

AN ORDINANCE FOR THE CITY OF CLEMSON, SOUTH CAROLINA

**AN ORDINANCE TO AMEND Chapter 19, ARTICLE IX. BUFFERYARDS, SCREENING,
AND LANDSCAPING SPECIFICATIONS**

Now, therefore, be it ordained that the City Code of the City of Clemson, South Carolina shall be amended:

Done and ordained this the 15th day of August 2016.

First Reading: August 1, 2016

J.C. Cook III, Mayor

Final Reading: August 15, 2016

Attest:

Ord. No CC-2016- 26

Beverly A. Coleman, Municipal Clerk

ARTICLE IX. BUFFERYARDS, SCREENING, AND LANDSCAPING SPECIFICATIONS

Section. 19-901. Purpose

- A. The city has diverse and abundant vegetation which provides ecological and economic benefits and contributes to the city's aesthetic appeal;
- B. This division sets forth required landscaping to:
 - 1. Encourage the preservation of existing trees and vegetation;
 - 2. Improve the visual quality of the city;
 - 3. Provide environmental benefits; and
 - 4. Provide a transition between land uses.

Section. 19-902. Applicability

- A. The following developments must bring the site into compliance with the requirements of this section:
 - 1. Any new public or private development;
 - 2. Changes to use of higher impact as determined by the Zoning and Codes Administrator;
 - 3. Properties that have remained unused or without a permitted use for a period of 120 days;
 - 4. Any improvements with total cost exceeding 50 percent of the assessed value of the building according to county tax records;
 - 5. Expansions of existing structures exceeding 50 percent of the pre-expansion floor area; and
 - 6. Any vehicular use area that is enlarged.
- B. Between non-residential and/or mixed-use structures within commercial districts, bufferyard requirements shall not apply.

Section. 19-903. Landscape Plan Required

- A. When landscaping is required, a landscape plan drawn to scale shall be submitted.
- B. The landscape plan shall indicate:
 - 1. All types and sizes of plant material;

2. All notes relating to protection and preservation of existing vegetation; and
3. The location of all existing and proposed easements.

Section. 19-904. Location of Landscape Bufferyards

- A. Unless otherwise specified, required bufferyards and screenings shall be located on the outer perimeter of the lot or parcel boundary line, however, in the case of recorded access/egress easements between two properties, the landscape buffer shall be installed along the recorded easement line.
- B. Bufferyards and screenings shall not be located on any portion of an existing public or private street right-of-way.
- C. Unless otherwise directed, the depth of required bufferyards shall be as specified in Table 19-907.

Section. 19-905. Bufferyard, Screening, and Landscaping Specifications

- A. In addition to the administration and enforcement provisions set out in this chapter, upon request by the Zoning and Codes Administrator the required landscaping plans may be reviewed by the City Horticulturalist for suitability of materials in the form of a report to the Zoning and Codes Administrator.
- B. The placement, species, and materials of required plants and structures shall be as indicated on the approved landscape plan.
- C. General landscaping requirements:
 1. All required plantings installed shall be nursery grown stock that is free from disease or growth problems and shall comply with the latest edition of the *American Standards for Nursery Stock*, published by the American Nurserymen's Association;
 2. Required and approved bufferyards shall not be used or disturbed for any reason except for approved driveways, pedestrian or bicycle paths, designated greenways, utilities, drainage ways, walls, fences, and other passive uses. However, there shall be no reduction of required landscape material in these cases. Approval from the Zoning and Codes Administrator is required prior to initiating any disturbance of the buffer or any required plant material. The Utilities Director shall approve all landscaping material within a utility easement;
 3. Clustering or random spacing of plants and trees is allowed within each bufferyard to produce a natural appearance in the landscape, except where uniformity is required for opaque screening or formal plantings;
 4. Landscaping, including berms, shall be installed and maintained so as not to interfere with the sight distance requirements of this ordinance or the sight distance needs of drivers in parking areas, at entrance and exit locations, and at street intersections or as required by the city engineer;

