**Collier County Land development code section 4.06**

* **4.06.00 - LANDSCAPING, BUFFERING, AND VEGETATION RETENTION**

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* **4.06.01 - Generally**

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A.

Purpose and Intent.

1.

Landscape Code. The purpose and intent of the landscape code is to:

a.

Promote the health, safety, and welfare of residents of Collier County by establishing minimum uniform standards for the installation and maintenance of landscaping;

b.

Improve the aesthetic appearance of commercial, industrial, and residential **developments** through the requirement of minimum landscaping in ways that harmonize the natural and built environment;

c.

Promote preservation and planting of native plants and plant communities;

d.

Provide physical and psychological benefits to persons through landscaping by reducing noise and glare;

e.

Screen and **buffer** the harsher visual aspects of urban **development**;

f.

Improve **environmental quality** by reducing and reversing air, noise, heat, and chemical pollution through the preservation of canopy trees and the creation of shade and microclimate;

g.

Reduce heat gain in or on **buildings** or paved areas through the filtering capacity of trees and vegetation; and

h.

Promote water conservation by encouraging the use of native and drought-tolerant vegetation and properly zoned irrigation system through xeriscape.

2.

**Buffering** and Screening. The purpose and intent of establishing **landscape buffering** and screening is to:

a.

Reduce the potential incompatibility of **adjacent** land uses;

b.

Conserve natural resources and maintain **open space**;

c.

Protect established residential neighborhoods, and enhance community identity;

d.

Improve the aesthetic appearance of commercial, industrial, and residential **developments** through the requirement of minimum landscaping in ways that harmonize the natural and built environment;

e.

Promote preservation and planting of native plants and plant communities;

f.

Provide physical and psychological benefits to persons through landscaping by reducing noise and glare;

g.

Screen and **buffer** the harsher visual aspects of urban **development**;

h.

Improve **environmental quality** by reducing and reversing air, noise, heat, and chemical pollution through the preservation of canopy trees and the creation of shade and microclimate;

i.

Reduce heat gain in or on **buildings** or paved areas through the filtering capacity of trees and vegetation; and

j.

Promote water conservation by encouraging the use of native and drought-tolerant vegetation and properly zoned irrigation systems through xeriscape.

k.

In order to minimize negative effects between **adjacent** land uses, this section promotes the use of **landscape buffers** and screens to eliminate or minimize potential nuisances such as dirt, litter, noise, lights, unsightly **buildings** and **structures,** and off-street parking and loading areas. Additionally, **buffers** and screens provide spacing and landscaping to reduce potentially **adverse impacts** of noise, odor, or lighting. **Buffering** refers to a strip of land separating **adjacent** land uses, whereas screening refers to fences, walls, **berms,** trees, shrubs, or a combination of these screening devices on the buffer strip.

B.

Effect of the Collier County Streetscape Master Plan. *"Collier County Streetscape Master Plan", "Construction Standards Handbook for Work Within the Public****rights-of-way****Collier County, Florida" and the "Golden Gate Community Roadways Beautification Master Plan."* **street** corridors identified in[Section 2](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=APXHLDUDCOTA_ART2ZO) and Figure E.1 of the "Collier County Streetscape Master Plan," the "Construction Standards Handbook for Work Within the Public Rights-of- Way Collier County, Florida" and the "Golden Gate Community Roadways Beautification Master Plan", including areas within the **right-of-way** and on required **buffers** **adjacent** to the **right-of-way**, shall adhere to the requirements of these documents.

Notwithstanding the above, for required **landscape buffers** **adjacent** to any **right-of-way**, the requirements of[Section 2](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=APXHLDUDCOTA_ART2ZO) and Figure E.1 of the "Collier County Streetscape Master Plan", the "Construction Standards Handbook for Work Within the Public Rights-of Way Collier County, Florida" and the "Golden Gate Community Roadways Beautification Master Plan" shall apply at the time of issuance of any related subsequent **development order** including construction plans attendant to the approval of a final plat and/or a final site **development plan**. Where the application of said Master Plan standards and requirements is questioned, an official interpretation of the County Manager or his designee pursuant to[section 1.06.01](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH1GEPR_1.06.00RUIN_1.06.01REIN) of the Collier County Land **development** Code may be requested. Further, the interpretation of the County Manager or his designee may be appealed to the board of zoning appeals as prescribed by[section 10.02.02](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH10APREDEKIPR_10.02.00APRE_10.02.02INSTCOIN) of the Land **development** Code.

C.

Relationship to **Subdivision** Regulations

1.

Plantings, trees, and grass. All **rights-of-way** and **easements** for **streets**, avenues, roads, drives, and the like shall be planted with trees, grass or other suitable vegetation on both sides in accordance with the specifications, limitations, procedures, types and intervals set forth in the appropriate county regulations and requirements, including but not limited to this[section 4.06.00](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE) and the **right-of-way** Construction Handbook, Collier County Ordinance No. 82-91, as amended [superseded by ordinance found in Code ch. 110, art. II]. All unpaved areas within **rights-of-way** shall be stabilized by seed or sodding of cultivated grass species suitable to the area. The sodding of a one-foot-wide strip along the back of curb or edge of pavement shall be mandatory for all roadway construction. The flow line of all swale sections approved for use by the County Manager or his designee shall also be sodded as required for erosion control.

2.

**Streets** and access improvements.

a.

All existing and future public and private **rights-of-way** that are designed parallel to each other or to the boundary of a **subdivision** or **development**, with no **building** **lots** separating them from other **rights-of-way** or the project boundary, shall be separated by a **landscape buffer**, pursuant to this[section 4.06.00](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE). The **buffer** area in these cases shall be separately designated on the final **subdivision** plat as a tract or **easement** and shall be dedicated on the final **subdivision** plat cover sheet to the appropriate property owners' association or like entity for operation, maintenance and upkeep purposes.

D.

Landscaping with Sight Design Triangles.

1.

Safe sight distance triangles at intersection and access points. (Refer to Figure 4.06.01 D., Sight Distance Triangles). Where a **driveway/access** way intersects a **right-of-way** or when a property **abuts** the intersection of two or more **rights-of-way**, a minimum safe sight distance triangular area shall be established. Within this area, vegetation shall be planted and maintained in a way that provides unobstructed visibility at a level between 30 inches and 8 feet above the crown of the **adjacent** roadway. Landscaping shall be located in accordance with the roadside recovery area provisions of the State of Florida Department of Transportation's Manual of Uniform Minimum Standards for Design, Construction, and Maintenance of **streets** and Highways (DOT Green Book) where appropriate. Posts for illuminating fixtures, traffic control, and **street** name **signs** shall also be permitted, so long as the **sign** or equipment is not within the prescribed clear space.

Where an accessway enters a **right-of-way**, two safe distance triangles shall be created diagonally across from each other on both sides of the accessway. Two sides of the triangle shall extend 10 feet each way from the point of intersection from the edge of pavement and the **right-of-way** line. The third side of the triangle shall be a line connecting the ends of the other 2 sides.

* Where a property **abuts** the intersection of two **rights-of-way**, a safe distance triangle shall be created. Two sides of the triangle shall extend 30 feet along the **abutting** **right-of-way** lines, measured from the point of intersection. The third side of the triangle shall be a line connecting the ends of the other 2 sides.

The developer shall comply with all of the provisions of the applicable landscape requirements and this[section 4.06.00](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE) at the time of **subdivision** or **development** approval or when applicable.

E.

Landscaping Plans Required.

1.

Landscape summary. A landscape summary in matrix form which shall include:

a.

Graphic symbol to indicate each type of plant material.

b.

