

## ARTICLE 8. LANDSCAPING

### 8.1 PURPOSE

This ordinance is designed to contribute to the quality of life and safeguard public health and welfare. This will be accomplished by reducing air and water pollution, noise, glare and heat as well as enhancing the value of investment. It's also intended to encourage smart attractive and creative design, maintain the integrity of natural areas, and proper landscape installation and maintenance.

### 8.2 GENERAL

#### 8.2.1. APPLICABILITY

- (C) Unless exempted by Section 8.2.2 below, and except as otherwise provided in subsections B and C below, all new development shall comply with the standards of this Article in accordance with these requirements:
- (1) New buildings. All standards apply.
  - (2) Building expansions 25% or greater in floor area. All standards apply to façades visible from the public right-of-way and the area being expanded.
  - (3) Interior upfit. If the interior upfits exceed 50% of the current assessed tax value of the building, then either full compliance or a payment to the City of Cayce Tree Fund, as specified in Section 8.2.4(E)(2).
  - (4) Parking lot expansions only. Expanded parking lot area must fully comply with parking lot

# 8

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landscape requirements. Existing parking lot is not required to meet landscape and parking requirements.

- (5) Change of Use. If the use of a legally established, nonconforming building changes to another use category per the Table of Permitted Uses, the building shall be brought into compliance and the required landscaping shall be provided. If parking is expanded, then compliance with (4) above is required.

**8.2.2. EXEMPTIONS**

- (A) Land disturbing activities that only require a Simplified Storm Water Management and Sediment Control Plan;
- (B) The land disturbing activities that are exempt under the applicable Stormwater Management Ordinance, including individual single-family residences, agriculture, forestry, and certain mining activities; and
- (C) Single-family and two-family dwellings on an existing lot of record.

**8.2.3. LANDSCAPING PLAN**

A landscaping plan shall be submitted as part of the application for a building permit. The plan shall:

- (A) Designate areas to be reserved for landscaping. The specific design of landscaping shall be sensitive to the physical and design characteristics of the site.
- (B) Indicate the location and dimensions of landscaped areas, plant materials, decorative features, etc.

**8.2.4. GENERAL SPECIFICATIONS**

**(A) Tree and Shrub Installation**

- (1) Tree Variety. All required trees shall be of the type and species appropriate for the climate of Cayce and location being planted. In order to reduce the threat and impact of disease, a diversity of genus and species of plants shall be utilized on each site.
- (2) Minimum sizes for plant material:

*Table 8.1 Minimum Tree and Shrub Sizes and Heights*

Minimum Tree Sizes and Heights		
Plant Type	Minimum Size at Planting	Minimum Height at Planting

Tree	2.5-inch Caliper	10 feet
Shrub	3 gal	Species dependent

(B) Selection of Trees for installation.

(1) Species diversity.

- a. Diversity of the genus and species of trees is required to prevent monocultures, which could result in large-scale losses in the event of disease or blight.
- b. A minimum of four (4) species of trees are required for installations calling for greater than 20 trees. An additional species shall be included for every 5 additional trees over 20. However, the biodiversity requirement does not apply to
  - i. Existing plant material used to meet the requirements of this Article,
  - ii. Development sites of one acre or less, or
  - iii. Plantings in riparian buffers.

(2) Plant Material.

- a. Trees planted pursuant to this Section shall be good, healthy nursery stock. The form, size, quality and proportions of proposed trees must meet the guidelines outlined in the ANSI Z60.1 American Standard for Nursery Stock.

(3) Preferred Trees.

- a. Trees listed in Appendix A (South Carolina Urban Tree Species Guide) shall be utilized to fulfill the requirements of this Article. Trees that are not listed in this Guide are allowed and comply with this Section if the Planning Director determines that the tree is not a prohibited species and is either native to the region or not invasive.

(4) Material installation.

- a. All plant material installation must conform to the minimum standards of the American National Standards Institute (ANSI) A300 Standards for Tree Care Operations.

(5) Time for Planting.

- a. Generally.
  - i. New plant material shall generally be installed after construction of the project or phase has been completed.
- b. Delayed Planting.

- i. The Planning Director may approve a delay of the required landscape installation until the appropriate planting season, generally from October through March.
    - c. Security Required.
      - i. In the event of delayed planting, the applicant must provide a performance bond or other adequate security as provided in Article 3 in an amount sufficient to ensure completion of the plant material installation.
- (C) Professional Expertise.
  - (1) The applicant should seek professional expertise to determine the appropriate plant materials for any particular site, when considering individual site, soil, moisture, and microclimate conditions.
- (D) Use of Existing Vegetation
  - (1) Existing vegetation, including all trees of any dimension, shall be retained to the extent practical and feasible. In no event shall a developer clear-cut the site of a required street protection yard or bufferyard. Instead, the developer shall conduct an Existing Tree Inventory, identifying the location, species, and diameter (breast height) of all trees in the bufferyard, and complement the presence of such trees with appropriate shrubs and other vegetation to meet all requirements of this Section. All existing trees used to meet the requirements of this ordinance shall comply with Section 8.7\_Tree Protection.
- (E) Alternative Compliance
  - (1) Where the application of the standards in this section would result in unreasonable or impractical situations due to unusual site conditions, such as may be caused by streams, natural rock formations, topography, lot configuration, or utility easements, the Planning Director may approve, with written explanation, an alternate plan on finding that the alternate plan
    - a. results in landscaping of similar quality, effectiveness, durability, and performance, and
    - b. is consistent with the purpose and intent of this section, taking into account the number of plantings, the species, arrangement, and coverage proposed, the location of planting on the development site, the level of screening achieved, and the height, spread, and canopy of the proposed plantings at maturity.
  - (2) Tree Fund for Alternative Compliance.

