

Chapter 4. SUBDIVISIONS AND INFRASTRUCTURE

4.1 Purpose and Intent

The purpose of this chapter is to establish procedures and standards for the proper subdivision of land within the jurisdiction of the City of Salisbury in order to provide for orderly growth and development; for the coordination of streets and highways within proposed subdivisions with existing or planned streets and highways and with other public facilities; to provide for the dedication of rights-of-way or easements for street and utility purposes; and to provide for the distribution of traffic in a manner that will avoid congestion and will create conditions essential to the public health, safety, and general welfare.

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4.2 General Subdivision Platting Provisions

These provisions shall apply to the subdivision of property by means of an Exception Plat, Minor Subdivision, or Major Subdivision.

- A. All Lots to Front on Street or Public Space:** All lots shall front upon a public street, or with the provision of alley access, lots may front upon recreational open space as defined by this Ordinance.
- B. Side Lot Lines:** Side lot lines shall be substantially at right angles or radial to street lines.
- C. Flag Lots:** Flag (or “pipestem”) lots are prohibited in all zoning districts except the OSP and the RR districts, where they shall be allowed if the width of the stem is at least sixty (60) feet.
- D. Double Frontage Lots:** Double frontage lots should be avoided. However, on lots having frontage on two streets and not located on a corner, the minimum front yard shall be provided on each street in accordance with the provisions of this Ordinance. On lots having frontage on more than two streets, the minimum front yard shall be provided in accordance with the regulations set forth in this Ordinance on at least two of the street frontages. The minimum front yard on the remaining frontage may be reduced in accordance with the street side yard requirements of the district. When a double frontage lot has frontage along a Thoroughfare, access to the lot shall be via the non-thoroughfare frontage.

- E. Residential Buffer Strips:** In residential developments in residential districts (RR, GR, UR, HR) a buffer strip of at least fifty (50) feet in depth in addition to the normal lot depth shall be provided adjacent to all railroads and limited access highways. This strip shall be a part of the platted lots, but shall have the following restriction lettered on the face of the plat: "This strip reserved for the planting of trees or shrubs by the owners; the building of structures hereon is prohibited."
- F. Easements:** Utility and other easements shall be provided as follows:

 - 1. Utility Easements:** Utility easements centered on rear or side lot lines shall be provided where necessary and shall be at least (10) feet in width.
 - 2. Watercourses:** Where a subdivision is traversed by a watercourse, drainageway, channel, or stream, there shall be provided a storm water easement conforming substantially to the lines of such watercourse, and such further width of construction, or both, shall be in accordance with the adopted *Uniform Construction Standards* of the City of Salisbury.
- G. Street Names:** Proposed streets names are subject to the approval of Rowan County. Proposed streets which are clearly in alignment with other existing streets shall bear the assigned name of the existing street.

4.3 Specific Subdivision Types by District

- A. Conservation Neighborhood:** Except for the individual building constructed on the minimum lot size required, the Conservation Neighborhood is the only common plan of residential development permitted in the OSP district.

The Conservation Neighborhood offers property owners a way to maintain land in the OSP district as largely undeveloped. Conservation Neighborhoods may be approved by the Administrator upon a finding that all requirements of this section have been met.

	Minimum Subdivision Acreage	Maximum Density	Maximum Dwelling Units
Conservation Neighborhood	40 acres	20 acres per dwelling unit	6

1. Owners shall establish an irrevocable conservation easement held by a conservation organization (as authorized by US 150(h); 20559(a) and NCGS 124-34 et seq.) and shall provide the City with a boundary description of the area under the conservation easement.
2. In a Conservation Neighborhood, land set aside for detached houses shall be specified in the easement and shall be the minimum size necessary to allow construction of the house.
3. **Access and Right-of-Ways:** No new public streets may be created. All buildings within the Conservation Neighborhood shall have permanent access by way of a public road frontage or a 20-ft wide access easement connecting to a public right-of-way. Where the tract abuts or includes a segment of a public street, thoroughfare, or greenway as shown on an adopted plan, the developer shall provide for these improvements either by deed or plat map. However, the developer shall not be required to construct any of these improvements.
4. The tract shall preserve the rural appearance of the land from the view of public roads and abutting properties.
5. Only structures and uses identified as acceptable by the conservation organization will be allowed on the property.
6. **Required Improvements:** The Conservation Neighborhood shall be exempt from the requirements of Chapter 7: Recreational Open Space, Chapter 8: Landscaping and Section 4.4: Required Infrastructure Improvements.
7. In a Conservation Neighborhood, there shall be no further subdivision of lots without the consent of all landowners and easement holders and approval of the Administrator.

- B. Rural Subdivision:** Except for the individual building constructed on the minimum lot size required, the Rural Subdivision is the only common plan of residential development permitted in the RR district.

The Rural Subdivision offers property owners a way to maintain land in the RR district as largely undeveloped and rural or agricultural in character. Rural Subdivisions may be approved by the Administrator upon a finding that all requirements of this section have been met.