Botanical name.

c.

Common name.

d.

Total number of each type of plant material.

e.

Height and spread of each type of plant material.

f.

Spacing of each type of plant material.

2.

Illustrative information. Illustrative information consisting of the following shall be accurately depicted on the landscape plan:

a.

The location, configuration and arrangement of all proposed **buildings**, internal **streets** and parking areas as reflected on the site plan.

b.

The location and dimensions of all proposed landscaped areas with appropriate graphic symbols including existing trees that are being credited toward the **development's** landscaping requirements.

c.

Location and configuration of all special or textured paving areas.

d.

Provisions for site irrigation.

e.

Any additional relevant information as may be required by the planning services director.

3.

The **landscape** architect must inspect and certify that all **open space** area, landscaping and the irrigation system are in substantial compliance with the **landscape** and irrigation plans approved as part of the **development order**. Insubstantial changes to an approved **landscape** plan shall be approved through the insubstantial change process.

(Ord. No. 05-27, § 3.T; Ord. No. 10-23, § 3.Y)

* **4.06.02 - Buffer Requirements**

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A.

Applicability of **buffer** requirements. The buffering and screening shown in table 2.4 below shall be required under this section and shall apply to all new **development**. Existing landscaping which does not comply with the provisions of this section shall be brought into conformity to the maximum extent possible when: the **vehicular use area** is **altered** or expanded (except for restriping of lots/drives), the **building** square footage is changed, or there has been a discontinuance of use for a period of 1 year or more and a request for an occupational license to resume business is made. For projects subject to architectural design standards, see LDC[section 5.05.08](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH5SUST_5.05.00SUSTSPUS_5.05.08ARSIDEST) for related provisions.

**Subdivisions** or **Developments** shall be **buffered** for the protection of property owners from land uses as required pursuant to this[section 4.06.00](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE). **Buffers** shall not inhibit pedestrian circulation between adjacent commercial land uses. **Buffers** shall be installed during construction as follows and in accordance with this[section 4.06.00](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE):

1.

To separate residential **developments** from commercial, community use, industrial and public use **development**s and **adjacent** expressways, arterials and railroad **rights-of-way**, except where such expressway, arterial, or railroad **right-of-way** abuts a golf course.

2.

To separate commercial, community use, industrial and public use **developments** from residential **developments**.

3.

To separate **subdivisions** of residential property that do not result in the submittal of a site **development plan** pursuant to the provisions of[section 10.02.03](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH10APREDEKIPR_10.02.00APRE_10.02.03RESIDESIIMPLAMTH) from other residential properties.

Separation shall be created with a **landscape buffer** strip which is designed and constructed in compliance with the provisions of this[section 4.06.00](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE). Such **buffer** strip(s) shall be shown and designated on the final plat as a tract of **easement** and shall not be located within any public or private **right-of-way**. The ability to locate **buffer(s)** within a platted or recorded **easement** shall be determined pursuant to the provisions of this[section 4.06.00](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE). **buffers** **adjacent** to protected/preserve areas shall conform to the requirements established by the agency requiring such **buffer**.

**Landscape buffers**, when required by this Code, this[section 4.06.00](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE), or other county regulation shall be in addition to the required **right-of-way** width and shall be designated as a separate **buffer** tract or **easement** on the final **subdivision** plat. The minimum **buffer** width shall be in conformance with this[section 4.06.00](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE). In no case shall the required **buffer** be constructed to reduce cross-corner or stopping sight distances, or safe pedestrian passage. All **buffer** tracts or **easements** shall be owned and maintained by a property owner's association or other similar entity and shall be so dedicated on the final **subdivision** plat.

B.

Methods of determining **buffers.** Where a property **adjacent** to the proposed use is: (1) undeveloped, (2) undeveloped but permitted without the required **buffering** and screening required pursuant to this Code, or (3) developed without the **buffering** and screening required pursuant to this Code, the proposed use shall be required to install the more opaque **buffer** as provided for in table 2.4. Where property **adjacent** to the proposed use has provided the more opaque **buffer** as provided for in table 2.4, the proposed use shall install a type A **buffer**.

Where the incorporation of existing **native vegetation** in **landscape buffers** is determined as being equivalent to or in excess of the intent of this Code, the planning services director may waive the planting requirements of this section.

**Buffering** and landscaping between similar residential land uses may be incorporated into the **yards** of individual **lots** or tracts without the mandatory creation of separate tracts. If **buffering** and landscaping is to be located on a **lot**, it shall be shown as an **easement** for **buffering** and landscaping.

The **buffering** and screening provisions of this Code shall be applicable at the time of planned unit **development** (PUD), preliminary **subdivision** plat (PSP), or site **development plan** (SDP) review, with the installation of the **buffering** and screening required pursuant to LDC[section 4.06.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.05GELARE) H. If the **applicant** chooses to forego the optional PSP process, then signed and sealed landscape plans will be required on the final **subdivision** plat. Where a more intensive land use is developed contiguous to a property within a similar zoning district, the planning services director may require **buffering** and screening the same as for the higher intensity uses between those uses.

**Landscape buffering** and screening standards within any planned unit **development** shall conform to the minimum **buffering** and screening standards of the zoning district to which it most closely resembles. The planning services director may approve alternative **landscape buffering** and screening standards when such alternative standards have been determined by use of professional acceptable standards to be equivalent to or in excess of the intent of this Code.

C.

Types of **buffers**. Within a required **buffer** strip, the following types of **buffers** shall be used based on the matrix in table 2.4. (See Figure 4.06.02.C-1)

1.

*Type A Buffer:* Ten-foot-wide **landscape buffer** with trees spaced no more than 30 feet on center. When a Type A **buffer** is located within a residential PUD and **adjacent** to a lake, the required trees may be clustered on common property lines to provide a view of the lake. Clustered tree plantings shall not exceed 60 feet between clusters.

2.

*Type B Buffer:* Fifteen-foot-wide, 80 percent opaque within one year **landscape buffer** six feet in height, which may include a wall, fence, hedge, **berm** or combination thereof, including trees spaced no more than 25 feet on center. When planting a hedge, it shall be a minimum of ten gallon plants five feet in height, three feet in spread and spaced a maximum four feet on center at planting. When a Type B **buffer** is located within a residential PUD and **adjacent** to a lake, the required plant materials may be clustered to provide views. Clustered tree plantings shall not exceed 60 feet between clusters and the clustered hedge plantings can be provided as a double row of shrubs that are a minimum of 30 inches in height. When the **adjacent** lake exceeds 1,500 feet in width the hedge planting shall not be required. When a community facility is located within a residential PUD and abuts a residential unit, a Type B **buffer** shall be required. When a fence or wall is used within the **buffer** a minimum of 50 percent of the trees and hedge plantings shall be located on the residential side of the fence or wall.

3.

*Type C Buffer:* 20-foot-wide, opaque within one year, **landscape buffer** with a six-foot wall, fence, hedge, or **berm**, or combination thereof and two staggered rows of trees spaced no more than 30 feet on center. Projects located within the Golden Gate Neighborhood center district shall be exempt from the **right-of-way** requirement of a six-foot wall, fence, hedge, **berm** or combination thereof. These projects shall provide a meandering Type D **landscape buffer** hedge. In addition, a minimum of 50 percent of the 25-foot wide **buffer** area shall be composed of a meandering bed of shrubs and ground covers other than grass.

4.

