ARTICLE

5

DEVELOPMENT STANDARDS

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5.1 GENERAL DEVELOPMENT STANDARDS

5.1.1 SUITABILITY OF LAND

A. Land which has been determined, on the basis of engineering or other expert surveys, to pose an ascertainable danger to life or property by reason of its unsuitability for the use proposed shall not be platted for that purpose, unless and until the subdivider has taken the necessary measures to correct said conditions and to eliminate said dangers.

B. Areas that have been used for disposal of solid waste shall not be subdivided unless tests by a structural engineer and a soils expert determine that the land is suitable for the proposed development.

C. All development proposals shall be consistent with the need to minimize flood damage in accordance with regulations of the Flood Damage Prevention regulations in Section 5.3.3.

5.1.2 LOT USE

A. No building or land shall hereafter be used and no building or part thereof shall be erected, moved or altered except in conformity with the regulations herein specified for the district in which it is located, except as hereinafter provided in this Ordinance.

B. Except for multi-family dwellings, which are subject to the issuance of a Special Use Permit, in any single-family residential district, one (1) customary dwelling unit and its customary accessory structure(s) and/or barn(s) shall be permitted on a single lot which meets at least the minimum requirements of this Ordinance

C. In any business or mixed use district, a detached building or a group of detached buildings may be permitted on a single lot, subject to the requirements of this Ordinance.

5.1.3 LOT ACCESS

A. No building or structure, for other than agricultural purposes, shall be erected or located, nor shall any principal use be instituted on a lot, which does not abut a dedicated public or private street with the following exceptions:

B. A single-family dwelling or manufactured home may be constructed on a lot which does not abut a street provided such a lot existed prior to the date this Ordinance became effective and provided such lot is provided access to a public street by an easement at least 20 feet in width for occupants of the dwelling established on such lot and further provided that such easement is maintained in a condition passable for service and emergency vehicles. Said easement may also be used, where needed for the installation and maintenance of utility facilities, up to three (3) feet off said easement.

C. A single-family dwelling or manufactured home may be constructed on a lot which does not abut a street provided that the following conditions are met:

1. Such lot is a minimum of two (2) acres in size;

2. Such lot is provided with access to a public street by means of an easement at least 20 feet in width for the use of the dwelling to be established on such lot;

3. Creation of such lot is made necessary by virtue of the fact that development of said property by conventional means (i.e., extension of public street) is impractical due to disproportionate costs of required improvements as compared to the relative value of lots created;

4. Creation of such lots does not unduly restrict or impair future development or extension of an adequate system of public streets within the immediate area; and

5. Since the effective date of this Ordinance, not more than two (2) lots served by an easement have been created out of that same tract.

5.1.4 ORIENTATION AND SHAPE

A. Orientation of residential lot lines. Side lot lines shall be substantially at right angles or radial to street lines. Double frontage lots shall be avoided wherever possible, unless authorized by the Town Council during Preliminary Plat review and approval.

B. Panhandle lots or flag lots and other irregular shaped lots may be approved in cases where such lots would (1) not be contrary to the purpose of this Ordinance, (2) heighten the desirability of the subdivision, and (3) where necessary, enable a lot to be served by water and/or a waste disposal system.

C. All panhandle lots shall have a minimum road frontage width of 35 feet thereby providing access to the lot. The length of said access shall not exceed 500 feet. Said access shall not be used to determine lot area or width or setback lines.

5.1.5 LOT OF RECORD

A. No yard or lot existing at the time of passage of this Ordinance shall be reduced in size or area below the minimum requirements set forth herein. Yards or lots created after the effective date of this Ordinance shall be at least the minimum requirements established by this Ordinance.

B. Where the owner of a lawfully existing lot of official record in any residential district or the owner's successor in title thereto does not own sufficient contiguous land to enable the owner to conform to the minimum lot size requirements of this Ordinance, such lot may be used as a residential building site, where permitted, provided that the other requirements of the district are complied with or a variance is obtained from the Board of Adjustment. Such lot must have access in accordance with Section 5.1.3 (B).

C. Notwithstanding the foregoing, whenever two (2) or more adjoining vacant lots of record are in a single ownership at any time after the adoption of this Ordinance and such lots individually have less area or width than the minimum requirements of the district in which such lots are located, such lots shall be combined or recombined to meet the minimum lot standards prior to the development of any such lot.

5.1.6 FLEXIBILITY IN ADMINISTRATION

A. In the event that the unusual topography, location of existing buildings, or location or size of the parcel to be developed would make strict adherence to the requirements of this Article serve no meaningful purpose or would make it physically impossible to install and maintain the required improvements, the Administrator may alter the requirements of this Section up to 10% less than the minimum requirement or 10% more than the maximum requirement, provided the spirit and intent of the Section are maintained. This flexibility shall not apply to density and dimensional standards as set forth in Section 5.2.3. The vacancy or non-use of an adjoining parcel shall not constitute grounds for providing relief to the requirements contained in this Article. Neither shall the desire of an owner to make a more intensive use or greater economic use of the property be grounds for reducing the requirements.

B. Any deviation from minimum setbacks shall require the issuance of a Variance by the Board of Adjustment as set forth in Section 3.5. Any deviation from any other requirement of this Article by greater than 10% shall require review and approval by the Town Council as an Alternative Design subject to the procedures set forth in Section 3.9.

5.2 DENSITY & DIMENSIONAL STANDARDS

5.2.1 GENERAL PROVISIONS

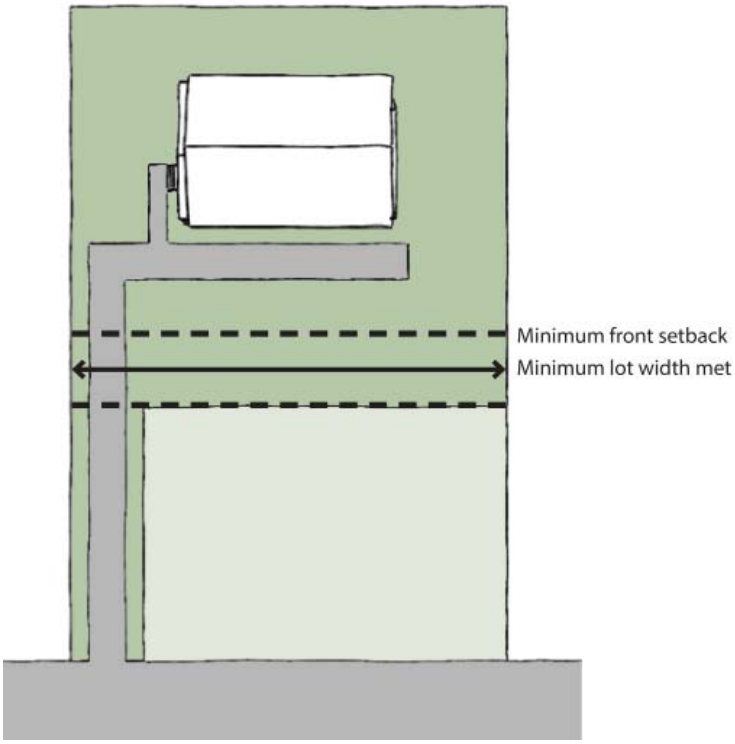
A. Minimum lot sizes established for each district may be increased to provide adequate area to Health Department standards for on-site well and septic.

B. In all zoning districts, corner lots and double frontage or through lots shall provide the minimum yard requirements for front yards along both street fronts.

C. Where a property abuts a street right-of-way or access easement, the setback shall be measured from the right-of-way of easement line.

D. The front setbacks of lots shall be established where the lot width is met.

▼ FIGURE 5.1 PANHANDLE/FLAG LOT FRONT SETBACK

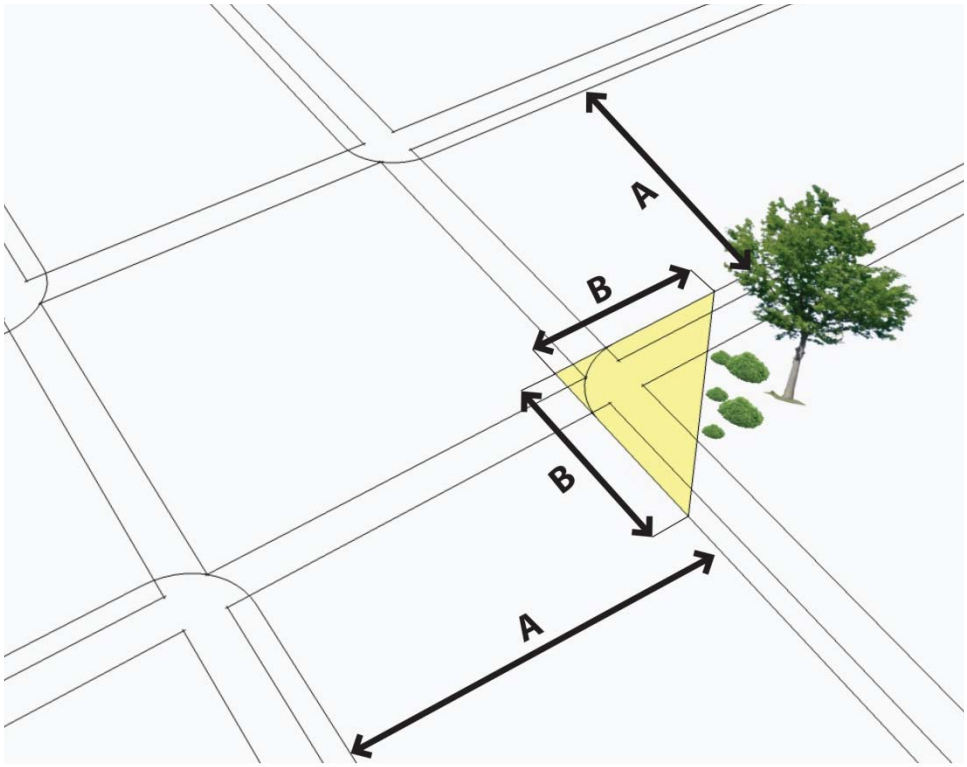


E. On a corner lot in any zoning district, other than the Town Center (TC) district, no planting, structure, fence, wall, or other obstruction to vision that is more than two (2) feet tall as measured at street level shall be placed in the sight triangle. The sight triangle is the area formed by a diagonal line connecting two (2) points located on intersecting property lines (or a property line and the curb or a driveway). The following are the distances used to establish a sight triangle as measured from the edge-of-pavement of intersecting streets, subject to NCDOT approval.

▼ **TABLE 5.1 SIGHT DISTANCE**

Right-of-Way Width (feet) (A)	Distance (feet) (B)
Driveway	10
Less than 50	20
50-59	25
60-69	30
70-79	35
80-89	40
90-99	45
100 or greater	50

▼ **FIGURE 5.2 SIGHT TRIANGLE (SHADED AREA)**

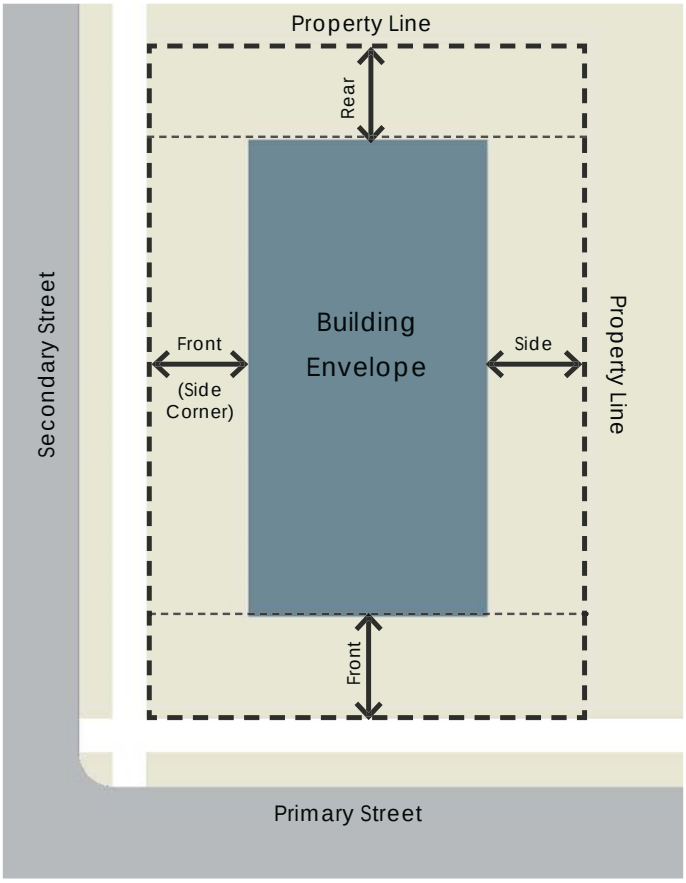


F. All structure heights shall be measured as the vertical distance from the mean elevation of the finished grade along the front of the building to the highest point of a flat roof, or to the deck line of a mansard roof, or to the mean height level between eaves and ridges for gable, hip and gambrel roofs, as shown in Figure 5.3 below.

▼ **FIGURE 5.3 HEIGHT MEASUREMENT**

G. All setbacks shall be measured from the property line or road right-of-way to the nearest point of the structure as shown in Figure 5.4 below.

▼ **FIGURE 5.4 YARD DESIGNATIONS**



5.2.2 DEVELOPMENT TYPES

In keeping the growth and housing strategies of the adopted Mineral Springs Comprehensive Plan, there are six (6) development types outlined in this Section. The standards for each development type are set forth throughout this Article. See Table 5.4 for density and dimensional standards for each of these development types.

5.2.2.1 CONVENTIONAL

This type of residential development allows one (1) residential unit per lot. Each lot meets the minimum lot size for the district and all street standards. Minimum open space standards are met. Curb and gutter and street connectivity are required. Permitted Zoning Districts: RA-40, RA-20, and R-20

5.2.2.2 FARMHOUSE GROUP

This type of development contains a maximum of six (6) houses on very large lots grouped together around a single, private driveway. The density shall not exceed one house per five (5) acres. No street connectivity is required with adjacent developments. Permitted Zoning Districts: AR, RR, RA-40, RA-20, & R-20

5.2.2.4 LARGE-LOT

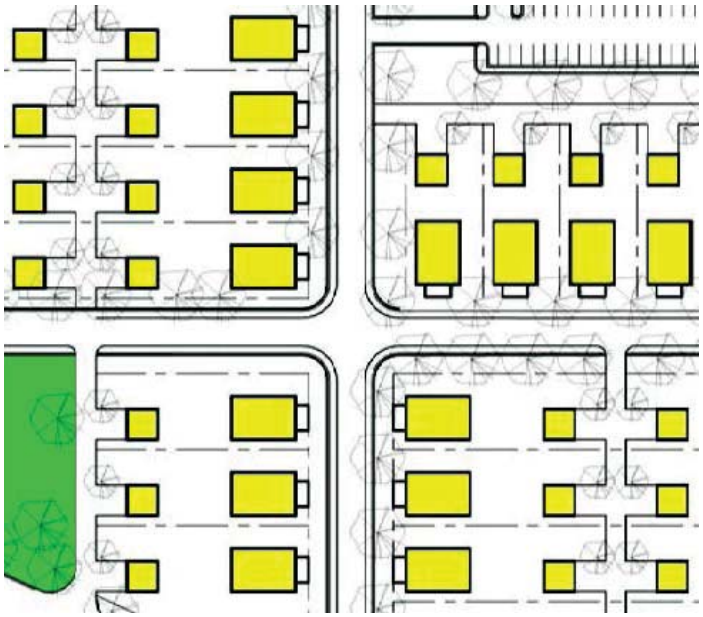
This type of development permits a maximum density of one (1) house per three (3) acres. Streets are not required to have curb and gutter. Limited street connectivity is required. Permitted Zoning Districts: AR, RR, RA-40, RA-20, & R-20

5.2.2.5 CONSERVATION SUBDIVISION

This type of subdivision permits a maximum density of one (1) house per two (2) acres in AR or one per one and one half (1 1/2) acres in RR. Homes are grouped together on modestly sized lots to preserve large tracts of permanent open space. Curb and gutter or low impact design (LID) are required. Limited street connectivity is required. Permitted Zoning Districts: AR and RR

5.2.2.7 URBAN COTTAGE

Homes are grouped together on smaller lots to create an "in-town" neighborhood. Curb and gutter are required. The street system forms a grid of connectivity, preferably with rear alleys. Permitted Zoning Districts: TC and MU



5.2.2.8 NON-RESIDENTIAL/MIXED USE

Non-residential and mixed use development types are primarily intended for the TC, NB, GB, LI, and MU zoning districts. This development type may also be used for civic and governmental uses as permitted in the residential districts.

- Permitted Zoning Districts for Non-residential Development Types: NB, GB, and LI.
- Permitted Zoning Districts for Mixed Use Development Types: TC and MU(CZ).

5.2.3 DENSITY & DIMENSIONAL TABLE

The following table provides the base density and dimensional standards for each zoning district.