	Minimum Subdivision Acreage	Maximum Density	Minimum Undeveloped Land
Rural Subdivision	40 acres	1 unit per 2 gross acres	50%

1. There shall be no maximum or minimum lot size.
2. A minimum of 50% of the area of the subdivision shall remain undeveloped and/or used for agricultural uses. Undeveloped areas shall connect to undeveloped land or recreational open space on adjacent parcels. If the development includes a homeowners association, the association may own the development's undeveloped land. Otherwise, the undeveloped land may be privately held, as long as a permanent conservation easement is placed on the land. Alternatively, it may be owned by a land conservancy, or other entities proposed by the City.
3. Streets within a rural subdivision shall use the rural road cross-section, per Section 4.8 of this Ordinance.
4. A notice shall be placed on the subdivision plat stating that further subdivision is not allowed. The developer waives the right to further statutory subdivision.

4.4 Required Infrastructure Improvements (Subdivisions & Site Development)

- A. In addition to the standards found elsewhere in this Ordinance, all development shall install or provide the following improvements, as applicable. All infrastructure shall be designed and constructed in accordance with the City of Salisbury *Uniform Construction Standards Manual*.
- Water supply distribution and fire hydrants
 - Sanitary sewer
 - Streets (paved) and other public rights-of-ways (e.g., greenway paths)
 - Easements
 - Sidewalks (Unless exempted by Section 4.9)
 - Curb and gutter
 - Street lighting (upgraded or decorative)
 - Wiring (All utilities serving new development shall be underground.)
 - Dedicated recreational open space (in residential districts)
 - Landscaping (Including Supplemental Tree Plantings, such as Street Trees)
 - Storm drainage infrastructure
 - Special street signs and other traffic control devices in accordance with the Manual of Uniform Traffic Control Devices, latest edition
 - Right-of-way reservation shall be granted along the applicable parcel(s) street frontage pursuant to the adopted MPO Comprehensive Transportation (CTP) and applicable NC-DOT standards
- B. Proposed major subdivisions with frontage on existing publicly maintained streets shall upgrade those streets with the applicable improvements required by Section 4.4.A. Should the existing right-of-way be found inadequate to accommodate all required improvements, the City Engineer may require additional right-of-way or easements be dedicated.
- C. If required subdivision improvements and access cannot be accommodated within the right-of-way and any utility or access easements due to design or small lot widths, then the lot widths shall be increased until all improvements can be accommodated. (Regardless of minimum lot width permitted by zoning district.)

4.5 Installation of Improvements

- A. **Performance Guarantees:** Approval of the final plat shall be subject to the developer having installed the improvements designated on the approved engineering drawings or having guaranteed, to the satisfaction of the city, the installation of said improvements. Upon completion of construction, the streets and public utilities will be accepted into the City system at which time the guarantee of construction will be released.

- B. Type of Performance Guarantee:** Where the required improvements have not been completed prior to the submission of the plat for final approval, the approval of said plat shall be subject to the developer guaranteeing the installation of the improvements by providing to the City one of the following, in the amount indicated in this section:
1. Filing a performance or surety bond issued by a company authorized to do business in North Carolina;
 2. Filing a letter of credit issued by a financial institution licensed to do business in North Carolina;
 3. Depositing or placing in escrow a certified check; or
 4. Any other form of guarantee that provides security equivalent to a surety bond, letter of credit, or escrowed funds.
- C. Duration:** Performance guarantees shall be valid for an initial period of one (1) year, unless the developer determines that the scope of the work for the required improvement necessitates a longer duration. Upon acceptance of the street(s) and all public utilities, sidewalks may be guaranteed for an additional period not to exceed two (2) years.
- D. Extension:** A developer shall demonstrate reasonable, good-faith progress toward completion of the required improvements that are the subject of the performance guarantee or any extension. If the improvements are not completed to the specifications of the City, and the current performance guarantee is likely to expire prior to completion of the required improvements, the performance guarantee shall be extended, or a new performance guarantee issued, for an additional period. An extension under this section shall only be for a duration necessary to complete the required improvements. If a new performance guarantee is issued, the amount shall be determined by the procedure provided in subdivision (3) of this subsection and shall include the total cost of all incomplete improvements.
- E. Release:** The performance guarantee shall be returned or released, as appropriate, in a timely manner upon the acknowledgement by the City of Salisbury that the improvements for which the performance guarantee is being required are complete. The local government shall return letters of credit or escrowed funds upon completion of the required improvements to its specifications or upon acceptance of the required improvements, if the required improvements are subject to local government acceptance. When required improvements that are secured by a bond are completed to the specifications of the local government, or are accepted by the local government, if subject to its acceptance, upon request by the developer, the local government shall timely provide written acknowledgement that the required improvements have been completed.
- F. Amount:** The amount of the performance guarantee shall not exceed one hundred twenty-five percent (125%) of the reasonably estimated cost of completion at the time the performance guarantee is issued. The City may determine the amount of the performance guarantee or use a cost estimate determined by the developer. The reasonably estimated cost of completion shall include one hundred percent (100%) of

the costs for labor and materials necessary for completion of the required improvements. Where applicable, the costs shall be based on unit pricing. The additional twenty-five percent (25%) allowed under this subdivision includes inflation and all costs of administration regardless of how such fees or charges are denominated. The amount of any extension of any performance guarantee shall be determined according to the procedures for determining the initial guarantee and shall not exceed one hundred twenty-five percent (125%) of the reasonably estimated cost of completion of the remaining incomplete improvements still outstanding at the time the extension is obtained.