*Type D Buffer:* A **landscape buffer** shall be required adjacent to any road **right-of-way** external to the **development** project and **adjacent** to any primary **access** roads internal to a commercial **development**. Said **landscape buffer** shall be consistent with the provisions of the Collier County Streetscape Master Plan, which is incorporated by reference herein. The minimum width of the perimeter **landscape buffer** shall vary according to the ultimate width of the **abutting right-of-way**. Where the ultimate width of the **right-of-way** is zero to 99 feet, the corresponding **landscape buffer** shall measure at least ten feet in width. Where the ultimate width of the **right-of-way** is 100 or more feet, the corresponding **landscape buffer** shall measure at least 15 feet in width. **Developments** of 15 acres or more and **developments** within an activity center shall provide a perimeter **landscape buffer** of at least 20 feet in width regardless of the width of the **right-of-way**. Activity center **right-of-way buffer** width requirements shall not be applicable to roadways internal to the **development**.

a.

Trees shall be spaced no more than 30 feet on center in the **landscape buffer abutting** a **right-of-way** or primary **access** road internal to a commercial **development**.

b.

A continuous 3 gallon double row hedge spaced 3 feet on center of at least 24 inches in height at the time of planting and attaining a minimum of 30 inches in height in one year shall be required in the **landscape buffer** where vehicular areas are **adjacent** to the road **right-of-way**, pursuant to LDC[section 4.06.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.05GELARE) D.4.

c.

Where a fence or wall fronts an **arterial** or **collector road** as described by the transportation circulation element of the growth management plan, a continuous 3 gallon single row hedge a minimum of 24 inches in height spaced 3 feet on center, shall be planted along the **right-of-way** side of the fence. The required trees shall be located on the side of the fence facing the **right-of-way**. Every effort shall be made to undulate the wall and landscaping design incorporating trees, shrubs, and ground cover into the design. It is not the intent of this requirement to obscure from view decorative elements such as emblems, tile, molding and wrought iron.

d.

The remaining area of the required **landscape buffer** must contain only existing **native vegetation**, grass, ground cover, or other landscape treatment. Every effort should be made to preserve, retain and incorporate the existing **native vegetation** in these areas.

e.

A signage visibility triangle may be created for non-residential on-premises signs located as shown in Figure 4.06.02.C-2 for Type D buffers that are 20 feet or greater in width. The line of visibility shall be no greater than 30 linear feet along road **right-of-way** line. Within the visibility triangle, shrubs and hedges shall be required pursuant to LDC section 4.06.05.D.4, except that hedges, shrubs, or ground cover located within the signage visibility triangle shall be maintained at a maximum plant height of 24 inches. Within the visibility triangle, no more than one required canopy tree may be exempted from the Type D buffer requirements.

* *Table 2.4 information:* The letter listed under "Adjacent Properties Zoning District and/or Property Use" shall be the landscape buffer and screening alternative required. Where a conflict exists between the buffer required by zoning district or property use, the more stringent buffer shall be required. The "-" symbol shall represent that no buffer is required. The PUD district buffer, due to a variety of differing land uses, is indicated by the "\*" symbol, and shall be based on the landscape buffer and screening of the district or property use with the most similar types, densities and intensities of use. Where a conflict exists between the buffering requirements and the yard requirements of this Code, the yard requirements of the subject zoning district shall apply.

1**Buffering** in agriculture (A) districts shall be applicable at the time of site **development plan** (SDP) submittal.

2Industrial (I) zoned property, where abutting industrial (I) zoned property, shall be required to install a minimum 5-foot-wide type A **landscape buffer** adjacent to the side and rear property lines. The buffer area shall not be used for water management. In addition, trees may be reduced to 50 feet on center along rear and side perimeter **buffers** only. This reduction in **buffer** width shall not apply to **buffers adjacent** to vehicular **rights-of-way** or nonindustrial zoned property. **Abutting** industrial zoned properties may remove a side or rear **buffer** along the shared property line in accordance with[Section 4.06.02](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.02BURE) C.7. This exception to **buffers** shall not apply to **buffers abutting** to vehicular **rights-of-way**.

3**Buffer** areas between commercial **outparcels** located within a **shopping center**, Business Park, or similar commercial **development** may have a shared **buffer** 15 feet wide with each **abutting** property contributing 7.5 feet. The **outparcels** may remove a side or rear **buffer** along the shared property line between comparable uses within the same zoning designation in accordance with[Section 4.06.02](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.02BURE) C.7. These provisions shall not apply to **right-of-way buffers**.

4Refer to[section 5.05.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH5SUST_5.05.00SUSTSPUS_5.05.05FAFUPU) for **automobile service station** landscape requirements.

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5.

Business Parks. A 25-foot wide **landscape buffer** shall be provided around the boundary of the business park. A six-foot tall opaque architecturally finished masonry wall, or **berm,** or combination thereof shall be required and two staggered rows of trees spaced no more than 30 feet on center shall be located on the outside of the wall, **berm**, or **berm**/wall combination.

6.

**Buffering** and screening standards. In accordance with the provisions of this Code, loading areas or docks, outdoor storage, trash collection, mechanical equipment, trash compaction, vehicular storage excluding new and used cars, recycling, roof top equipment and other service function areas shall be fully screened and out of view from **adjacent** properties at ground view level and in view of roadway corridors.

7.

Joint Project Plan. **Abutting** platted **parcels** may submit a joint project plan to remove one side or rear **landscape buffer** along a shared property line in order to share parking or other infrastructure facilities, provided the following criteria are met:

a.

A joint project plan shall include all necessary information to ensure that the combined site meets all of the design requirements of this Code, and shall be submitted as either a single SDP or SIP consisting of both **parcels**, or separate SDPs or SIPs for each **parcel** that are submitted concurrently. Joint project plans require a shared maintenance and **access easement** that is recorded in the public records.

b.

The following are eligible for a joint project plan. One **outparcel** shall be no greater than 3 acres and the combined **parcel** acreage shall not exceed 5 acres:

i.

**Abutting** commercial **outparcels** located within a **shopping center**.

ii.

**Abutting** commercial **parcels** in a **Business Park**.

iii.

**Abutting** commercial **parcels** with the same zoning designation.

iv.

**Abutting** industrial **parcels** with the same zoning designation.

c.

The eliminated **buffer** shall be reallocated to the remaining **landscape buffers** and/or internal landscaped areas of the proposed joint project. There shall be no net loss of landscape material or square footage of the **buffer** as a result of the eliminated **buffer** on the shared property line.

d.

The **buffer** to be eliminated shall not be a perimeter **buffer** or **adjacent** to any internal main **access** drives.

D.

Standards for retention and detention areas in **buffer yards.** Unless otherwise noted, all standards outlined in[section 4.06.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.05GELARE) C. apply. Trees and shrubs must be installed at the height specified in this section.

Water management systems, which must include retention and detention areas, swales, and subsurface installations, are permitted within a required **buffer** provided they are consistent with accepted engineering and landscaping practice and the following criteria:

1.

Water management systems must not exceed 50 percent of the square footage of any required side, rear, or **front yard** **landscape buffer**.

2.

Water management systems must not exceed, at any location within the required side, rear, or **front yard** **landscape buffer**, 70 percent of the required **buffer** width. A minimum 5-foot wide 10:1 level planting area shall be maintained where trees and hedges are required.

3.

Exceptions to these standards may be granted on a case-by-case basis, evaluated on the following criteria:

a.

Water management systems, in the form of dry retention, may utilize an area greater than 50 percent of the **buffer** when existing **native vegetation** is retained at natural **grade**.

b.

For **lots of record** 10,000 square feet or less in size, water management areas may utilize an area greater than 50 percent of the required side and rear **yard** **buffers**. A level planting area of at least three feet in width must be provided in these **buffers**.

