

## **ARTICLE 10. ACCESS AND STREETS**

### **10.1 GENERAL PROVISIONS**

#### **10.1.1. APPLICABILITY**

- (A) This Chapter applies to all development within the City.
- (B) No construction shall commence until all required plans, profiles and specifications have been reviewed and approved by the City or other governmental approving agency.
- (C) No City services or utilities shall be extended or furnished to any development until the applicant has installed the improvements specified in this UDO or guaranteed their installation as provided for in this UDO.
- (D) Variances to this Chapter are heard by the Board of Zoning Appeals, design alternates where specifically authorized are heard by the Planning Commission.
- (E) All improvements must conform with all adopted City plans.

### **10.2 ACCESS**

#### **10.2.1. PURPOSE, INTENT, AND APPLICABILITY**

- (A) The purpose of this section is to support the creation of a highly connected transportation system in order to protect the public health, safety, and welfare in order to ensure adequate access for emergency and service vehicles, connect neighborhoods to each other and to local destinations such as schools, parks, and shopping centers, reduce vehicle miles of travel and travel times; improve air quality; reduce emergency response times;

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encourage connections to re-developable property; and free up arterial road capacity to better serve regional travel needs.

- (1) **Access for residential developments.** In order to create a more connected transportation system and accommodate emergency and service vehicles, the following standards shall apply:
  - a. Developments where the number of dwelling units exceeds 125 shall be provided with two separate and approved fire apparatus access roads.
  - b. Where two fire apparatus access roads are required, they shall be placed at a minimum to meet SCDOT driveways spacing based upon road classification and posted speed limits.
  - c. The Fire Marshal shall have authority to waive or increase requirements.
- (2) **Access for Multifamily Residential Developments.** In order to create a more connected transportation system and accommodate emergency and service vehicles, the following standards shall apply to Multifamily Residential developments:
  - a. Multiple-family residential projects having more than 125 dwelling units shall be equipped throughout with two separate and approved fire apparatus access roads.
  - b. Where two fire apparatus access roads are required, they shall be placed at a minimum to meet SCDOT driveways spacing based upon road classification and posted speed limits.
  - c. The Fire Marshal shall have authority to waive or increase requirements.
- (3) **Cross Access.** To reduce traffic impacts, the Planning Director in coordination with the County Land Development Department shall be authorized to require cross access between adjacent developments (residential and or non-residential) or to designate cross-access corridors on properties adjacent to arterial and major collector roadways. The Planning Director and the County Land Development Department shall review such location(s) as well as the type of development proposed (e.g. multifamily and commercial; commercial and office; however, residential to industrial is not assumed to require such cross access). Such requirement or designation may be made in connection with the approval of any subdivision or site plan within the affected area, or as part of an overall planning program.
  - a. Each site plan shall provide for appropriate stub-outs to support cross access between adjacent parcels.

- b. If the adjacent parcel to the proposed development is vacant, an access easement shall be executed and recorded with the Lexington or Richland County Register of Deeds

### 10.2.2. TRAFFIC IMPACT STUDY

Developments on State roads shall be coordinated with SCDOT as per their requirements for traffic impact studies. Developments on a Lexington County or Richland County Road shall be required to submit a traffic impact study and shall be coordinated with their respective public works/engineering department. Developments, site improvements, or change of uses that generate greater than 100 peak hour trips shall be required to submit a traffic impact study. The estimate of the number of trips for the sites will be based on the latest edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.

## 10.3 STREETS

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### 10.3.1. PURPOSE, INTENT, AND APPLICABILITY

All streets, which shall hereafter be established in connection with the development of a subdivision, shall comply with the following design standards:

All streets intended for public use are to be designed and constructed to Lexington County or Richland County standards when appropriate based on project location. All improvements within South Carolina Department of Transportation (SCDOT) are to be designed and constructed to SCDOT standards.

Street patterns should provide adequate capacity to accommodate existing traffic, traffic reasonably anticipated from the development, and traffic reasonably anticipated from other developments approved or for which a formal application has been submitted. Proposed streets should allow for adequate connectivity while allowing developments to work around natural features, such as wetlands or steep terrain, or safety concerns.

### 10.3.2. CONTINUATION OF EXISTING STREET PATTERN

Whenever topography will permit, the arrangements of streets in a subdivision shall provide for the alignment and continuation or projection of existing streets in adjoining areas. This is to promote the interconnectivity of subdivision developments. Where it is essential to the development of a logical street pattern, street right-of-way shall be extended to the boundary of adjoining property. Incompatible characteristics of adjoining property shall be given due consideration in making a determination of what shall constitute a logical street pattern.