- G. Multiple guarantees:** The developer shall have the option to post one type of a performance guarantee as provided for in this section, in lieu of multiple bonds, letters of credit, escrowed funds, or other equivalent security, for all development matters related to the same project requiring performance guarantees.
- H. Exclusion:** Performance guarantees associated with erosion control and stormwater control measures are not subject to the provisions of this section.
- I. Improvements within the City Limits:**

 - 1. Street and sidewalk improvements and storm drainage:** Streets and sidewalks shall be constructed within all proposed street rights-of-way. All streets, sidewalks, and storm drainage shall be installed in accordance with approved engineering drawings and the adopted *Uniform Construction Standards* of the City of Salisbury. Streets and sidewalks shall be extended within existing rights-of-way as needed to provide publicly maintained street frontage to all newly created lots; however, construction standards may be modified to coincide with an existing publicly maintained street stub, if applicable.
 - 2. Utilities:** If any portion of the original property is located within two hundred (200) feet of a public sanitary sewer main, or within three hundred (300) feet of a public water main, the subdivider shall provide for public service to all newly created lots to the furthest extent of the property boundary. Sanitary sewers and water mains shall be installed in accordance with approved engineering drawings and the adopted *Uniform Construction Standards* of the City of Salisbury. Should private water and sewerage systems be allowed, such shall meet the requirements of the North Carolina State Department of Environment and Natural Resources (DENR) and the North Carolina Utilities Commission, as applicable.
- J. Improvements beyond the City Limit:**

 - 1. General provision:** The approval of a plat shall not be deemed to constitute or affect the acceptance by the City (or public) the dedication of any street or other ground, public utility line or other public facility shown on the plat. The city council may by resolution accept any dedication made to the public of lands or facilities for streets, parks, public utility lines, or other public purposes when the lands or facilities are located within its subdivision regulations jurisdiction. Acceptance of dedication of lands or facilities located within the subdivision regulation jurisdiction but outside the corporate limits of the city shall not place on the city any duty to open, operate, repair, or maintain any street, utility line, or other land or facility, and the city shall in no event be held to answer in any civil

action or proceeding for failure to open, repair, or maintain any street located outside its corporate limits. Sidewalk maintenance and repair shall be the responsibility of the homeowners association or adjacent property owners.

2. **Improvements required:** All street improvements and such applicable improvements as sidewalks, storm sewers, sanitary sewers, and water mains shall be installed in accordance with the requirements of the City of Salisbury. The right-of-way, design and construction of streets and street drainage shall also be reviewed and approved by the district engineer of the division of highways. If utilities are to be extended, the developer shall provide for public service to all newly created lots to the furthest extent of the property boundary.

- K. **Major Improvements:** Where official plans of the City of Salisbury call for major thoroughfares, interceptor sewer lines or water mains, such improvements shall be made by the developer in accordance with the stated Ordinances and policies of the City of Salisbury.

4.6 Permanent Reference Points

Prior to the approval of the final plat for any conventional subdivision, permanent reference points shall have been placed in accordance with the following requirements:

- A. **Subdivision corner tie:** At least one (1) corner of the subdivision shall be accurately tied to and coordinated with a horizontal control monument in accordance with the North Carolina Administrative Code, Standards and Practice for Land Surveying. The subdivision corner tie may also serve as one of the control corners listed below.
- B. **Control corners:** At least three (3) control corners shall be established in accordance with G.S. 39-32.1, 39-32.2 and 39-32.3, and clearly identified on the final plat. All monuments shall be constructed of concrete and shall be at least four (4) inches in diameter or square and not less than three (3) feet in length. Each monument shall have imbedded in and flush with its top to serve as the point a metal rod capable of being detected by standard surveying means. Such monuments shall be set at least thirty (30) inches in the ground with six (6) inches exposed above the ground unless this requirement is impractical because of traffic or other factors. The surveyor shall employ additional monuments if and when required.
- C. **Property markers:** A steel or wrought iron pipe or the equivalent not less than one-half (1/2) inch in diameter and at least twenty-four (24) inches in length shall be set at all corners, except those located by monuments. Additional markers shall be placed at other points of importance if and when required.
- D. **Accuracy:** Land surveys within the corporate limits shall meet the standards of Class A surveys, and beyond the corporate limits, Class B surveys, as defined by the North Carolina Administrative Code, Standards and Practice for Land Surveying.

4.7 Street Design & Layout Provisions

New or reconstructed streets within a major subdivision in the City of Salisbury zoning jurisdiction shall be constructed in accordance with the following provisions. Additional detail of each provision follows the matrix.



