: A 3 foot high opaque wall or fence; or a 3 foot high dense hedge; or a 3 foot high berm.

### Sec. 10.406 Constrained Sites

- A. **General.** Reduced bufferyard widths are permitted on sites that are constrained, in that compliance with all bufferyard requirements would result in more than 15% of the site being used for bufferyards.
- B. **Reduction of width permitted.** Bufferyard widths may be reduced during development approval so that no more than 15% of the site is used for bufferyards. Bufferyards shall be reduced in the following order of priority:
  1. First, Class A bufferyards may be reduced from 10 feet in width to 4 feet in width, provided that a 5 foot high opaque wall is provided with a one foot high hedge (at planting) installed along its outer face, and small trees are planted (on either side of the wall) along the bufferyard, regularly spaced 25 feet on-center. Notwithstanding the permitted reduction, small trees shall be planted so that they have a 4-foot radius of permeable soil at their base.
  2. Second, Class B bufferyards may be reduced from 12.5 feet in width to 5 feet in width, provided that a 6 foot high opaque wall is provided with a one foot high hedge (at planting) installed along its outer face, and small trees are planted (on either side of the fence) along the bufferyard, regularly spaced 25 feet on-center. Notwithstanding the permitted reduction, small trees shall be planted so that they have a 4-foot radius of permeable soil at their base.
  3. Third, Class C bufferyards may be reduced from 25 feet to 18 feet in width, provided that they include all of the plantings that are required of a Class C bufferyard.
- C. **Variance.** All other reductions in bufferyard width shall require a variance.

### Sec. 10.407 Landscape Plan Approval

- A. **General.** Landscape plans shall show all plant material and provide tables indicating the planting of each type required by this Article. Plans meeting minimum standards shall be approved. However, in reviewing the plans, adjustments in the location of plants used may be required where the City finds such alterations would better serve the purposes for which they are intended.
- B. **Timing of Approval.** Landscape plans containing street trees and open spaces shall be submitted for approval at the plat application stage. Landscape Plans containing site features, bufferyards and required landscaping shall be submitted for approval at the building permit stage.

### Division 10.500 Open Space

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This Division controls the delineation, maintenance, and ownership of open space.

### **Sec. 10.501 Delineation of Open Space**

All boundaries of open space, whether for resource protection or other purposes, shall be identified as out-lots on a site plan with specific identification. Open spaces that are delineated in order to protect natural resources or to be otherwise left in a natural state shall have their boundaries with lots or rights-of-way identified with signs placed on each lot line, or every 330 feet (four per quarter-mile), whichever is less. The signs and their locations shall be approved with the subdivision plat or land development plan and shall meet the following specifications:

- A. **Sign dimensions.** 30 in. x 18 in.
- B. **Sign height.** The top of the sign shall be 3 feet above grade.
- C. **Identification of open space area.** The sign shall identify the open space area, the entity dedicating or preserving the area, and the date the area was designated for preservation:
  - 1. For publicly dedicated areas:

CITY OF EDINBURG, TEXAS  
OPEN SPACE / RESOURCE PROTECTION AREA  
DEDICATED TO PROTECT OUR ENVIRONMENT  
BY: \_\_\_\_\_, ON [ \_DATE\_ ]

- 2. For privately managed areas:

OPEN SPACE / RESOURCE PROTECTION AREA  
ESTABLISHED BY: \_\_\_\_\_, ON [ \_DATE\_ ]  
MANAGED BY: \_\_\_\_\_

- D. **Design theme.** The City shall develop a design theme, including materials, fonts, and colors, for the signs that are required by this Section.

### **Sec. 10.502 Use of Open Space**

Open space is intended to provide for the protection of natural resources, buffering of uses, recreation, detention, and passive space that is an amenity to the development. The goal is for open space to be pervious. However some uses of the open space require buildings or structure to meet the desired open space purposes. The following rules govern the use of open space:

- A. **Buildings.** Buildings shall be limited to those that are essential to a public recreational use. Open sided picnic shelters are permitted. Enclosed buildings shall be limited to those that are essential to a recreational use that requires an accessory structure. For example outdoor swimming pools need dressing rooms, toilets, and mechanical equipment. This is permitted, but a building for an indoor pool is not. Restrooms for a large recreation area are also permitted.
- B. **Structures.**
  - 1. Recreational structures are permitted, such as courts for games, swimming pools, bridges for foot and bicycle crossings of streams. However, general recreation buildings and paved parking lots are not permitted in open space areas.