5. Understory trees are permitted to be substituted for required upper-story trees whenever the larger tree would interfere with existing overhead utility lines. Approval for tree substitution within the AR Districts is delegated to the Board of Architectural Review; approval for all other areas is delegated to the Zoning and Codes Administrator;
 6. The minimum landscape area for each required or preserved tree shall be no less than 170 square feet;
 7. All landscaping shall be coordinated throughout a development site in terms of its location, planting, and dimensions at maturity;
 8. The Zoning and Codes Administrator may approve revisions to an approved landscaping plan in order to accommodate seasonal planting problems or a lack of plant availability provided:
 - a. There is no reduction in the quantity of plant material;
 - b. There is no significant change in the size or location of plant materials;
 - c. New plants are of the same general category and have the same general design characteristics as the materials being replaced; and
 - d. Any substituted plant material does not conflict with any required approval from any review board or commission; and
- D. A type of ground cover shall cover all portions of landscape area not occupied by landscape materials, buildings, or paving. Ground cover may consist of the following: grass or turf material, shrubs that do not exceed 12 inches in height at maturity, organic mulch other than pine straw, or other pervious landscape material approved by the Zoning and Codes Administrator. If property has been seeded and strawed, satisfactory germination must be evident prior to issuance of a certificate of occupancy. If, after 6-months from issuance of a certificate of occupancy the seeded area is not fully covered with grass then sod or mulch shall be installed.
- E. Landscape materials meet the following size and specifications:

1. Whenever new trees or shrubs are required by this ordinance, they shall meet the standards provided in Table 19-905 at the time of planting unless otherwise specified by an approved plan;

Table 19-905. Minimum Requirements for Plant Size and Specifications

Type	Minimum Height at Maturity (ft)	Maximum Height at Maturity (ft)	Minimum Crown Spread at Maturity (ft) ²	Minimum Height at Planting (ft)	Minimum Caliper ¹ at Planting (inch)	Minimum Spacing (ft on center)
Upperstory tree	40'	none	30'	10'-12'	2"	30'
Understory tree	15'	30'	15'	8'	n/a	15'
Shrubs ³		none	none	n/a	n/a	24'

¹ Caliper shall be measured six inches above the ground.

² The minimum crown spread of trees shall only apply to upperstory trees.

³ Shrubs should be 3 gal. in size and do not include ground covers.

2. All shrubs shall be installed as to reach a minimum height of 36 inches within three years of installation; and shall comply with the Florida Standards for material quality
3. Whenever trees and shrubs are required for specific screening, the trees shall be of an evergreen type that retains their foliage to within six inches off the ground on a year-round basis and no more than 30 percent of shrubs planted throughout a planting area shall be deciduous.

F. The installation and maintenance of required plant material shall comply with the following:

1. All required plantings shall be installed in a manner that ensures the availability of sufficient soil and water for healthy growth and that is not intrusive to above or below ground utilities;
2. All landscape materials required or committed voluntarily by the developer shall be properly maintained;
3. Maintenance includes all actions necessary to keep landscaping materials healthy, neat and orderly in appearance, and free of litter and debris;
4. Any landscaping lost or diseased shall be removed and replaced unless, in the opinion of the Zoning and Codes Administrator, the maturity of the remaining vegetation sufficiently fulfills the intent of this ordinance;
5. Necessary pruning and trimming shall not be interpreted to include topping of trees through removal of crown material or the central leader, or any other similarly severe procedures known as "lollipoping," "meatballing," or "hatracking" that cause irreparable harm to the natural form of the tree, except where such

procedures are necessary to maintain public overhead utilities. Any such activity shall be a violation of this ordinance and additional plant material may be required by the Zoning and Codes Administrator to replace or supplement the damaged plant material;

6. All landscaping and screening shall be installed, inspected, and approved prior to the issuance of a certificate of occupancy;
7. If seasonal and/or prevailing weather conditions prohibit planting, the Zoning and Codes Administrator may authorize a temporary certificate of occupancy;
8. The owner of the property where landscaping is required shall be responsible for the maintenance and protection of all plant and screening material;
9. Failure to maintain or replace dead, damaged or diseased plant material or to repair a broken wall within 30 days of notification shall constitute a violation of this section;
10. If a catastrophic event occurs which destroys a large quantity of vegetation, the owner or lessee shall have 180 days to replant with extensions authorized by the Zoning and Codes Administrator; and
11. Replaced plant material must be in compliance with the minimum size, spacing, and quantity standards of this section.