▼ **TABLE 5.2 BASE DENSITY & DIMENSIONAL STANDARDS BY DISTRICT**

District	A1 Maximum Residential Density (DUA)	A2 Minimum Lot Size (square feet)	B Minimum Lot Width (feet)	C Front Setback (feet)	D Side Setback (feet)	E Rear Setback (feet)	F Max. Height (feet)
AR	0.5	80,000	150	65	25	60	35
RR	0.67	60,000	125	60	25	60	35
RA-40	1	40,000	120	50	15	40	35
RA-20	2	20,000	100	40	15	40	35
R-20	2	20,000	100	40	15	40	35
NB	N/A	N/A	N/A	20	10	20	35
GB	N/A	N/A	N/A	20	10	20	35
TC	5	N/A	N/A	10 min. 20 max.	5-detached 0-attached*	10	35
LI	N/A	N/A	N/A	40-interior 50-exterior	10-interior 50-exterior	10-interior 50-exterior	35
MU	5	N/A	N/A	10 min. 20 max.	5-detached 0-attached	10	35

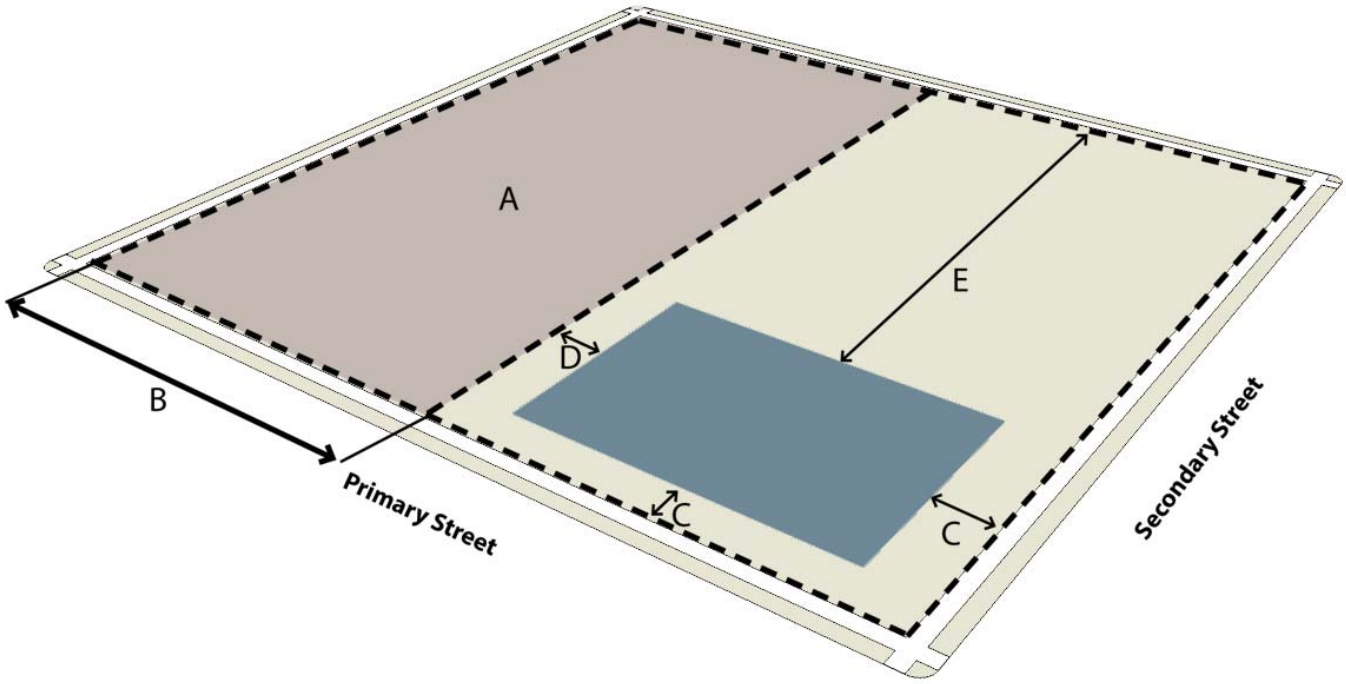
N/A = NOT APPLICABLE
*Minimum 20 feet of separation between buildings

▼ **TABLE 5.3 DENSITY & DIMENSIONAL STANDARDS BY DEVELOPMENT TYPE**

Development Type	A1 Maximum Residential Density (DUA)	A2 Minimum Lot Size (square feet)	B Minimum Lot Width (feet)	C Front Setback (feet)	D Side Setback (feet)	E Rear Setback (feet)
Conventional	See Base Dimensional Standards in Table 5.2					
Farmhouse Group	0.2	217,800	Base District			
Large Lot	0.33	130,680	Base District			
Conservation	0.5	40,000	100	50	15	40
Urban Cottage	See Base Dimensional Standards in Table 5.2					
Non-residential	N/A	N/A	Base District			
Mixed Use	See Base Dimensional Standards in Table 5.2					

N/A = NOT APPLICABLE

▼ **FIGURE 5.5 DIMENSIONS**



5.2.4 EXCEPTIONS TO DIMENSIONAL STANDARDS

A. Lot size (A2) and lot width (B) for duplexes, where permitted, shall be 1.5 times the minimum shown in the table.

B. The front setback for each district shall apply to the side yard of corner lots abutting a public street and to double frontage lots.

C. The front setback requirements in column (C) of Tables 5.2 and 5.3 shall not apply to any lot where the front yard coverage on developed lots, located wholly or in part within 100 feet on each side of such lot and within the same block and zoning district and fronting on the same street as such lot, is less than the minimum required front yard. In such cases, the front yard on such lot may be less than the required front yard but not less than the average of the existing front yards on the developed lots; provided, that the front yard on such lot shall not be less than one-half (1/2) of the required front yard.

D. The maximum height (F) shall only apply to habitable structures and portions of structures and shall not apply to elevator shafts, stairwells, tanks, mechanical equipment, water towers, observation towers, fire training towers, power and communication transmission towers, flag poles, steeples, spires, cupolas, and similar structures provided such structures meet the required North Carolina Building Code. Mechanical equipment and other utilitarian appurtenances shall be subject to the screening requirements of Section 6.4.12. Height limitations shall apply to wireless telecommunications towers as regulated in Section 4.4.7.6.

E. Cornices, eaves, steps, gutters, bay windows, canopies, awnings, open stairways, uncovered porches, uncovered decks, uncovered patios, chimneys, heating units, fire escapes, fire balconies, fire towers and similar features less than 10 feet wide may encroach into any setback up to three (3) feet. Any structure less than 12 inches above grade shall not be subject to setback requirements.

F. The dimensional provisions of this section do not apply to residential accessory structures, which are regulated in Section 4.4.2.2.

G. Utility uses as defined by this Ordinance are not subject to the minimum lot sizes set forth for each zoning district.

H. Where any buffer width as required by Section 5.4.6 exceeds the minimum setback, the required buffer width shall also be the minimum setback.

I. Fences shall not be subject to minimum setbacks, subject to the fence requirements set forth in Section 5.4.12. Retaining walls less than eight (8) feet high, shall be exempt from the setback requirements of this Section.

J. Where a property is located along a major or minor thoroughfare as identified in the adopted Comprehensive Transportation Plan (CTP), setbacks shall be measured from the future right-of-way line as identified by the CTP Cross Section Index.

5.2.5 CONSERVATION DEVELOPMENT

5.2.5.1 PURPOSE & APPLICABILITY

A. Conservation Development is intended to preserve agricultural and forestry lands, natural and cultural features and environmentally sensitive areas that would be likely lost through conventional development approaches.

B. The conservation development design option may be utilized for any residential development of greater than 10 units within the AR and RR zoning districts.

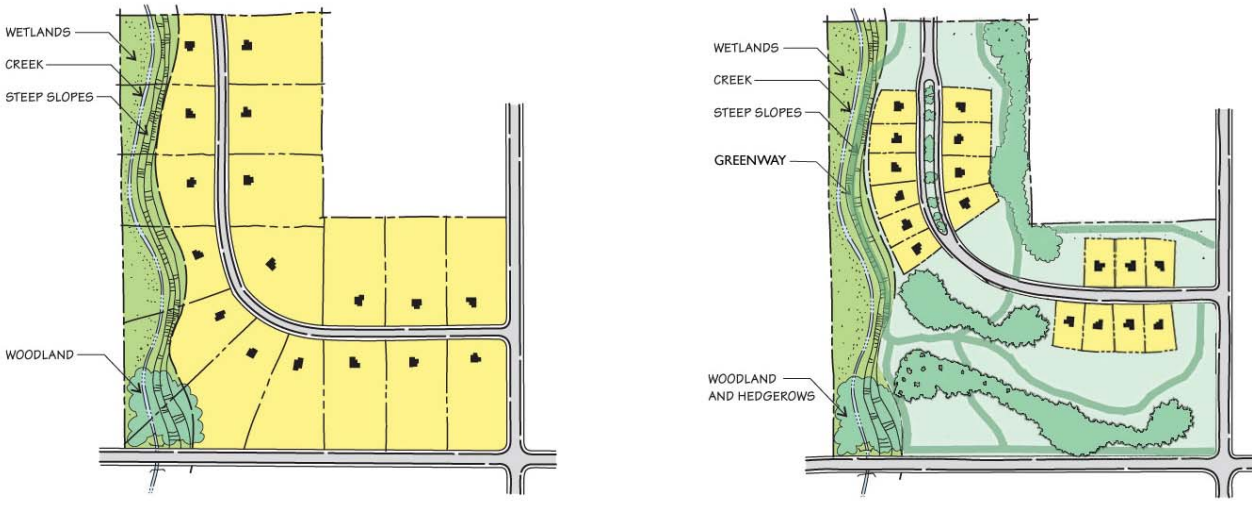
5.2.5.2 DEVELOPMENT DENSITY AND DIMENSIONS

The development density shall not exceed the overall density permitted in the zoning district in which the development is located as set forth in Section 5.2.3. The district setbacks set forth in Section 5.2.3 (Table 5.4) shall apply along the boundaries of the development.

5.2.5.3 REQUIRED OPEN SPACE AS CONSERVATION LAND

In the AR District, a minimum of 50% of the total area of the development shall be set aside in conservation land. In the RR district a minimum of 33% of the total area of the development shall be set aside in conservation land. Conservation land shall be determined by the methods set forth in Section 5.3.4 and shall be classified as "Nature Preserve", "Agricultural Preserve", "Greenbelt", or "Greenway". Open space provided above the minimum required conservation land may fit into other open space categories.

▼ **FIGURE 5.6 LARGE LOT DEVELOPMENT VS. CONSERVATION DEVELOPMENT**



5.2.5.4 CONSERVATION DEVELOPMENT APPROVAL PROCESS

Approval of conservation development shall follow the Major Subdivision approval process as set forth in Section 3.3.6, except that the following steps shall be added to the sketch plan phase:

A. As part of the sketch plan phase, a pre-planning site visit and conference may be scheduled by the applicant with the Administrator , Planning Board, and Town Council prior to development plan submittal.

B. During the first step, a "Yield Plan" showing the number of lots that could occur on the tract if it were developed in accordance with all applicable subdivision requirements as a conventional subdivision using lots of a minimum size of 80,000 square feet in the AR district or 60,000 square feet in the RR district. Conservation subdivisions are designed to be "density neutral"— i.e., allow for the same number of lots as that which could be platted under applicable subdivision requirements with a minimum lot size of 80,000 square feet in the AR district or 60,000 square feet in the RR district. A yield plan shall incorporate the following:

1. Yield Plans must be prepared with the Sketch Plan and must show all proposed lots, streets, rights-of-way, and other pertinent features that would be required for a Sketch Plan for conventional developments. Although the Yield Plan must be drawn to scale, it need not be based on a field survey. However, the Yield Plan must be a realistic layout reflecting a development pattern that could reasonably be expected to be implemented, taking into account the presence of wetlands, floodplains, steep slopes, existing easements or encumbrances and, if unsewered, the suitability of soils for subsurface sewage disposal.

2. Yield Plans shall also reflect that each lot in the subdivision contains a minimum area of 80,000 square feet in the AR district or 60,000 square feet in the RR district. The Yield Plan must identify the site's primary and secondary conservation lands, as identified in the Existing Features Plan as outlined in Section 5.3.4.3, and demonstrate that the primary conservation lands could be successfully absorbed in the development process without disturbance, by allocating this area to proposed single-family dwelling lots.

3. On sites not served by central sewage disposal, lot yield shall be further determined by evaluating septic tank drainfield suitability reports.

C. In the second step, all potential Conservation Areas (primary, secondary, and tertiary), as defined in shall be identified as described in Section 5.3.4.3.

D. During the third step, potential building sites (up to the maximum identified in Step 1) are tentatively located. House sites should generally be located not closer than 100 feet to Primary Conservation Areas or 50 feet to Secondary Conservation Areas and a minimum of 95% of lots shall share at least one (1) lot line with another lot in the development.

E. The fourth step consists of aligning proposed streets to provide vehicular access to each house in the most reasonable and economical way. When lots and access streets are laid out, they shall be located in a way that avoids, or at least minimizes, adverse impacts on the Conservation Areas. Wetland crossings should be avoided. Street connections shall be provided to minimize the number of cul-de-sacs and to facilitate easy access to and from homes in different parts of the property (and on adjoining parcels).

F. The fifth step is simply to draw the lot lines where applicable. Lot sizes and setbacks shall meet the requirements of Section 5.2.3 (Table 5.4).

G. The Yield Plan shall also be provided during Preliminary Plat review to the Planning Board and Town Council.

5.3 ENVIRONMENTAL & OPEN SPACE STANDARDS

5.3.1 PURPOSE

The purpose of this section is to establish provisions for the protection of the environment as required by state and federal law and to provide for adequate open space, green space, and recreation within Mineral Springs' jurisdiction.

5.3.2 STREAM BUFFERS

5.3.2.1 PURPOSE

The purpose of a stream buffer is to ensure that streams and the adjacent lands fulfill their natural functions to protect the physical integrity of the stream ecosystem, to prevent encroachment upon the stream ecosystems, and to filter runoff before detrimental material reaches the streams. The provisions contained in this Section shall only be applicable to lots created after February 26, 2007, as well as to the combination or recombination of lots that existed at such date of adoption.

5.3.2.2 STREAM BUFFER AND STREAM BUFFER MANAGEMENT ZONES

A. Stream buffers are required for all stream segments where the upstream drainage basin is greater than or equal to 50 acres. On each side of the stream, a stream buffer will begin at the edge of the stream channel and extend perpendicular to the stream a distance equal to the lesser of 100 feet or to a ridge line that changes the runoff flow to be away from the stream.

B. A stream buffer shall be divided into three (3) stream buffer management zones, each of which has different permitted land uses. Each zone shall be identified on any Final Plat:

1. Streamside Zone: The streamside zone is the 30 feet of stream buffer nearest the stream channel, measured from the bank. If the stream buffer is at most 30 feet wide, then the entire stream buffer falls within the streamside zone. With the exceptions noted below, land uses within the streamside zone are limited to flood control and stream bank stabilization; otherwise, land disturbances and vegetation clearing are prohibited. No buildings are permitted within the streamside zone.

2. Managed Use Zone: The managed use zone immediately follows the streamside zone to a maximum width of 45 feet. If the stream buffer is greater than 30 feet but is at most 75 feet wide, then the stream buffer consists of the 30 feet of streamside zone followed by the residual as the managed use zone. With the exceptions noted in subsection C below, land uses within the managed use zone are limited to stormwater best management practices (BMPs) passive recreation uses such as greenway trails and bicycle paths and other land uses consistent with maintaining the natural topography and vegetation. No buildings are permitted within the managed use zone.

3. Upland Zone: The upland zone immediately follows the managed use zone to a maximum width of 25 feet. If the stream buffer is greater than 75 feet but is at most 100 feet wide, then the stream buffer shall consist of 30 feet of streamside zone, followed by 45 feet of managed use zone, followed by the residual as upland zone. With the exceptions noted in subsection C below, land uses within the upland zone are limited to stormwater best management practices (BMPs) passive recreation uses such as greenway trails and bicycle paths, which may be built with impervious materials, and other land uses consistent with maintaining the natural topography and managing the natural vegetation, residential grass cover, or agricultural grasses. Only small storage buildings (under 12 feet in every direction) are permitted within the upland zone.

C. The following land uses are permitted within the stream buffers subject to the requirement that the lands adjacent to these uses that are disturbed as a result of these uses are stabilized and replanted with native vegetation:

1. Near perpendicular (75 degrees or greater) utility stream crossings approved otherwise allowed by this Ordinance;

2. Parallel utility installation otherwise allowed by this Ordinance;

3. Near perpendicular (75 degrees or greater) stream crossings by streets or by greenway trails, bicycle paths, sidewalks, and other pedestrian path allowed by this Ordinance;

4. Near perpendicular (75 degrees or greater) crossings for farm animals with fencing to minimize the animals' impacts upon the stream buffers (NOTE: This does not require specific plat or site plan approval);

5. Narrow footpaths constructed with minimal vegetation disturbance that permit the landowner to walk to the stream (NOTE: This does not require specific plat or site plan approval);

6. Incidental drainage improvements or repairs for maintenance (NOTE: This does not require specific plat or site plan approval);

7. Newly created ponds or lakes. New ponds shall have the same buffers as the original creek, except that tree planting will not be required. Buffer requirements will not apply to dams;

8. Mitigation approved by a State or Federal agency acting under Sections 401 or 404 of the Clean Water Act;

9. Other land uses within the stream buffers may be approved as part of a development plan that is subject to the requirement that the landowner demonstrate that the net result of the land use and strategy to mitigate the impact of the land use provide at least the same protection to the stream's water quality and ecological integrity; and

10. The continuation of existing agricultural uses.

5.3.3 FLOODPLAIN DAMAGE PREVENTION STANDARDS

5.3.3.1 STATUTORY AUTHORIZATION

The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Article 6 of Chapter 153A; Article 8 of Chapter 160A and Article 7, 9, and 11 of Chapter 160D of the North Carolina General Statutes, delegated to local governmental units the authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry including the regulations set out in this chapter.

Therefore, the Town Council of Mineral Springs, North Carolina, does ordain as follows in this Section.

5.3.3.2 FINDINGS OF FACT

A. The flood prone areas within the jurisdiction of Mineral Springs are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures of flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

B. These flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood prone areas by uses vulnerable to floods or other hazards.

5.3.3.3 STATEMENT OF PURPOSE

It is the purpose of this chapter to promote public health, safety, and general welfare and to minimize public and private losses due to flood conditions within flood prone areas by provisions designed to:

A. Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or that result in damaging increases in erosion, flood heights or velocities;

B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of floodwaters;

D. Control filling, grading, dredging, and all other development that may increase erosion or flood damage; and

E. Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

5.3.3.4 OBJECTIVES

The objectives of this chapter are to:

A. To protect human life and health;

B. To minimize expenditure of public money for costly flood control projects;

C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. To minimize prolonged business losses and interruptions;

E. To minimize damage to public facilities and utilities (i.e. water and gas mains, electric, telephone, cable and sewer lines, streets, and bridges) that are located in flood prone areas;

F. To minimize damage to private and public property due to flooding;

G. To make flood insurance available to the community through the National Flood Insurance Program;

H. To maintain the natural and beneficial functions of floodplains;

I. To help maintain a stable tax base by providing for the sound use and development of flood prone areas; and

J. To ensure that potential buyers are aware that property is in a Special Flood Hazard Area.

5.3.3.5 LANDS TO WHICH THIS CHAPTER APPLIES

This chapter shall apply to all Special Flood Hazard Areas within the jurisdiction of Mineral Springs.

