

## ARTICLE XII

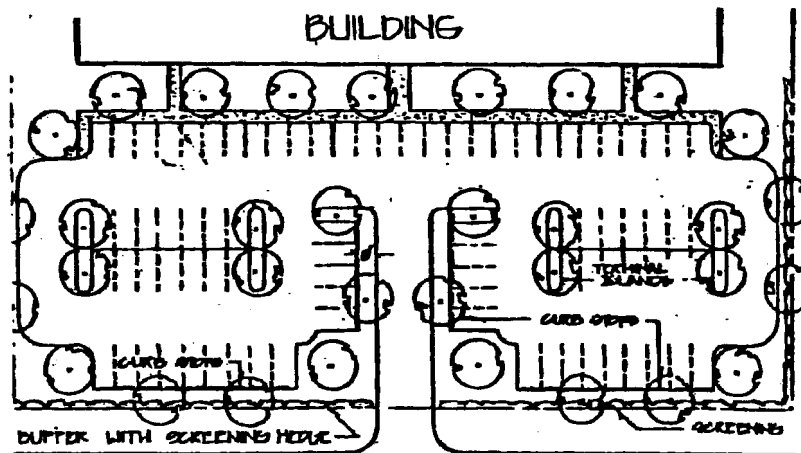
### **BUFFER REQUIREMENTS**

1200. **Intent.** It is the intent of this section to establish standards to provide for buffer amenities and screening throughout unincorporated Georgetown County. The purpose of these standards is to ensure that a high degree of community quality of life and sense of neighborhood are sustainable through future growth and development. These standards will assist in the protection of open space and the separation of incompatible land uses, while promoting desirable development. These goals will be accomplished through the use of buffering and screening techniques as defined herein, and by achieving the following objectives:
- 1200.1 to protect and preserve the general characteristics and overall appearance of the natural landscape and built environment;
  - 1200.2 to enhance property values by ensuring land use compatibility through appropriate protective screening between non-compatible uses;
  - 1200.3 to create a balance between orderly growth and protection of the natural environment;
  - 1200.4 to create visual harmony by maintaining the integrity of existing vegetation, while establishing design criteria for the installation of new landscape plant material;
  - 1200.5 to establish landscape installation and maintenance standards;
  - 1200.6 to enhance the public health, safety and welfare by reducing noise, air and visual pollution; by controlling water run-off and any overabundance of artificial light; and
  - 1200.7 to improve the overall appearance and reduce the visual impact of vehicle parking areas.
1201. **Buffer Areas.** The purpose of establishing Buffer Areas is to separate differing land uses to promote compatibility by softening the appearance of structures and parking lots from other uses, and by screening headlight glare on and off site and commercial lighting as seen by neighboring properties. This shall be accomplished through the delineation of landscape spaces with plantings, in combination with existing natural landscape forms, fences, walls and other screening devices to serve as barriers. In this manner, the visual impact of built environment intrusion is reduced while green space retention and protection is encouraged.
- 1201.1 **Location.** Buffer Areas shall be located on the outer perimeter of a parcel extending to the boundary line, within the set back zone of the site to be

developed, and in accompanying vehicle use areas, as indicated in Illustration 1, below. Buffer Areas shall not be located on any portion of an existing public or private street or right-of-way, but may occupy part or all of any required front, side or rear set back zone. The location of all proposed Buffer Areas shall be delineated and dimensioned on all submitted site plans.

- 1201.2 Maintenance. Maintenance of the Buffer Areas shall be the responsibility of each individual property owner. All Buffer Areas shall be properly maintained to provide continuing buffering capacity; monitored to assess the need to remove dead trees, shrubs, debris and litter, and to ensure that all fences, berms and walls are maintained in good condition.

Illustration 1



Furthermore, owners shall take no action to prevent trees from reaching maturity. While Buffer Areas shall be left in an undisturbed natural vegetative state, selective thinning of vegetation under 1.5 inch caliper and grading for re-vegetation purposes is permissible, as long as the integrity of the Buffer is assured. Failure to comply with these maintenance requirements is a violation of this Ordinance and shall be remedied in the manner prescribed for such violations.