	OSP	RR	GR MHD	UR HR RMX TND	NMX CMX	DMX TND	HB LI HI HS CI
Curb Type	n/a	Optional	Rolled, Valley, or Vertical	Valley or Vertical	Vertical	Vertical	Vertical
Drainage Type	Swale	Swale or Closed	Closed	Closed	Closed	Closed	Closed
On-Street Parking	n/a	n/a	Unmarked	Unmarked or Marked	Unmarked or Marked	Marked	Unmarked or Marked
Street Lighting	n/a	n/a	Required	Required	Required	Required	Required
Block Length	n/a	n/a	1200' max. 800' avg.	800' max. 600' avg.	800' max. 600' avg.	600' max. 400' avg.	1200' max. 800' avg.
Cul-de-sac or Close Length	800' max.	600' max.	600' max.	300' max.	Prohibited	Prohibited	800' max.

(a) Existing streets within a major subdivision may deviate from the standards set forth in this table only if the Technical Review Commission deems the requirement to be incompatible with the area.

A. Streets and Street Layout

1. All streets designed for inclusion in the NCDOT system are subject to approval by the City and by NCDOT.
2. Streets shall interconnect within a development and with adjoining development. Where future development is anticipated, streets shall stub to adjacent property to provide for future connections per Section 4.8, Connectivity & Street Stubs.
3. No more than 30 single-family or duplex dwelling units shall be accessed from a street system having a single access point unless a street stub or future connection is provided.
4. Where property is adjacent to a designated thoroughfare, existing or proposed, building setbacks or build-to lines shall be measured from the future right-of-way as identified in the adopted thoroughfare plan; however, this provision does not require dedication of land needed to meet the future right-of-way width.
5. Street layout shall conform to the arrangement, width and location of public streets and corridors indicated on the regulating Thoroughfare Plan for the area. Streets not indicated on that plan should be designed and located to:
 - a. Relate to the topography;
 - b. Preserve natural features such as streams and tree growth;
 - c. Provide for adequate public safety and convenience.
6. Private or gated streets are prohibited.
7. Street Markers and Traffic Control Signs:
 - a. All standard street markers and traffic control signs on public streets shall be provided and installed by the City. Custom or decorative markers or signposts proposed by the developer are subject to approval by the Administrator prior to installation. The developer is responsible for all costs associated with the use of custom or decorative materials.
 - b. Installation of “No Parking” signs and speed limit signs (other than 35 mph speed limit signs) on streets constructed by private developers shall be the responsibility of the developer. The appropriate locations and materials of such signs shall be subject to the approval of the Administrator.

B. Alleys

1. Alleys shall be within privately owned and maintained easements or common areas. They shall be designated as public access easements and shall be marked as such on all plats.

2. Alleys shall be paved or prepared, depending on use, as defined in Sec. 10.4.C of this Ordinance.
3. Alleys shall be constructed with standard concrete driveway ramps at entrances to streets. Driveway standards shall be as specified in the *Uniform Construction Standards Manual*.

C. Curb and Gutter

1. Curb and gutter shall be constructed in accordance with the City of Salisbury *Uniform Construction Standards Manual*.
2. Where vertical curb and gutter is specified, it shall be a minimum of 1.5 feet wide for residential development and 2.5 feet wide for non-residential or mixed-use development.

D. Street Trees

All street trees shall be installed in accordance with the City of Salisbury *Uniform Construction Standards Manual* and the provisions of Chapter 8, Landscaping.

E. Street Lighting

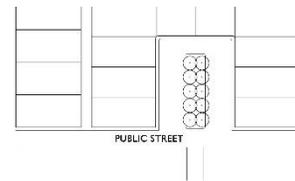
Street lights shall be selected from the adopted Streetlight Inventory List* and shall be installed on both sides of applicable newly-constructed public streets. The developer is responsible for all costs associated with streetlight installation.

F. Block Length

1. On one-way minor streets where on-street parking is allowed, blocks shall be no longer than 300 feet or they shall provide areas of 40 feet in length where no parking is allowed every 200 feet. These areas are to be used for emergency access staging.
2. **Exceptions:** OSP, RR, CI, LI, and HI districts are exempt from the block length provisions of this subsection.

G. Cul-de-Sacs and Closes

1. Any permanent dead-end streets or cul-de-sac shall comply with the length limits shown in the above Section 4.7 table.
2. A close may be used in place of a cul-de-sac.

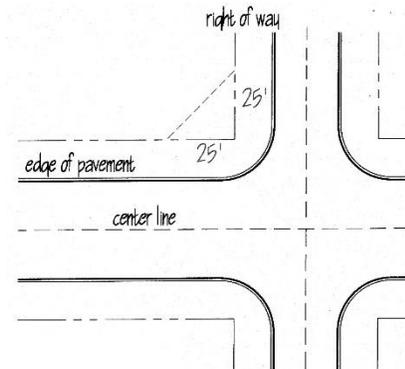


Close – an alternative to cul-de-sacs

H. Intersections

1. All streets shall intersect at right angles as nearly as possible and no street shall intersect at less than 60 degrees.
2. Where practical, intersections should be aligned to create four-way intersections.
3. **Intersection Offsets:** Intersections with major thoroughfares shall have a centerline offset of at least 400 feet. Intersections on other streets shall have centerline offset of at least 150 feet.