5.3.3.6 BASIS FOR ESTABLISHING THE SPECIAL FLOOD HAZARD AREAS

The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and the Federal Emergency Management Agency (FEMA) in its FIS dated October 16, 2008 for Mineral Springs, Union County, North Carolina and associated DFIRM panels, including any digital data developed as part of the FIS, which are adopted by reference and declared a part of this chapter, and all revisions thereto.

5.3.3.7 ESTABLISHMENT OF FLOODPLAIN DEVELOPMENT PERMIT

A Floodplain development permit shall be required in conformance with the provisions of this chapter prior to the commencement of any development activities within Special Flood Hazard Areas as determined in Section 5.3.3.6.

5.3.3.8 COMPLIANCE

No structure or land shall hereafter be located, extended, converted, altered, or developed in any way without full compliance with the terms of this chapter and other applicable regulations.

5.3.3.9 ABROGATION AND GREATER RESTRICTIONS

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this chapter and another ordinance conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

5.3.3.10 INTERPRETATION

In the interpretation and application of this chapter, all provisions shall be:

A. Considered as minimum requirements;

B. Liberally construed in favor of the governing body; and

C. Deemed neither to limit nor repeal any other powers granted under state statutes.

5.3.3.11 WARNING AND DISCLAIMER OF LIABILITY

The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering consideration. Larger floods can and will occur. Actual flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the Special Flood Hazard Areas or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the

part of Mineral Springs or by any officer or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

5.3.3.12 PENALTIES FOR VIOLATION

Violation of the provisions of this chapter or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variance or special exceptions, shall constitute a Class 1 misdemeanor pursuant to NCGS 143-215.58. Any person who violates this chapter or fails to comply with any of its requirements shall be subject, upon conviction thereof, to the penalties set forth in Section 2.7. Each day such violation continues shall be considered a separate offense. Nothing herein contained shall prevent Mineral Springs from taking such other lawful action as is necessary to prevent or remedy any violation.

5.3.3.13 DESIGNATION OF FLOODPLAIN ADMINISTRATOR

The Administrator or designee is hereby appointed to administer and implement the provisions of this Section.

5.3.3.14 FLOODPLAIN DEVELOPMENT PERMIT AND CERTIFICATION REQUIREMENTS

A. Plans and application requirements. Application for a floodplain development permit shall be made to the Floodplain Administrator on forms furnished by him or her prior to any development activities proposed to be located within Special Flood Hazard Areas. The following items/information shall be presented to the Floodplain Administrator to apply for a floodplain development permit.

1. A plot plan drawn to scale which shall include, but shall not be limited to, the following specific details of the proposed floodplain development:
    a. The nature, location, dimensions, and elevations of the area of development/ disturbance; existing and proposed structures, the location of utility systems, proposed grading/pavement areas, fill materials, storage areas, drainage facilities, and other proposed development;
    b. The boundary of the Special Flood Hazard Area as delineated on the FIRM or other flood map as determined in Section 5.3.3.6 or a statement that the entire lot is within the Special Flood Hazard Area;
    c. Flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined in Section 5.3.3.6;

d. The boundary of the floodway(s) or non-encroachment area(s) as determined in Section 5.3.3.6;
e. The Base Flood Elevation (BFE) where provided as set forth in Section 5.3.3.6; Section 5.3.3.15 (K) and (L) ; Sections 5.3.3.20, 5.3.3.21 and Section 5.3.3.19 (E);
f. The old and new location of any watercourse that will be altered or relocated as a result of proposed development; and
g. The certication of the plot plan by a registered land surveyor or professional engineer.

2. Proposed elevation, and method thereof, of all development within a Special Flood Hazard Area including but not limited to:
   a. Elevation in relation to NAVD 1988 of the proposed reference level (including basement) of all structures;
   b. Elevation in relation to NAVD 1988 to which any non-residential structure in Zones A, AE, AH, AO, A99 will be flood-proofed;
   c. Elevation in relation to NAVD 1988 to which any proposed utility systems will be elevated or floodproofed;

3. If floodproofing, a floodproofing certificate (FEMA Form 086-0-34) with supporting data, an operational plan, and an inspection and maintenance plan that include, but are not limited to, installation, exercise, and maintenance of floodproofing measures.

4. A foundation plan drawn to scale, which shall include details of the proposed foundation system to ensure all provisions of this Section are met. These details include but are not limited to:
   a. The proposed method of elevation, if applicable (i.e., fill, solid foundation perimeter wall, solid backfilled foundation, open foundation on columns/posts/piers/piles/shear walls); and
   b. Openings to faciltate automatic equalization of hydrostatic flood forces on walls in accordance with Section 5.3.3.19 (D) when solid foundation perimeter walls are used in Zones A, AE, AH, AO, A99.

5. Usage details of any enclosed areas below the lowest floor.

6. Plans and/or details for the protection of public utilities and facilities such as sewer, gas,

electrical, and water systems to be located and constructed to minimize flood damage;

7. Certification that all other local, state and federal permits required prior to floodplain development permit issuance (i.e. wetlands, erosion and sedimentation control, riparian buffers, mining, etc.) have been received.

8. Documentation for placement of recreational vehicles and/or temporary structures, when applicable, to ensure that the provision of Section 5.3.3.19 (F) and (G) of this chapter are met.

9. A description of proposed watercourse alteration or relocation, when applicable, including an engineering report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map (if not shown on plot plan) showing the location of the proposed watercourse alteration or relocation.

B. The Floodplain Development Permit shall include, but not limited to:

1. A complete description of the development to be permitted under the floodplain development permit (e.g. house, garage, pool, septic, bulkhead, cabana, pier, bridge, mining, dredging, filling, grading, paving, excavation or drillling operations, or storage of equipment or materials, etc.).

2. The Special Flood Hazard Area determination for the proposed development per available data specified in Section 5.3.3.6.

3. The regulatory flood protection elevation required for the reference level and all attendant utilities.

4. The regulatory flood protection elevation required for the protection of all public utilities.

5. All certification submittal requirements with timelines.

6. A statement that no fill material or other development shall encroach into the floodway or non-encroachment area of any watercourse, unless the requirements of Section 5.3.3.22 (A) have been met.

7. The flood openings requirements.

8. Limitations of below BFE enclosure uses (if applicable) (i.e. parking, building access and limited storage only) if applicable.

9. State that all materials below BFE/RFPE must be flood resistant materials.

C. Certification requirements

1. Elevation Certificates
   a. An elevation certificate (FEMA Form 086-0-33) is required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to NAVD 1988. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder prior to the beginning of construction. Failure to submit the certification or failure to make required corrections shall be cause to deny a floodplain development permit.
   b. An elevation certificate (FEMA Form 086-0-33) is required after the reference level is established. Within seven (7) calendar days of reference level elevation, it shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the elevation of the reference level, in relation to NAVD 1988. Any work done within the seven (7) calendar period and prior to submission of the certification shall be at the permit holder's risk. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the certification or failure to make said corrections required shall be cause to issue a stop-work order for the project.
   c. A final finished construction elevation certificate (FEMA Form 086-0-33) is required after construction is completed and prior to certificate of compliance/occupancy issuance. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder, immediately and prior to certificate of compliance/occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make required corrections

shall be cause to withhold the issuance of a certificate of compliance/occupancy.

2. Floodproofing Certificate
   a. If non-residential floodproofing is used to meet the Regulatory Flood Protection Elevation requirements, a Floodproofing Certificate (FEMA Form 086-0-34), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the actual start of any new construction. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of thefloodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988. Floodproofing certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Floodplain Administrator shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to permit approval. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure to construct in accordance with the certified design shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.
   b. A final Finished Construction Floodproofing Certificate (FEMA Form 086-0-34), with supporting data, an operational plan, and an inspection and maintenance plan are required prior to the issuance of a Certificate of Compliance/Occupancy. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of the floodproofed design elevation of the reference level and all attendant utilities, in relation to NAVD 1988. Floodproofing certificate shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. The Floodplain Administrator shall review the certificate data, the operational plan, and the inspection and maintenance plan. Deficiencies detected by such review shall be corrected by the applicant prior to Certificate of Occupancy. Failure to submit the certification or failure to make required corrections shall be cause to deny a Floodplain Development Permit. Failure to construct in accordance with the certified design shall be cause to deny a Certificate of Compliance/Occupancy.

3. If a manufactured home is placed within zones A, AE, AH, AO, A99 and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required per Section 5.3.3.19 (C).

4. If a watercourse is to be altered or relocated, a description of the extent of watercourse

alteration or relocation; a professional engineer's certified report on the effects of the proposed project on the flood-carrying capacity of the watercourse and the effects to properties located both upstream and downstream; and a map showing the location of the proposed watercourse alteration or relocation shall all be submitted by the permit applicant prior to issuance of a floodplain development permit.

5. Certification exemptions. The following structures, if located within zones A, AE, AH, AO, A99, are exempt from the elevation/floodproofing certification requirements specified in items (1) and (2) above:
    a. Recreational vehicles meeting requirements of Section 5.3.3.19 (F 1);
    b. Temporary structures meeting requirements of Section 5.3.3.19 (G); and
    c. Accessory structures less than 150 square feet or $5,000 or less and meeting requirements of Section 5.3.3.19 (H).

6. Determinations for existing buildings and structures

For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, substantial improvements, repairs of substantial damage, and any other improvement of or work on such buildings and structures, the Floodplain Administrator, in coordination with the Building Official, shall:

a. Estimate the market value, or require the applicant to obtain an appraisal of the market value prepared by a qualified independent appraiser, of the building or structure before the start of construction of the proposed work; in the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made;
b. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure;
c. Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; and
d. Notify the applicant if it is determined that the work constitutes substantial improvement or repair of substantial damage and that compliance with the flood resistant construction requirements of the NC Building Code and this ordinance is required.

5.3.3.15 DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

Duties of the Floodplain Administrator shall include, but not be limited to:

A. Review all floodplain development applications and issue permits for all proposed development within Special Flood Hazard Areas to assure that the requirements of this chapter have been satisfied.

B. Review all proposed development within Special Flood Hazard Areas to assure that all necessary local, state and federal pemits have been received, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C 1334.

C. Notify adjacent communities and the North Carolina Department of Public Safety, Division of Emergency Management, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.

D. Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

E. Prevent encroachments within floodways and non-encroachment areas unless the certification and flood hazard reduction provisions of Section 5.3.3.22 are met.

F. Obtain actual elevation (in relation to NAVD 1988) of the reference level (including basement) of all attendant utilities of all new or substantially improved structures, in accordance with Section 5.3.3.14 (C).

G. Obtain the actual elevation (in relation to NAVD 1988) to which the new or substantially improved structures and all utilities have been floodproofed, in accordance with Section 5.3.3.14 (C).

H. Obtain actual elevation (in relation to NAVD 1988)of all public utilities, in accordance with Section 5.3.3.14 (C).

I. When flood proofing is utilized for a particular structure, obtain certifications from a registered professional engineer or architect in accordance with Section 5.3.3.14 (C) and Section 5.3.3.19 (B).

J. Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard Areas, floodways, and non-encroachment areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this Section.

K. When Base Flood Elevation (BFE) data has not been provided in accordance with Section 5.3.3.14, obtain, review, and reasonably utilize any Base Flood Elevation (BFE) data, along with floodway data and/or non-encroachment area data available from a federal, state, or other source, including data developed pursuant to Section 5.3.3.19 (D), in order to administer the provisions of this Section.

L. When Base Flood Elevation (BFE) data is provided but no floodway nor non-encroachment area data has been provided in accordance with Section 5.3.3.6, obtain, review, and reasonably utilize any floodway data, and/or non-encroachment area data available from a federal, state, or other source in order to administer the provisions of this chapter.

M. Permanently maintain all records that pertain to the administration of this ordinance and make these records available for public inspection.

N. Make on-site inspections of work in progress. As the work pursuant to a floodplain development permit progresses, the Floodplain Administrator shall make as many inspections of the work as may be necessary to ensure that the work is being done according to the provisions of the local ordinance and the terms of the permit. In exercising this power, the Floodplain Administrator has a right, upon presentation of proper credentials, to enter on any premises within the jurisdiction of the community at any reasonable hour for the purposes of inspection or other enforcement action.

O. Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this chapter, the Floodplain Administrator may order the work to be immediately stopped. The stop-work order shall be in writing and directed to the person doing the work or in charge of the work. The stop-work order shall state the specific work to be stopped, the specific reason(s) for the stoppage, and the condition(s) under which the work may be resumed. Violation of a stop-work order constitutes a misdemeanor.

P. Revocation of floodplain development permits as required. The Floodplain Administrator may revoke and require the return of the floodplain development permit by notifying the permit holder in writing stating the reason(s) for the revocation. Permits shall be revoked for any substantial departure from the approved application, plans, or specifications; for refusal or failure to comply with the requirements of state or local laws; or for false statements or misrepresentations made in securing the permit. Any floodplain development permit mistakenly issued in violation of an applicable state or local law may also be revoked.

Q. Make periodic inspections throughout all special flood hazard areas within the jurisdiction of the community. The Floodplain Administrator and each member of his or her inspections department shall have a right, upon presentation of proper credentials, to enter on any premises within the territorial jurisdiction of the department at any reasonable hour for the purposes of inspection or other enforcement action.

R. Follow through with corrective procedures of Section 5.3.3.16.

S. Review, provide input, and make recommendations for variance requests.

T. Maintain a current map repository to include, but not limited to, historical and effective FIS Report, historical and effective FIRM and other official flood maps and studies adopted in accordance with the provisions of Section 5.3.3.6 of this chapter, including any revisions thereto including Letters of Map Change, issued by FEMA. Notify state and FEMA of mapping needs.

U. Coordinate revisions to FIS reports and FIRMS, including Letters of Map Revision Bases on Fill (LOMR-Fs) and Letters of Map Revision (LOMRs).

V. When the lowest floor and the lowest adjacent grade of a structure or the lowest ground elevation of a parcel in a Special Flood Hazard Area is above the BFE, advise the property owner of the option to apply for a Letter of Map Amendment (LOMA) from FEMA. Maintain a copy of the LOMA issued by FEMA in the floodplain development permit file.

5.3.3.16 CORRECTIVE PROCEDURES

A. Violations to be corrected. When the Floodplain Administrator finds violations of applicable state and local laws, it shall be his or her duty to notify the owner or occupant of the building

of the violation. The owner or occupant shall immediately remedy each of the violations of law cited in such notification.

B. Actions in event of failure to take corrective action. If the owner of a building or property shall fail to take prompt corrective action, the Floodplain Administrator shall give the owner written notice, by certified or registered mail to the owner's last known address or by personal service, stating:

1. That the building or property is in violation of the Flood Damage Prevention Ordinance;

2. That a hearing will be held before the Floodplain Administrator at a designated placeand and time, not later than ten (10) days after the date of the notice, at which time the owner shall be entitled to be heard in person or by counsel and to present arguments and evidence pertaining to the matter; and

3. That following the hearing, the Floodplain Administrator may issue such order to alter, vacate, or demolish the building; or to remove fill as applicable.

C. Order to take corrective action. If, upon a hearing held pursuant to the notice prescribed above, the Floodplain Administrator shall find that the building or development is in violation of the Flood Damage Prevention Ordinance, he or she shall make an order in writing to the owner, requiring the owner to remedy the violation within a specified time period, not less than sixty (60) calendar days, nor more than one-hundred-eighty (180) calendar days. Where the Floodplain Administrator finds that there is imminent danger to life or other property, he or she may order that corrective action be taken in such lesser period as may be feasible.

D. Appeal. Any owner who has received an order to take corrective action may appeal the order to the local elected governing body by giving notice of appeal in writing to the Floodplain Administrator and the clerk within 10 days following issuance of the final order. In the absence of an appeal, the order of the Floodplain Administrator shall be final. The local governing body shall hear an appeal within a reasonable time and may affirm, modify and affirm, or revoke the order.

E. Failure to comply with order. If the owner of a building or property fails to comply with an order to take corrective action from which no appeal has been taken, or fails to comply with an order of the governing body following an appeal, he or she shall be guilty of a Class 1 misdemeanor pursuant to NCGS 143-215.58 and shall be punished in the discretion of the court.

5.3.3.17 VARIANCE PROCEDURES

A. The Board of Adjustment as established by Mineral Springs, hereinafter referred to as the "Appeal Board", shall hear and decide requests for variances from the requirements of this chapter.

B. Any person aggrieved by the decision of the Appeal Board may appeal such decision to the Court, as provided in NCGS Chapter 7A.

C. Variances may be issued for:

1. The repair or rehabilitation of historic structures upon the determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

2. Functionally dependent facitlities if determined to meet the definition as stated in Section 5.3.3.28, provided provisions of Section 5.3.3.17 l (2), (3), and (5) have been satisfied, and such faciities are protected by methods that minimize flood damages during the base flood and create no additional threats to public safety, or

3. Any other type of development provided it meets the requirements of this chapter.

D. In passing upon variances, the Appeal Board shall consider all technical evaluations, all relevant factors, all standards specified in other Sections of this Section and

1. The danger that materials may be swept onto other lands to the injury of others;

2. The danger to life and property due to flooding or erosion damage;

3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

4. The importance of the services provided by the proposed facility to the community;

5. The necessity to the facility of a waterfront location, where applicable;

6. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;

7. The compatibility of the proposed use with existing and anticipated development;

8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

9. The safety of access to the property in times of flood for ordinary and emergency vehicles;

10. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and

11. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

E. A written report addressing each of the above factors shall be submitted with the application for a variance.

F. Upon consideration of the factors listed above and the purposes of this Section, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Section.

G. Any applicant to whom a variance is granted shall be given written notice specifying the difference between the BFE and the elevation to which the structure is to be built and that such construction below the BFE increases risks to life and property, and that the issuance of a variance to construct below the BFE may result in increased premium rates for flood insurance up to $25 per $100 of insurance coverage. Such notification shall be maintained with a record of all variance actions, including justification for their issuance.