### 10.3.3. BLOCKS

The Administrative Official shall examine every proposed subdivision as to its compliance with the following provisions:

- (A) Non-residential Blocks- Non-residential blocks shall be of such length and width as may be suitable for their prospective use, including adequate provision for off-street parking and service.
- (B) Residential Block Length - In order to insure convenient access between various parts of a subdivision, between the subdivision and surrounding areas, and in order to help prevent traffic congestion and undue inconvenience, the length of residential blocks hereafter shall not exceed fourteen hundred (1,400) feet or be less than six hundred (600) feet from corner to corner. Provided, however, such length requirements may be modified when such shall be appropriate due to the topography or physical shape of the property being subdivided. The width of any residential block shall be sufficient to permit two (2) tiers of lots, where topography and land ownership permits, except as otherwise provided in these regulations.
- (C) Crosswalks - Where a subdivision design involves unusually long blocks, public right-of-way for pedestrian crosswalks shall be provided where such are necessary for the convenience of pedestrians. Such crosswalk shall not be less than ten (10) feet wide and improved to include a concrete, asphalt or other approved surface walkway six (6) feet wide and four (4) inches thick.
- (D) Block Width - Blocks to the interior of the subdivision shall have sufficient width to provide for two tiers of lots. One tier of required block width is permitted in blocks adjacent to collector streets or arterial streets or waterway. Not more than two tiers of lots shall be provided for any block.

### 10.3.4. CUL-DE-SACS

Cul-de-sacs shall terminate in a circular turnaround having a minimum right-of-way of at least one hundred (100) feet in a diameter and a paved turnaround with a minimum outside diameter eighty (80) feet or other approved type of turnaround. Maximum length shall not exceed eight hundred (800) feet unless unusual circumstances require a greater length.

### 10.3.5. TEMPORARY DEAD-END STREETS

Temporary dead-end streets, which extend for a greater distance than the depth of one abutting lot, shall be provided with a temporary turnaround having a diameter of eighty (80) feet, or other suitable turnaround.

#### 10.3.6. INTERSECTIONS

The centerline of no more than two (2) streets shall intersect at any one point. Streets shall be laid out so as to intersect as nearly as possible at right angles and no street shall intersect any other street at an angle of less than sixty (60) degrees (angles of intersection to be measured at the intersection of street centerline). Curved streets shall have a minimum tangent of one hundred (100) feet at intersections.

#### 10.3.7. REVERSE CURVES

Where practical, a tangent of at least two hundred (200) feet on minor streets and three hundred (300) feet on collector streets shall be provided between reverse curves. On major thoroughfares, tangent distances shall be determined by the State Department of Transportation.

#### 10.3.8. STREET JOGS

Street jogs should be avoided. Where unavoidable, street jogs at intersections shall have a centerline offset of not less than one hundred fifty (150) feet.

#### 10.3.9. STREET NAMES

Streets that are extensions of, or obviously in alignment with existing named streets, shall bear that name. The name of new streets shall be subject to the approval of the City Planning Commission and shall not duplicate or be similar in sound to existing names in Lexington County or Richland County when appropriate, irrespective of the use of the suffix street, avenue, circle, way, boulevard, drive, place, or court or the like.

#### 10.3.10. ADDITIONAL RIGHT-OF-WAY

Subdivisions which include an existing platted street that does not conform to the minimum right-of-way requirements of these regulations shall provide additional width along one or both sides of such street so that the minimum right-of-way required by these regulations is established. Subdivisions abutting only one side of such street shall provide a minimum of one-half, measured from the centerline of the existing right-of-way, of the right-of-way required by these regulations.

#### 10.3.11. RIGHT-OF-WAY AND PAVEMENT WIDTHS

Minimum right-of way and pavement widths shall be as follows:

	R/W	Minimum Pavement Width (feet)	Design Speed (mph)	Min. Radius (feet)	Max. Grade %
Business/Industrial	60'	40' Closed section with 5' sidewalks on both sides	30	380	6%
Residential Collector Lots > 20,000 SF	60'	24' Open section with 6' graded shoulder and a 4' wide sidewalk on one side, outside of the ditch or a 24' closed section with a 4' sidewalk on one side.	30	380	8%
	50'		30	380	8%
Residential Collector Lots < 20,000 SF **	50'	30' closed section with a 5' wide sidewalk on one side.	30	380	8%
Residential Sub-Collector Lots > 30,000 SF	50'	24' Closed section with a 4' sidewalk on at least one side.	25	200***	8%
Residential Sub-Collector Lots > 10,000 or < 30,000 SF	50'	30' Closed section with 5' wide sidewalks on both sides	25	200***	8%
Residential Sub-Collector Lots < 10,000 SF	60'	36' Closed section with 5' wide sidewalks on both sides	25	200***	8%
Residential access Lots > 30,000 SF	50'	18' Open section with 6' graded shoulder or 24' Closed section	25	200***	10%
Residential access Lots > 10,000 or Lots < 30,000 SF	50'	24' Closed section with 5' wide sidewalks on both sides	25	200***	10%
Residential access Lots < 10,000 SF	50'	30' Closed section with 5' wide sidewalks on both sides	25	200***	10%

\*\* Or where connected to neighborhoods with closed section sub-collectors and access roads.

\*\*\* Where the centerline deflection angle is 60 degrees or greater, the designer may deviate from the 25 mph design criteria and use a minimum radius of 125 feet to connect the centerlines



and sixty (160) feet (25 mph). Stopping sight distances shall be measured from height of eye (three (3) feet nine (9) inches) to an object with a height of six (6) inches. Both distances measured above the centerline of the street.

#### 10.3.15. CONCRETE CURB, GUTTERS, SIDEWALKS, AND DRIVEWAYS

Concrete curbing, gutters, sidewalks, and driveways within public rights-of-way are to be designed and constructed per Lexington County, Richland County, or SCDOT specifications based upon the project location.

- (A) Curbs and Gutters - Concrete curbs or paved valley-type gutters shall be installed and shall be in accordance with plans and specifications of the South Carolina Department of Transportation and Lexington County Public Works.
- (B) Sidewalks - Sidewalks are to be a minimum of 4" Uniform thickness except at driveway crossings where the thickness is to be increased to 6" Uniform thickness of Portland cement concrete conforming to Class 2500 from the SCDOT Standard Specifications for Highway Construction. Sidewalks shall be installed and shall be constructed as follows:
  - a. A four (4) foot sidewalk shall be provided on at least one side of all minor streets.
  - b. Five (5) foot sidewalks shall be provided on both sides of collector streets and major thoroughfares.

#### 10.3.16. REDUCED RIGHT-OF-WAY

If reduced right of way is proposed, additional requirements such as tree planting, sidewalks, and parking areas may apply as per Lexington County or Richland County requirements where applicable.

#### 10.3.17. PRIVATE STREETS

Private streets may be permitted by the City of Cayce Planning Commission for the purpose of subdivision, if the private street is constructed to Lexington County or Richland County standards where applicable and a mechanism approved by the Planning Commission is established to provide for all future maintenance of the private street.

#### 10.3.18. ENTRANCE ISLANDS

1. The nose of the island shall be located twelve (12) feet from the edge of the existing road pavement.
2. There shall be a normal fifteen (15) feet wide pavement section for one way traffic on each side of the entrance island, measured from back of curb BOC to BOC unless there is a turning lane.

3. Vegetation and structures in islands shall not interfere with intersection sight distance requirements. Perpetual maintenance responsibility must be assumed by a private entity.
4. Expulsion type barrier curbing is required around the entire circumference of the island. Pavement shall be sloped so runoff is directed away from the island and into the storm drainage system.
5. All islands are required to have French underdrain system. The underdrain is normally located behind the barrier curb for its entire circumference (although on narrow islands, a single drain running the length of the island in the center may suffice) and tied to a storm drainage system. A solid pipe shall be used under roadways at a minimum depth of three (3) feet.
6. Traffic control signs, as specified by the South Carolina Manual on Uniform Traffic Control Devices shall be required. See Section 6 for additional guidance.
7. The island shall end before the location of the planned driveway for the first lot on each side of the island.
8. Gated community shall provide a minimum of 200" of staging road from access to gate.
9. An island is permitted only in a one-way "left offset" or "centered" design (see details in Appendix I). Note that the dimensions shown in the details are minimums.
10. A normal twenty (20) foot wide pavement section for one way traffic on each side of the island, measured from BOC to BOC, is required for a cul-de-sac.
11. Minimum inside curb radius shall be twenty-five (25) feet with a minimum radius of five (5) feet for the nose of the island; minimum outside curb radius shall be forty-five (45) feet with a return radius of fifty (50) feet for a cul-de-sac.
12. Horizontal and vertical alignment of the roadway shall provide the minimum stopping sight distance as determined by the design speed.