In the event that landscape requirements cannot be met to the satisfaction of the Planning Director, the Planning Director may require that payment be made to a City tree fund.

- a. All unmet requirements are compensated for through payment to the Cayce Tree Fund of 150% of the estimated cost of plant materials and installation. Estimates used to calculate the cost of plant materials and installation must be made not more than 90 days prior to the submission of the alternative landscape plan. Two estimates provided with letterhead will be submitted for review and approval. The payment shall be based on the average of the two estimates multiplied by 150%. The payment shall be capped at \$25,000 per disturbed acre during development, to be adjusted upward or downward on a pro rata basis based upon the number of acres disturbed.

(F) Irrigation Requirement

- (1) Mechanical irrigation shall be used in all required planting areas, except stormwater management areas and areas within developments containing fewer than ten parking spaces.
- (2) Irrigation systems shall meet the following requirements:
- (3) An irrigation plan must be provided for all project areas required to be irrigated, or the following statement provided on the site and landscaping plans: "All planting areas shall be mechanically irrigated."

(G) Prohibited Plant Materials

- (1) No tree or shrub listed in Appendix B (South Carolina Exotic Pest Plant Council Terrestrial Exotic Invasive Species List) shall be planted to meet any requirements of this ordinance.

(H) REQUIRED MAINTENANCE

The maintenance of required landscaped areas shall be the responsibility of the property owner. All such areas shall be properly maintained so as to assure their survival and aesthetic value. All planted areas shall be maintained weed-free and annually mulched. All turf areas shall maintain their grass blades at a maximum of 3.5 inches in height. Failure to maintain such areas is a violation of this Ordinance, and may be remedied in the manner prescribed for other violations.

All tree trimming evolutions shall be accomplished at the direction of an ISA (International Society of Arboriculture) Certified Arborist.

### 8.3 STREET PROTECTION YARD

#### 8.3.1. PURPOSE

A street protection yard is a landscaped area abutting and parallel to a public road right-of-way designed to:

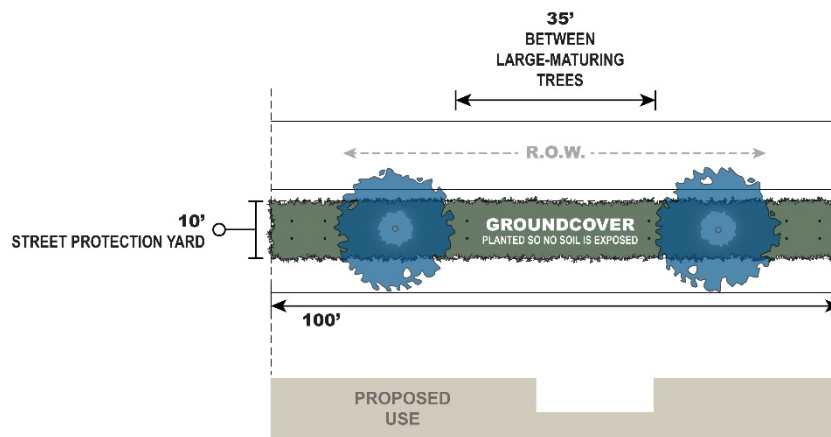
- (C) Provide more pleasing views along travel ways,
- (D) Provide for continuity of vegetation,
- (E) Reduce the amount of impervious surface and thereby reduce stormwater runoff, and
- (F) Provide shade.

#### 8.3.2. APPLICABILITY

All new development shall comply with the standards of this section, except development in a zoning or overlay district that has a build-to line or a setback of less than ten feet.

#### 8.3.3. LOCATION AND DIMENSIONS

Street protection yards shall be located within twenty feet of the public right-of-way, at least ten feet in width and shall encompass the entire frontage of the property to be developed, with exceptions for sidewalks or driveways.



#### 8.3.4. MINIMUM PLANTINGS

- (A) Each street protection yard shall contain at least one large-maturing tree unless overhead utility lines are present. Any tree planted within the right-of-way of an overhead utility line shall be a small-maturing tree.
- (B) Within the street protection yard, at least one large-maturing tree for every 35 linear feet of frontage is required, or at least one small- or medium-maturing tree for every 25 linear feet of street frontage is required. If overhead utilities are present, a small-maturing tree shall be substituted.

- (C) Existing trees two-inch caliper or greater within the street protection yard and right-of-way will be counted towards meeting the minimum street protection yard tree requirement.
- (D) Except for mulched areas directly around each tree or shrub, a street protection yard shall be covered with living material, including ground cover and/or shrubs, so that no soil is exposed.

## 8.4 BUFFERYARDS

### 8.4.1. PURPOSE

The purpose of a bufferyard is to ameliorate potential adverse impacts between land uses, and promote land use compatibility.

### 8.4.2. WHERE REQUIRED

When required by Section 8.2.1, bufferyards shall be installed in accord with the Table 8.2.