2. Detention structures are permitted.
3. Utilities may cross open space or use its edges.

C. **Impervious Surfaces.** The combination of permitted buildings and structures, if located on open space areas, shall not exceed 15 percent of the open space area

### Sec. 10.503 Ownership and Maintenance Easements

- A. **Ownership.** Open space required by this Code shall be placed in a conservation easement and may be owned in the following ways:
1. As common land by homeowners', condominium, or landowners' associations, with a conservation easement in favor of the City and all property owners;
  2. By the landowner with a conservation easement in favor of the City;
  3. By a public agency (by dedication), provided such agency shall have the final decision to accept and the right to refuse such offers of dedication; or
  4. By a City-approved, private, non-profit organization that is capable of managing the open space with a conservation easement running in favor of the City and the owners of rest of the property in the development.
- B. **Maintenance.** Under any arrangement, the conservation easement shall require the maintenance of such areas as indicated on the approved plat or site plan. The City shall have the right under such conservation easements to maintain the area and place a lien on the property to recover its costs.

### Sec. 10.504 Maintenance of Open Space

A landscape maintenance plan shall identify all open space areas and all other landscaped areas on the site. A part of the approved landscape plan shall be a maintenance plan that identifies the short-term maintenance after planting and long-term maintenance for all open space areas and all landscaped areas such as parkways. There is no need for maintenance standards for on-lot landscaping unless the development's homeowners' or condominium association is to maintain the landscaping on individual lots.

- A. **Short-term maintenance.** This is maintenance that is needed for the first two years after planting to ensure trees get sufficient water and other care and that areas of groundcover are kept free of weeds or other material that prevent it from stabilizing. In natural areas, this may require intensive initial care to keep out invasive species.
- B. **Long-term maintenance.** The long-term maintenance program shall set out the type and frequency of care, such as mowing, watering, applying fertilizer, and periodic work in natural areas.
- C. **Maintenance plan.** The maintenance plan shall provide a detailed explanation of the work to be done, the reason it is needed, the frequency of the work, and the estimated cost of the work in a given year. This is intended to be a guide to the homeowners or property owners' association on the needed maintenance, and an aid to budgeting and contracting. It also informs the developer of work that needs to be accomplished prior to turning the project over to the owners' association, and ensures continuing compliance with the City's landscape and open space standards.

## **Division 10.600 Tree Preservation**

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The standards of this Division are intended to preserve existing champion and heritage trees within the City, and to provide for avoidance and mitigation when other trees are proposed to be removed to clear land for development. These standards shall not apply to require the preservation of trees in the case of public infrastructure or building improvements that are found by the City to be necessary to provide basic services and to protect the health, welfare, safety of the community.

### **Sec. 10.601 Protected Trees**

A. **Protected trees, generally.** The following trees are protected within the City of Edinburg, and shall be preserved and maintained according to the standards of this Division:

1. All Champion trees. *See* Subsection B., below.
2. All Heritage trees. *See* Subsection C., below.
3. Any tree (except a prohibited tree) with a diameter at breast height (DBH) of 8 inches or more, located in the AG, CN, CG, BP, UC, UU, or I District, or on land to be subdivided within an S, AU, or UR District.
4. Any tree (except a prohibited tree) with a DBH of 20 inches or more, located on a vacant residential lot in the S, AU, UR, or NC District.

B. **Champion trees.** The largest tree of any given species within the City limits shall be designated by the Administrator as a benchmark Champion tree if it is in good physical and structural health. The measurement shall be the tree's diameter at breast height (DBH). Any tree within the City with a diameter at breast height of at least 80% of the benchmark Champion tree of the same species shall also be designated a Champion tree. The Administrator shall keep a registry of Champion trees.

C. **Heritage trees.**

1. Heritage trees are trees that are selected by the City Council by resolution for protection, for one or more of the following reasons:
  - a. The tree is an outstanding specimen of a desirable species.
  - b. The tree is one of the largest or oldest trees in the City.
  - c. The tree possesses a distinctive form, size, age, or location.
  - d. The tree has historical significance because:
    - i. The tree stands at the home of a person who played a role in history as a leader, writer or other significant contribution.
    - ii. The tree stands at or near where an event occurred that affected Texas' development and its citizens.
    - iii. The tree was planted by an individual or group whose experience is of significance.
    - iv. The tree is illustrated in sketches, journals, photographs or writings, related to a historical event.
2. No tree shall be designated as a Heritage tree without the consent of the property owner.