H. The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the FEMA and the State of North Carolina upon request.

I. Conditions for variances:

1. Variances may not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or ordinances.

2. Variances shall not be issued within any designated floodway or non-encroachment area if the variance would result in any increase in flood levels during the base flood dischage.

3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

4. Variances shall only be issued prior to development permit approval.

5. Variances shall only be issued upon:
   a. A showing of good and sufficient cause;
   b. A determination that failure to grant the variance would result in exceptional hardship; and
   c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

J. A variance may be issued for solid waste disposal facilities or sites, hazardous waste management facilities, salvage yards, and chemical storage facilities that are located in Special Flood Hazard Areas provided that all the following conditions are met.

1. The use serves a critical need in the community.

2. No feasible location exists for the use outside the Special Flood Hazard Area.

3. The reference level of any structure is elevated or floodproofed to at least the Regulatory Flood Protection Elevation.

4. The use complies with all other applicable federal, state and local laws.
5. The Town of Mineral Springs has notified the Secretary of the North Carolina Department of Public Safety of its intention to grant a variance at least thirty (30) calendar days prior to granting the variance.

5.3.3.18 GENERAL STANDARDS

In all Special Flood Hazard Areas the following provisions are required;

A. All new construction and substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure.

B. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage in accordance with the FEMA Technical Bulletin 2, Flood Damage-Resistant Materials Requirements.

C. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damages.

D. All new electrical, heating, ventilation, plumbing, air conditioning equipment, and other service equipment shall be located at or above the RFPE or designed and installed to prevent water from entering or accumulating within the components during the occurence of the base flood. These include but are not limited to HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, appliances (i.e., washers, dryers, refrigerator, etc.), hot water heaters, electric outlets/switches.

    1. Replacements part of a substantial improvement, electrical, heating, ventilations, plumbing, air conditioning equipment, and other service equipment shall also meet the above provisions.

    2. Replacements that are for maintenance and not part of a substantial improvement, may be installed at the original location provided the addition and/or improvements only comply with the standards for new construction consistent with the code and requirements for the original structure.

E. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

F. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters.

G. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.

H. Any alteration, repair, reconstruction, or improvements to a structure which is in compliance with the provisions of this chapter, shall meet the requirements of "new construction" as contained in this Section.

I. Nothing in this Section shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this chapter and located totally or partially within the floodway, non-encroachment area, or stream setback, provided there is no additional encroachment below the regulatory flood protection elevation in the floodway, non-encroachment area, or stream setback, and provided that such repair, reconstruction, or replacement meets all of the other requirements of this Section.

J. New solid waste disposal facilities and sites, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted, except by variance as specified in Section 5.3.3.17. A structure or tank for chemical or fuel storage incidental to an allowed use or to the operation of a water treatment plant or wastewater treatment facility may be located in a Special Flood Hazard Area only if the structure or tank is either elevated or floodproofed to at least the regulatory flood protection elevation and certified according to Section 5.3.3.14 (C) of this Ordinance.

K. All subdivision proposals and other development proposals shall be consistent with the need to minimize flood damage.

L. All subdivision proposals and other development proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.

M. All subdivision proposals and other development proposals shall have adequate drainage provided to reduce exposure to flood hazards.

N. All subdivision proposals and other development proposals shall have received all necessary permits from those governmental agencies for which approval is required by federal or state law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.

O. When a structure is partially located in a Special Flood Hazard Area, the entire structure shall meet the requirements for new construction and substantial improvements.

P. When a structure is located in a flood hazard risk zone with multiple base flood elevations, the provisions for the more restrictive flood hazard risk zone and the highest BFE shall apply.

Q. Buildings and structures that are located in more than one flood hazard area shall comply with the provisions associated with the most restrictive flood hazard area.

5.3.3.19 SPECIFIC STANDARDS

In all Special Flood Hazard Areas where Base Flood Elevation (BFE) data has been provided, as set forth in Section 5.3.3.6 or Section 5.3.3.15 (K), the following provisions are required:

A. Residential construction. New construction or substantial improvement of any residential structure (including manufactured homes) shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation.

B. Non-residential construction. New construction or substantial improvement of any commercial, industrial, or other non-residential structure shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation. Structures located in A, AE, AH, AO, A99 Zones may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure, together with attendant utility and sanitary facilities, below the regulatory flood protection elevation are watertight with walls substantially impermeable to the passage of water, using structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy. For AO Zones, the floodproofing elevation shall be in accordance with Section 5.3.3.23. A registered professional engineer or architect shall certify that the floodproofing standards of this subsection are satisfied. Such certification shall be provided to the official as set forth in Section 5.3.3.14 (C) along with the operational plan and the inspection and maintenance plan.

C. Manufactured homes

1. New or replacement manufactured homes shall be elevated so that the reference level of the manufactured home is no lower than the regulatory flood protection elevation.

2. Manufactured homes shall be securely anchored to an adequately anchored foundation to resist flotation, collapse, and lateral movement, either by certified engineered foundation system, or in accordance with the most current edition of the State of North Carolina Regulations for Manufactured Homes adopted by the Commissioner of

Insurance pursuant to NCGS 143-143.15. Additionally, when the elevation would be met by an elevation of the chassis thirty-six (36) inches or less above the grade at the site, the chassis shall be supported by reinforced piers or engineered. When the elevation of the chassis is above thirty-six (36) inches in height, an engineering certification is required.

3. All enclosures or skirting below the lowest floor shall be in accordance with Section 5.3.3.19 (D).

4. An evacuation plan must be developed for evacuation of all residents of all new, substantially improved or substantially damaged manufactured home parks or subdivisions located within flood prone areas. This plan shall be filed with and approved by the Floodplain Administrator and the local Emergency Management coordinator.

D. Elevated buildings

Fully enclosed area, of new construction and substantially improved structures, which is below the lowest floor:

1. Shall not be designed or used for human habitation, but shall only be used for parking of vehicles, building access, or limited storage of maintenance equipment used in connection with the premises. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment (standard exterior door), or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be finished or partitioned into separate rooms, except to enclose storage areas;

2. Shall not be temperature-controlled or conditioned;

3. Shall be constructed entirely of flood resistant materials at least to the Regulatory Flood Protection Elevation, and;

4. Shal include flood openings to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings must either be certified by a professional engineer or architect or meet the following minimum design criteria:
   a. Provide a minimum of two (2) flood openings on different sides of each enclosed area subject to flooding;
   b. The total net area of all flood openings must be at least one (1) square inch for each square foot of each enclosed area subject to flooding;
   c. If a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;
   d. The bottom of all required flood openings shall be no higher than one (1) foot above the higher of the interior or exterior adjacent grade; and
   e. Flood openings may be equipped with screens, louvers, or other opening coverings or devices provided they permit the automatic flow of floodwaters in both directions; and.
   f. Enclosures made of flexible skirting are not:
      1. Considered an enclosure for regulatory purposes, and therefore do not require flood openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires flood openings as outlined above.

5. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator). The interior portion of such enclosed area shall not be partitioned or finished into separate rooms, except to enclose storage areas.

E. Release of restrictive convenant. If a property which is bound by a non-conversion agreement is modified to remove enclosed areas below BFE, then the owner may request of restrictive convenant after staff inspection and submittal of confirming documentation.

F. Additions/improvements
   1. Additions and/or improvements to pre-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:
      a. Are not a substantial improvement, the addition and/or improvements must be designed to minimize flood damages and must not be any more non-conforming than the existing structure.

b. Are a substantial improvement with modifications/rehabilations/improvements to the existing structure or the common wall is structurally modified more than installing a doorway, both the existing structure and the addition must comply with the standards for new construction.

2. Additions to pre-FIRM or post-FIRM structures that are a substantial improvement with no modifications/rehabilitations/improvements to the existing structure other than a standard door in the common wall shall require only the addition to comply with the standards for new construction.

3. Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure:
   a. Are not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction consistent with the code and requirements for the original structure.
   b. Are a substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.

4. Any combination of repair, reconstruction, rehabilitation, addition or improvement of a building or structure taking place during a one (1) year period, the cumulative cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started must comply with the standards for new construction. For each building or structure, the one (1) year period begins on the date of the first improvement or repair of that building or structure subsequent to the effective date of this ordinance. Substantial damage also means flood-related damage sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The requirement does not, however, include either:

   1. Any project for improvement of a building required to correct existing health, sanitary or safety code violations identified by the building official and that are the minimum necessary to assume safe living conditions.
   2. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

G. Recreational vehicles

Recreation vehicles placed on sites within a Special Flood Hazard Area shall either:

1. Temporary placement
   a. Be on site for fewer than 180 consecutive days; or
   b. Be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and has no permanently attached additions.)

2. Permanent placement. Recreational vehicles that do not meet all the limitations of temporary placement shall meet all the requirements for new construction.

H. Temporary non-residential structures

Prior to the issuance of a floodplain development permit for a temporary structure, the applicant must submit to the Floodplain Administrator a plan for the removal of such structure(s) in the event of a hurricane, flash flood or other type of flood warning notification. The following information shall be submitted in writing to the Floodplain Administrator for review and written approval:

1. A specified time period for which the temporary use will be permitted. Time specified may not exceed three (3) months, renewable up to one (1) year;

2. The name, address, and phone number of the individual responsible for the removal of the temporary structure;

3. The time frame prior to the event at which a structure will be removed (i.e. minimum of 72 hours before landfall of a hurricane or immediately upon flood warning notification);

4. A copy of the contract or other suitable instrument with a trucking company with the entity responsible for physical removal of the structure; and

5. Designation, accompanied by documentation, of a location outside the Special Flood Hazard Area to which the temporary structure will be moved.

I. Accessory structures

When accessory structures (sheds, detached garages, etc.) are to be placed within a Special Flood Hazard Area, the following criteria shall be met:

1. Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);

2. Accessory structures shall not be temperature-controlled;

3. Accessory structures shall be designed to have low flood damage potential;

4. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;

5. Accessory structures shall be firmly anchored in accordance with Section 5.3.3.18 (A);

6. All service facilities such as electrical shall be installed in accordance with Section 5.3.3.18 (D); and

7. Flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below regulatory flood protection elevation in conformance with Section 5.3.3.19 (D) (1).

An accessory structure with a footprint less than 150 square feet or that is a minimal investment of $3,000 or less and satisfies the criteria outlined above is not required to meet the elevation or floodproofing standards of Section 5.3.3.19 (B). Elevation or floodproofing certifications are required for all other accessory structures in accordance with Section 5.3.3.14 (C).

J. Tanks

When gas and liquid storage tanks are to be placed within a Special Flood Hazard Area, the following criteria shall be met:

1. Underground tanks. Underground tanks in flood hazard areas shall be anchored to prevent flotation, collapse or lateral movement resulting from hydrodynamic and hydrostatic loads during conditions of the design flood, including the effects of buoyancy assuming the tank is empty;
2. Above-ground tanks, elevated. Above-ground tanks in flood hazard areas shall be elevated to or above the Regulatory Flood Protection Elevation on a supporting structure that is designed to prevent flotation, collapse or lateral movement during conditions of the design flood. Tank-supporting structures shall meet the foundation requirements of the applicable flood hazard area;

3. Above-ground tanks, not elevated. Above-ground tanks that do not meet the elevation requirements of 5.3.3.19 of this chapter shall be permitted in flood hazard areas provided the tanks are designed, constructed, installed, and anchored to resist all flood-related and other loads, including the effects of buoyancy, during conditions of the design flood and without release of contents in the floodwaters or infiltration by floodwaters into the tanks. Tanks shall be designed, constructed, installed, and anchored to resist the potential buoyant and other flood forces acting on an empty tank during design flood conditions.

4. Tank inlets and vents. Tank inlets, fill openings, outlets and vents shall be:

   a. At or above the Regulatory Flood Protection Elevation or fitted with covers designed to prevent the inflow of floodwater or outflow of the contents of the tanks during conditions of the design flood; and

   b. Anchored to prevent lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, during conditions of the design flood.

K. Other development

   1. Fences in regulated floodways and NEAs that have the potential to block the passage of floodwaters, such as stockade fences and wire mesh fences, shall meet the limitations of Section 5.3.3.22 of this chapter.

   2. Retaining walls, sidewalks and driveways in regulated floodways and NEAs. Retaining walls and sidewalks and driveways that involve the placement of fill in regulated floodways shall meet the limitations of Section 5.3.3.22.

   3. Roads and watercourse crossings in regulated floodways and NEAs. Roads and watercourse crossings, including roads, bridges, culverts, low-water crossings and similar means for vehicles or pedestrians to travel from one side of a watercourse to the other side, that encroach into regulated floodways shall meet the limitations of Section 5.3.3.22 of this chapter.

   4. Commercial storage facilities are not considered “limited storage” as noted in this chapter, and shall be protected to the Regulatory Flood Protection Elevation as required for commercial structures.

5.3.3.20 STANDARDS FOR FLOODPLAINS WITHOUT ESTABLISHED BASE FLOOD ELEVATIONS

Within the Special Flood Hazard Areas established in Section 5.3.3.6, where no Base Flood Elevation (BFE) datahas been provided by FEMA, the following provisions, in additionn to the provisions of Section 5.3.3.18 shall apply:

A. No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of twenty (20) feet each side from top of bank or five times the width of the stream whichever is greater, unless certification with supporting technical data by a registered professional engineer is provided demonstrating that such encroachments shall not result in base flood discharge.

B. The BFE used in determining the regulatory flood protection elevation shall be determined based on the following criteria:

1. When BFE data is available from other sources, all new construction and substantial improvements within such areas shall also comply with all applicable provisions of this ordinance and shall be elevated or floodproofed in accordance with standards in Sections 5.3.3.18 and 5.3.3.19.

2. When floodway or non-encroachment data is available from a Federal, State, or other source, all new construction and substantial improvements within floodway and non-encroachment areas shall also comply with the requirements of Sections 5.3.3.19 and 5.3.3.22.

3. All subdivision, manufactured home park and other development proposals shall provide BFE data if development is greater than five (5) acres or has more than fifty (50) lots/ manufactured home sites. Such BFE data shall be adopted by reference in accordance with Section 5.3.3.6 and utilized in implementing this ordinance.

4. When BFE data is not available from a Federal, State, or other source as outlined above, the reference level shall be elevated or floodproofed (nonresidential) to or above the Regulatory Flood Protection Elevation, as defined in Section 5.3.3.28. All other applicable provisions of Section 5.3.3.19 shall also apply.

5.3.3.21 STANDARDS FOR RIVERINE FLOODPLAINS WITH BFE BUT WITHOUT ESTABLISHED FLOODWAYS OR NON-ENCROACHMENT AREAS

Along rivers and streams where Base Flood Elevation (BFE) data is provided by FEMA or is available form another source but neither floodway nor non-encroachment areas are identified

for a Special Flood Hazard Area on the FIRM or in the FIS, the following requirements shall apply to all development within such areas:

1. Standards of Section 5.3.3.18 and 5.3.3.19.

2. Until a regulatory floodway or non-encroachment area is designated, no encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the community.

5.3.3.22 FLOODWAYS AND NON-ENCROACHMENT AREAS

Located within the Special Flood Hazard Areas established in Section 5.3.3.6 are areas designated as floodways or non-encroachment areas. The floodways and non-encroachment areas are extremely hazardous areas due to the velocity of floodwaters that have erosion potential and carry debris and potential projectiles. The following provisions shall apply to all development within such areas:

A. No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood. Such certification and technical data shall be presented to the Floodplain Administrator prior to issuance of floodplain development permit, or a Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained within six months of completion of the proposed encroachment.

B. If Section 5.3.3.22 (A) is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this chapter.
C. No manufactured homes shall be permitted, except replacement manufactured homes in an existing manufactured home park or subdivision provided the following provisions are met:

1. The anchoring and the elevation standards of Section 5.3.3.19 (C); and

2. The no encroachment standards of Section 5.3.3.22 (A) are met.

5.3.3.23 STANDARDS FOR AREAS OF SHALLOW FLOODING (ZONE AO)

Located within the Special Flood Hazard Areas established in Section 5.3.3.6, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to Sections 5.3.3.18 and 5.3.3.19, all new construction and substantial improvements shall meet the following requirements:

A. The reference level shall be elevated at least as high as the depth number specified on the Flood Insurance Rate Map (FIRM), in feet, plus a freeboard of four (4) feet above the highest adjacent grade; or at least four (4) feet above the highest adjacent grade if no depth number is specified.

B. Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in Section 5.3.3.18 and Section 5.3.3.19 so that the structure, together with attendant utility and sanitary facilities, below that level shall be watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Certification is required in accordance with Section 5.3.3.14 (C)(1) and Section 5.3.3.14 (C)(2).

C. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

5.3.3.24 STANDARDS FOR AREA OF SHALLOW FLOODING (ZONE AH)

Located within the Special Flood Hazard Areas established in Section 5.3.3.6, are areas designated as shallow flooding areas. These areas are subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are one (1) to three (3) feet. Base Flood Elevations are derived from detailed hydraulic analyses are shown in this zone. In addition to Sections 5.3.3.18 and 5.3.3.19, all new construction and substantial improvements shall meet the following requirements:

A. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

5.3.3.25 EFFECT ON RIGHTS AND LIABILITIES UNDER THE EXISTING FLOOD DAMAGE PREVENTION STANDARDS CHAPTER

This chapter in part comes forward by re-enactment of some of the provisions of the Flood Damage Prevention Ordinance enacted April 1, 2002, as amended, and it is not the intention to repeal but rather to re-enact and continue to enforce without interruption of such existing provisions, so that all rights and liabilities that have accrued thereunder are reserved and may be enforced. The enactment of this ordinance shall not affect any action, suit or proceeding instituted or pending. All provisions of the Flood Damage Prevention Ordinance of Mineral Springs enacted on April 1, 2002, as amended, which are not reenacted herein are repealed.

The date of the initial Flood Damage Prevention Ordinance for Union County, North Carolina is July 18, 1983.