- 1201.3 Removal of Material After Development. After issuance of a Certificate of Occupancy for a commercial or multifamily residential project, no specified material may be removed without the approval of the Zoning Administrator.
- 1201.4 Use of Buffer Areas. Buffer Areas may be used for controlled passive recreational purposes, but all other uses (including off-street parking) are prohibited. If necessary, driveways or walkways may cross a Buffer Area.

- 1201.5      Composition. Buffer Areas require both physical separations from surrounding landmass and landscape plantings/forms to meet the intent of this Ordinance. Existing vegetation, if sufficient to meet size requirements, is desirable to meet all specifications or to combine with supplemental plantings to accomplish the same buffer standards. Trees to be saved shall be identified on submitted tree plans with all proposed protective measures specified. Additional information on tree retention, replacement and protective measures can be found in Article XI of this Ordinance.
- 1201.6      Plant Material. Selection of plant material shall allow for a mix of large shade trees, small trees, and large and small shrubs to provide variable height and seasonal color. Evergreen trees are particularly useful since they create a year round opaque screening element. In combination, plant materials selected shall create a buffer with screening capability within 3 to 5 years of planting; however, they shall offer a reasonable degree of screening at the time of planting. The exact location of plants and screening structures shall be the decision of the property owner, although evergreen or conifer plant materials shall be planted in clusters to maximize chances of survival, and evergreen in combination with deciduous plant material shall be planted in at least two alternating rows to form an opaque screen. *(Amended Ord#2009-41)*
- 1201.7      Plant Classification. Four basic plant types, adapted to local conditions, are specified for installation in Buffer Areas. They include:
- 1201.701      Canopy Trees: large deciduous trees with a mature height of 30 feet or greater.
- 1201.702      Understory Trees: deciduous trees or large shrubs with a mature height of 10 to 30 feet.
- 1201.703      Evergreen/Conifers: trees or large shrubs that reach 10 feet in height at maturity, and have green foliage all seasons of the year.
- 1201.704      Shrubs: prostrate or upright woody plants, evergreen or deciduous, with a mature height often less than 10 feet.
- 1201.8      Minimum Plant Sizes. Plants shall be sized to insure adequate screening at the time of installation; however, seedling plants may be used where berms or fences are utilized, or where the use is adjacent to a street or vacant property. Chart 1, below, lists minimum required plant sizes. *(Amended Ord#2009-41)*

Chart 1

<b>Plant Material</b>	<b>Plantings in Buffer Areas Contiguous to Vacant Lands, Fences or Berms</b>	<b>Other Plantings</b>
<b>Canopy Tree</b> Single-stem Multi-stem	1 ½ - 2 inch caliper 8 feet high	1 ½ - 2 inch caliper 8 feet high
<b>Understory Tree</b>	6 feet high	1 ½ - 2 inch caliper 8 feet high
<b>Evergreen/Conifer</b>	3 feet high	5 feet high
<b>Shrub</b> Deciduous Evergreen	15 inches high 12 inches high	24 inches high 18 inches high

1201.9 Buffer Area Specifications. To determine Buffer Area requirements between two adjacent parcels, or between a parcel and a street, the following procedures shall be followed:

1201.901 Identify proposed and adjacent land use classification as listed in Chart 2. Classification type is identified by numbers (1- 4), with (1) being the lowest level of buffer requirement in terms of density of plantings, and (4) being the highest level of density classification.

1201.902 Determine the Buffer Area requirements for each boundary of the subject parcel, by selecting a Buffer Area width per 100' frontage, and the requisite number of plantings for that width, by referring to Chart 3.

Chart 2

		Existing Adjacent Land Use								
Proposed Land Use		A	B	C	D	E	F	G	H	I
<b>A</b>	Residential (Single Family, Duplex)	*	*	*	*	*	*	*	*	*
<b>B</b>	General Residential (Multi-family)	2	*	*	*	3	*	1	2	*
<b>C</b>	General Commercial	3	2	*	*	*	*	3	2	*
<b>D</b>	Neighborhood Commercial	*	*	*	*	*	2	3	2	*
<b>E</b>	Institutional/Office	2	1	*	2	*	*	2	1	*
<b>F</b>	Industrial Use	4	4	2	3	3	*	4	4	*
<b>G</b>	Mobile/Manufactured Home Park	4	3	3	3	3	4	*	4	*
<b>H</b>	Religious/Educational	3	2	*	*	*	*	*	*	*
<b>I</b>	Vacant Land	*	*	*	*	*	*	*	*	*

\* No Buffer Area required. If a land use is not specified in this chart, Buffer Area requirements shall be the same as the next closest land use, as determined by the Zoning Officer.