3. Heritage trees shall not be removed, damaged, or destroyed unless their Heritage tree designation is first removed by resolution of the City Council and the standards of Section 10.604, *Tree Removal and Replacement*, are met, except that the Administrator may order the removal of a Heritage tree in the case of a bona fide emergency that would cause the Heritage tree to become a public danger.

### Sec. 10.602 Tree Survey Required

- A. **General.** A tree survey shall be submitted prior to any development that is proposed that would impact a protected tree.
- B. **Partial tree survey.** The Administrator may accept a partial tree survey in lieu of a full tree survey if the Administrator finds that protected trees only exist on a portion of the site.
- C. **Tree inventory.** The Administrator may accept a tree inventory in lieu of a tree survey if protected trees are located in areas of designated open space.

### Sec. 10.603 Limitation on Clear Cutting

- A. **General.** Development shall be designed so that existing stands of native trees are preserved in designated open spaces whenever practicable. Cluster and planned development options are available in many districts to facilitate such designs.
- B. **Clear cutting.** Sites that include significant numbers of trees, as determined by a certified arborist, shall not be clear cut in preparation for development. Trees shall be removed only if:
  1. They are a prohibited species;
  2. They are unhealthy or structurally unsound;
  3. They are within 10 feet of an approved building footprint;
  4. They are within 5 feet of the paved area of an approved street or parking area;
  5. They are within 8 feet an approved outdoor recreation area that by its nature requires the removal of the trees (e.g., ballfields);
  6. They are within an approved stormwater retention/detention area and are not adapted to such conditions; or
  7. They are within 6 feet of a utility easement and would interfere with the use of the easement.

### Sec. 10.604 Tree Removal and Replacement Standards

- A. **General.** Protected trees shall not be removed, damaged (e.g., through topping or other improper pruning) or destroyed unless a tree removal permit is issued by the City. Trees that are not protected as provided in Section 10.601, *Protected Trees*, may be removed, subject to the limitations of Section 10.603, *Limitation on Clear Cutting*, upon issuance of a building permit.
- B. **Relocation.** Relocation of protected trees is encouraged but not required. Protected trees that are relocated to another place on-site or within the City do not have to be replaced if they are relocated according to the transplanting methods described in the *Technical Tree Manual* and they survive for at least 2 years from the date of the transplant.

C. **Development.** A tree removal permit may be issued for the removal of protected trees for development of a site if it is demonstrated that:

1. No reasonable alternative site design at the same density and intensity could be approved that:
  - a. Would preserve all of the protected trees;
  - b. Would preserve the largest of the protected trees; or
  - c. Would preserve a greater number of protected trees.
2. Relocation of the protected trees to another location on-site or within the City is not practically or economically feasible;
3. The trees are replaced or mitigated according to the following standards:
  - a. New large tree species are installed to replace the removed protected trees, such that:
    - i. For protected trees that are not Champion or Heritage trees, the sum of the DBH measurements of the new trees is equal to or greater than the sum of the DBH of the removed protected trees;
    - ii. For Champion trees or trees for which a Heritage tree designation was removed, the sum of the DBH measurements of the new trees is equal to or greater than three times the sum of the DBH of the removed Champion or former Heritage trees; and
  - b. At least 60 percent of all replacement trees will be native, drought tolerant species; or
  - c. The applicant pays into the City's tree planting fund an amount equal to \$150 per inch DBH of protected trees that are not replaced on site. The City shall use the fund to plant trees on public property to enhance the overall tree canopy within the City limits.
4. The applicant guarantees replanting of any replacement trees that fail to survive for a period of 2 years after installation.

D. **Relationship to other landscaping requirements.** Replacement trees shall count toward the landscaping requirements of the areas in which they are planted. However, if this Section requires more trees than the other Divisions of this Article, then this Section controls.

E. **Removal without replacement.** A protected tree, including a Champion tree, may be removed without replacement only in the following circumstances:

1. The Administrator orders such removal due to an emergency; or
2. A certified arborist certifies to the City that one or more of the following conditions exists:
  - a. The protected tree is damaged by natural causes beyond the point of recovery;
  - b. The protected tree is diseased beyond the point of recovery;
  - c. The protected tree must be removed as a safety measure because it is in danger of falling;

- d. The protected tree threatens to damage property; or
- 3. The protected tree is dead.