*Table 8.2 Bufferyard Requirements*

<b>Subject Property Zoning District</b>	<b>Adjacent Property Zoning District</b>						
	<b>LDR, MDR, O-S</b>	<b>SLR, UR</b>	<b>Multi-Family</b>	<b>C-1, C-2</b>	<b>C-3</b>	<b>C-4, M-1</b>	<b>M-2</b>
<b>LDR, MDR, O-S</b>	1	1	1	1	1	1	2
<b>SLR, UR</b>	2	1	1	1	1	1	1
<b>Multi-Family</b>	3	2	-	1	1	1	1
<b>C-1, C-2</b>	3	3	3	-	1	1	1
<b>C-3</b>	3	3	2	2	-	1	1
<b>C-4, M-1</b>	4	4	3	3	2	1	3
<b>M-2</b>	5	5	5	5	5	5	1

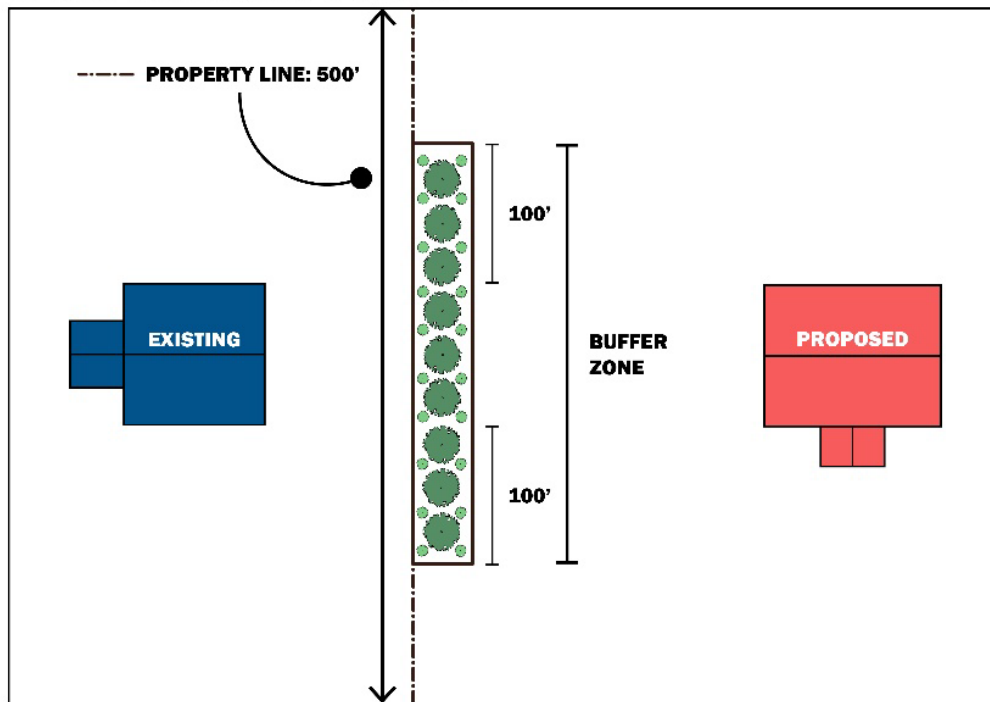
\*Knox Abbott Overlay District may have different buffer requirements that are described in Article 4.

**8.4.3. SPECIFICATIONS AND OPTIONS**

From Table 8.1, match the adjacent property zoning district with the subject property zoning district to determine the type of bufferyard required. If the use on the property does not conform with its zoning district, the Planning Director may determine a different bufferyard type. Next, refer to the Bufferyard Illustrations to determine the amount of bufferyard required. Several options of landscaping are available under each bufferyard. The requirements are given in 100-foot units as measured along the property line. Whenever a wall or fence is required, the location of the structure may be on either side of the required bufferyard.

The length of a bufferyard shall extend the length of the property line separating two uses, except for property lines in excess of 200 feet, where the bufferyard need only extend 100 feet beyond either end of the existing use to be buffered.

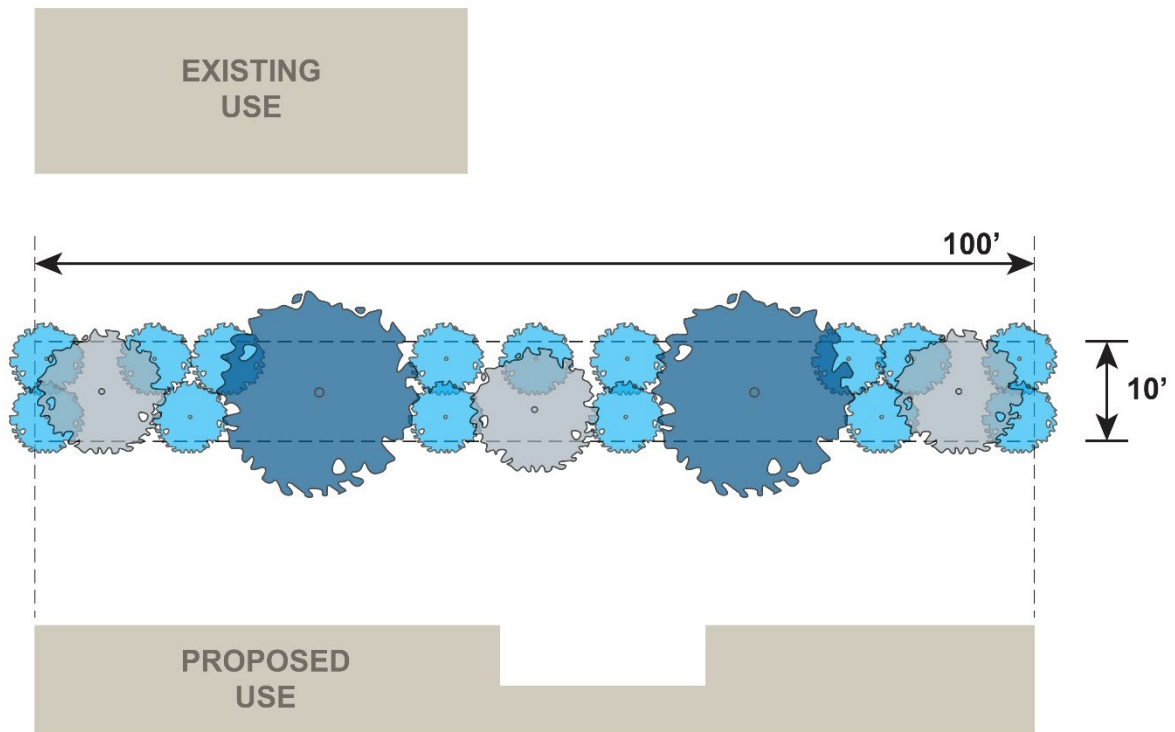
**REQUIRED BUFFERYARD EXAMPLE**



(C)