4.

**Sidewalks** and other **impervious areas** must not occupy any part of a required Alternative A, B, C, or D type **buffer**, except when:

a.

**Driveways** and **sidewalks** are constructed perpendicular to the **buffer** and provide direct **access** to the **parcel**.

b.

Parallel meandering **sidewalks** occupy the **buffer** and its width is increased by the equivalent **sidewalk** width.

c.

A required 15—20 foot wide **buffer** is reduced to a minimum of ten feet wide and is increased by the five to ten foot equivalent width elsewhere along that **buffer**.

(Ord. No. 04-72, § 3.N; Ord. No. 06-07, § 3.K; Ord. No. 06-63, § 3.Z; Ord. No. 07-67, § 3.K; Ord. No. 12-38, § 3.O; Ord. No. 14-33, § 3.L; Ord. No. 15-44, § 3.F; Ord. No. 16-22, § 3.I; Ord. No. 16-27, § 3.M; [Ord. No. 20-16](https://library.municode.com/fl/collier_county/ordinances/land_development_code?nodeId=1025466), § 3.E)

* **4.06.03 - Landscaping Requirements for Vehicular Use Areas and Rights-of-Way**

[**SHARE LINK TO SECTIONPRINT SECTIONDOWNLOAD (DOCX) OF SECTIONSEMAIL SECTIONCOMPARE VERSIONS**](https://library.municode.com/)

A.

*Applicability.* The provisions of this section shall apply to all new off-street parking or other **vehicular use areas**. Existing landscaping which does not comply with the provisions of this Code shall be brought into conformity to the maximum extent possible when: the **vehicular use area** is **altered** or expanded except for restriping of lots/drives, the **building** square footage is changed, or the **structure** has been vacant for a period of 1 year or more and a request for an occupational license to resume business is made. These provisions shall apply to all **developments** with the exception of single-family, two-family, **mobile home dwelling unit, public utility ancillary system**, and dwellings on individually platted **lots**. Any appeal from an administrative determination relating to these regulations shall be to the board of zoning appeals or equivalent. Prior to issuing occupancy permits for new construction, implementation and completion of landscaping requirements in off-**street** vehicular facilities shall be required. Where a conflict exists between the strict application on this division and the requirements for the number of off-**street** parking spaces or area of off-street loading facilities, the requirements of this section shall apply.

B.

Standards for landscaping in **Vehicular Use Areas**. For projects subject to architectural design standards, see LDC[section 5.05.08](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH5SUST_5.05.00SUSTSPUS_5.05.08ARSIDEST) F. for related provisions.

1.

Landscaping required in interior of vehicular use areas. At least ten percent of the amount of **vehicular use area**onsite shall be devoted to interior landscaping areas. The width of all curbing shall be excluded from the required landscaped areas. All interior landscaped areas not dedicated to trees or to preservation of existing vegetation shall be landscaped with grass, ground cover, shrubs or other landscape treatment. One tree shall be provided for every 250 square feet of required interior landscaped area. Interior landscaped areas shall be a minimum of five feet in width and 150 square feet in area. The amount of required interior landscape area provided shall be shown on all preliminary and final landscape plans.

2.

All rows of parking spaces shall contain no more than ten parking spaces uninterrupted by a required landscaped island which shall measure inside the curb not less than eight feet in width and at least eight feet in length and at least 100 square feet in area. At least one tree shall be planted in each island. These islands shall not be used as retention areas or as swales. Landscape islands for compact car parking areas shall be at least seven feet in width and at least 100 square feet in area. These tree requirements shall be met with existing native trees whenever such trees are located within the parking area and may be feasibly incorporated into the landscaping. Where existing trees are retained in a landscape island the amount of parking spaces in that row may be increased to 15. A parking stall shall be no farther than 50 feet from a tree, measured to the tree trunk. Interior landscaping areas shall serve to divide and break up the expanse of paving at strategic points and to provide adequate shading of the paved area. Perimeter landscaping shall not be credited toward interior landscaping.

3.

All rows of parking spaces shall be bordered on each end by curbed landscape islands as shown in Figure 4.06.03 B - Terminal Landscape Islands. Each terminal island shall measure inside the curb not less than eight feet in width and extend the entire length of the single or double row of parking spaces bordered by the island. Type D or Type F curb per current FDOT Design Standards is required around all landscape islands. A terminal island for a single row of parking spaces shall be landscaped with at least one canopy tree. A terminal island for a double row of parking spaces shall contain not less than two canopy trees. The remainder of the terminal island shall be landscaped with sod, ground covers or shrubs or a combination of any of the above.

* Interior landscaping areas shall be provided within the interior of all **vehicular use areas.** Landscaped areas, wall **structures**, and walks shall require protection from vehicular encroachment through appropriate wheel stops or curbs or other **structures.**

5.

Required landscape islands and perimeter planting beds shall be graded to provide positive drainage. Curbing around landscape areas shall include curb cuts where necessary so as not to inhibit positive drainage.

6.

Interior landscaping areas shall meet the requirements of sections[4.06.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.05GELARE) G. and[4.06.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.05GELARE) J. Alternative designs may be approved that achieve equivalent results subject to approval by the County Manager or his designee.

7.

Vehicular overhang of landscape areas. See[section 4.05.04](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.05.00OREPALO_4.05.04PASPRE), Exhibit A.

8.

Green space required in **shopping centers** and freestanding retail establishments with a **floor area** greater than 40,000 square feet. An area that is at least seven percent of the size of the **vehicular use areas** must be developed as green space within the **front yard(s)** or courtyards of **shopping centers** and retail establishments and must be in addition to the **building** perimeter planting area requirements. The courtyards must only be located in areas that are likely to be used by pedestrians visiting the **shopping center** and retail establishment. The seven percent green space area must be in addition to other landscaping requirements of this division, may be used to meet the **open space** requirements (section[4.02.01](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.02.00SIDEST_4.02.01DISTPRUSBAZODI)), and must be labeled "Green Space" on all **subdivision** and site plans. (Refer to[section 5.05.08](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH5SUST_5.05.00SUSTSPUS_5.05.08ARSIDEST), Architectural and Site Design Standards and Guidelines for Commercial **buildings** and Projects.) The interior landscape requirements of these projects must be reduced to an amount equal to five percent of the **vehicular use area** on site. Green space must be considered areas designed for environmental, scenic or noncommercial recreation purposes and must be pedestrian-friendly and aesthetically appealing. Green space may only include the following: lawns, mulch, decorative plantings, nonprohibited exotic trees, walkways within the interior of the green space area not used for shopping, fountains, manmade watercourses (but not water retention areas), wooded areas, park benches, site lighting, sculptures, gazebos, and any other similar items that the planning service director deems appropriate. Green space must include: walkways within the interior of the green space area not used for shopping, a minimum of one foot of park bench per 1,000 square feet of **building** area. The green space area must use existing trees where possible and landscaping credits will be allowed as governed by table[4.06.04](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.04TRVEPR) D. The green space areas must be located in areas that are in close proximity to the retail shopping area. Benches may also be located in interior landscaped areas and 75 percent of the benches may be located **adjacent** to the **building** envelope along paths, walkways and within arcades or malls.

9.

Required landscaping for **buildings** over 20,000 square feet shall be pursuant to LDC[section 5.05.08](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH5SUST_5.05.00SUSTSPUS_5.05.08ARSIDEST). The following requirements will be counted toward the required greenspace and **open space** requirements of this Chapter of this Code.

a.