5.3.3.26 EFFECT UPON OUTSTANDING FLOODPLAIN DEVELOPMENT PERMITS

Nothing herein contained shall require any change in the plans, construction, size or designated use of any development or any part thereof for which a floodplain development permit has been granted by the Floodplain Administrator or his or her authorized agents before the time of passage of this chapter; provided, however, that when construction is not begun under such outstanding permit within a period of six (6) months subsequent to passage of this chapter or any revision thereto, construction or use shall be in conformity with the provisions of this chapter.

5.3.3.27 SEVERABILITY

If any Section, clause, sentence, or phrase of the Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way effect the validity of the remaining portions of this Ordinance.

5.3.3.28 FLOOD DAMAGE PREVENTION DEFINITIONS

Accessory structure (appurtenant structure). A structure which is located on the same parcel of property as the principal structure and the use of which is incidental to the use of the principal structure. Garages, carports and storage sheds are common urban accessory structures. Pole barns, hay sheds and the like qualify as accessory structures on farms, and may or may not be located on the same parcel as the farm dwelling or shop building.

Addition (to an existing building). An extension or increase in the floor area or height of a building or structure.

Alteration of a watercourse. Any dam, impoundment, channel relocation, change in channel alignment, channelization, or change in cross-sectional area of the channel or the channel capacity, or any other form of modification which may alter, impede, retard or change the direction and/or velocity of the riverine flow of water during conditions of the base flood.

Appeal. A request for a review of the Floodplain Administrator's interpretation of any provision of Flood Damage Prevention Regulations.

Area of shallow flooding. Any designated Zone AO or AH on a community's Flood Insurance Rate Map (FIRM) with base flood depths determined to be from one (1) to three (3). These areas are located where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.

Area of Special Flood Hazard. See "Special Flood Hazard Area (SFHA)".

Area of future-conditions flood hazard. Any land area that would be inundated by the 1-percent-annual-chance (100-year) flood based on future-conditions hydrology.

Basement. Any area of the building having its floor subgrade (below ground level) on all sides.

Base flood. A flood having a one percent (1%) chance of being equaled or exceeded in any given year.

Base Flood Elevation (BFE). A determination of the water surface elevations of the base flood as published in the Flood Insurance Study. When the BFE has not been provided in a "Special Flood Hazard Area", it may be obtained from engineering studies available from a Federal, State, or other source using FEMA approved engineering methodologies. This elevation, when combined with the "Freeboard", establishes the "Regulatory Flood Protection Elevation".

Building. See "Structure".

Chemical storage facility. A building, portion of a building, or exterior area adjacent to a building used for the storage of any chemical or chemically reactive products.

Design Flood. See "Regulatory Flood Protection Elevation."

Development. Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials.

Development activity. Any activity defined as development which will necessitate a Floodplain Development Permit. This includes buildings, structures, and non-structural items, including (but not limited to) fill, bulkheads, piers, pools, docks, landings, ramps, and erosion control/stabilization measures.

Digital Flood Insurance Rate Map (DFIRM). A digital official map of a community, issued by the Federal Emergency Management Agency (FEMA), on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated.

Disposal. Means, as defined as in NCGS 130A-290(a)(6), the discharge, deposit, injection, dumping, spilling, leaking or placing of any solid waste into or on any land or water so that the solid waste or any constituent part of the solid waste into or any land or water so that the solid waste or any constituent part of the solid waste may enter the environment or be emitted into the air or discharged into any waters, including groundwaters.

Elevated building. A non-basement building, which has its reference level, raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

Encroachment. The advance or infringement of uses, fill, excavation, buildings, permanent structures or development into a floodplain, which may impede or alter the flow capacity of a floodplain.

Existing building and existing structure. Any building and/or structure for which the "start of construction" commenced before the effective date of the floodplain management regulations were adopted.

Existing manufactured home park or manufactured home subdivision. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is pre-FIRM.

Flood or flooding. A general and temporary condition of partial or complete inundation of normally dry land areas from: The overflow of inland or tidal waters; and The unusual and rapidaccumulation of runoff of surface waters from any source.

Flood Boundary and Floodway Map (FBFM). An official map of a community, issued by the Federal Emergency Management Agency (FEMA), on which the Special Flood Hazard Areas and the floodways are delineated. This official map is a supplement to and shall be used in conjunction with the Flood Insurance Rate Map (FIRM).

Flood Hazard Boundary Map (FHBM). An official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the Special Flood Hazard Areas have been defined as Zone A.

Flood insurance. The insurance coverage provided under the National Flood Insurance Program.

Flood Insurance Rate Map (FIRM). An official map of a community, issued by the Federal Emergency Management Agency, on which both the Special Flood Hazard Areas and the risk premium zones applicable to the community are delineated.

Flood Insurance Study (FIS). An examination, evaluation, and determination of flood hazard areas, corresponding water surface elevations (if appropriate), flood insurance risk zones, and other flood data in a community issued by FEMA. The Flood Insurance Study report includes Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), if published.

Floodplain or flood prone area. Any land area susceptible to being inundated by water from any source.

Floodplain Administrator. The individual appointed to administer and enforce the floodplain management regulations.

Floodplain Development Permit. Means any type of permit that is required in conformance with the provisions of this ordinance, prior to the commencement of any development activity.

Floodplain Management. The operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood

control works, floodplain management regulations, and open space plans.

Floodplain management regulations. This chapter and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances, and other applications of police power which control development in flood-prone areas. This term describes federal, state or local regulations in any combination thereof, which provide standards for preventing and reducing flood loss and damage.

Floodproofing. Any combination of structural and nonstructural additions, changes, or adjustments to structures, which reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitation facilities, or structures with their contents.

Flood-resistant material. Any building product (material, component or system) capable of withstanding direct and prolonged contact (minimum 72 hours) with floodwaters without sustaining damage that requires more than low-cost cosmetic repair. Any material that is water-soluble or is not resistant to alkali or acid in water, including normal adhesives for above-grade use, is not flood resistant. Pressure-treated lumber or naturally decay-resistant lumbers are acceptable flooring materials. Sheet-type flooring coverings that restrict evaporation from below and material that are impervious, but dimensionally unstable are not acceptable. Materials that absorb or retain water excessively after submergence are not flood-resistant. Please refer to Technical Bulletin 2, Flood Damage-Resistant Materials Requirements, and available from the FEMA. Class 4 and 5 materials, referenced therein, are acceptable flood-resistant materials.

Flood prone area. See "Floodplain".

Floodway. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

Floodway encroachment analysis. An engineering analysis of the impact that a proposed encroachment into a floodway or non-encroachment area is expected to have on the floodway boundaries and flood levels during the occurrence of the base flood discharge. The evaluation shall be prepared by a qualified North Carolina licensed engineer using standard engineering methods and hydraulic models meeting the minimum requirements of the National Flood Insurance Program.

Flood zone. A geographical area shown on a Flood Hazard Boundary Map or Flood Insurance Rate Map that reflects the severity or type of flooding in the area.

Floor. See "Lowest Floor".

Functionally dependent facility. A facility, which cannot be used for its intended purpose unless it is located in close proximity to water, such as a docking, or port facility necessary for the loading and unloading of cargo or passengers, shipbuilding, or ship repair. The term does not include long-term storage, manufacture, sales, or service facilities.

Freeboard. Means the height added to the Base Flood Elevation (BFE) to account for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, blockage of bridge openings, and the hydrological effect of urbanization of the watershed. The Base Flood Elevation (BFE) plus the freeboard establishes the "Regulatory Flood Protection Elevation."

Hazardous waste management facility. A facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste as defined in NCGS. Ch. 130A, Art. 9.

Highest Adjacent Grade (HAG). The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of the structure.

Historic structure. Any structure that is:

- Listed individually in the National Register of Historic Places (a listing maintained by the US Department of Interior) or preliminarily determined by the Secretary of Interior as meeting the requirements for individual listing on the National Register;
- Certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- Individually listed on a state inventory of historic places;
- Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified by an approved state program as determined by the Secretary of Interior or directly by the Secretary of Interior in states without approved programs.

Certified Local Government (CLG) Programs are approved by the US Department of the Interior in cooperation with the North Carolina Department of Cultural Resources through the State Historic Preservation Officer as having met the requirements of the National Historic Preservation Act of 1966 as amended in 1980.

Letter of Map Change (LOMC). An official determination issued by FEMA that amends or revises an effective Flood Insurance Rate Map or Flood Insurance Study. Letters of Map Change include:

- Letter of Map Amendment (LOMA): An official amendment, by letter, to an effective National Flood Insurance Program map. A LOMA is based on technical data showing that a property had been inadvertently mapped as being in the floodplain, but is actually on natural high ground above the base flood elevation. A LOMA amends the current effective Flood Insurance Rate Map and establishes that a specific property, portion of a property, or structure is not located in a special flood hazard area.
- Letter of Map Revision (LOMR): A revision based on technical data that may show changes to flood zones, flood elevations, special flood hazard area boundaries and floodway delineations, and other planimetric features.
- Letter of Map Revision Based on Fill (LOMR-F): A determination that a structure or parcel of land has been elevated by fill above the BFE and is, therefore, no longer located within the special flood hazard area. In order to qualify for this determination, the fill must have been permitted and placed in accordance with the community's floodplain management regulations.
- Conditional Letter of Map Revision (CLOMR): A formal review and comment as to whether a proposed project complies with the minimum NFIP requirements for such projects with respect to delineation of special flood hazard areas. A CLOMR does not revise the effective Flood Insurance Rate Map or Flood Insurance Study; upon submission and approval of certified as-built documentation, a Letter of Map Revision may be issued by FEMA to revise the effective FIRM.

Light Duty Truck. Any motor vehicle rated at 8,500 pounds Gross Vehicular Weight Rating or less which has a vehicular curb weight of 6,000 pounds or less and which has a basic vehicle frontal area of 45 square feet or less as defined in 40 CFR 86.082-2 and is:

- Designed primarily for purposes of transportation of property or is a derivation of such a vehicle, or
- Designed primarily for transportation of persons and has a capacity of more than 12 persons; or
- Available with special features enabling off-street or off-highway operation and use.

Lowest Adjacent Grade (LAG). The elevation of the ground, sidewalk, patio slab, or deck support immediately next to the building after completion of the building. For Zone A and AO, use the

natural grade elevation prior to construction.

Lowest floor. Means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or limited storage in an area other than a basement area is not considered a building's lowest floor, provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

Manufactured home. A structure, transportable in one (1) or more sections, which is built on a permanent chassis and designed to be used with or without a permanent foundation when connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

Manufactured Home Park or Subdivision. Means a parcel (or contiguous parcels) of land divided into (2) two or more manufactured home lots for rent or sale.

Map Repository. The location of the official flood hazard data to be applied for floodplain management. It is a central location in which flood data is stored and managed; in North Carolina, FEMA has recognized that the application of digital flood hazard data products have the same authority as hard copy products. Therefore, the NCEM's Floodplain Mapping Program websites house current and historical flood hazard data. For effective flood hazard data the NC FRIS website (http://FRIS.NC.GOV/FRIS) is the map repository, and for historical flood hazard data the FloodNC website (http://FLOODNC.GOV/NCFLOOD) is the map repository.

Market value. The building value, excluding the land (as agreed to between a willing buyer and seller), as established by what the local real estate market will bear. Market value canbe established by independent certified appraisal, replacement cost depreciated by age of building (Actual Cash Value) or adjusted assessed values. **New construction**. Structures for which the "start of construction" commenced on or after the effective date of the original Flood Damage Prevention Regulations and includes any subsequent improvements to such structures.

Non-Conversion Agreement. A document stating that the owner will not convert or alter what has been constructed and approved. Violation of the agreement is considered a violation of the ordinance and, therefore, subject to the same enforcement procedures and penalties. The agreement must be filed with the recorded deed for the property. The agreement must show the clerk's or recorder's stamps and/or notations that the filing has been completed.

Nonconforming building or development. Any legally existing building or development which fails to comply with the current provisions of the Flood Damage Prevention Regulations.

Non-Encroachment Area (NEA). The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot as designated in the Flood Insurance Study report.

Obstruction. This term includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and or velocity of the flow of water, or due to its location, its propensity to snare or collect debris carried by the flow of water, or its likelihood of being carried downstream.

Post-FIRM. Construction or other development which started on or after January 1, 1975 or on or after the effective date of the initial Flood Insurance Rate Map for the area, whichever is later.

Pre-FIRM. Construction or other development, which started before January 1, 1975 or before the effective date of the initial Flood Insurance Rate Map for the area, whichever is later.
Principally above ground. Means that at least 51% of the actual cash value of the structure is above ground.

Public safety and/or nuisance. Anything which is injurious to the safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

Recreational Vehicle (RV). A vehicle, which is:

- Built on a single chassis;
- 400 square feet or less when measured at the largest horizontal projection;
- Designed to be self-propelled or permanently towable by a light duty truck; and
- Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.
- Is fully licensed and ready for highway use.
- For the purpose of this chapter, “Tiny Homes/Houses” and Park Models that do not meet the

items listed about are not considered Recreational Vehicles and should meet the standards of and be permitted as Residential Structures.

Reference level. Is the top of the lowest floor for structures within Special Flood Hazard Areas designated as Zones A, AE, AH, AO, A99. The reference level is the bottom of the lowest horizontal structural member of the lowest floor for structures within Special Flood Hazard Areas designated as Zone VE.

Regulatory flood protection elevation. The "Base Flood Elevation" plus "Freeboard". In "Special Flood Hazard Areas" where Base Flood Elevations (BFE's) have been determined, this elevation shall be the BFE plus four (4) feet freeboard. In "Special Flood Hazard Areas" where no BFE has been established, this elevation shall be at least two (2) feet above the highest adjacent grade.

Remedy a violation. To bring the structure or other development into compliance with state or community floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of this chapter or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

Retrofitting. Measures, such as floodproofing, elevation, construction of small levees, and other modifications, taken on an existing building or its yard to protect it from flood damage.

Riverine. Relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Salvage yard. Property used for the storage, collection, and/or recycling of any type of equipment whatsoever, whether industrial or noncommercial, and including but not limited to vehicles, appliances and related machinery.

Special Flood Hazard Area (SFHA). The land in the floodplain subject to a one percent (1%)or greater chance of being flooded in any given year.

Solid waste disposal facility. Means any facility involved in the disposal of solid waste, as defined in NCGS 130A-290(a)(35).

Solid waste disposal site. Defined as in NCGS 130A-290(a)(36).

Start of construction. Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition

placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footings, installation of piles, construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

Structure. A walled and roofed building, a manufactured home, a gas or liquid storage tank that is principally above ground.

Substantial damage. Damage of any origin sustained by a structure during any one year period whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred. See definition of "substantial improvement".

Substantial improvement. Any combination of repairs, reconstruction, rehabilitation, addition, or other improvement of a structure, taking place during any one year period whereby the cost of which equals or exceeds 50% of the market value of the structure before the "start of construction" of the improvement. This term includes structures, which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

- Any correction of existing violations of state or community health, sanitary, or safety code specifications which have been identified by the community code enforcement official and which are the minimum necessary to assure safe living conditions; or
- Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

Technical Bulletin and Technical Fact Sheet. A FEMA publication that provides guidance concerning the building performance standards of the NFIP, which are contained in Title 44 of

the U.S. Code of Federal Regulations at Section 60.3. The bulletins and fact sheets are intended for use primarily by State and local officials responsible for interpreting and enforcing NFIP regulations and by members of the development community, such as design professionals and builders. New bulletins, as well as updates of existing bulletins, are issued periodically as needed. The bulletins do not create regulations; rather they provide specific guidance for complying with the minimum requirements of existing NFIP regulations.

It should be noted that Technical Bulletins and Technical Fact Sheets provide guidance on the minimum requirements of the NFIP regulations. State or community requirements that exceed those of the NFIP take precedence. Design professionals should contact the community officials to determine whether more restrictive State or local regulations apply to the building or site in question. All applicable standards of the State or local building code must also be met for any building in a flood hazard area.

Temperature Controlled. Having the temperature regulated by a heating and/or coolingsystem, built-in or appliance.

Variance (FDPO). A grant of relief from the requirements of the Flood Damage Prevention Regulations.

Violation. The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Articles D and E is presumed to be in violation until such time as that documentation is provided.

Watercourse. A lake, river, creek, stream, wash, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

Water Surface Elevation (WSE). The height, in relation to NAVD 1988, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

5.3.4 OPEN SPACE STANDARDS FOR CONSERVATION SUBDIVISIONS

5.3.4.1 APPLICABILITY

The provisions of this section shall apply to all Conservation Subdivisions. See Section 5.3.5 for other open space standards not relating to Conservation Subdivisions.

5.3.4.2 OPEN SPACE ALLOCATION

In the AR District, a minimum of fifty percent (50%) of the gross acreage of the tract will be required to be retained as conservation land. Conservation land in excess of the fifty percent (50%) minimum, while not required by the Ordinance, may be set aside at the property owner's discretion. In the RR District, a minimum of thirty-three percent (33%) of the gross acreage of the tract will be required to be retained as conservation land.

An example of this in the AR District is as follows:

The tract upon which a conservation subdivision is to be located has a gross area of 100 acres. Forty (40) acres of the tract consists of primary conservation lands. The remaining sixty (60) acres consists of forty (40) acres of farmland and twenty (20) acres of forestland.

In order to meet the minimum regulations for retaining conservation lands, all forty (40) primary conservation land acres would be retained. Ten (10) additional acres of secondary conservation lands would also be retained, this consisting entirely of forestlands (i.e. the secondary conservation land use category having the highest priority.) Thus, development would be allowed on the remaining fifty (50) acres.

5.3.4.3 IDENTIFICATION OF OPEN SPACE AND CONSERVATION AREAS

5.3.4.3.2 EXISTING FEATURES PLAN

1. As part of the Sketch Plan phase for residential development, the conservation areas outlined in this Section shall be identified in order to establish the optimum locations of open space.