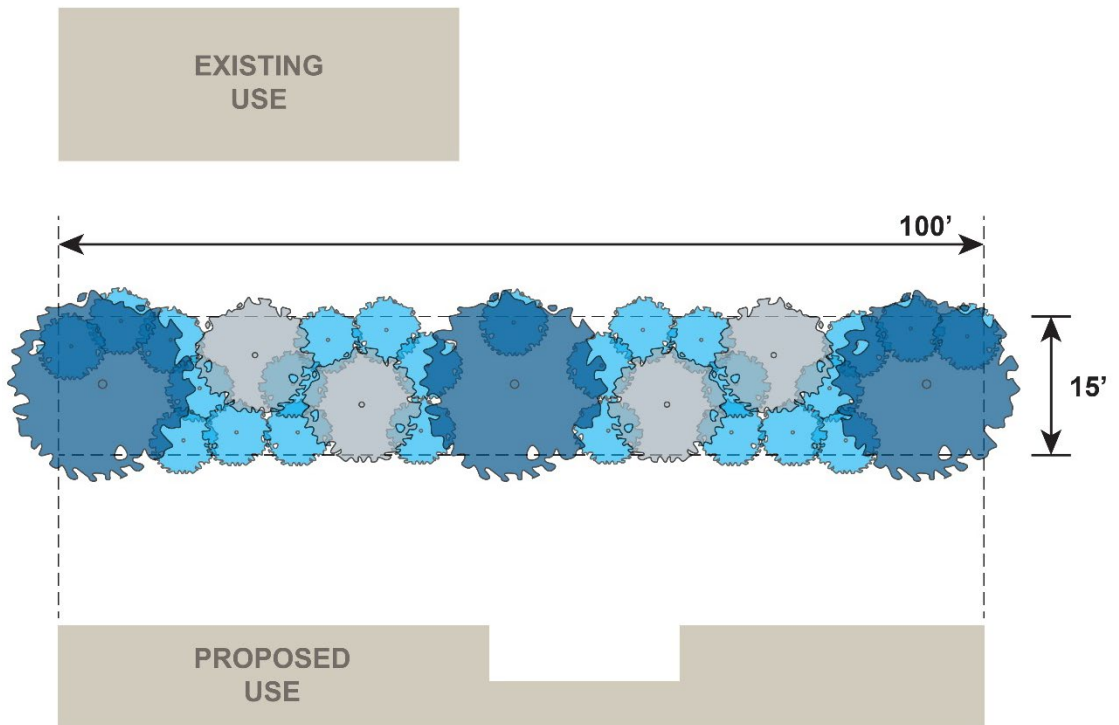
8.4.4. BUFFERYARD TYPES AND DESCRIPTIONS  
(C) Type 1 Bufferyard

TYPE 1 BUFFERYARD OPTIONS					
Options	Minimum Average Width	Large Tree	Small / Medium Tree	Shrubs / Native Grasses	Evergreen Requirement
Plantings Only	10'	2	3	15	30%
Fence/Wall and Plantings	6'	-	-	25	100%