Trees in **vehicular use areas** must be a minimum of 14 to 16 feet height with a six- to eight-foot spread and a three- to four-inch caliper and must have a clear trunk area to a height of six feet.

b.

The first row of landscape islands located closest to the **building** front and sides must be landscaped with trees, palms, shrubs and groundcovers and must have a clear trunk area to a height of seven feet.

C.

Landscaping standards for **rights-of-way** and median strips

1.

Median strips. Median strips which are part of the publicly dedicated or deeded **right-of-way** shall not be utilized for any purpose other than by the county or a public utility. When an **applicant** desires to beautify a public median strip in a **subdivision** he may do so in accordance with the guidelines established in this[section 4.06.00](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE) of this Code to allow placing of grass, shrubs and trees in general within the median strip under a **right-of-way** permit after submission and approval of landscaping plans. Selection of landscaping within the public or private median shall be based on accepted traffic safety standards and the prevention of interference with maintenance requirements of utilities within a median. Upon completion of the median improvements, the landscaping shall be maintained by a property owners' association, a **condominium** association, cooperative association, or other like or similar entity.

2.

Subdivision or land development entranceways. **Subdivision** or **development** entranceways consisting of habitable or unhabitable **structures**, walls, fences, gates, rock piles or the like are not permitted within the median strip of a publicly dedicated **right-of-way**. Decorative entranceways may be constructed upon property **adjacent** to a **right-of-way** in compliance with this Code and shall be placed so as to not interfere with any cross-corner or stopping sight distance or constitute a traffic hazard. Any improvements within private **rights-of-way** shall not be placed over any underground improvements without the prior written consent of the intended owner of the improvements. Upon completion of the entranceway, all improvements shall be maintained by the property owners' association, **condominium** association, cooperative association, or other similar entity.

(Ord. No. 04-72, § 3.O; Ord. No. 05-27, § 3.U; Ord. No. 08-63, § 3.P; Ord. No. 12-38, § 3.P; Ord. No. 16-22, § 3.J)

* **4.06.04 - Trees and Vegetation Protection**

[**SHARE LINK TO SECTIONPRINT SECTIONDOWNLOAD (DOCX) OF SECTIONSEMAIL SECTIONCOMPARE VERSIONS**](https://library.municode.com/)

A.

Vegetation Removal and Site Filling. Unless exempted by[Section 3.05.02](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH3REPR_3.05.00VEREPRPR_3.05.02EXREVEPRPR), clearing and filling for Site Development Plans (SDP), Site Improvement Plans (SIP), Plans and Plat (PPL) and Vegetation Removal and Site Fill Permits (VRSFP) shall be in accordance with[Section 3.05.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH3REPR_3.05.00VEREPRPR_3.05.05CRREPRVE) and the following criteria. The following shall not apply to the Golden Gate Estates subdivision.

1.

SDP, SIP and PPL. Clearing and filling for residential, commercial or industrial **lots** or building sites where lakes are excavated within a PUD or project, where the SDP, SIP or PPL has been approved, subject to the following:

a.

Clearing and filling of **native vegetation** shall be limited to 100 acres and shall be shown on the approved site plans for the SDP, SIP or PPL. Fill dirt may be imported to the site.

b.

Clearing and filling in excess of 100 acres shall be allowed where land has been previously cleared or the vegetation is not **native vegetation**.

c.

**Lots** cleared must, at minimum, be filled and graded in accordance with the approved plans to ensure the stormwater management system will function as designed and to insure the health, safety and welfare of the public. Best Management Practices (BMP) for erosion control shall be implemented and **lots** cleared must be stabilized with vegetation within six months. If desired by the **applicant, lots** may be partially cleared to retain existing **native vegetation**.

d.

The limits of each stockpile of excavated material along with height and cross-sections must be included on the approved plans for the SDP, SIP or PPL. Slopes shall not be steeper than a ratio of 4:1, or as otherwise approved by the County Manager or designee where vegetation on the stockpile does not require mowing or the 4:1 ratio is not practicable. Such determination shall be based on the type of material to be excavated and other information as provided by the **applicant**.

e.

The limits of clearing shall be shown on site plans for the SDP, SIP or PPL.

2.

VRSFP. Issuance of a VRSFP, subject to the following:

a.

Clearing and filling of individual single family **lots** where a completed building permit application has been submitted and deemed sufficient by the County.

b.

On **adjacent** single-family **lots** where a building permit for a single-family home for one of the **lots** has been issued. Up to five **lots** may be cleared and filled per application.

c.

Temporary **access** in previously cleared areas, areas not containing **native vegetation** or areas of future **development** identified in a PUD, where the need and location for such temporary **access** has been approved by the County Manager or designee.

d.

Clearing and filling of up to 100-acres of **native vegetation** within a PUD or project, where the SDP, SIP or PPL has been approved, and where storage of fill from the previous **development order** authorizing clearing and filling is nearing capacity (75 percent complete).

e.

No work may commence until State and Federal permits are obtained.

3.

Stabilization:

a.

Best Management Practices (BMP) for erosion control shall be implemented and areas cleared shall be stabilized within six months.

b.

Stockpiles in place for more than six months shall be stabilized. Stabilization shall be with one or more of the following: vegetation, watering, covering of stockpiles or other methods as approved by the County Manager or designee. Such determination shall be based on the type of material to be excavated and other information as provided by the **applicant**. Failure to do so within 14 calendar days of notification by the County will result in a fine of $10.00 per acre, per day.

c.

Stockpiles located one half mile or more from residences are not required to be stabilized unless the County or developer receive complaints of dust from residents. Where valid complaints are received, stabilization shall be required in accordance with[4.06.04](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.04TRVEPR) A.3.b (above).

d.

Stockpiles shall not be placed in areas used to satisfy the **native vegetation** retention requirements of the LDC.

e.

For subdivisions and VRSFPs within subdivisions, excluding VRSFPs for clearing and filling of 5 **lots** or less or for temporary **access** pursuant to[4.06.04](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.04TRVEPR) A.2.a, b and c (above), a vegetation bond in the form of a performance bond, letter of credit, or cash bond and in the amount of $5,000.00 per acre must be posted. Bonds shall be released to the **applicant** on a prorated basis based upon issuance of building permits or stabilization of fill.

4.

BCC approval. Deviations from the thresholds contained herein may be obtained from the BCC through PUD rezone or BCC approved VRSFP. The **applicant** must demonstrate to the Board, through a schedule of **development** activities, that the project will be completed in a reasonable amount of time so as to minimize noise, dust, blasting, traffic, and inconvenience to the neighboring and general public. Except as explicitly exempted by the Board, all other criteria in[Section 4.06.04](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.04TRVEPR) shall apply.

B.

Credit for Tree Preservation. Existing trees may be credited towards meeting the minimum tree planting requirements according to the formula in table[4.06.04](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.04TRVEPR) B.1. Fractional measurements shall be attributed to the next lowest category.

C.

**Building** foundation plantings. All commercial **buildings**, residential **buildings** with 3 or more units, and retail and office uses in industrial **buildings** shall provide **building** foundation plantings in the amount set forth in table 4.06.05.C. and illustration 4.06.05.C. These planting areas shall be located adjacent to **building** entrance(s), **primary façades**, and/or along **façades** facing a **street**. For projects subject to architectural design standards, see LDC sections[5.05.08](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH5SUST_5.05.00SUSTSPUS_5.05.08ARSIDEST) E.—F. for related provisions.

1.

Retail and office **buildings** shall have foundation plantings on at least 3 **building façades.** Plantings shall occur along at least 30 percent of each these **façade** lengths.

2.

Minimum planting area width for trees and palms shall be 8 feet.