2. An an Existing Features Plan shall accompany the Sketch Plan and identify and provide a comprehensive analysis of existing conditions on the development site, and within 500 feet of site. Conditions beyond the parcel boundaries may be described on the basis of existing published data available from governmental agencies and from aerial photography. This map typically may be prepared at a scale of 1 inch = 100 feet or a scale that allows a map size of 24 inches × 36 inches. Existing resources and site analysis

map shall be prepared by a registered architect, registered landscape architect, and/or registered engineer, and shall depict the following information:

- Aerial photograph at a scale not less than 1 inch = 400 feet, with site boundaries clearly marked;
- Topography with five-foot contour intervals, unless a smaller interval is required by the Administrator following the pre-planning site visit;
- Slopes 15-25% and those exceeding 25% shall be clearly indicated. For major subdivisions (four or more lots),topography shall be prepared by a professional land surveyor or professional engineer from an actual field survey of the site or from stereoscopic aerial photography coordinated with official USGS benchmarks or may be obtained from the Administrator;
- Ponds, streams, ditches, drainage swales, 100-year flood hazard zone, 100-year floodplain, springs and wetlands (additional areas of wetlands on the subdivision parcel also shall be indicated as evident from visual inspection, testing, or the presence of wetland vegetation);
- Vegetative cover such as cultivated land, grasslands, meadows, pastures, old cropfields, woodlands, hedgerows, and the actual canopy line of trees and woodlands. Describe vegetative types by plant community, and condition;
- Stands of trees that comprise a contiguous area of one-half (1/2) acre or greater shall be delineated and identified. For each stand, a stand table shall be prepared by a registered landscape architect or a certified arborist. The stand table shall provide estimates of the number of trees by species and by two-inch DBH classes using standard, professionally accepted sampling methods. The applicant shall also provide an estimate of the average basal area per acre for each stand;
- Soil series, types and phases as mapped by US Department of Agriculture, Natural Resources Conservation Service in the published soil survey for the county, and accompanying data published for each soil relating to its suitability for construction and, in unsewered areas, for septic suitability;
- Ridgelines and watershed boundaries;
- View corridors showing location and extent of views into the property from public roads;
- Geologic formations including rock outcroppings, cliffs;
- All existing human-made features such as streets, driveways, farm roads, forest trails, buildings, foundations, walls, wells, drainage fields, dumps, utilities and utility easements, fire hydrants, storm and sanitary sewers;
- All public lands or easements, including existing greenway facilities and lands identified

in the greenway network plan;
- Locations of all historically significant sites or structures such as stone walls, earthworks, burial graves, barns, and farmhouses;
- Locations of trails that have been in public use (pedestrian, equestrian, bicycle, etc.); and
- Easements and other encumbrances of the property.

5.3.4.3.1 PRIMARY CONSERVATION AREAS

The following areas shall be considered primary conservation areas and shall be preserved first in designating areas for required open space:

- Land within riparian buffers on perennial and intermittent streams as required NCDEQ;
- Wetlands and buffers of 50 feet from edge of wetland;
- Areas within a 100-year floodplain (special flood hazard areas);
- Non-regulated isolated wetlands and depressions that accommodate ephemeral pools;
- Natural Heritage Areas (NHNA) as defined by the National Heritage Program;
- Areas within a Natural Heritage Element Occurrence (NHEO) as defined by the National Heritage Program; and
- Areas identified by the Biodiversity and Wildlife Habitat Assessment (BWHA) by the National Heritage Program.

5.3.4.3.2 SECONDARY CONSERVATION AREAS

The following areas shall be considered secondary conservation areas and shall be preserved after all primary conservation areas have been used towards meeting minimum open space requirements.

- Buffers within 100 feet of a designated wetland or perennial stream;
- Areas within a 500-year floodplain;
- Areas adjacent to existing preserved, or managed open space areas;
- Mature forest of at least one contiguous acre;
- Unfragmented forest areas that comprise any portion of a 50 acre or more forest block;
- Wildlife corridors of a minimum of 150 feet in width that connect to NHNAs, NHEOs, BWHA areas, wetlands, or floodplains;
- Greenways as shown on adopted Town and County plans;
- Slopes of greater than 10%;
- Rock outcroppings and a 200 foot protection area;
- Farmland within a present use value program and a 200 foot buffer area; and
- Areas with sensitive soils including Armenia loam (Ar), Altavista sandy loam (AaB), Chewalca sandy loam (Ch), Iredell loam (IdA), Sedgefield sandy loam (SfB) and Wednadkee (We).

5.3.4.4.3 TERTIARY CONSERVATION AREAS

The following areas shall be considered tertiary conservation areas and shall be preserved after all primary and secondary conservation areas have been used towards meeting minimum open space requirements:

- Land with cultural or historic significance;
- Viewsheds (contributes to rural view from public roadway);
- Heritage trees (existing healthy individual trees greater than 12 inches DBH);
- Undeveloped land and tree save areas;
- Farmland of statewide importance; and
- Agricultural uses and pollinator gardens.

5.3.4.4.4 OTHER OPEN SPACE AREAS

The following areas that are not primary, secondary, or tertiary conservation areas may be used to meet remaining minimum opens space requirements:

- Passive recreational areas including squares, greens, or parks; and
- Active recreational areas including playgrounds and recreation amenity centers.

5.3.4.4.5 CONFIGURATION OF OPEN SPACE

The minimum standards for open space configuration are outlined below:

A. The minimum width for any open space is 25 feet. Access from a public or private street shall be provided to all designated open space with a minimum 15 foot wide access to the open space area.

B. At least 60% of open space shall be contiguous. For the purposes of this section, contiguous includes any open space bisected by a local street, provided that:

   1. A pedestrian crosswalk provides access to the open space on both sides of the street; and

   2. The right-of-way area is not included in the calculation of minimum open space required.

C. Where feasible, the open space should adjoin any neighboring areas of open space, other protected areas, and non-protected natural areas.

D. Open space should be directly accessible to the largest practicable number of dwelling units within the development.

E. No lot shall be more than one quarter (1/4) mile from open space, as measured in a straight line from the lot line to the nearest point of open space.

F. Area within a floodway, as defined by this Ordinance and shown on the most recent Flood Rate Insurance Maps (FIRM), shall not be counted towards meeting the minimum open space requirements. A maximum of 75% of the required open space shall be located within a primary conservation area or a slope of greater than 25%.

5.3.4.5 OPEN SPACE TYPES

All open space used to meet the minimum requirements of this section shall be classified as one (1) or more of the following categories and be classified as private common area open space or public open space. The sketch plan should be used as a guide by the developer and Administrator to determine the most appropriate open space type and location, based upon the primary, secondary, and tertiary conservation areas outlined in Section 5.3.4.3. In addition to the Town's Comprehensive Plan, other trail, parks and recreation, and open space plans shall be considered when evaluating the most appropriate open space type.

5.3.4.5.1 NATURE PRESERVE

The nature preserve open space type shall be used for the conservation of primary and secondary conservation areas. Areas designated as nature preserves shall be left largely undisturbed except for the optional clearing of underbrush for the provision of a walking trail. Nature preserves are also the encouraged open space type for tertiary conservation areas that consist of tree conservation areas and scenic viewsheds such as ridge lines, field borders, meadows, fields, stream views, and natural woodlands that can be seen from roadways.

5.3.4.5.2 GREENWAY

Greenways are large, irregular open spaces designed to incorporate natural settings while connect points of interest in a community such as schools, parks, civic uses, and, in some cases, conservation areas. Greenways shall be used for, at a minimum, trails for walking, jogging, and biking. If land proposed for development within an area designated for a greenway on adopted Town and County plans, then a greenway right-of-way or easement shall be set aside, and a greenway constructed by the developer in accordance with the requirements of Section 5.6.4.

5.3.4.5.3 GREENBELT

Greenbelts typically run along the perimeter of a neighborhood, and serve to buffer a neighborhood from surrounding incompatible uses such as a highway corridor or industrial district, or a developed area from agricultural areas or adjacent communities. Greenbelts can also provide a valuable wildlife corridor between primary and secondary conservation areas. Greenbelts are wider and provide more existing natural vegetation than any buffer yard required as part of Section 5.4.6. Greenbelts differ from greenways in that they are left natural, and are not intended for recreational use. A greenbelt shall have an average width of not less than 40 feet in order to count towards the minimum open space requirement.

5.3.4.5.4 AGRICULTURAL PRESERVE

Open spaces designated as agricultural preserves shall be used for active farming in the form of crop cultivation, the keeping of livestock, or equestrian facilities as secondary and tertiary conservation areas. Agricultural preserves are encouraged to protect areas of agricultural and rural heritage and promote compatible active agricultural operations. If farming operations cease, an agricultural preserve may be used as a nature preserve or greenbelt.

5.3.4.5.5 RECREATIONAL AMENITY CENTER

Recreational amenity centers are intended for active recreational use and may include swimming pools, splash pads, tennis courts, and similar uses. Recreational amenity centers shall be centrally located to the residences that they serve.

5.3.4.5.6 SQUARE OR GREEN

Squares or greens are primary intended for passive recreational use and may have monuments, pavilions, sitting areas. Squares or greens shall be bounded by streets on a minimum of 50% of their perimeter. Squares or greens are encouraged to be entirely bounded by streets, lanes, or buildings. Squares and greens shall be planted parallel to all streets and shall contain canopy trees along street frontages.

5.3.4.5.7 PARK

Parks may be designed for passive and/or active recreational use. Parks shall be bounded by streets on a minimum of 10% of their perimeter. Large parks should create a central open space which services an entire neighborhood or group of neighborhoods; or incorporates physical features which are an asset to the community (i.e. lake or river frontage, high ground, significant stands of trees). Undergrowth should be limited and landscaping shall be installed in a manner that promotes attractiveness and safety. Parks may be combined with greenways and greenbelts and may include golf courses and community gardens.

5.3.4.5.8 PLAYGROUND

Playgrounds are for active recreational use and provide sunny and shaded play equipment and play areas for children as well as open shelter with benches. Playgrounds may be part of other types of open space, such as parks or recreational amenity centers, or may stand alone.

5.3.4.6 USE OF OPEN SPACE

5.3.4.6.1 ALLOWED USES OF OPEN SPACE

Unless otherwise stated, open space intended to achieve the performance standard may be used for the following:

- Conservation areas for natural, archaeological or historic resources;
- Meadows, woodlands, wetlands, wildlife corridors, game preserves, or similar conservation-oriented areas;
- Pedestrian or multi-purpose trails;
- Passive recreation areas;
- Active recreation areas, provided that impervious area is limited to no more than 10% of the total open space for the development; Golf courses may be used to meet open space requirements, however, they shall not be permitted in required conservation areas for Conservation Development.
- Water bodies, such as lakes, pond and floodways, provided that the total surface area does not exceed 50% of the total open space for the development;
- Crop production, community garden;
- Stormwater control measures, provided that area does not exceed 25% of the total open space for the development and the stormwater control measure is designed as a pond amenity of greater than one-half (1/2) acre or greater, is surrounded by open space, and is accessible to all residents;
- Easements for drainage, access and underground utilities; and
- Equestrian uses and trails subject to Section 5.3.4.6.2 below.

5.3.4.6.2 EQUESTRIAN TRAILS

In Conservation Developments, up to 20% of the required conservation land acreage may consist of conservation easements on land which is not designated as "conservation land", as long as all such land is:

- Specifically designated for "Equestrian Trail" Use in the Conservation Easement and on the final plat;
- Subject to all access and maintenance provision that would otherwise apply to Conservation Land; and
- Not considered to be part of any building lot upon which such conservation easements exist for the purpose of calculating setbacks or minimum lot area.

5.3.4.6.3 PROHIBITED USES OF OPEN SPACE

Open space intended to achieve the performance standard shall not be used for the following:

- Individual conventional wastewater disposal systems (excluding innovative systems);
- Overhead electric transmission lines or high voltage electric transmission lines; and
- Streets and impervious parking areas.

5.3.4.7 OPEN SPACE DEDICATION, OWNERSHIP, AND MAINTENANCE

5.3.4.7.1 DEDICATION, OWNERSHIP, AND MAINTENANCE IN CONSERVATION DEVELOPMENTS

A. Subject to the provisions of Subsections B and C below, required conservation lands may be retained by the applicant or may be conveyed to another party, but must be and remain subject to a conservation easement. Nothing herein shall restrict the legislative zoning authority of the Town Council.

B. Required conservation land shall be subject to a conservation easement that specifies the range of uses allowable, pursuant to Section 5.3.4.6, and which are enforceable in accordance with all applicable laws of the State of North Carolina. There shall be at least two holders of every easement, except as provided in Subsection C below. The holders of the conservation easement shall be the State of North Carolina or appropriate department or agency thereof, or one or more conservation organizations, in any combination of two or more, except as provided in Subsection C below. Enforcement of the terms of the conservation easement shall be in accordance with applicable North Carolina law. The proposed Preliminary Plat shall indicate that required conservation lands are subject to a conservation easement being conveyed to specific entities pursuant to this section.

C. Upon demonstration by the applicant that efforts to comply with Subsection B above have been exhausted and pursued in good faith, but have failed to result in the execution of a valid conservation easement by two (2) qualified holders, the applicant shall enter into either:

1. A conservation easement to be held by the State of North Carolina, or appropriate department or agency thereof;

2. Held by a conservation organization approved by the Town Council, if the State will not agree to be the conservation easement holder;

3. Held by a homeowners association, subject to Subsection E below; or

4. Other appropriate easement holder approved within the discretion of the Town Council.

D. To the extent possible, any combination of two (2) or more of the above listed easement holder is preferable.

E. Any homeowners association that is a holder of a conservation easement as provided in Subsection C above, shall be subject to and comply with all applicable requirements for homeowners' associations as set forth in North Carolina General Statutes. In addition, the following criteria shall be met:

1. The applicant for conservation subdivision approval shall provide the Town a description of the organization of the proposed association, including its by-laws, and all documents governing ownership, maintenance, and use restrictions for common facilities;

2. The proposed homeowners' association shall be established by the conservation subdivision applicant and shall be operating (with financial underwriting by the applicant, if necessary) before the sale of any dwelling units in the development;

3. Membership in the homeowners' association shall be mandatory for all purchasers of lots within the conservation subdivision and their successors in title;

4. The homeowners' association by-laws shall confer legal authority on the association to place a lien on the real property of any member who falls delinquent is his dues. Such dues shall be paid with the accrued interest before the lien may be lifted;

5. The homeowners' association shall annually provide to the Town a listing of the names, addresses, and telephone numbers of all their officers and board members; and

6. Any proposed changes to the conservation easement that substantively affect

the usage, location, or maintenance of conservation land within the conservation subdivision must first be consented to and approved by the Mineral Springs Town Council.

F. The cost and responsibility of maintaining required open space shall be borne by the fee simple owner of the required conservation lands, or by another party as specified in an executed, binding, and enforceable Maintenance Agreement, who is a holder of the conservation easement.

G. The applicant must submit, with an application for Preliminary Plat approval, a Maintenance Agreement that obligates either the property owner of the open space, or other specified party as provided above, to implement the Maintenance Plan.

H. The Maintenance Plan shall be submitted with an application for Preliminary Plat approval of the subdivision, and shall be in accordance with the following requirements:

1. The Maintenance Plan shall specify ownership of required open space;

2. The Maintenance Plan shall establish a regular operation and maintenance program appropriate to the uses to be undertaken on the subject open space;

3. The Maintenance Plan shall specify required insurance and all maintenance and operating costs, and shall define the means for funding the Maintenance Plan on an on-going basis. Such funding plan shall include the means for funding long-term capital improvements as well as regular yearly operating and maintenance costs;

4. The property owner or other specified party as provided above shall be required to escrow or bond sufficient funds for the maintenance and operation costs of the open space for two years. The amount of such escrow or bond shall be equal to one and one-half (1.5) of the biannual estimated maintenance and operational costs;

5. Any changes to the Maintenance Plan shall be approved by the Town Council;

6. In the event that open space and associated common facilities are not maintained in accordance with the approved Maintenance Plan, the Town may recover the escrow or bond funds to be used for such maintenance and any development permits and approvals may be revoked or suspended; and

7. The property owner of the open space and, if utilized, any other maintaining party by agreement, shall execute a release and indemnity of the Town, in a form satisfactory to the Town, for any claims or damages arising from the Maintenance Agreement and Maintenance Plan or performance thereof.

5.3.5 DEDICATION OF LAND AND/OR FEES IN LIEU OF PARK, RECREATION, AND OPEN SPACE PURPOSES

5.3.5.1 APPLICABILITY

At least one thirty-fifth (1/35) of an acre shall be dedicated for each dwelling unit planned or proposed in the subdivision plat or development. The minimum amount of land which shall be dedicated for a public park, recreation, or open space site shall be no less than two (2) acres in size. When the area to be provided is less than two (2) acres, the subdivider shall be required to make payment in lieu of the dedication, to be used for the acquisition or development of recreation, park, or open space sites which would serve the needs of the residents of the subdivision, subject to Section 5.3.5.3. The provisions shall also apply to all new residential development of more than 10 dwelling units that do not involve the subdivision of land.

5.3.5.2 DEDICATION OF LAND

1. Every subdivider who proposes a subdivision of land for residential purposes shall dedicate a portion of land or pay a fee in lieu thereof, in accordance with this Section, for public park, greenway, recreation, and open space sites to serve the recreational needs of the residents of the subdivision or development.

2. Except as otherwise required by the Town Council at the time of preliminary plat approval, all dedications of land shall meet the following criteria:
   - The dedicated land shall form a single parcel of land, except where the Town Council determines that two or more parcels would be in the best interest of the public, given the type and distribution of open spaces needed to adequately serve the proposed development. In such cases, the Town Council may require that such parcels be connected by a dedicated strip of land at least thirty (30) feet in width.
   - Two-thirds (2/3) of the dedicated land shall be useable for active recreation. Furthermore, lakes and other bodies of water may not be included in computing any of the dedicated land area.
   - The shape of the portion of dedicated land which is deemed suitable for active recreation shall be sufficiently square or round to be usable for any or all recreational facilities

and activities, such as athletic fields, playgrounds, and tennis courts, when a sufficient amount of land is dedicated to accommodate such facilities. Land dedicated only for greenways need not follow the requirements of this sub-section.