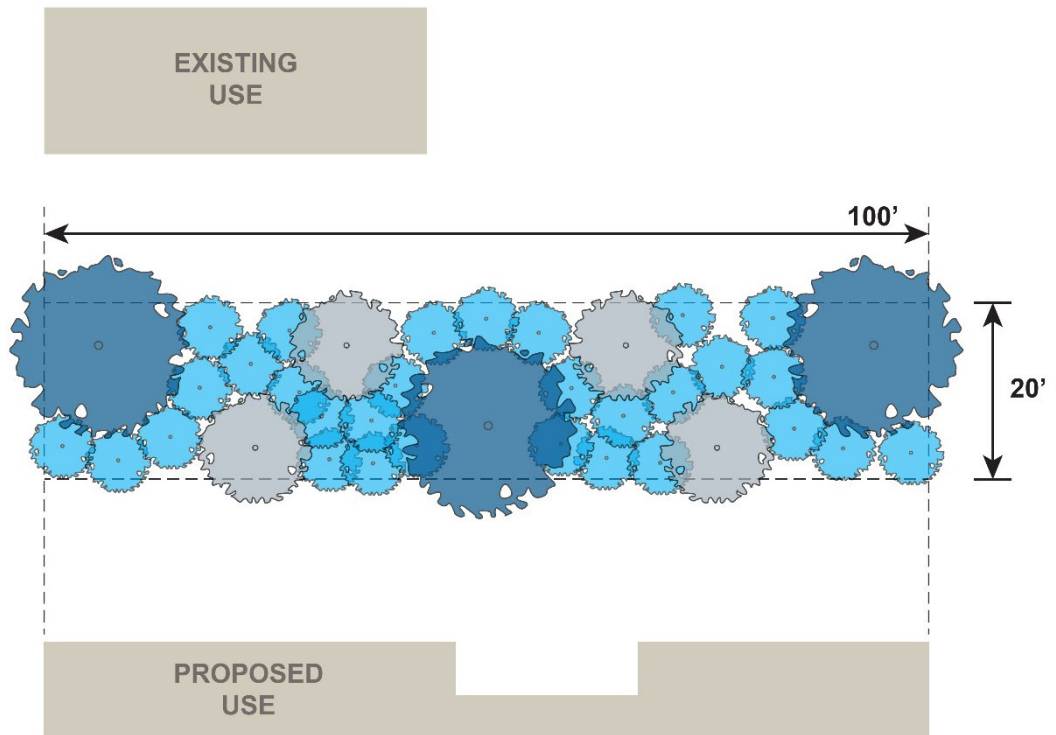
(D) Type 2 Bufferyard

TYPE 2 BUFFERYARD OPTIONS					
OPTIONS	Minimum Average Width	Large Tree	Small / Medium Tree	Shrubs / Native Grasses	Evergreen Requirement
Plantings Only	15'	3	4	25	50%
Berm and Plantings	14'	2	3	20	50%
Fence/Wall and Plantings	10'	-	3	20	100%



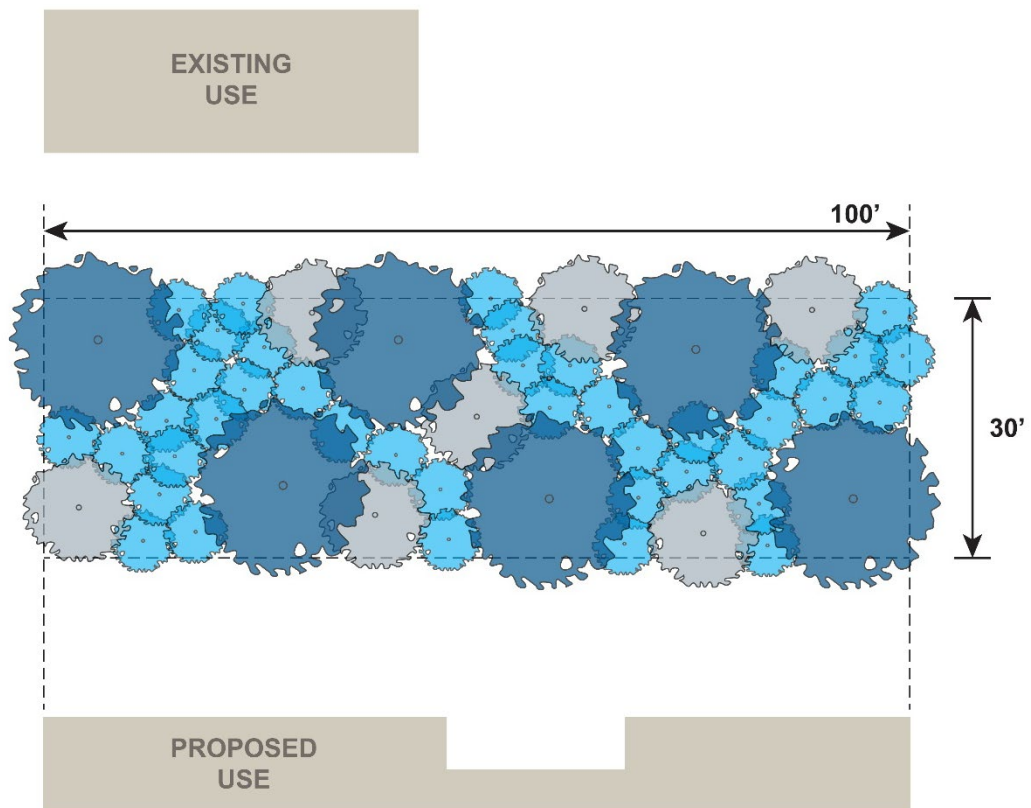
(E) Type 3 Bufferyard

TYPE 3 BUFFERYARD OPTIONS					
OPTIONS	Average Width	Large Tree	Small / Medium Tree	Shrubs/Native Grasses	Evergreen Requirement
Plantings Only	20'	3	4	30	60%
Berm and Plantings	15'	3	6	20	60%
Fence and Plantings	15'	2	6	30	60%