3.

**Building** foundation plantings shall be covered with shrub, ground cover, raised planter boxes, and ornamental grass plantings, except as provided in item 10. below.

4.

**Sidewalks** may occur between the **building** and foundation planting areas. **Sidewalks** may also occur between foundation planting areas and planted islands that meet criterion 7. below.

5.

A maximum of 50 percent of the required foundation planting may be located in perimeter **buffers.**

6.

Water management areas shall not occur in foundation planting areas.

7.

Parking lot islands shall not be used to meet **building** foundation planting area requirements, except for islands **contiguous** to foundation planting areas that exceed minimum width requirements.

8.

**Buildings** with overhead doors and/or open vehicular use areas along **building** perimeters that are visible from any road, **access,** or residence shall provide a Type B landscape **buffer** or approved equivalent along the entire perimeter opposite these features. The required foundation plantings for these **buildings** shall be reduced by 20 percent.

9.

All projects may use the following alternatives to meet the requirements of table[4.06.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.05GELARE) C.:

a.

Turf grass may be used for up to 30 percent of the **building** foundation planting area when required tree heights are increased by 2 feet.

b.

Decorative paving areas incorporating courtyards, walkways, water features, plazas, covered seating and outdoor eating spaces may be used to meet up to 20 percent of the required **building** foundation planting area.

c.

Vine planted arbors, wall planters, and trellis **structures** may be used to meet up to 15 percent of the required **building** foundation planting area.

**Illustration 4.06.05.C**

*rees and palms.* All required new individual trees, shall be species having an average mature spread or crown of greater than 20 feet in the Collier County area and having trunk(s) which can be maintained in a clean condition over five feet of clear wood. Trees **adjacent** to walkways, bike paths and **rights-of-way** shall be maintained in a clean condition over eight feet of clear wood. Trees having an average mature spread or crown less than 20 feet may be substituted by grouping the same so as to create the equivalent of 20-foot crown spread. For code-required trees, the trees at the time of installation shall be a minimum of 25 gallon, ten feet in height, have a 1¾-inch caliper (at 12 inches above the ground) and a four-foot spread.

a.

A grouping of three palm trees will be the equivalent of one canopy tree. Exceptions will be made for Roystonea spp. and Phoenix spp. (not including roebelenii) which shall count one palm for one canopy tree. Palms may be substituted for up to 30 percent of required canopy trees with the following exceptions. No more than 30% of canopy trees may be substituted by palms (or palm equivalent) within the interior of a **vehicular use area** and within each individual Type D road **right-of-way** **landscape buffer**. Palms must have a minimum of 10 feet of clear trunk at planting.

b.

All new trees, including palms, shall be of a species having an average mature height of 15 feet or greater.

3.

*Tree species mix.* When more than ten trees are required to be planted to meet the requirements of this Code, a mix of species shall be provided. The number of species to be planted shall vary according to the overall number of trees required to be planted. The minimum number of species to be planted are indicated below:

 EXPAND

4.

*Shrubs and hedges.* Shrubs and hedges shall be installed and maintained at a minimum height as specified in Section 4.06.02.C. except: 1) where visibility at **street** and driveway intersections is required; 2) where pedestrian **access** is provided; or 3) where a signage visibility triangle for non-residential on-premise signs per[section 4.06.02](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.02BURE) C.4.e is utilized. Shrubs and hedges shall screen the **adjacent** pavement surface or developed property required to be **buffered** and/or screened. Hedges, where required, shall be maintained so as to form a continuous, unbroken, solid visual screen within a minimum of one year after time of planting.

5.

*Ground covers.* Ground cover shall be installed in a manner which presents a finished appearance and complete coverage. Stone, gravel, or any artificial ground cover shall not be utilized for more than 20 percent of the landscaped area. Use of native ground covers is encouraged.

6.

*Organic mulch requirements.* A two-inch minimum layer after watering-in of organic mulch shall be placed and maintained around all newly installed trees, shrubs, and ground cover plantings. Each tree shall have a ring of organic mulch no less than 12 inches beyond its trunk in all directions. No more than 25 percent by volume of the mulch used on a site may be cypress mulch.

7.

*Lawn grass.* Grassed lawn areas shall be planted with turf grass species normally grown for use as permanent lawns in Collier County. Lawns shall be planted using turf grass sod, plugs, sprigs, or seed installation methods. All water management areas and slopes steeper than 6:1 (6 horizontal to 1 vertical) shall be sodded. The use of drought tolerant turf species is encouraged. Synthetic turf shall not be used in any landscape area except when used in the rear **yards** of residential lots for the construction of recreation areas that do not exceed 30 percent of the rear **yard** pervious area.

8.

*Site-specific plant material.* Trees and other vegetation shall be planted in soil and climatic conditions which are appropriate for their growth habits. The County Manager or his designee shall review and approve land plans based on the following criteria. Required plants used in the landscape design shall be:

a.

Appropriate to the conditions in which they are to be planted (including drought, salt and cold tolerance).

b.

Have noninvasive growth habits.

c.

Encourage low maintenance.

d.

Be otherwise consistent with the intent of this section.

9.

*Non code trees.* The following plant species may be planted but shall not count towards required code trees:

a.

Eucalyptus spp. (eucalyptus).

b.

Grevillea robusta (silk oak).

10.

*Control species.* The following plant species shall not be planted within 500 feet of conservation **easements** and retained natural vegetation areas:

a.

Broussonetia papyrifera (paper mulberry).

b.

Wedelia trilobata (wedelia).

11.

*Reserved.*

12.

For a description of plants utilized for mitigation, please see[Section 10.02.06](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH10APREDEKIPR_10.02.00APRE_10.02.06REPE) E.3.c.

E.

Existing Plant Communities. Existing plant communities and ecosystems shall be maintained in a natural state and shall not be required to be irrigated. Native plant areas that are supplements to an existing plant community or newly installed by the **applicant** shall be irrigated on a temporary basis only during the period of establishment from a temporary irrigation system, water truck, or by hand watering with a hose.

1.

Existing plant material. In meeting the requirements of landscaping, the planning services director may permit the use of healthy native plant material existing on-site. In so doing, the planning services director may adjust the application of the standards of these regulations to allow credit for such existing plant material, provided, he may not permit the reduction of required percentages of a landscaped area or reduction in numbers of trees or shrubs required, unless otherwise allowed pursuant to[section 4.06.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.05GELARE) E. Removal of vegetation is subject to the vegetation removal, protection, and preservation section (contained in this section).

2.

All new **development** shall retain existing **native vegetation** to the maximum extent possible. Existing **native vegetation** shall be retained unless stormwater management design, necessary **grade** changes, required infrastructure or approved construction footprints necessitate its removal. The need to remove existing vegetation shall be demonstrated by the **applicant** as a part of the site/construction plan review process. Areas of retained vegetation shall be preserved in their entirety with all trees, understory, and ground covers left intact and undisturbed provided that prohibited exotic plant materials as defined herein are to be removed.

3.

During construction, all reasonable steps necessary to prevent the destruction or damaging of existing vegetation shall be taken. No excess soil, additional fill, equipment, liquids, or construction debris shall be placed within the dripline of any vegetation that is required to be preserved, or that will be credited towards the required landscaping.

4.

Protective barriers shall be installed and maintained beyond the dripline of all retained vegetation unless site improvements prohibit installation of barriers beyond the dripline, and shall remain in place for the duration of the construction process phase.

F.

Prohibited Plant Materials.

1.

*Prohibited species.* The following plant species shall not be planted:

a.