4. **Sight Triangles:** On a corner lot in any district, no planting, structure, fence, wall or obstruction to vision more than three (3) feet in height measured from the respective street center lines shall be placed or maintained with the triangular area formed by the intersection of the street lines (right-of-way) and a straight line connecting points on said street lines, each of which is twenty-five (25) feet distant from the point of intersection. NCDOT standards may also apply. In the RMX, NMX, CMX, DMX, and TND districts sight triangles may be relaxed subject to an engineering study of the intersection.



Sight triangles are not required at intersections with all-way stops, except as required under NCDOT jurisdiction.

5. Curb extensions to demarcate parking areas and to narrow the street width at intersections are encouraged.
6. Curb radius should be determined by street cross section type in Section 4.8.
7. A median island located in the center of a street shall not be considered an intersection; however, this treatment can be used as a horizontal traffic calming measure.

4.8 Street Sections

The following street cross sections are permitted in accordance with the street hierarchy detailed as follows. NCDOT approval is required in the ETJ. All street cross sections are based on required minimums. Enlarged dimensions are permitted where desired or necessary.

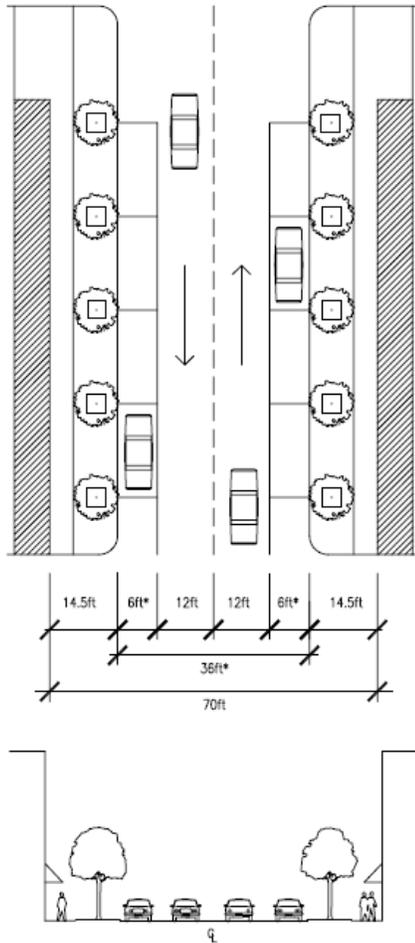
A. RESIDENTIAL ALLEY 20-ft Easement		B. COMMERCIAL ALLEY 24-ft Easement	
Easement Width	20 ft	Easement Width	24 ft
Travel Width	12 ft	Pavement Width	24 ft
Traffic Movement	2-Way Yield	Traffic Movement	2-Way
Curb Radius	5 ft	Curb Radius	5 ft
Curb Type	None	Curb Type	None
Drainage	Designer discretion	Drainage	Designer discretion
Parking	None	Parking	None
Planter Type	None	Planter Type	None
Street Trees	None	Street Trees	None
Sidewalks	None	Sidewalks	None

C. PARKSIDE DRIVE 44-ft ROW		D. RURAL ROAD 60-ft ROW	
Total ROW Width	44 ft	Total ROW Width	60 ft
Pavement Width	22 ft	Pavement Width	20 ft
Traffic Movement	2-Way	Traffic Movement	2-Way
Curb Radius	20 ft	Curb Radius	20ft- with curb 30 ft- no Curb
Curb Type	District-dependent	Curb Type	Optional
Drainage	Closed	Drainage	Grassed Swale
Parking	Unmarked	Parking	None
Planter Type	Continuous Strip	Planter Type	Continuous Swale
Street Trees	Non-park side if req'd	Street Trees	Not required
Sidewalks	Non-park side	Sidewalks	Not required; min. 5 ft. multi-use path optional
Parkside Width	18-ft. min.		

E. LOCAL STREET 50-ft ROW		F. NEIGHBORHOOD AVENUE 70-ft ROW	
Total ROW Width	50 ft	Total ROW Width	70 ft
Pavement Width	22 ft	Pavement Width	17 ft each side of median
Traffic Movement	2-Way	Traffic Movement	1-Way each side of median
Curb Radius	20 ft	Curb Radius	20 ft
Curb Type	District-dependent	Curb Type	District-dependent
Drainage	Closed	Drainage	Closed
Parking	Unmarked	Parking	Unmarked
Planter Type	Continuous Strip	Planter Type	Continuous Strip
Street Trees	Both sides if required	Street Trees	Only Required in median
Sidewalks	Both sides	Sidewalks	Both sides