E. Vehicular use area shall be designed to comply with the following:

1. At least 10 percent of the total interior square footage of all vehicular use areas as designed and constructed shall be dedicated to landscaping and shall meet the following requirements:
 - a. All areas of the parking lot framed by the required buffer and adjacent buildings (where the perimeter buffer is not required) shall be used in calculating the required interior landscaped area and the required interior landscaping shall be located within this area;
 - b. Each required interior landscaped area shall be at least 64 feet in size with no dimension less than four feet; and
 - c. A pass-through for pedestrian access shall be placed at intervals not less than one every 100 feet across landscape strips between parking aisles. No reduction in required vegetation will be permitted to accommodate this access. All such pedestrian access areas shall be clearly shown and labeled on the landscape plan;
2. Any vehicular use area shall require a minimum landscape buffer of eight feet in

depth or a berm along the lineal boundary of all streets or alleys and five feet along all other perimeters of the vehicular use area, except that the perimeter buffer shall not be required where it interferes with pedestrian access to a building for which the parking is provided or with loading, unloading and utility areas;

3. Berms may be used to fulfill the requirements of the eight foot exterior landscape buffer along the linear boundary of streets or alleys and shall comply with the following:
 - a. Maximum rise to run ratio of 2:1 is provided;
 - b. Minimum depth of the berm shall be eight feet; and
 - c. All areas shall be stabilized and maintained with appropriate landscape materials with ground covers, mulches or similar natural materials;
4. Within AR districts a decorative wall or solid fence no higher than six feet may be used in lieu of a landscape buffer at the side or rear property lines with the approval of the Board of Architectural Review; and
5. If perimeter buffer requirements overlap with the bufferyard and screening requirements from Table 19-907, the greater requirement shall apply.

F. Landscaping requirements associated with vehicular use areas shall comply with the following:

1. There shall be sufficient upper story trees within and around the vehicular use area to ensure any portion of the vehicular use area is within 40 feet of a planted or retained tree trunk;
2. The trees shall be located within the front or side street setbacks;
3. The minimum landscape area for each tree shall be no less than 170 square feet with four feet minimum distance between all trees and paving at time of planting, measured at the base of the tree;
4. Shrubs within a landscape buffer abutting a street right-of-way or within a perimeter of the vehicle use area shall be arranged to form a continuous row, designed to be planted three feet on center and must occupy the buffer for which they were calculated;
5. The shrubs shall be planted no farther than four feet from the vehicular use area;
6. Shrubs must be located within the interior landscaped area for which they were calculated; and

7. The required shrubs shall be maintained at a height of approximately 36 inches.
- G. Other requirements include:
1. All landscaped areas shall be stabilized and maintained with ground covers, mulches, or similar natural materials to control weeds, prevent soil erosion and allow rainwater infiltration. Ground cover shall cover all portions of landscape area not occupied by landscape materials. Ground cover may consist of the following: grass or turf material, shrubs that do not exceed 12 inches in height at maturity, organic mulch, or other pervious landscape amenity approved by the Zoning and Codes Administrator;
 2. All landscaped areas shall be protected from vehicle damage by the installation of curbing, wheel stops, or other comparable methods allowing for a 30 inch vehicle overhang; and
 3. This standard shall not prohibit the use of planting areas as on-site storm water management devices. Vehicle overhang areas shall not count towards required minimum landscaping areas.
- H. The following additional plantings required for residential development:
1. In addition to other landscaping requirements, one upperstory tree shall be required to be planted within the required open space for every three dwelling units in multi-family residential developments.
- I. All bulk waste receptacles are subject to the following:
1. Outdoor bulk receptacles and storage areas shall be located outside of the required front setback and screened by using a gated, opaque fence or masonry wall, at a minimum of six feet in height;
 2. The fence or wall shall be combined with evergreen shrubs located at three foot intervals around the foundation of the fence or wall;
 3. Outdoor bulk receptacles located within the functional rear of the property may be located within setback area to allow access for service provided the receptacles are properly gated, fenced and screened; and
 4. Location of the receptacle shall be coordinated with the Director of Public Works.
- J. All utility equipment is subject to the following:
1. Outdoor utility equipment shall be screened from public streets by using an opaque fence or masonry wall with a minimum height of at least one foot higher than the equipment to be screened;

2. All fencing and masonry walls used for screening purposes shall be architecturally compatible with the proposed structures and shall have the finished side of the fence facing the abutting property or street; and
3. The fence or wall shall be combined with evergreen shrubs located at three foot intervals around the foundation of the fence or wall.
4. The Zoning and Codes Administrator has authority to waive these requirements for single-family, duplex, and townhome dwellings or conversion projects from overhead to underground utilities.