All Category I Invasive Exotics as listed on the Florida Exotic Pest Plant Council's website: [www.fleppc.org] This list is routinely monitored and updated by the FLEPPC. Plus the following species:

b.

Melia azedarach (Chinaberry tree).

c.

Dalbergia sissoo (Indian rosewood).

2.

*Prohibited exotic species.* In addition to the prohibitions outlined in[section 4.06.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.05GELARE) E. above, the species enumerated in[section 3.05.08](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH3REPR_3.05.00VEREPRPR_3.05.08REREPREXVE) or seeds thereof shall not be grown, offered for sale, or transported inter-county or intra-county.

3.

*Prohibited exotic plants.* All prohibited exotic plants, as defined in this Chapter as well as[Chapter 3](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=APXHLDUDCOTA_ART3DERE), shall be removed during each phase of construction from **development** areas, **open space** areas, and preserve areas pursuant to this Chapter as well as[Chapter 3](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=APXHLDUDCOTA_ART3DERE). Following site **development**, a maintenance program shall be implemented to prevent reinvasion of the site by prohibited exotic species. This plan shall describe control techniques and inspection intervals, shall be filed with, and be approved by, the **development** services director prior to approval of the improvement plans and final **subdivision** plat. Flexibility, in the form of area tradeoffs or mitigation, may be allowed in the determination of areas within **developments** to be preserved.

4.

*Native habitats.* **Developments** shall identify, protect, conserve, incorporate and use native vegetative communities pursuant to[Chapter 3](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=APXHLDUDCOTA_ART3DERE) and identify, protect and conserve wildlife habitat.

G.

Requirements to remove prohibited plant materials. For these requirements, see[section 3.05.08](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH3REPR_3.05.00VEREPRPR_3.05.08REREPREXVE) of this Code.

H.

Installation and selection requirements for plant materials

1.

Prior to the issuance of any certificate of occupancy for a use required to provide landscaping and irrigation in accordance with this section, all required landscaping and irrigation shall be installed and in place as set out in the plans approved under Chapter 10 of the Code. All plant materials must be installed in accordance with accepted landscape practices in the area and meet the plant material standards contained in[Section 4.06.05](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.05GELARE) C. Plant materials shall be installed in soil conditions that are conducive to the proper growth of the plant material.

2.

Limerock located within planting areas shall be removed and replaced with native or growing quality soil before planting. A plant's growth habit shall be considered in advance of conflicts which might arise (i.e. views, signage, overhead power lines, lighting, sidewalks, **buildings,** circulation, etc.). Trees shall not be placed where they interfere with site drainage, subsurface utilities, or where they shall require frequent pruning in order to avoid interferences with overhead power lines and **buildings.**

a.

An approved root barrier system shall be installed when the following occurs:

i.

Large canopy trees are planted closer than 15;ft; to a building.

ii.

Large canopy trees are planted closer than 10;ft; to a sidewalk, underground utility or paved area with no curbing or curbing which extends less than 18;inch; below grade (see Figure 4.06.05 H.A. below).

3.

Trees shall not be planted in areas that retain excessive quantities of water or will require excessive amounts of fill placed over the root system that will affect the health of the tree species. Required landscaping shall not be placed within **easements** without written approval from all entities claiming an interest under said **easement.**

4.

All trees and palms shall be properly guyed, braced and/or staked, at the time of planting to ensure establishment of the tree or trees and erect growth. Nail staking or other methods that cause cosmetic or biological damage to the tree are prohibited. Trees shall be re-staked within 24 hours in the event of blow-over or other failure of the staking and guying. Staking shall be removed between six and 12 months after installation.

5.

All required landscaping shall be installed in accordance with plans approved under Chapter 10 of the Code. Landscaping within a **subdivision** development shall be guaranteed by a **subdivision** completion bond in accordance with Chapter 10 governing the final platting of **subdivision.**

6.

All required landscaping shall be maintained in a healthy condition in perpetuity as per the approved **building** and site plans. Code Enforcement may investigate deficiencies in approved landscaping and institute corrective action to insure compliance with this Code.

7.

In instances where an act of God or conditions outside the control of the **applicant** have prevented immediate installation, the County Manager or his designee, if furnished with a statement which includes good and sufficient evidence that states that the required plantings will be installed when conditions permit, may issue a temporary certificate of occupancy. If the required plantings are not installed when conditions permit, then the county may revoke the certificate of occupancy.

I.

Location requirements for signage **adjacent** to landscape buffer.

1.

Signage located within/**adjacent** to **landscape buffer** area. All trees and shrubs located within **landscape buffer** shall be located so as not to block the view of signage as shown in Figure 4.06.05 I.1. below, Signage **adjacent** to **landscape buffer**. Sign locations shall be shown on the landscape plan and 100 square feet of landscaping shall be provided as required by LDC[section 5.06.04](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH5SUST_5.06.00SIRESTLAUSCL_5.06.04DESTSINODI) F.



**Figure 4.06.05 I.1.** - Signage **adjacent** to **landscape buffer**

J.

Treatment of slopes. The landscape and engineering standards in Slope Table 4.06.05 J and Slope Cross Sections 4.06.05 J shall apply to all landscape areas, except the following:

1.

Single family **lots**, however, this exception shall not apply to berms or swales within platted easements;

2.

Golf Courses; and

3.

Berms or swales 2 feet in height or lower, if the slope ratio is no steeper than 3:1.

Slope Table 4.06.05 J.

 EXPAND

|  |  |
| --- | --- |
| Slope Ratio | Slope Treatment. See a. below. |
| No Steeper Than 4:1 (4 horizontal to 1 vertical) | Grass. See Figure 3 below. |
| Trees, Ground Covers, Ornamental Grasses, and Shrubs. |
| No Steeper Than 3:1 (3 horizontal to 1 vertical) | Trees, Ground Covers, Grass, Ornamental Grasses, and Shrubs. See Figure 2 below. |
| Requires 50 percent surface coverage at time of installation and 80 percent coverage within 1 year and avoid soil erosion |
| Toe of slope shall be set back a minimum of 2 feet from sidewalks and paved surfaces. |
| No Steeper Than 2:1 (2 horizontal to 1 vertical) | Rip-rap or other forms of erosion and scour protection. See Figure 1 below. |
| When used for water management systems within a required buffer pursuant to LDC[section 4.06.02](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH4SIDEDEST_4.06.00LABUVERE_4.06.02BURE) D, rip-rap or other forms of erosion and scour protection are permitted only in concentrated, rapid flow water management areas or sloped areas less than 200 square feet with a maximum height of 30 inches. |
| Slopes requiring stabilization with ground covers or vines shall provide 80 percent coverage within 1 year. |
| No Steeper Than 1:1 (1 horizontal to 1 vertical) | Permanent slope stabilization systems are required on all slopes steeper than 2:1 and no steeper than 1:1. |
| Stabilization systems shall require engineered plans signed and sealed by a Professional Engineer, Architect, or Landscape Architect registered in the State of Florida. |
| Stabilization systems if visible from any road, access, or residence shall be set back from property line a minimum of 2 feet and be landscaped to provide 80 percent opacity within 1 year. In addition when a system is located within a landscape buffer all buffer plantings shall be located on the high or elevated side in a minimum 5 foot wide planting area with a slope no greater than 10:1. |
| Stabilization systems shall not exceed 3 feet in height and shall not be located on lake banks or in lake maintenance easements. |
| Set back requirements from sidewalks or paved surfaces shall be a minimum of 2 feet. |
| Steeper Than 1:1 | Vertical Retaining Walls. See b, c, and d. below, See Also Alternative A & B below. |
| Walls over 30 inches in height shall require engineered plans signed and sealed by a Professional Engineer, Architect, or Landscape Architect registered in the State of Florida. |
| Wall shall be architecturally finished or provide a natural appearance. See e. below. |
| Walls if visible from any road, access, or residence shall be set back from property line a minimum of 2 feet and be landscaped to provide 80 percent opacity within 1 year. In addition when a wall is located within a landscape buffer all buffer plantings shall be located on the high or elevated side of the wall in a minimum 5 foot wide planting area with a slope no greater than 10:1. |

Slope Table 4.06.05 J. Notes:

a.