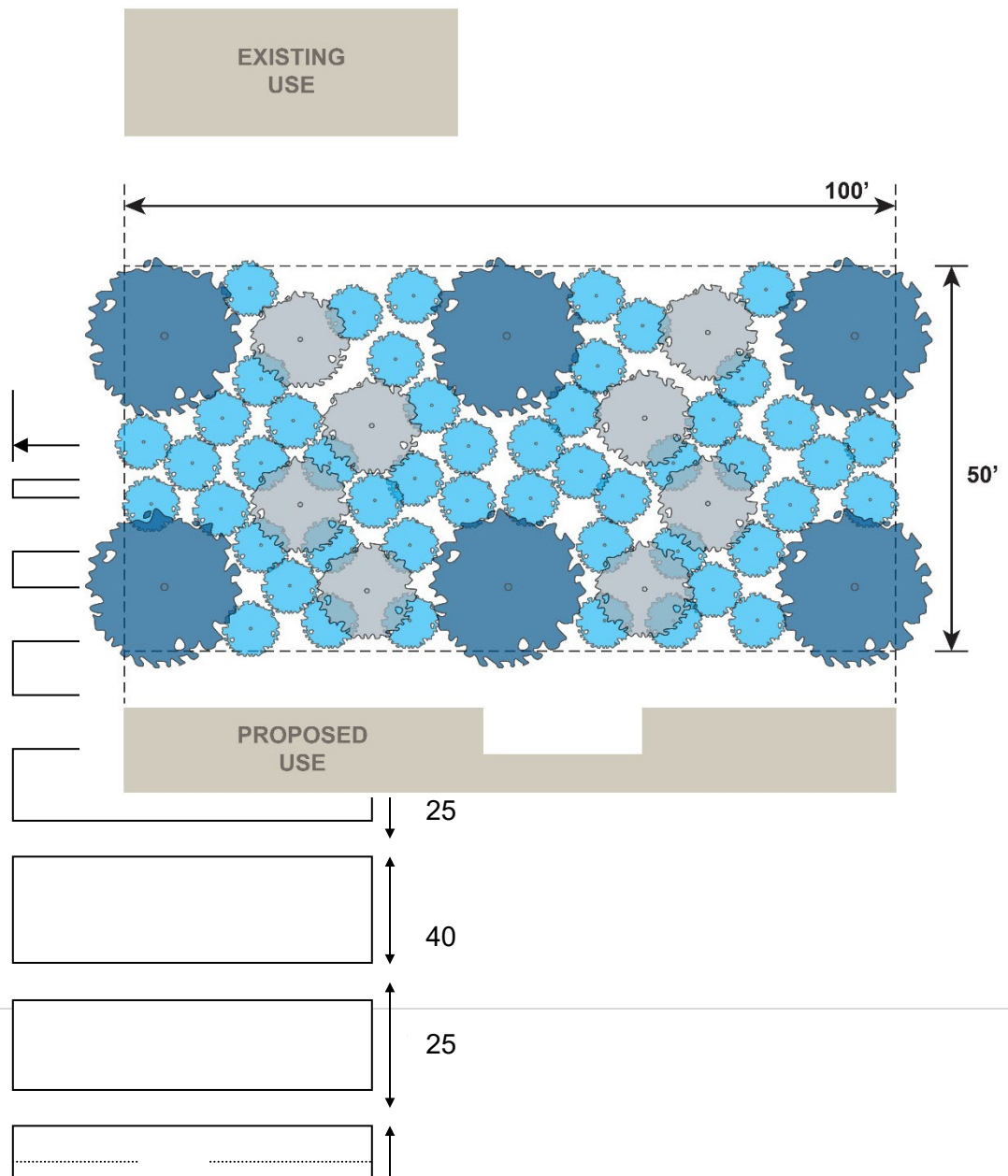
(F) Type 4 Bufferyard

TYPE 4 BUFFERYARD OPTIONS					
OPTIONS	Average Width	Large Tree	Small / Medium Tree	Shrubs	Evergreen Requirement
Plantings Only	30'	6	7	40	75%
Berm and Plantings	20'	3	5	25	75%
Fence and Plantings	20'	3	5	40	100%



(G) Type 5 Bufferyard

TYPE 5 BUFFERYARD OPTIONS					
OPTIONS	Average Width	Large Tree	Small / Medium Tree	Shrubs	Evergreen Requirement
Plantings Only	50'	6	8	50	75%
Berm and Plantings	40'	4	7	40	75%
Fence and Plantings	40'	4	7	40 </td <td>100%</td>	100%



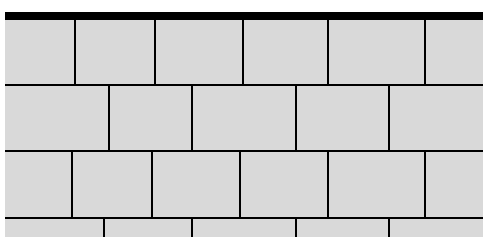
**8.4.5. FENCE AND WALL STANDARDS**

- (A) If a fence or wall is utilized to fulfill buffer requirements the following standards must be met:
- (1) The material shall be textured.
  - (2) The location of the structure must be on the proposed development side of the buffer.
  - (3) Fence shall be opaque with a minimum height of eight (8) feet in height and employ durable materials resistant to rot and decay.
  - (4) No wall shall be constructed with plain-faced or cast-in-place concrete.
  - (5) Fence must be consistent in appearance, continuous, permanent, and maintained in good condition.
  - (6) For new development in the C-3 District, the wall shall be eight (8) feet tall and constructed with full brick if used adjacent to any residential district, including multi-family.

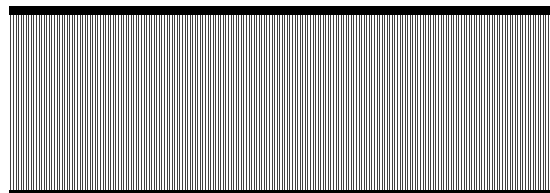
**8.4.6. BERM STANDARDS**

- (A) If a berm is utilized to fulfill buffer requirements the following standards must be met:
- (B) Berms shall have a maximum of 2:1 slope and a minimum crown width of 3.5 feet.
  - (C) Unless specified elsewhere, berms shall have an average height of three (3) feet.
  - (D) Berms shall have a maximum height of eight feet above the toe of the berm.

Masonry Wall



Wooden Fence



#### 8.4.7. RESPONSIBILITY

It shall be the responsibility of the proposed new use to provide the bufferyard where required by this Ordinance, except that no new infill residential dwelling shall be required to provide such bufferyard.

#### 8.4.8. REQUIRED MAINTENANCE

The maintenance of required bufferyards shall be the responsibility of the property owner and follow the requirements of Section 8.2.4(H). Additionally, dead trees shall be removed and replaced; debris and litter shall be cleaned; and berms, fences, and walls shall be maintained at all times. Failure to do so is a violation of this Ordinance, and may be remedied in the manner prescribed for other violations.