- The dedicated land shall be located so as to reasonably serve the recreation and open space needs of residents of the subdivision. Land abutting any town-owned property shall be prioritized for acceptance as the dedicated land.
- Public access to the dedicated land shall be provided either by adjoining public street frontage or by a dedicated public easement, at least thirty (30) feet wide, which connects the dedicated land to a public street or right-of-way. Gradients adjacent to existing and proposed streets shall allow for reasonable access to the dedicated land. Where the dedicated land is located adjacent to a street, the developer or subdivider shall remain responsible for the installation of utilities, sidewalks, and other improvements required along that street segment. Public access or dedicated walkways to greenway dedications only shall be at least twenty (20) feet wide.
- The average slope of the portion of dedicated land deemed usable for active recreation shall not exceed the average slope of the entire subdivision to be developed. In no case shall a slope on the usable portion of dedicated land exceed fifteen (15) percent.
- Dedicated parks, recreation, and open space areas shall have sufficient natural or manmade buffer or screen to minimize any negative impacts on adjacent residents.
- The Town Council shall have the authority to accept or reject land dedications made as a requirement of this Section.

5.3.5.3 PAYMENTS OF FEES IN LIEU OF LAND DEDICATION

A. The payment of fees, in lieu of the dedication of land under Section 5.3.5.2 above, may occur at the request of the subdivider or developer. However, the decision to require the dedication of land for recreational purposes, or a payment of a fee in lieu, shall be made by the Town Council after having received a recommendation from the Planning Board and having evaluated the proposed dedication and the relationship such dedication would have with the Town's overall recreational needs.

The Planning Board shall have the right to approve any preliminary plat except for those plats that would require two acres or greater of land to be dedicated for recreational purposes. In those instances, preliminary plat approval and the decision to either accept land for recreational purposes or fee in lieu of shall rest with the Town Council.

B. Time of Payment. The fees in lieu of dedication shall be paid prior to final plat approval by the Town Council.

C. Amount of payment. The amount of the payment shall be the product of:

1. The number of acres to be dedicated, as required by Section 5.3.5.2 above.
2. The assessed value for property tax purposes of the land being subdivided, adjusted to reflect its current fair market value at the time such payment is due to be paid.

A. Procedures for determining the amount is as follows:
   1. An appraisal of the land in the development shall be performed by a professional land appraiser selected by the developer and approved by the Town Council. The appraisal shall not be done prior to submission of the preliminary plat. The cost of the appraisal shall be borne by the developer.
   2. Professional land appraiser refers to a land appraiser who, in the opinion of the Town Council, has the expertise and/or certification to perform an adequate appraisal.

5.4 TREE PRESERVATION, LANDSCAPING, & SCREENING STANDARDS

5.4.1 PURPOSE

A. Tree Protection and landscaping are essential components of the built urban form of the Town. The purpose of this section is to regulate the protection, preservation, installation, and long-term management of trees, shrubs, and environmental landscaping within the Town of Mineral Springs.

B. Existing trees should be retained to preserve the established tree canopy and to aid in preserving ecological balance by contributing to the preservation of wildlife habitat, the promotion of natural diversity, air quality, groundwater recharge, energy conservation, and storm water runoff, while reducing noise, glare, and heat. Existing vegetation should be retained in order to create an appropriate balance between the built environment and the preservation of existing tree canopy. To preserve and improve property values and promote private and public investment through the preservation and protection of existing tree canopy, providing transition between incompatible uses, and along roadways. To protect the identity and character of Mineral Springs and to enhance the business economy. To enhance the ecological, aesthetic, and economic value by having ample vegetation, especially healthy shade trees, specimen trees, significant vegetation, and tree canopies. To recognize the economic and environmental value gained from the preservation of existing healthy vegetation and undisturbed soils.

C. Existing vegetation should be retained to promote water conservation through preserving natural areas, encouraging good soil management and encouraging the use of native and drought tolerant plant materials.

D. Through the protection of trees and existing vegetation, the Town encourages new development to be creative in design and placement of buildings, structures, parking and other impervious surfaces as to preserve natural features and to compliment the existing topography when practical.

5.4.2 APPLICABILITY

The regulations of this Section shall apply as follows:

5.4.2.1 NEW DEVELOPMENT

These regulations shall apply to all property owners/developers proposing new development and to the continued maintenance of all landscapes that were part of a tree/landscape plan required by this Article effective December 14, 2007.

5.4.2.2 EXPANSIONS

These regulations shall apply to all expansion or changes in use which result in the expansion of gross floor area of an existing building and/or parking and loading area of over 25%. Uses which expand over 25% shall be brought into full compliance for the entire project. All development plans shall comply with the provisions of this Section.

5.4.2.3 CHANGE OF USE

If the use for an existing parcel changes in classification or intensity (non-conforming use to a conforming use, residential to commercial, office to retail, or retail to industrial), then the parcel shall comply with the landscaping requirements of this Article.

5.4.2.4 FLEXIBILITY IN ADMINISTRATION

Where necessary to accommodate creativity in site design, or where topographic or physical site conditions make strict adherence not feasible, the Administrator, under the direction of a certified arborist, may modify these requirements, provided that the type and amount of landscaping or other features are equivalent in effectiveness and meet the performance criteria of the purpose and intent of these standards.

5.4.2.5 EXEMPTIONS

These regulations shall not apply to single-family residential properties, except for the continued maintenance of all landscapes that were part of a tree/landscape plan required by this Article effective December 14, 2007.

5.4.3 TREE PRESERVATION & PROTECTION

5.4.3.1 RESPONSIBILITY OF THE ADMINISTRATOR

The Administrator shall review all request for removal, trimming or cutting of trees in public areas and required plantings for landscaping and screening on private property. The Administrator shall also administer all the provisions of this Section to guaranty that adequate trees and vegetation have been preserved. The Administrator shall oversee and make sure that all development is consistent with approved plans, including trees that have been designated to be saved.

5.4.3.2 CONTRACT ARBORIST

The Administrator shall have the authority to contract or require an applicant or property owner to contract services from a Town approved arborist on a case by case basis for the purpose of education, review, or recommendations pertaining to preservation, protection, removal, cutting, pruning, planting, soils, dangers, and diseased and infected trees and their treatment or removal. A list of approved arborists may be obtained from the Town.

5.4.3.3 REMOVAL OF TREES

The Administrator shall have the authority to approve the removal of trees upon public or private property only if one of the following criteria is met:

A. The tree(s) are in advanced state of decline, dead, irreparably damaged, hazardous, creating damage to public or private property, or has a strong potential of creating damage to public or private property as determined by a certified arborist, horticulturist, or landscape architect.

B. The tree(s) are located where an infrastructure improvement or structure which complies with all applicable codes is to be located and the applicant has made all reasonable efforts to relocate the infrastructure improvement or structure in order to preserve the tree(s).

C. In order to preserve the tree(s), it would render at least 25% of the parking, structure, or property unusable or unbuildable.

5.4.3.4 PRE-CONSTRUCTION CONFERENCE

Prior to the commencement of any activities requiring a non-residential zoning permit, an on-site pre-construction conference shall take place with the developer, a Town approved arborist and the Administrator to review procedures for the protection and management of all protected landscape elements identified on the landscape protection plan.

5.4.3.5 PROTECTION DURING SURVEYING OR SPECULATIVE GRADING

No tree greater than 12 inches in diameter at breast height (DBH) located on public property or within a required tree protection area shall be removed for the purpose of surveying or speculative grading without an approval from the Administrator.

5.4.3.6 TREE TRIMMING, LIMBING, TOPPING, & REMOVAL

A. Any tree on public property, designated right-of-ways, required tree save areas, landscaping, and screening may be trimmed to up to 25% of its overall canopy unless otherwise approved by the Administrator. All ornamental trees and shrubs shall be trimmed to horticultural standards and shall reach at least 85% of their natural height, spread, and form.

B. Raising the canopy of a tree shall not exceed 50% of the overall height of the tree. On understory and small canopy trees limbs may be removed within 12 feet from grade to ensure safe passage of pedestrians and vehicles.

C. Tree topping shall be prohibited on all trees on public property, designated rights-of-way, required tree save areas, landscaping and screening.

D. The Administrator shall approve the removal of trees that are dead, infected by disease, or determined to be a hazard to public safety and welfare. In rendering a decision the Administrator may seek the services of a certified arborist. Should any tree designated in a tree save area, required landscaping, or screening die, the owner shall replace it within 180 days with a tree (s) of equal size.

5.4.3.7 TREES ON PUBLIC PROPERTY, RIGHT OF WAYS, AND UTILITY EASEMENTS

The Town is authorized to remove and/or trim trees and shrubs from public properties, public rights-of-ways, and public utility easements. North Carolina Department of Transportation (NCDOT) is authorized to remove and or trim trees and shrubs in the public right of ways owned by the State of North Carolina. All other trimming, cutting, removal, or treatment of a tree in any public right-of-way or on public property requires approval from the Administrator when applicable. Trees designated for removal must be dead, diseased, irreparably damaged, hazardous, creating potential danger to public or private property, or public utilities.

5.4.3.8 LAND SUITABILITY

Existing vegetation shall be preserved whenever feasible. The decision to preserve trees shall be made jointly by the Administrator, developer and the contract arborist during the project approval process. The need to preserve significant vegetation should be focused within primary and secondary conservation areas identified by the Existing Features Plan.

5.4.3.9 TREE SAVE AREAS

Trees and existing vegetation shall be preserved on development sites in accordance with this Section. Exceptions to tree protection in the additional tree areas shall be reviewed by the approving authority on a case-by-case basis.

A. Required Tree Save and Protection Areas

The following areas shall be designated tree save areas where trees and existing vegetation shall be preserved:

1. Stream Buffers and wetlands in accordance with Section 5.3.2;

2. 100-year floodplains in accordance with Section 5.3.3; and

3. Adjacent to drainage and stormwater management areas.

B. Additional Tree Save and Protection Areas

The following areas shall be designated tree save areas where trees and existing vegetation shall be preserved, unless no alternative exists as determined by the decision making authority:

1. Required buffers and landscape areas in accordance with Section 5.4.4;

2. Required open space designated as nature preserve or greenbelt in accordance with Section 5.3.4.5;

3. Slopes of greater than 15%;

4. All canopy trees 12” DBH or greater; and

5. All ornamental trees 4” DBH or greater (dogwood, redbud, holly, ironwood, etc.).

5.4.3.10 PROTECTIVE MEASURES DURING CONSTRUCTION

A. Protective barricades shall be placed around all protected trees designated to be saved prior to the start of development activities or grading. Protective barricades shall remain in place until development activities are completed. The area within the protective barricade shall remain free of all building materials, dirt or other construction debris, construction traffic, storage of vehicles and materials, and grading shall not take place within one (1) foot of the drip line of the existing trees to be protected. Barricades shall be erected one (1) foot past the drip line for any tree to be saved or tree save areas.

B. Except for driveway access points, sidewalks curb and gutter; no paving with concrete or other impervious materials within five (5) feet of a tree drip line shall be allowed unless otherwise approved.

C. Barricades may consist of 2”x 4” posts with 1”x 4” rails, orange safety fence, or a similar treatment and shall remain in place until development activities are complete.

D. Construction access to a site should occur where an existing or proposed entrance/exit is located.

E. Where grading within a tree dripline cannot be avoided, cut and fill shall be limited to 1/3 of the area within the dripline, and tree roots must be pruned with clean cuts at the edge of the disturbed area. (No fill shall be placed within the dripline of a tree without venting to allow air and water to reach the roots.)

5.4.4 GENERAL STANDARDS FOR ALL LANDSCAPING

A. A landscaping plan shall be submitted as part of the site plan or subdivision submittal, as required in Article 3, for any new or expanding development.

B. The preservation of existing vegetation and natural features is encouraged. Significant trees, forest stands, natural vegetation, specimen trees, severe natural topography, drainage features and water courses are encouraged to be preserved to the extent that is reasonable and practical while otherwise not reasonably prohibiting development. Tree save areas required in accordance with Section 5.4.3.9 are encouraged in required landscaping areas.

C. In cases where an existing, landscaped or vegetated area is located on the same property as the proposed development, further plantings and or improvements shall not be required so long as existing vegetation is of sufficient width and contains adequate materials to meet the requirements of this Ordinance. If the landscaped or vegetated area is deficient, the developer shall make needed improvements and/or additions to satisfy the landscaping requirements and intent of this Ordinance.

D. No structure other than a wall, fence, sidewalk, mailbox, sign, light fixture, or perpendicular driveway access point shall be permitted within a required landscaping area. No off-street parking may take place in any required landscaping area. Where plant materials are required, the required amount of plant materials shall be installed on the side of any wall or fence opposite the new development.

E. Within 30 feet of overhead utility lines, two (2) small trees shall be used in lieu of each large tree required. Such small trees shall not reach a mature height of greater than 15 feet.

F. At least 25% of all required trees and 75% of the required shrubs shall be evergreen species.

G. No landscaping feature shall impede sight lines of traffic within the sight triangle as defined in Section 5.2.1 (E).

H. All diagrams in this Section are for illustrative purposes only.

5.4.5 LANDSCAPING TYPES

The provisions of this Section are designed to specifically address the application of landscape resources to varying styles of development and the impact of such applications on the appearance, health and financial well-being of the community. The provisions are broken into six (6) landscaping and screening categories:

- Buffer Yards
- Street Yards
- Parking Lot Yards
- Building Yards
- Screening Yards
- Residential Lot Yards

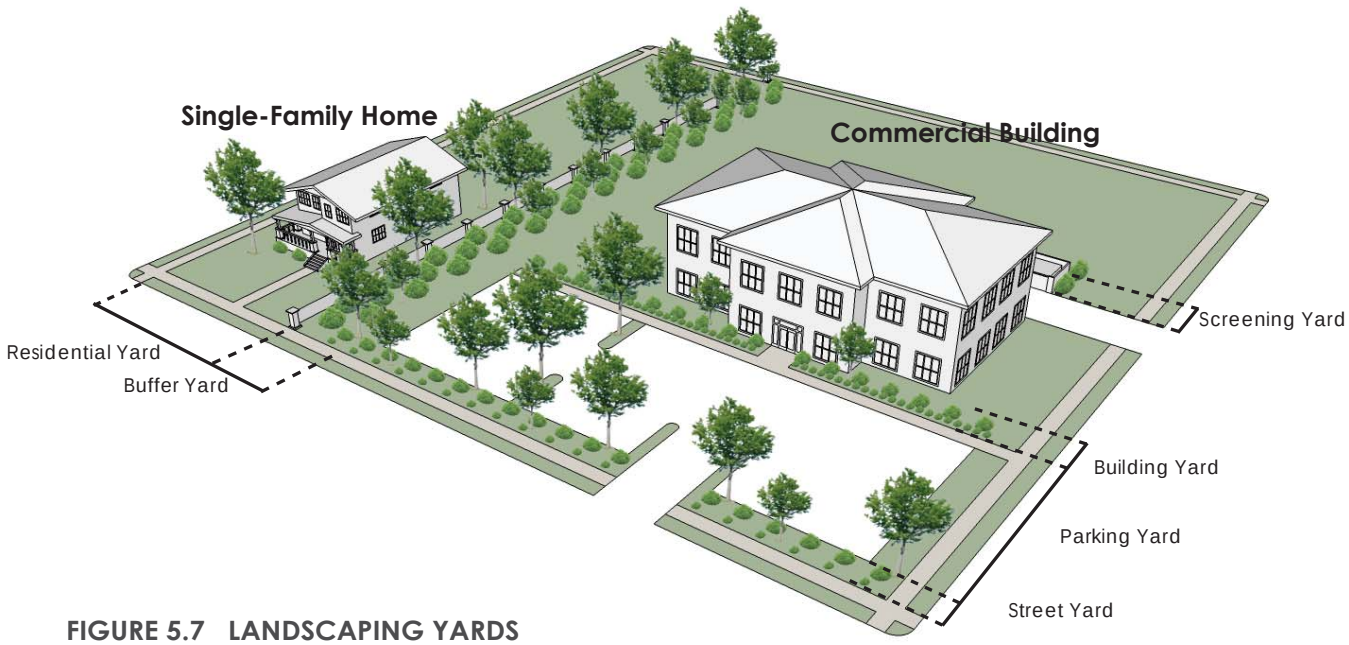


FIGURE 5.7 LANDSCAPING YARDS

5.4.6 BUFFER YARDS

A. Buffer yards area intended to separate higher intensity and lower intensity uses and districts. Buffers shall be measured from the subject property line into the site to be developed. All required buffer yards shall abut the subject property line. Required buffer yard width shall not decrease the required building setback for each zoning district as set forth in Section 5.2.

B. Buffer yards shall function as opaque visual screens with a minimum height of six (6) feet. The arrangement of trees and shrubs shall be done in a manner that provides a visual separation between abutting land uses.

C. Generally, the responsibility for screening is that of the more intense land use. However, new developments with a less intense use being constructed next to an existing more intense use shall provide the required landscaping on the new development's property.

D. Fences located within a buffer yard shall be located on the side closest to the neighboring property line while allowing adequate room to maintain both sides of the fence.

E. There are two (2) types of buffer yards. The requirements and depictions of these buffer yards are shown on the following pages:

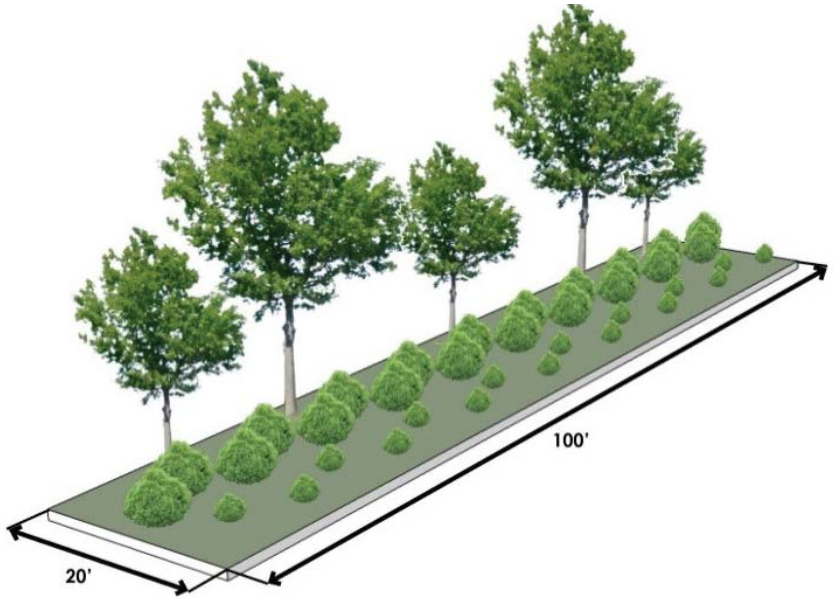
1. Type 1 Buffers shall apply in the following situations:
    - Non-residential uses (excluding the LI district) within a business or mixed use zoning district adjacent to any residential zoning district or use;
    - Multi-family residential development adjacent to any residential zoning district or single-family residential use; and
    - Single-family residential major subdivisions in a more intense zoning district than the adjacent property.