Slopes adjacent to required preserve areas shall be planted with 100% Florida native species, shall provide swales to direct water flow away from preserves, and meet setbacks as required by LDC section 3.05.07.H.3.

b.

Perimeter water management walls shall not exceed 3 feet in height and shall be setback from property lines a minimum of 2 feet. In addition when water management walls are located in landscape buffers the walls shall be consistent with LDC section 4.06.02.D. All water management walls shall be landscaped to provide 80% opacity within 1 year. See Figure 4 below.

c.

Water management areas with continuous vertical walls exceeding 20 feet in length and/or open vaults are prohibited.

d.

Vertical retaining wall requirements and standards do not apply to headwalls or bridge abutments.

e.

Architectural finish requires color, texture, and materials that are in common with those used on surrounding structures. Exposed concrete walls are prohibited. Natural appearance requires color, texture, and materials that mimic or occur in nature.

**Slope Cross Sections 4.06.05.J.**



K.

Maintenance of landscaping.

1.

*Pruning.* Vegetation required by this Code shall only be pruned to promote healthy, uniform, natural growth of the vegetation except where necessary to promote health, safety, and welfare and shall be in accordance with the current Tree, Shrub, and Other Woody Plant Maintenance - Standard Practices ANSI A300 " of the National Arborist Association. Trees shall not be severely pruned in order to permanently maintain growth at a reduced height or spread. Severely pruned trees shall be replaced by the owner. A plant's growth habit shall be considered in advance of conflicts which might arise (i.e. views, signage, overhead power lines, lighting, circulation, **sidewalks**, **buildings**, and similar conflicts).

2.

*Maintenance.* The owner shall be responsible for the continued maintenance and upkeep of all required landscaping so as to present a healthy plant in a condition representative of the species. Tree and Palm staking shall be removed between six and 12 months after installation. All landscapes shall be kept free of refuse, debris, disease, pests, and weeds and shall be fertilized and irrigated to maintain plants in a healthy condition. Special maintenance requirements necessary to preserve the landscape architect's design intent shall be noted on the planting plan. Ongoing maintenance to prohibit the establishment of prohibited exotic species is required. Any plant materials of whatsoever type or kind required by these regulations shall be replaced within 30 days of their demise and/or removal. Code Enforcement will inspect areas affected by this Code and issue citations for violations. If the required corrective action is not taken within the time allowed, the county may use any available means of enforcement to secure compliance. These shall include, but not be limited to the following:

a.

Prosecution before the Collier County Code Enforcement Board

* b.

Prosecution by the State Attorney's Office as provided by Florida Statutes;

c.

Withholding of any permit, construction plan approval, certificate of occupancy, or inspection by the county;

d.

Placing a lien on the property, to include all administrative, legal, material and installation costs.

L.

Irrigation system requirements.

1.

*Cultivated landscapes.* Cultivated landscape areas shall be provided with an automatic irrigation system to improve the survivability of the required landscaping. Sprinkler heads irrigating lawns or other high water demand areas shall be zoned separately from those irrigating trees, shrubbery, ground cover, flowers, or other reduced water requirement areas. Automatically controlled irrigation systems shall be operated by an irrigation controller that is capable of watering "high water" requirement areas at different frequencies and duration than "low water requirement areas. Landscaping shall be watered on an as-needed basis only.

Irrigation systems shall be designed for the zoning of high and low water use areas. Heads shall be designed for 100 percent head-to-head coverage unless specified by the manufacturer. These requirements may be adjusted for retention areas. The irrigation system shall be designed and installed in accordance with the Florida Irrigation Society, Standards and Specifications for Turf and Landscape Irrigation Systems (as amended). Irrigation systems utilizing well water shall be designed and maintained in a manner which eliminates staining of the **building**, walks, walls, and other site improvements. All systems shall be designed to eliminate the application of water to **impervious areas**. Irrigation systems, other than drip or soaker hose systems, shall be operated between the hours of midnight and 10:00 a.m., unless the operation of multiple zones requires additional time. South Florida Water Management District (SFWMD) or other utility company water use restrictions shall supersede these requirements. There are no operational requirements for irrigation systems utilizing effluent.

All new residential, commercial, and industrial **developments** shall be irrigated by the use of an automatic irrigation system with controller set to apply water in a manner consistent with this section. Moisture detection devices shall be installed in all automatic sprinkler systems to override the sprinkler activation mechanism during periods of increased rainfall. Where existing irrigation systems are modified requiring the acquisition of a permit, automatic activation systems and overriding moisture detection devices shall be installed in compliance with this section.

M.

Post-installation landscape certificate of compliance.

All projects which require the submission of landscape plans by a registered Landscape Architect must be inspected and certified that the landscaping and irrigation systems meet or exceed the landscape and irrigation plans approved by the County as part of the **development order** review process. Proof of certification shall be provided on a form approved by the County Manager or his designee and must be submitted to the Engineering Services Department Director prior to the request for County inspection. This regulation applies to projects submitted after June 16, 2005.

N.

Water management areas.

1.

Natural and manmade bodies of water including retention areas for all **developments** subject to LDC sections[5.05.08](https://library.municode.com/fl/collier_county/codes/land_development_code?nodeId=CH5SUST_5.05.00SUSTSPUS_5.05.08ARSIDEST), 4.06.02 D. and 3.05.10.

a.

Configuration of water management areas. The shape of a manmade body of water, including retention and detention areas, must be designed to appear natural with curvilinear edges. An alternative design may be approved as a part of the design of the **building,** if the design of the water management area is related to the architectural design of the **building.**

b.

Water management areas within the **front yards.** Narrow and steep water management areas are prohibited within the **front yards** that lie between the primary **façades** of a **building** and a public and private **street.** These narrow and steep water management areas are defined as 12 feet or less in width with maximum slope of 4:1.

c.

Required amenities. The following standards apply to detention and retention areas exceeding 12 feet in width. All bodies of water, including retention areas exceeding 20,000 square feet, and which are located **adjacent** to a public **right-of-way,** must incorporate into overall design of the project at least 2 of the following items:

i.

A walkway 5 feet wide and a minimum of 200 feet long, with trees of an average of 50 feet on center and with shaded benches, a minimum of 6 feet in length or picnic tables with one located every 150 feet.

ii.

Fountains.

iii.

Partially shaded plaza/courtyard, a minimum of 200 square feet in area, with benches and/or picnic tables **abutting** the water-body, or retention areas.

(Ord. No. 04-72, § 3.Q; Ord. No. 05-27, § 3.W; Ord. No. 06-07, § 3.L; Ord. No. 06-63, § 3.AA; Ord. No. 07-67, § 3.L; Ord. No. 08-63, § 3.Q; Ord. No. 09-43, § 3.A; Ord. No. 10-23, § 3.Z; Ord. No. 15-44, § 3.G; Ord. No. 16-22, § 3.K; Ord. No. 16-27, § 3.N; Ord. No. 18-32, § 3.C)

* **4.06.06 - Special Buffer Requirements For The TTRVC Zoning District**

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