#### 8.4.9. USE OF BUFFERYARDS

A bufferyard may be used for passive recreation and may be interrupted by access driveways not exceeding 20 feet in width (exceptions for uses requiring wide curb cuts may be approved by the Planning Director). All other uses are prohibited, including off-street parking.

#### 8.4.10. SIGHT CLEARANCE

Bufferyards may not obscure a clear line of sight for vehicular traffic.

### 8.5 SCREENING

#### 8.5.1. DESCRIPTION

Screening is a type of buffer that is designed to block or obscure a particular element or use from view.

#### 8.5.2. PURPOSE

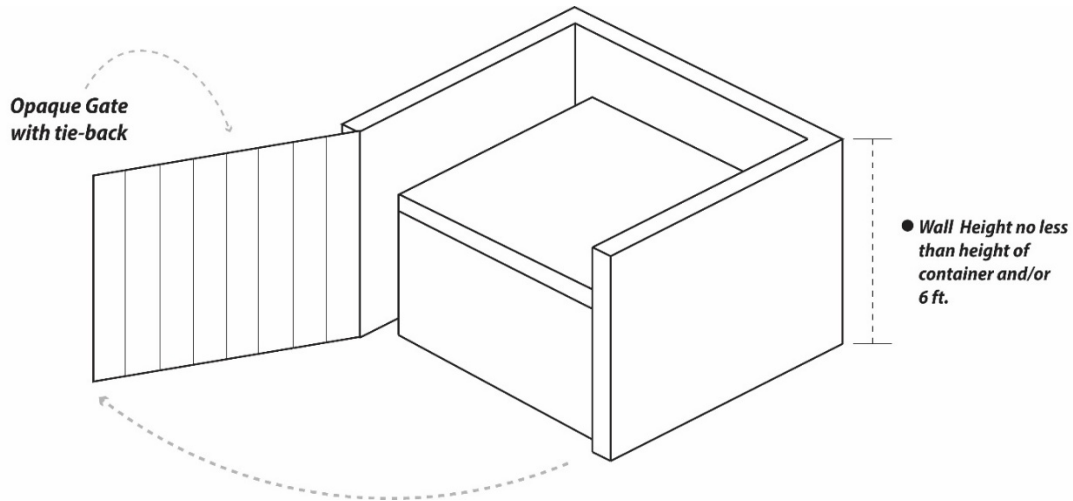
The purpose of screening is to minimize if not eliminate entirely the visual impact of potentially unsightly open storage areas and refuse disposal facilities.

#### 8.5.3. WHERE REQUIRED

Screening specified by this section shall be required of all open storage areas not devoted to retail sales visible from any public street, including open storage areas for shipping containers, building materials, appliances, trash containers of 4 or more cubic yards, salvage materials and similar unenclosed uses.

#### 8.5.4. TYPE SCREENING REQUIRED

Screening shall be accomplished by an opaque divide not less than six (6) feet in height or the height of the object to be screened, whichever is greater. Screening may be accomplished by the use of sight obscuring plant materials (generally evergreens), earth berms, walls, fences, proper siting of disruptive elements, building placement or other design techniques approved by the Planning Director.



## 8.6 INTERIOR SITE LANDSCAPING

### 8.6.1. PURPOSE

The purpose of interior site landscaping is to improve the appearance of vehicular use areas.

### 8.6.2. INTERIOR SITE LANDSCAPING REQUIREMENTS

- (A) One large-maturing tree shall be planted for every 10 parking spaces. Small or medium-maturing trees may be used in areas directly under or within close proximity of overhead power lines.
- (B) Each parking space shall be located within 50 feet of a tree trunk.
- (C) Trees in street protection yards may count towards these requirements.
- (D) Each interior planting area shall be a minimum of 640 square feet in area and not less than five feet in width or length. Root barriers shall be installed in accordance with Section 8.2.4(F).
- (E) Large vehicular surface area requirements
  - (1) For every two acres of vehicular surface area (rounded to the closest two-acre increment), four planted medians, each having a minimum 840 feet of planted area, shall be provided.
  - (2) The minimum width of each planted median shall be sixteen (16) feet, exclusive of any pedestrian pathways.

- (3) Each planted median shall be continuous and uninterrupted except for points of access.
- (F) Shrubs
  - (1) All parking lots must be screened with shrubs or a permanent structure. Shrubs for screening shall be planted so that within two years of planting there is a continuous evergreen screen at a two (2) foot height.
- (G) Landscaping along exterior building walls and structures is suggested to separate with greenery the building from the vehicular surface area.


**8.7 TREE PROTECTION**

**8.7.1. PURPOSE**

The purpose of this section is to protect and sustain the intrinsic value of trees and their ability to promote the public health, safety and general welfare, to lessen air pollution, to increase air filtration, to reduce noise, heat and glare, to prevent soil

erosion, to aid in surface drainage and minimize flooding, to beautify and enhance the environment.

#### 8.7.2. APPLICABILITY

- (A) The provisions of this article apply to all new development that causes land disturbing activities for which a grading permit is required.
- (B) Limitations

Clearing trees through development activity that uses timber harvesting as a means to prepare a site for non-exempt development to circumvent the requirements of this Article is prohibited. The City shall defer any application:

- (1) For one year after the completion of a timber harvest if:
  - a. The harvest results in the removal of all or substantially all of the trees from the specific area included in a building permit, site disturbance permit, or subdivision plan; and
  - b. The removal qualified for an exemption contained in S.C. Code Ann. § 48-23- 205(B);

or

- (2) For five years after the completion of a timber harvest if:
  - a. The harvest results in the removal of all or substantially all of the trees from the specific area included in a building permit, site disturbance permit, or subdivision plan;
  - b. The removal qualified for an exemption contained in in S.C. Code Ann. § 48-23- 205(B); and
- (3) The harvest was a willful violation of City regulations.