Chart 3

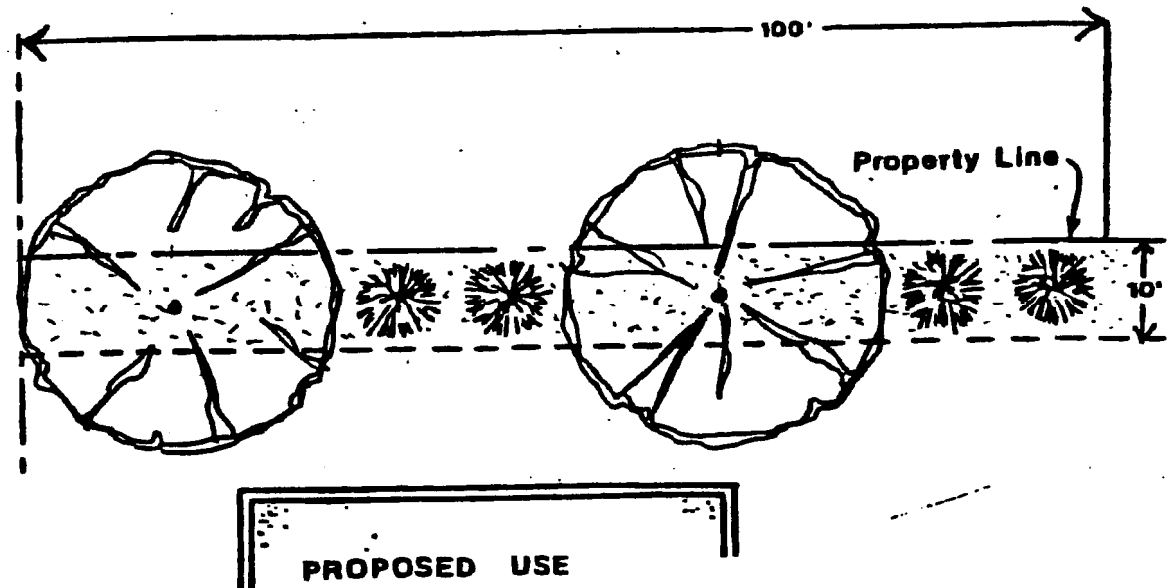
Type	Buffer Area Widths	Required Plant Units per 100'
(1)	Five (5) feet Ten (10) feet (*)	2 Canopy Trees 2 Understory Trees 4 Evergreen/Conifers 4 Shrubs
(2)	Ten (10) feet Twenty (20) feet (*) Thirty (30) feet (**)	3 Canopy Trees 6 Understory Trees 6 Evergreen/Conifers 10 Shrubs
(3)	Fifteen (15) feet Twenty Five (25) feet (*) Thirty (30) feet (**)	4 Canopy Trees 6 Understory Trees 12 Evergreen/Conifers 24 Shrubs
(4)	Twenty (20) feet Thirty (30) feet (*) Forty (40) feet (**)	4 Canopy Trees 8 Understory Trees 16 Evergreen/Conifers 30 Shrubs

(\*) If these Buffer Area widths are selected, only one-half the number of required plant units per 100' shall be necessary.

(\*\*) If these Buffer Area widths are selected, only one-quarter the number of required plant units per 100' shall be necessary.

**Example:** If a particular boundary between land uses requires a Type (1) density classification, select either a 5' or 10' wide (per 100' length) Buffer Area. If the 5' width is selected, the full complement of plantings listed must be placed in the Buffer Area. If the 10' width is selected, only one half the number of listing plantings has to be placed in that area (see Illustration 2).