Section. 19-906. Existing Vegetation

- A. Prior to construction, grading or other land disturbing activity, substantial protective barriers shall be placed around the root protection area of all trees and shrubs to be saved;
- B. For trees, the root protection area shall not be less than the drip line;
- C. Barriers shall be maintained throughout the construction period;
- D. All land disturbance and tree protection measures will be indicated on approved civil and or landscape plans.
 1. Existing trees and shrubs that are preserved may be used to satisfy the landscaping requirements of these standards as long as they are:
 - a. Free from disease or growth problems;
 - b. Clearly shown on the site plan;
 - c. Approved by the Zoning and Codes Administrator prior to grading and development;
 - d. Any tree protection area shall be delineated on the site plan and shall include the location of all trees over 12 inches DBH, significant forest stands, specimen trees, and trees of local significance, as determined by the approving board or city council;
 - e. Preserved trees may be credited using the **Table 19-906**:

Table 19-906. Tree Preservation Credits

Caliper of Tree Saved (inches)	Trees Credited Earned
2" - 4"	1
5" - 8"	2
9" - 13"	3
14" - 19"	4
20" +	5

- f. If a preserved tree dies, it must be replaced with the total number of trees that were credited to the existing tree;
 - g. Large, healthy specimen trees and significant tree stands on the site shall be identified prior to development and site plans shall show the location of trees and shrubs to be retained and the locations of protective fencing;
 - h. No soil disturbance or compaction, stock piling of soil or other construction materials, vehicular traffic, or storage of heavy equipment are allowed in the areas designated for protection;
 - i. Any root pruning required will be specified on approved site or landscape plans;
 - j. No ropes, signs, wires, electrical device or other material shall be secured or fastened around or through a tree or shrub designated for protection;
 - k. Shall employ best management practices recognized by the American National Standards Institute (ANSI) A300 Standards for Tree Care Operations.
 - l. Should preserved trees or shrubs die at any time during or immediately after construction, the developer or owner must replace the trees or shrubs with landscaping equal to the tree preservation credit within six months of completion of the project.
- E. Any tree protection area shall be delineated on the site plan and shall include the location of all trees over 12 inches DBH, significant forest stands, specimen trees, and trees of local significance, as determined by the approving board or city council.
- F. Forested areas and vegetated areas and areas whose physical site conditions render them unsuitable for development shall be set aside as conservation areas or open space.

- G. If encroachment into a required tree protection area occurs during or after construction that causes irreparable damage to the vegetation, the area shall be replanted by the following conditions:
1. Trees shall be replaced at a rate of 10 trees per one thousand 1,000 square feet;
 2. Replacement trees to be planted shall have a minimum caliper of two inches;
 3. Where a disturbed area also functioned to buffer adjacent properties or public street(s), at least 50 percent of the trees shall be evergreen varieties;
 4. Trees shall be distributed throughout the disturbed area in such a way as effectively to replace the vegetation disturbed;
 5. Where under story vegetation is removed or disturbed it shall be replaced at a rate of 50 shrubs per 1000 square feet; and
 6. Shrubs shall be evergreen and three feet in height when installed and are expected to reach a minimum height of six feet at maturity.
- H. When a tree is destroyed due to a force majeure, it shall be replaced with the same species or comparable species, two inches in caliper in size.

Section. 19-907. Bufferyard and Screening Requirements

AR District standards regarding buffer yards and setbacks take precedent over Tables 19-907 and 19-908. The size and type of vegetation required under this division shall be determined from tables 19-907 and 19-908:

Table 19-907 Bufferyard and Screening Requirements

[Between non-residential and/or mixed-use structures within commercial districts, bufferyard requirements shall not apply.]

Use	Existing Use	Buffer Type
Multi-family and Patio/Zero Lot Line developments with shared parking	Single-family/Two Household	15' C
	Multi-family	10' B
	Townhouse	10' B
	Mixed-use	10' B
	Office/Commercial	10' A
	Industrial	25' A
	Institutional	10' A
	Vacant Land	10' A
Townhouses	Single-family/Two Household	15' C
	Multi-family	10' B
	Townhouse	10' B
	Mixed-use	10' B
	Office/Commercial	10' A
	Industrial	25' A
	Institutional	10' A
	Vacant Land	10' A
Mixed-use	Single-family/Two Household	<ul style="list-style-type: none"> • 25' C - within R20, R-12, RM-1 & RM2 Districts; • 15' C - within RM3, RM-3.5, & RM-4 Districts; • 5' A - along Vehicle Use Areas within all Non-residential Districts
	Multi-family	10' A
	Townhouse	10' A
	Mixed-use	10' A
	Office /Commercial	5' A
	Industrial	25' B
	Institutional	25' B
	Vacant Land	10' A
Office /Commercial	Single-family/Two Household	<ul style="list-style-type: none"> • 25' C - within R20, R-12, RM-1 & RM2 Districts; • 15' C - within RM3, RM-3.5, & RM-4 Districts; • 5' A - along Vehicle Use Areas within all Non-residential Districts
	Multi-family	10' A
	Townhouse	10' A
	Mixed-use	10' A
	Office /Commercial	5' A
	Industrial	25' B