#### 8.7.3. PROTECTED TREES

Any tree measuring 20" DBH (Diameter at Breast Height) shall constitute a "significant tree" for purposes of this section and shall be protected to the extent practical and feasible. To this end, no person, firm, organization, society, association or corporation, or any agent or representative thereof shall directly or indirectly destroy or remove any tree in violation of the terms of this section.

#### 8.7.4. EXCEPTIONS

Exempt from the requirements of this section are the following:

- (A) Any public street, utility project or right of way.
- (B) Any existing single-family or two-family dwelling on an existing lot of record.
- (C)
- (D) Significant trees that are determined to be hazardous by a City arborist.

#### 8.7.5. TREE SURVEY

Prior to grading or clearing a lot or parcel for development and the issuance of a grading or building permit, the developer/owner applicant shall have conducted a tree survey identifying the location of all significant trees and all trees used to meet the requirements of this Article. Said trees shall be shown on a survey plat and physically marked with brightly colored tape or other markings.

#### 8.7.6. SITE DESIGN

The design of any land development project or subdivision shall take into consideration the location of all significant trees identified on the tree survey.

The site design shall be presented on a site plan showing:

- (A) Existing location, size and root protection zone of all significant trees and trees to be preserved
- (B) Trees to be removed, if approved.
- (C) Areas to be cleared
- (D) Areas for proposed structures and improvements

Site plan approval by the Planning Director shall be prerequisite to the issuance of a grading and/or building permit.

#### 8.7.7. TREE PROTECTION AND REPLACEMENT

(A) **Prior to Development.** Where a grading permit, building permit or subdivision approval has not been issued, the destruction of any significant tree, as defined by this Ordinance, without prior approval of the Planning Director, which approval shall not be unreasonable withheld, shall be prohibited.

**(B) Development Activity within Root Protection Zones.**

- (1) Root zone dimensions are found in Article 12 Definitions.
  - (2) Development Activity within Root Protection Zones is prohibited.
  - (3) All root protection zones shall be approved by the Planning Director after installation and before construction.
- (C) No Construction, grading, parking, equipment, material storage, or any other land disturbing activity is allowed within the Root Protection Zones.

**(D) Protective Fencing Required.**

- (1) Protective fencing is required for all root protection zones and is to be maintained during construction. Protective fencing shall:
  - (2) Be at least 4 feet in height;
  - (3) Completely encircle the root protection zones as provided on the TPP; and
  - (4) Be in place prior to any land disturbing activity begins and remain in place for the duration of the project.

- (E) **Protection for Contiguous Groups of Trees.** Groups of trees may be protected by one perimeter fence meeting the specifications outlined in this Section.
- (F) **Signs Required.** Signs must be installed on the protective fence visible on all sides of the fenced-in area (minimum one on each side or every 100 linear feet). The sign must contain the following or similar text: “TREE PROTECTION ZONE: KEEP OUT.”
- (G) **Trenching and Boring.**
  - (1) Trenching is not allowed without the Planning Director’s approval and requires a showing that boring is not a viable alternative construction method.
  - (2) Boring is allowed to install site access to utilities, but corridors for the boring must be identified on the tree protection plan.
- (H)
- (I) **After Development.** No person shall break, damage, remove, cut, kill or cause to be killed any significant tree, except for the following:
  - (1) In the event that any tree shall be determined to endanger the public health, safety or welfare, including airport operations, and require removal, written authorization may be given by the Planning Director and the tree or parts thereof (i.e. dead limbs) removed;
  - (2) During the period of an emergency, such as a hurricane, tornado, ice storm, flood or any other act of nature, the Planning Director may waive the requirements of this section. Where due to unusual site conditions or circumstances, the requirements of this section pose a constraint to development and/or the use of a site or parcel, the Planning Director may adjust the requirements as necessary to moderate the constraint;
  - (3) Trees involved in wetland mitigation;
  - (4) Diseased (unhealthy) or nuisance trees, with approval of the Planning Director.

#### 8.7.8. REPLACEMENT CRITERIA

- (C) If it is not feasible for a significant tree to remain on the site and protected in accordance with 8.7.7 (B), the Planning Director shall approve and the developer shall plant 2-inch caliper replacement trees under the following conditions:
  - (1) Each inch of caliper of newly planted tree shall total the number of inches of DBH of the significant tree to be removed.
  - (2) These replacement trees shall not be used to meet the requirements of any other landscape requirement.

- (3) If all replacement trees cannot be satisfactorily planted on the developed site, contributions to the tree fund in accordance with 8.2.4(E)(2) may apply.

**8.7.9. SIGNIFICANT TREES REMOVED WITHOUT PERMITS**

(C) Where significant trees have been removed or where removal is necessitated at any time due to acts of negligence, or where sites were cleared of significant trees in violation of this section, the Planning Director shall approve and the developer shall plant 2-inch caliper replacement trees under the following conditions:

- (1) Each inch of caliper of newly planted tree shall total three (3) times the number of inches of DBH of the significant tree that were removed.
    - a. If the tree has been removed and the DBH cannot be verified, the Planning Director has the discretion to determine the size of the significant tree(s) that were removed.
  - (2) These replacement trees shall not be used to meet the requirements of any other landscape requirement.
  - (3) If all replacement trees cannot be satisfactorily planted on the developed site, contributions to the tree fund in accordance with 8.1.1(E) Tree Fund for Alternative Compliance may apply.
- (D)