G. AVENUE 90-ft ROW		H. RESIDENTIAL MAIN STREET 60-ft ROW	
Total ROW Width	90 ft	Total ROW Width	60 ft
Pavement Width	18 ft each side of median	Pavement Width	32 ft
Traffic Movement	1-Way each side of median	Traffic Movement	2-Way
Curb Radius	10 ft	Curb Radius	10 ft
Curb Type	2.5' Vertical	Curb Type	2.5' Vertical
Drainage	Closed	Drainage	Closed
Parking	Marked	Parking	Marked
Planter Type	District-dependent	Planter Type	District-dependent
Street Trees	Both sides if required	Street Trees	Both sides if required
Sidewalks	Both sides	Sidewalks	Both sides

**I. MAIN STREET
70-ft ROW**



Total ROW Width	70 ft
Pavement Width	36 ft
Traffic Movement	2-Way
Curb Radius	10 ft
Curb Type	2.5' Vertical
Drainage	Closed
Parking	Marked
Planter Type	Tree Well
Street Trees	Both sides if required
Sidewalks	Both sides

4.9 Sidewalk Program

A. Applicability

1. Existing Streets:

- a. As a part of a proposed subdivision, new development, or redevelopment along an existing publicly-maintained street in the corporate city limits sidewalks shall be constructed along all applicable street frontages per the standards of this chapter.
- b. Where a sidewalk is required but existing sidewalk is already in place, any sub-standard section of existing sidewalk, or sidewalk that is damaged during construction must be replaced as determined by the approving authority.

2. **New Streets:** As part of new street construction, sidewalks shall be constructed along both sides of the new street per the standards of this chapter.

3. **Additions to Existing Development:** See Section 6.4

4. **Exemptions:** The following development types shall be required to replace and upgrade, if necessary, any existing sidewalk damaged or removed during construction, as determined by the approving authority

- a. Rural Subdivisions.
- b. Exception plats and Minor Subdivisions.
- c. Alleyways.
- d. Single family residential, duplex, triplex, or quadruplex development on an existing lot. (Campus Style Development and Major Subdivisions are not exempt)
 1. Where there are no existing sidewalks on the same block face within 300 feet of the outside corners or the subject lots.
 2. For corner lots, where there are no existing sidewalks on opposite corner lots and no sidewalk on the same block face within 300 feet of the outside corners of the subject lots

B. Sidewalk Alternatives for Existing Streets

When the approving authority determines that the construction of a required sidewalk along an existing publicly-maintained street is infeasible due to special circumstances, including but not limited to: an impending road widening; impracticality due to topography, streams, or other environmental limitations, or if constructed it would not provide a future transportation or public safety benefit, the approving authority may approve a payment in lieu of sidewalk construction.

C. Sidewalk Payment In Lieu Program

As authorized under this section, a payment may be made to the City of Salisbury in lieu of sidewalk construction. The value of the payment shall equal the average linear foot sidewalk project cost, as determined by the Engineering & Development Services department of the City of Salisbury and calculated per time and material cost at the time of the request. The

applicant is informed of the amount to be paid upon approval of construction drawings, or adoption of the ordinance for a Conditional District Overlay development, and payment shall be made prior to issuance of the Zoning Permit for Site Plans or approval of Final Plat for subdivisions.

Payments received in lieu of construction shall be placed in a restricted fund and set aside in a deferred revenue account to be used to install or repair sidewalks within the general area of the corporate city limits.

D. Sidewalk Requirements

1. Mixed use and commercial area sidewalks shall have a minimum width of 8 feet in the DMX and TND districts, unless otherwise specified by a Council-adopted area plan for all other districts. All other sidewalks shall have a minimum width of 5 feet.
2. All sidewalks shall be paved with broom-finished concrete, paving brick or concrete pavers. Similar materials may be considered on a case-by-case basis.
3. All sidewalks shall extend around the bulb of cul-de-sacs.

4.10 Connectivity & Street Stubs

Improving connectivity and limiting cul-de-sacs result in improved mobility for motorists, pedestrians, and cyclists; decreased response time for emergency services and delivery costs for services such as garbage collection through improved routing options; and, dispersion of motor vehicle traffic.

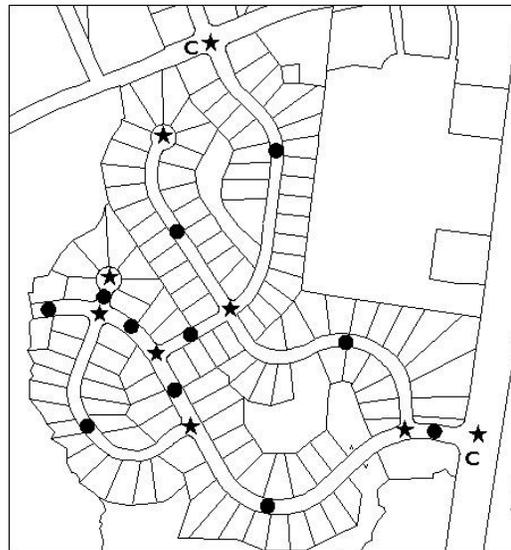
A Connectivity Index shall be used to determine the adequacy of street connectivity in new developments. The index is calculated as the ratio of the number of street links in a project's street layout (road sections between intersections or stubs to adjacent property) plus connections to existing streets divided by the number of street nodes (intersections and cul-de-sac heads).