Illustration 2



- 1201.10 Existing Vegetation. Protection of existing vegetation shall be a priority of this Ordinance. Existing healthy vegetation saved shall be credited toward buffer landscape requirements (and to tree retention requirements under Section 1203. of Article XI of this Ordinance), to the extent that it provides the same level of density indicated in the required classification type. If gaps occur in the natural setting of vegetation, as determined by the Zoning Officer, new plant materials shall be required to achieve the necessary density levels. All naturally growing plant materials may be retained and credited, but no more than 15% of the total required planting to achieve the appropriate density level shall consist of any species of pine trees. Additionally, it is essential for applicants to refer to Section 1203 for Significant and Landmark tree replacement requirements.
- 1201.11 Plant Substitutions. In all Buffer Areas, evergreen or conifer shrubs may be substituted for deciduous shrubs; evergreen canopy or under-story trees may also be substituted for deciduous under-story trees and deciduous shrubs, all without limitation. Understory trees may be substituted for 50% of required canopy trees at a ratio of 1.5 under-story trees per each canopy tree (Sabal Palmettos shall be considered under-story trees, but their ratio shall be 2:1).
- 1201.12 Ground Cover. A form of ground cover shall be placed on all

portions of Buffer Area surfaces not occupied by plant material. This may include: neatly mowed grass, low-lying plant material that does not exceed 12 inches in height at maturity, organic mulch materials, pine straw and crushed stone. Portions of these areas may also be comprised of flowerbeds, as long as they are maintained on a year round basis.

1202. **Screening.** The intent of utilizing landscape screening structures is to provide an alternative to plant material, or to use in combination with plant materials, to achieve desirable buffer density levels. A masonry wall, or fence of a material compatible with the primary structure on the property, may be substituted for plant buffer requirements. One-third of the screening structure's surface area, however, must be covered with plant material when those materials reach maturity. Earthen berms may also be used with a minimum height of 3 feet, a maximum side slope of 3:1, and a minimum crown width of 2 feet. They may be planted with smaller plants than required for on-grade Buffer Areas, as long as the height expectations of plant materials on the berm, when planted and at maturity are equal. *(Amended Ord#2009-41)*

1202.1 **Open Storage Screening.** All open storage areas, excluding retail sales, visible from adjoining properties shall be screened from public view. Storage items include but are not limited to: shipping containers, building materials, trash containers and dumpsters, salvage materials, and fixed operating machinery.

1202.2 **Equipment Storage.** All electrical, HVAC and other utility units, including public utility structures and pumping stations shall also be screened from public view. Screening devices for both storage and equipment shall consist of an opaque barrier of not less than six feet in height, or the height of the object to be screened, whichever is greater. A combination of screening elements may be used alone or in combination including: plant materials, earth berms, walls and fences. Whichever screening installation is utilized, the end result shall produce an opaque barrier between the device and the element(s) to be screened.

1202.3 **Screening Exceptions.** Buffering and screening requirements shall not be enforced during the construction phase of any project, but shall be required prior to the issuance of a Certificate of Occupancy.

1203. **Buffering Within Parking Areas.** Development of any parking area (not including loading and unloading zones and storage areas), containing 10 or more parking spaces, shall include interior landscaping in addition to required perimeter Buffer Areas. This shall be accomplished in a manner that divides and breaks the

expanse of paved area, and provides for enhanced traffic flow and direction. These landscaped spaces may be either peninsula or island-type, or a combination of both (see Illustration 3, below).

1203.1 The following chart specifies the percentage of interior parking area that shall be planted. Landscaped areas outside the parking area (on its perimeter) shall not be used to satisfy the interior planting requirements.

<u>Total Area of Lot</u>	<u>Percentage of Interior Planting Required</u>
0 - 49,999 sq. ft.	5%
50,000 - 149,999 sq. ft.	8%
150,000 sq. ft. or larger	10%

1203.101 Peninsula/Island specifications. These landscaped spaces shall have an area with a minimum of 50 square feet, and a minimum width of 5 feet. Planting islands parallel to parking spaces, however, shall be at least 9 feet wide to allow car doors to swing open in an unimpeded manner. All landscaped areas adjacent to parking spaces shall be protected from vehicular damage by a raised curb or equivalent barrier of 6 inches in height, though it need not be continuous. No plant material greater than 12 inches in height shall be located within two feet of the curbing or other protective barrier, to avoid damage by motor vehicle bumper overhang or by doors swinging open over landscaped areas (see Illustration 4, below). Minimum curb radii of 3 feet are required on the corners of all planted peninsulas, islands and medians to allow for free movement of motor vehicular traffic. *(Amended Ord#2009-41)*