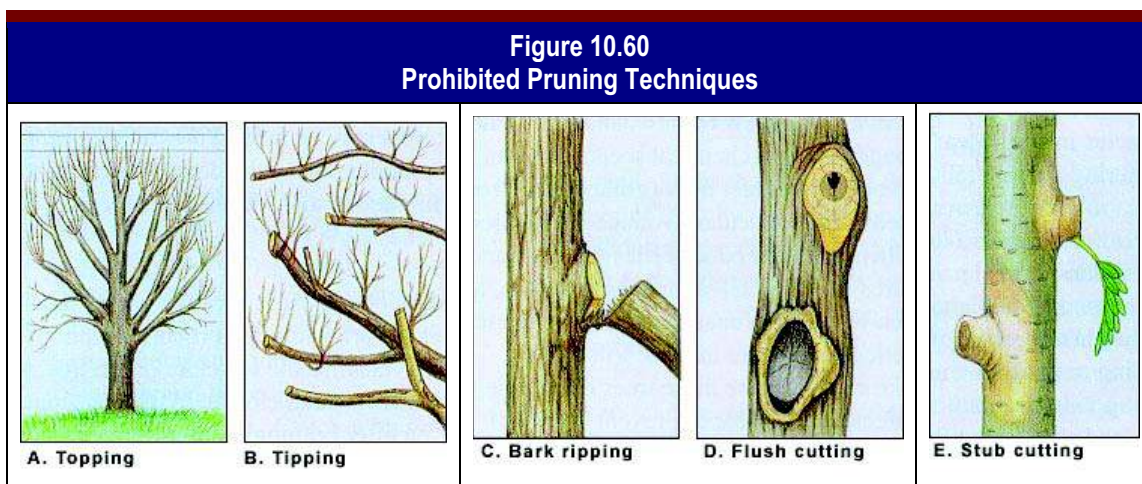
**Sec. 10.605 Tree Maintenance Standards**

**A. Restrictions within dripline or critical root zone.**

- 1. No cutting or filling, nor storage of building materials or debris, nor disposal of wastes, shall take place within the larger of the dripline or critical root zone of any protected tree.
- 2. No impervious paving shall be placed within the critical root zone of any protected tree.
- 3. The larger of the dripline or critical root zone of all protected trees shall be barricaded during construction to prevent damage to the trees and their roots by construction equipment.

**B. Prohibited pruning techniques.** The following types of pruning are not permitted because they damage the tree:

- 1. Topping (cutting large vertical branches of the tree to reduce its height). *See Figure 10.604.A.*
- 2. Tipping (cutting branches between nodes). *See Figure 10.604.B.*
- 3. Bark ripping (cutting branches so that the bark rips when the branch falls). *See Figure 10.604.C.*
- 4. Flush cuts (cutting the branch too close to the collar, the area where the branch connects to the tree). *See Figure 10.604.D.*
- 5. Stub cuts (cutting branches too far away from the collar, the area where the branch connects to the tree). *See Figure 10.604.E.*



- C. **Technical tree manual.** A technical tree manual shall be kept on file in the office of the Administrator. The manual shall provide illustrative examples of how to maintain and prune trees in order to maintain their health and structure.

### **Sec. 10.606 Irrigation System Standards**

- A. **General.** Irrigation systems shall be designed to avoid sprinkling and unnecessary runoff onto paved areas, including parking, loading and street pavement areas. Prevailing winds shall be considered in the design of the irrigation systems.
- B. **Constrained Areas.** Irrigation of constrained areas such as street right of way, parkways, and medians shall be by drip irrigation or other systems that comply with Subsection A.
- C. **Water Conservation.** Irrigation systems shall be designed to conserve the City's water supply in accordance with the City's water conservation policies and regulations.
- D. **Permitting.** No automated irrigation system shall be installed unless authorized by a permit based on irrigation plans approved by the Administrator.

### **Sec. 10.607 Invasive Species**

All invasive species, as listed in the *Technical Tree Manual*, shall be removed from property under development, substantial improvement, or redevelopment. Developed property shall be kept free of invasive species.