$$\text{Connectivity Index} = \frac{(\bullet + C)}{\star}$$

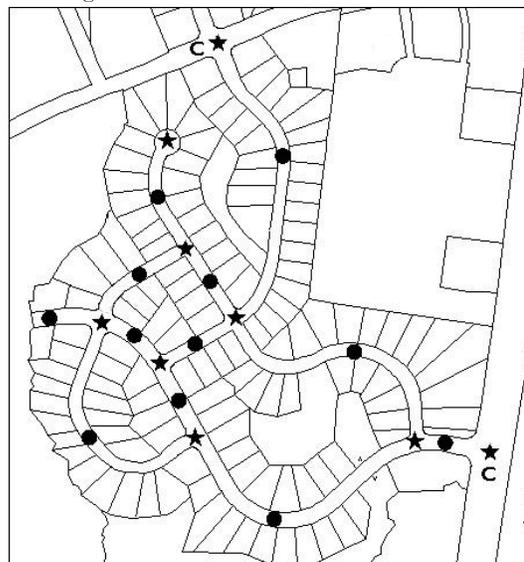
The illustration above illustrates a connectivity index of 1.44 (links are shown as circles, nodes are shown as stars, and connections to existing streets are shown as C's). The illustration has 11 links, 2 connections, and 9 nodes for an index of $(11+2) / 9 = 1.44$. In the illustration below, one cul-de-sac is converted to a full intersection. This gives the development one additional link for a connectivity index of 1.55 $([12 \text{ links} + 2 \text{ connections}] / 9 \text{ nodes})$. The same number of lots is shown in both illustrations.

A. Connectivity Index Requirement

Any development shall be required to achieve a connectivity index as shown in the following table.



A street layout showing a connectivity index of 1.44 $([11 \text{ links} + 2 \text{ connections}] / 9 \text{ nodes})$. Links are shown as circles and nodes are shown as stars and connections to existing streets are shown as C's.



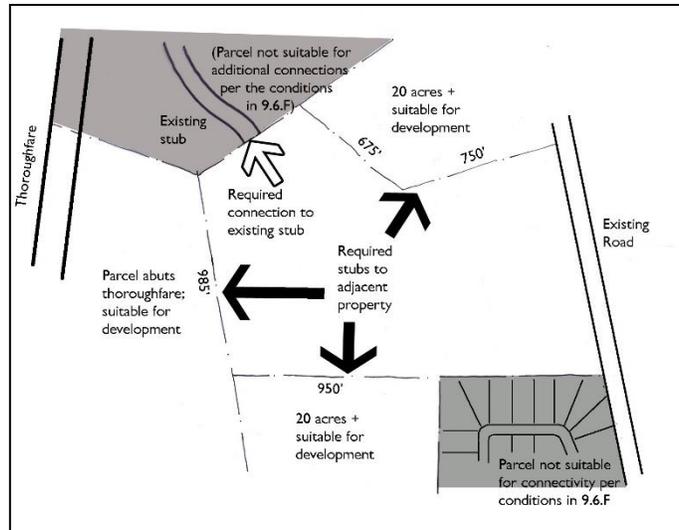
A street layout showing a connectivity index of 1.55 $([12 \text{ links} + 2 \text{ connections}] / 9 \text{ nodes})$. Note that one cul-de-sac from the original layout has been converted to a full intersection. The same numbers of lots are shown.

	OSP	RR LI HI	GR	UR, HR, RMX, TND, NMX, CMX, GEI-O, DMX	HS HB CI
Connectivity Index (Minimum)	n/a	1.3	1.4	1.5	n/a

B. Street Stubs

1. Regardless of the following provisions of this subsection, street stubs are not required to connect properties located within the LI or HI districts to properties located within the OSP, RR, GR, UR, or HR districts.
2. Notwithstanding the above provision (4.10.B.1), all new development shall connect to any existing street stubs from adjacent properties.

3. The number of required street stubs is determined by calculating the cumulative linear feet of all property lines surrounding the proposed development contiguous with land that is suitable for development or redevelopment (as determined by the Administrator); dividing by 1200; and rounding to the nearest whole number.



Example (see diagram):

$$675' + 750' + 950' + 985' = 3160' / 1200 = 2.63 = 3 \text{ required stubs}$$

4. The location of new required stub street shall be prioritized as follows:
 - a. Adjacent parcels 20 acres or greater
 - b. Adjacent parcels that abut thoroughfares or collector streets
 - c. Where any adopted transportation or land use plan recommends a street connection
5. Where one or more of the following conditions would prevent practical connectivity, the adjacent property shall not be included in the calculation of required stubs:
 - a. Topographical conditions, where pre-development slopes are 15% or greater
 - b. Environmental conditions, such as a wetland, “blue-line” stream, or landfill
 - c. Controlled Access, such as a railroad or interstate

- 6. Stub streets and streets intended for extension during future phases shall be constructed to extend to the property line or as close to the line as practical. It shall be the responsibility of the second development to construct the connection to an existing stub street. Stub streets shall not exceed 150 feet in length without a paved turnaround.