	Institutional	25' B
	Vacant Land	10' A
	Active Railroad Right-of-Way	NA
Industrial, Manufacturing, Wholesale Trade, Warehousing and Storage	Single-Family/Two Household	50' E
	Multi-family	25' C
	Townhouse	25' C
	Mixed-use	25' C
	Office/Commercial	25' B
	Industrial	25' B
	Institutional	25' B
	Vacant Land	10' A
	Active Railroad Right-of-Way	NA
Institutional Public and Institutional Uses and Utilities	Single-family/Two Household	25' C
	Multi-family	25' C
	Townhouse	25' C
	Mixed-use	25' C
	Office/Commercial	25' B
	Industrial	25' B
	Institutional	25' B
	Vacant Land	10' A

Section. 19-908. Materials Required in Bufferyards

The required landscape material to be utilized in bufferyards is provided in **Table 19-908:**

Table 19-908 -- Landscape Materials Required within Bufferyards

Buffer Type	Number of Plants	Plants and Structures required per 100 linear feet ¹
A	3	Upper story (Canopy) trees
	20	Shrubs or; <u>Continuous solid fence or a wall constructed of brick, masonry or stone</u> 36" min. to 48" max. in height or; Continuous earthen berm 36" min. to 48" max. in height with live ground cover
B	4	Upper story (Canopy) Trees
	30	Shrubs or; <u>Continuous solid fence or a wall constructed of brick, masonry or stone</u> 36" min to 48" max in height or; Continuous earthen berm 36"min to 48" max in height with live ground cover
C	4	Upper story (Canopy) Trees
	1	6 to 8 foot high wall or solid fence within 12 inches of property line; finished side facing adjacent property
D	10	Upper Story (Canopy) Trees
	5	Understory trees
	30	Shrubs or; 6 to 8 foot high wall or solid fence within 12 inches of property line; finished side facing adjacent property
E	10	Upper Story (Canopy) Trees
	5	Understory trees
	30	Shrubs and; 6 to 8 foot high wall or solid fence within 12 inches of property line; finished side facing adjacent property
F	1	Landscape Berm
	12	Upper Story (Canopy) Trees
	4	Understory Trees

A. The following shall apply for materials and determination of bufferyards:

1. When a lot has a combination of different land uses, the bufferyard is calculated on the use of the highest impact;
2. Where the functional rear and side of any commercially zoned properties as determined by the Zoning and Codes Administrator are across the street from any residentially zoned property, the required buffer shall be a 10 foot type "A" buffer;
3. Where industrial and institutional uses are across the street from any residentially zoned properties, the property shall be buffered as if the properties were abutting without the fence or wall;
4. Where the adjacent land use is nonconforming, the depth of the buffer and live landscape materials shall be reduced by 60 percent
5. When two landscape buffers are abutting, the materials for either buffer may be intermingled provided the required amount for each buffer is maintained. A maintenance agreement between the property owners for the landscape areas will be required to be approved by the Zoning and Codes Administrator before the buffer is accepted.
6. When perimeter landscape buffer requirements overlap, the greater requirement shall apply.
7. Within CP-1 and CM districts for buildings built within five feet of the property line the required buffer shall begin at the rear of the building
8. If a fence is used instead of a wall the fence design and materials must be approved by the Zoning Administrator and all required fences must be maintained in a proper manner and will be required to be rebuilt if allowed to fall into disrepair.

B. Exceptions to Landscape Materials Requirements:

1. When the site is impacted by one or more of the following the materials within a required landscape buffer may be modified as follows:
 - a. When a natural body of water or stream that is within the required landscape buffer the amount of trees and shrubs will be reduced by the linear area affected;
 - b. When the adjacent property is at an elevation greater than six feet above the developed property the requirement for any wall will be removed by

the linear feet affected provided the property line is within six feet of the base of the slope;

- c. When a parcel of land is partially developed then the area that is not developed is not required to be buffered provided:
 - 1. The undeveloped area is at least 0.50 acres;
 - 2. The closest improvement, buildings, parking areas, or any other structure is 100 feet from the neighboring property;
 - 3. There is no grading, clearing or any other disturbance of the area, other than water/sewer installation;
 - 4. Any development or site disturbance within this area will require installation of the required buffer, if any portion of this property has been graded or clear cut of vegetation within the past three years.
- d. For “E” type bufferyards, a wall or fence is not required when there are no structure or vehicle use areas within four times the width of the required buffer.

Section. 19-909—19-999. Reserved

¹ Subject to visibility standards in Article VI Section 19-606