Illustration 3

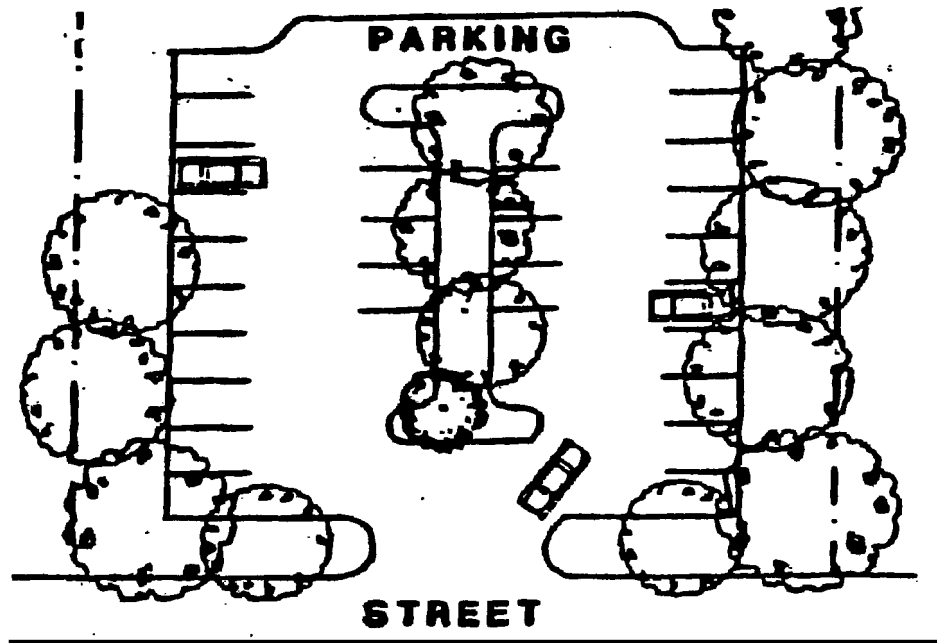
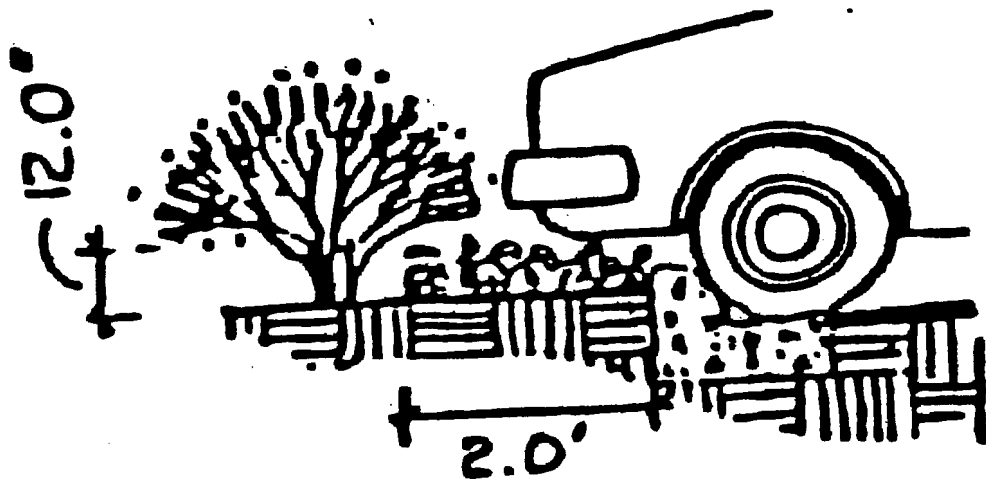


Illustration 4



1203.2 Required Plant Materials for Interior Parking Areas. There shall be a sufficient number of canopy trees in and around the parking area so that no parking space shall be further than 50 feet from the trunk of a shade tree or farther than 75 feet from two or more shade trees. Plantings shall be located to facilitate safe sight distances within parking lots and to protect them from overhangs of motor vehicles. Additionally, motor vehicle sales lots shall

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provide trees at a rate of one tree per 100 lineal feet, and shrubs at the rate of one shrub per 10 lineal feet of display area.