4.11 Traffic Calming

- A. Vertical traffic calming treatments are prohibited.
- B. Horizontal traffic calming treatments, such as median islands, curb extensions, traffic circles, and roundabouts are encouraged and shall be designed and constructed in accordance with the City of Salisbury *Uniform Construction Standards Manual*.

4.12 Bicycle Accommodations – (RESERVED)

4.13 Access Management

Access management standards seek to preserve the traffic moving capability of the City’s major streets, and in so doing, protect the investment of the taxpayer in the costs of road construction. Frequent driveways allow for unpredictable stops and vehicle turning movements, causing increased congestion, and greater opportunities for traffic accidents. The City does not wish to allow unnecessary driveway cuts to neutralize the value of road construction dollars provided by Federal, State and local taxpayers.

Access management standards that regulate the connection of driveways to the existing street system shall be as follows. Where the NCDOT *Driveway Manual* or *Median Crossover Guide* conflicts, the stricter of the two standards should prevail.

A. Driveway Number and Spacing (major thoroughfares only)

Parcel Frontage (feet)	Number of Driveways Allowed
< 500	1
501-999	2
>1000	3

B. Driveway Distance from Intersections

Street Type	Minimum Distance (feet)
Major	100
Collector Street/Minor Thoroughfare	50
Local	15

C. Median Opening Spacing

The minimum spacing between median openings on major thoroughfares shall be 1000 feet or as required by NCDOT.

4.14 Transportation Impact Analysis

The Transportation Impact Analysis (TIA) is a specialized study that evaluates the effects of a development’s traffic on the surrounding transportation infrastructure. It is an essential part of the development review process to assist developers and government agencies in making land use decisions involving annexations, subdivisions, rezonings, special land uses, and other development reviews. The TIA helps identify where the development may have a significant impact on safety, traffic and transportation operations, and provides a means for the developer and government agencies to mitigate these impacts. Ultimately, the TIA can be used to evaluate whether the scale of development is appropriate for a particular site and what improvements may be necessary, on and off the site, to provide safe and efficient access and traffic flow.

- A. A TIA shall be required for a rezoning, subdivision plan, site plan, conditional use permit, certificate of zoning compliance, or preliminary plat for developments with an estimated trip generation of 3000 vehicles per day or greater during an average weekday based on a five day national average as defined in the ITE Trip Generation Manual.
- B. A traffic impact analysis report shall address the impact of projected horizon year (2 years after build-out by phase or entire development as appropriate) traffic volumes. It shall identify the methodology used to evaluate the impact. The weekday peak hour impact shall be evaluated as well as the Saturday peak hour for those uses exhibiting high levels of weekend traffic generation.

Trip Generation:
The sum of the number of inbound and outbound vehicle trips that are expected for the type and size of the proposed land use. For purposes of determining the requirement to submit a TIA, adjustments such as modal split, pass-by trips, and internal capture rates will be allowed to reduce the site traffic calculation.

Note: Typically the following developments meet or exceed the 3000 vehicles per day threshold:

- 55,000 sf Retail
- 300 Single family homes
- 250,000 sf Office
- 400,000 sf Industrial
- 350 room Hotel

C. Based on the findings of the analysis, if a proposed development does not meet the applicable service level standards, the applicant shall be required to upgrade the facilities in accordance with the adopted level of service program. Mitigation measures may involve strategies other than roadway construction or other physical improvements such as changes to traffic signal timing or phasing, and transportation management strategies.

D. **Thresholds for Mitigation:** The City requires consideration of roadway and/or operational improvements when the proposed development increases the intersection Volume-to-Capacity Ratio (V/C) beyond the thresholds indicated in the table below. The City evaluates the impacts of proposed development at intersections (primarily under existing year conditions) based on the increase in V/C ratio as a result of the projected site traffic. This increase is determined by comparing the V/C ratio under existing development conditions and proposed development conditions. For the purposes of this comparison, all un-signalized intersections are analyzed as signalized intersections.

Existing V/C	Allowable Increase in V/C By Development
0.00 – 0.60	0.10
0.61 – 0.70	0.07
0.71 – 0.80	0.05
0.81 – 0.90	0.03
0.91 – 1.00+	0.02

- E. Payment-in-Lieu:** The City Council may, at its discretion, accept either mitigation measures to be completed by the developer or a fee paid to the City in lieu of mitigation. The fee shall be equal to the costs of the required mitigation measures, as determined by the Administrator. A combination of mitigation measures and payments-in-lieu of dedication may be permitted. Payments in lieu of dedication shall be approved as part of the Development Plan.

- F.** A TIA will vary in range and complexity depending on the type and size of the proposed development. The procedures for a TIA are outlined in Section 15.23. The TIA requirements as described in Section 16.13 may be modified by the Administrator.

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