1203.201 Each landscaped peninsula or island shall contain a minimum of one canopy tree with a DBH of 2 inches or greater and a minimum height of 10 feet, surrounded by at least 60 square feet of continuous pervious land area. Low-branching trees shall be avoided so as not to restrict visibility.

1203.202 Shrubs shall accompany trees within the peninsula or island and be 12 inches in height at the time of planting, projected to reach a height of 24 inches at maturity. The number of shrubs required shall equal 8 three-gallon shrubs or 4 seven-gallon shrubs for every 150 square feet of surface area; grouping or clustering is advised. A listing of ornamental shrubs, though not all-inclusive, is provided for reference in APPENDIX B of this Ordinance.

1203.3 Installation and Maintenance. Installation and maintenance information for plant material is provided in Section 1203 of Article XI, and in Appendices E, F, G, and H of this Ordinance.

1204 Lighting. The intent of providing lighting guidelines is to place controls over the output of artificial lighting sources used to illuminate exterior spaces within and surrounding development sites, parking areas, access points and loading zones. They shall be designed to create a level of ambient illumination that minimally impacts adjoining properties and motorists.

1204.1 Exterior Lighting. Architectural, display and decorative lighting visible from public thoroughfares shall utilize concealed lighting sources that produce low levels of illumination.

1204.2 Interior Lighting. All interior lighting utilized for display, security and general illumination shall be designed to maintain low visibility from public view.

1204.3 Primary Access Points. Primary entryways shall be illuminated for traffic safety purposes. Light poles mounted within fifty (50') feet from the highway right-of-way shall not exceed a height of twenty (20') feet, and only forward-throw type of lights shall be used to light entrances.

1204.4 Light Fixtures. Light fixtures shall be cutoff luminary type whose light source is concealed within an opaque housing and directed away from public thoroughfares. This shall include lights on mounted poles and those utilized for display and decorative lighting.

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- 1204.5 Light Source. With one exception, light sources shall be restricted to incandescent, fluorescent, metal halide, mercury vapor or color corrected high-pressure sodium light. Only white or off-white (light yellow tones) shall be used for any light source. The exception is the use of neon on signs, which is conditionally acceptable as indicated in Section 901.10 of Article IX of this Ordinance.
- 1204.6 Mounting. Mounting of fixtures shall be accomplished so that the cone of light is not directed at any property line of the site, and the minimum mounting height for any pole shall be twelve (12') feet.
- 1204.7 Maximum Illumination Levels. The maximum allowable level of illumination shall conform to the recommended levels within the IESNA Lighting Handbook, the accepted industry standards.
- 1205 **Buffer Plan Requirements.** In addition to the submission of a tree plan, which is a requirement of the application for a development or building permit, a Buffer Plan shall be submitted concurrently. The Plan shall include the following elements:
- 1205.1 a site plan of the property to be developed in the same scale as the required tree plan;
- 1205.2 the project owner's name, address and telephone number shall appear on the Plan with the name of any agent serving on behalf of the owner; the project name and the property tax number;
- 1205.3 property lines, dimensions, the footprint of proposed buildings and accessory structures, and a listing of land uses on any adjoining properties;
- 1205.4 location of Buffer Areas with dimensions, and all sight triangles;
- 1205.5 parking spaces showing required wheel stops, curbs, driveways and sidewalks;
- 1205.6 location, height and grading details of proposed berms; height, type and location of existing and proposed walls and fences;
- 1205.7 schedule of planting materials including location, species, spacing, caliper, height, quantities and installation details of trees, shrubs and ground cover;
- 1205.8 location and details of water features, including irrigation systems, water outlets and storm water management facilities;
- 1205.9 location and type of screening for solid waste and any other storage units;

- 1205.10 location of all signs; and
- 1205.11 location of all exterior light fixtures, mounting poles and accessory equipment.