2. Type 2 Buffers shall apply in the following situations:
    - All permitted non-residential uses in residential zoning district;
    - Development in a Light Industrial (LI) adjacent to all other zoning district; and
    - Essential Services Class 2 and 3 in all districts.

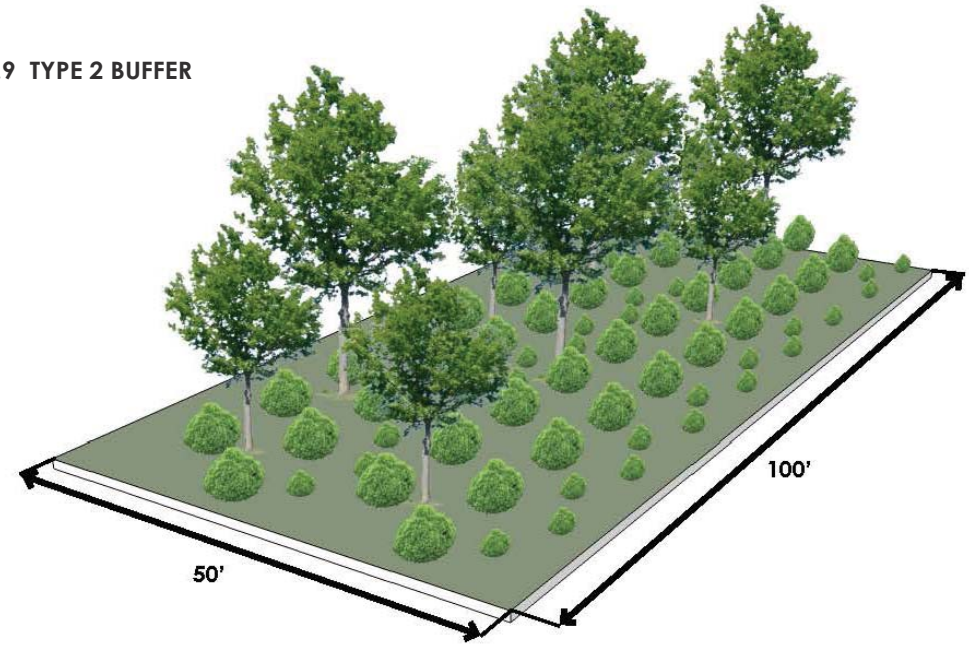
▼ **TABLE 5.4 TYPE 1 BUFFER YARD**

Criteria	Type 1 Buffer	Type 2 Buffer
Width	20 feet	50 feet
Large Trees	2 per 100 linear feet	4 per 100 linear feet
Small Trees	3 per 100 linear feet	5 per 100 linear feet
Large Shrubs	15 per 100 linear feet	25 per 100 linear feet
Medium or Small Shrubs	10 per 100 linear feet	20 per 100 linear feet
Groundcover	Pine needles, mulch, or landscaping rock	

▼ **FIGURE 5.8 TYPE 1 BUFFER**



▼ **FIGURE 5.9 TYPE 2 BUFFER**



5.4.7 STREET YARDS

A. Street yards are intended to provide transition between roads and developed sites and to create a continuous vegetated aesthetic along the street rights-of-way.

B. Street yards shall be measured from the right-of-way line (front property line) into the subject property.

C. In the TC and MU districts, where on-street parking is present, building yards in accordance with Section 5.4.8 may be utilized in lieu of street yards where buildings are located within 25 feet of the street right-of-way. Additionally small maturing trees shall be planted within a minimum six-foot planting strip between the sidewalk and street or within tree wells within the sidewalk. Such trees shall not have root systems that spread so as to cause damage to infrastructure.

D. For street yards of major and minor residential subdivisions adjacent to major or minor thoroughfares, as designated in the adopted Comprehensive Transportation Plan, the minimum street yard width shall be increased to 50 feet.

E. In addition to the requirements of this Section, street yard landscaping shall meet the general standards set forth in Section 5.4.4.

▼ **TABLE 5.5 STREET YARD**

Criteria	Standard
Width	10 feet*
Large Trees	2 per 100 linear feet
Small Trees	2 per 100 linear feet
Large Shrubs	5 per 100 linear feet
Medium or Small Shrubs	10 per 100 linear feet
Groundcover	Pine needles, mulch, or landscaping rock

*Major or minor subdivisions located on a major or minor thoroughfare shall have a minimum street yard width of 50 feet.

▼ **FIGURE 5.10 STREET YARD**

5.4.8 PARKING LOT YARDS

A. Parking lot landscaping is required within all non-residential and multi-family parking lots of greater than 10 spaces except automobile or boat sales display areas. Instead, perimeter landscaping around motor vehicle or boat sales display areas shall be utilized at the same rate as required in Table 5.6, as applicable.

B. The parking lot yard requirement may be met by the street yard requirement, buffer yard requirement, or building yard requirement for parking that is immediately adjacent to a street yard, buffer yard, or building yard.

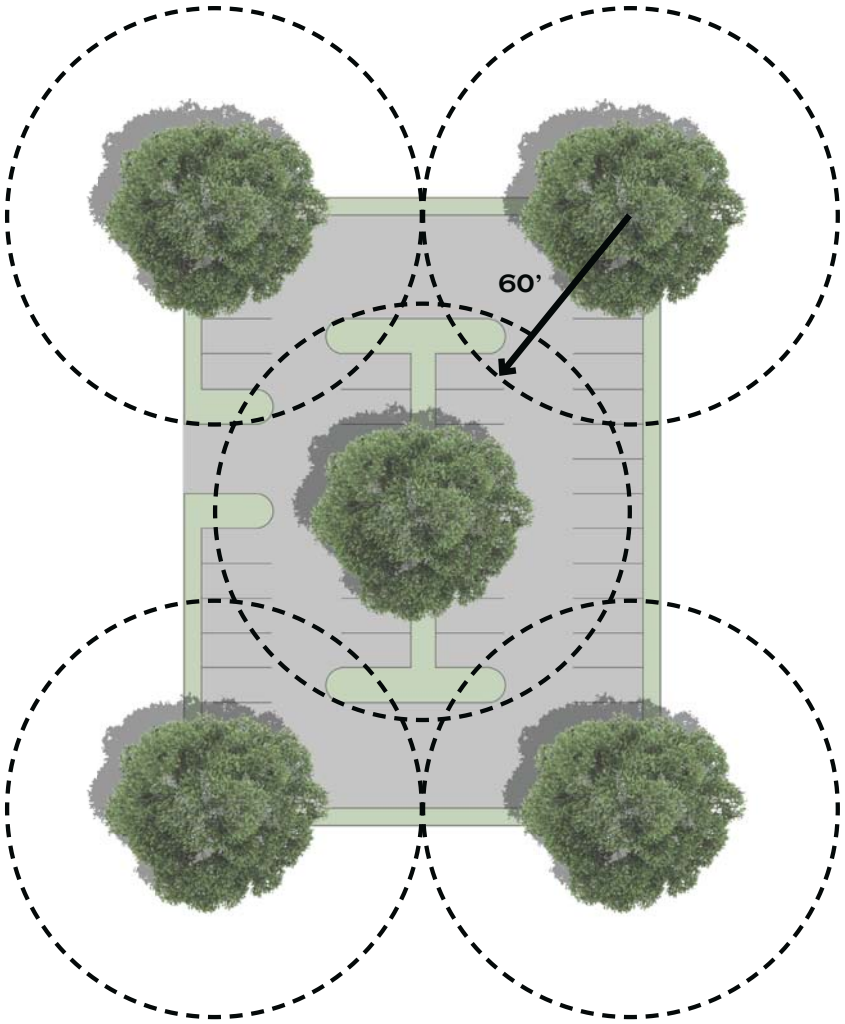
C. Trees shall be planted in a manner that provides shade for parking area at maturity within 10 feet of the pavement edge. Each planting area shall be a minimum of 60 square feet, with a minimum dimension of seven (7) feet. Planting areas shall be protected with concrete curbing or wheel stops.

D. In addition to the requirements of this Section, parking lot yard landscaping shall meet the general standards set forth in Section 5.4.4.

▼ **TABLE 5.6 PARKING LOT YARD**

Criteria	Standard
Landscaping area	60 square feet
Large Trees	1 within 60 feet of every parking space
Small Trees	Optional
Large Shrubs	Optional
Medium or Small Shrubs	Optional
Groundcover	Pine needles, mulch, or landscaping rock

▼ **FIGURE 5.11 PARKING LOT YARD**



5.4.9 BUILDING YARDS

A. The intent of building yards is to create a buffer between buildings and parking areas for pedestrians entering and exiting buildings and to improve the appearance of building entrances.

B. Building yard width shall be based on the total area of the building. Widths shall be measured from the applicable building wall. Building yards shall be located on any side of a building where parking area is adjacent to the building. This shall not apply to the LI district or single-family or two-family dwellings.

C. Building yards may be crossed by walkways to general access doorways, however a maximum of 25% of the building yard may be composed of walkways.

D. In addition to the requirements of this Section, building yard landscaping shall meet the general standards set forth in Section 5.4.4.

▼ **TABLE 5.7 BUILDING YARD**

Criteria	Building Area		
	Less than 10,000 square feet	10,000-60,000 square feet	Greater than 60,000 square feet
Width	5 feet	8 feet	10 feet
Small Trees	N/A	N/A	1 per 50 linear feet of building yard
Shrubs	3 per 10 linear feet of building yard	5 per 10 linear feet of building yard	7 per 10 linear feet of building yard
Groundcover	Pine needles, mulch, or landscaping rock	Pine needles, mulch, or landscaping rock	Pine needles, mulch, or landscaping rock

▼ **FIGURE 5.12 BUILDING YARD**

5.4.10 SCREENING YARD

The screening requirements of this Section shall apply to garbage containers, mechanical equipment, and outdoor storage for all new and expanding non-residential and multi-family residential development:

A. Any permitted outdoor storage, utility equipment, or solid waste receptacles (including dumpsters) shall be screened in the form of a wall or fence and shrubs as to provide an opaque screen. The screen shall exceed the height of the storage, equipment, or receptacle by a minimum of six (6) inches and shall not exceed the height limitations set forth in Section 5.4.12 for fences and walls and shall not interfere with the operation of utility equipment.

B. Dumpsters and other waste collection containers shall not be located in the front yard of any structure or within any required buffer yard.

C. Ground-mounted mechanical equipment shall be located in the rear or side yard and screened from view of the street.

D. Any fencing used to fulfill the requirements of this Section shall be supplemented with landscaping. Chain link fence with slats shall not be used to meet the requirement of this Section.

E. All screens shall utilize building materials and design which are compatible with those used for the exterior of the principal building.


DO NOT
ENTER
EXIT

5.4.11 RESIDENTIAL YARDS

A. The intent of the Residential Yard is to replace some of the trees removed during the grading process, to establish a residential tree canopy, and to provide a building yard transition between the street and structure.

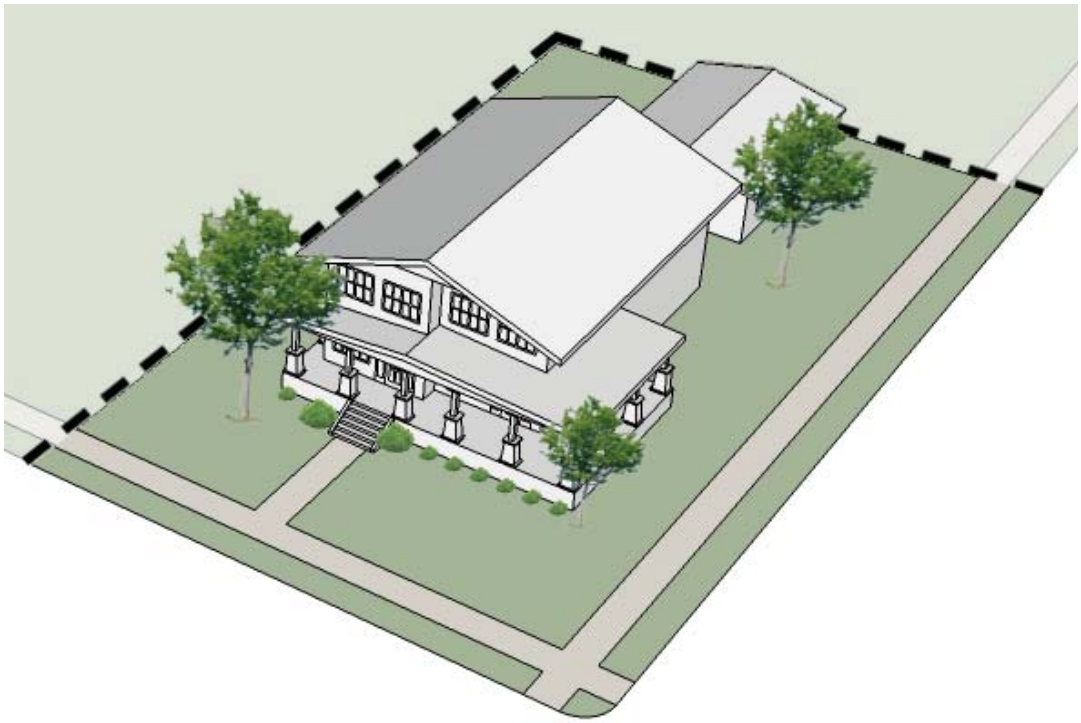
B. Residential yards are required for all single-family and two-family residential lots in new major subdivisions.

C. Trees and shrubs shall be planted outside of the public right-of-way. Maintenance of the trees and shrubs shall be the responsibility of the individual property owner. Vegetation shall be selected from the approved plant list in Section 5.4.13. The use of existing vegetation to satisfy the large tree standard is encouraged.

▼ **FIGURE 5.13 RESIDENTIAL YARD**

Criteria	Standard
Large Trees	1 per 40 feet of street frontage
Small Trees	Optional
Large Shrubs	Optional
Medium or Small Shrubs	2 per 20 linear feet of building width along front facade

▼ **TABLE 5.8 RESIDENTIAL YARD**



5.4.12 FENCES AND WALLS

5.4.12.1 GENERAL REQUIREMENTS

A. Fences and walls shall only be installed subject to the issuance of a Zoning Permit and the requirements of this Section.

B. Unless otherwise specified within this Ordinance, fences and walls shall be exempt from setback and yard requirements. Fences may be located up to the property line, but shall not be located in any right-of-way or sight-triangle. For streets without a right-of-way, fences shall be located a minimum of 10 feet from the edge of pavement. Fences may be located closer than 10 feet to the edge of pavement if there is an existing retaining structure, as long as the fence is no closer to the pavement than the existing retaining structure.

C. Fences and walls not maintained in a safe manner or good order through neglect, lack of repair, manner of construction, method of placement, or otherwise deemed unsafe by the Town shall be repaired, replaced, or removed.

D. Fences and walls shall not contain advertising, signs, logos or other lettering.

E. Where a fence or wall is used as part of required screening, all required vegetation shall be planted on the exterior side of the fence or wall (exterior to the lot).

F. Retaining walls built to State Building Code are exempt from the maximum height requirements.

G. Nothing in this subsection shall preclude the installation of temporary fences around construction works, erected or maintained pursuant to the NC Building Code or Soil Erosion and Sedimentation Control Act requirements.

5.4.12.2 MATERIALS & DESIGN

A. Materials may include a combination of the listed permitted materials for each fence or wall type. Fences shall be constructed of materials manufactured and sold as fencing materials. Wood palettes, tires, pipes, and similar items shall not be used as fencing materials. Fences and walls shall be constructed of the following materials:
   - Brick or stone;
   - Chain link in side or rear yards only (not permitted in the TC or MU districts, except for coated chain link for utility and similar uses);
   - Split-faced concrete block;
   - Wood, composite wood, or vinyl (no natural wood in the TC district)
   - Black wrought iron or similar aluminum; or
   - Wire (bona fide farms and equestrian uses only).

B. Front yard fences shall not be opaque and shall be at least 50% transparent, unless part of a required buffer or screen.

C. The finished side of the fence shall be installed facing the street right-of-way and adjacent properties.

D. The capital or finial of a fence post or column may extend up to one (1) foot above the maximum height.

E. Chain link fences for non-residential and multi-family residential uses shall be supplemented with landscaping to the outside of the fence at a minimum rate of one (1) large shrub per five (5) linear feet. Chain link fence with slats shall not be used to meet screening requirements.

F. Barbed or razor wire on top of chain link fences is permitted for rear yard fences not visible from a street in the LI district only. This does not apply to barbed wire fences for agricultural uses.

G. Fences and walls for non-residential and multi-family residential uses shall be compatible in design and material of the buildings on the property.

H. No fence or wall which will block or materially impede the flow of stormwater runoff shall be constructed within a storm drainage easement.

5.4.12.3 MATERIALS & DESIGN

All new fences and walls shall meet the requirements of the table below:

▼ **TABLE 5.9 FENCE HEIGHT AND MATERIALS**

Zoning District	Front Yards	Side & Rear Yards
AR, RR, RA-40, RA-20, R-20	5 feet	6 feet
TC, MU	4 feet	6 feet
NB, GB	5 feet	8 feet
LI	8 feet	8 feet

5.4.13 PLANT INSTALLATION STANDARDS

A. Trees and shrubs to be planted shall be selected from the latest edition of the NC Cooperative Extension Publication AG 508-3 *Drought Tolerant Plants for North Carolina* as shown in Table 5.11. The Administrator may approve alternative plantings provided that no non-native, invasive species is introduced. Any tree by nature of their fruit, root system, brittleness of wood, susceptibility to disease, or deemed undesirable by the Town shall not be planted in any public right-of-way, on public property, or as part of any required landscaping or screening.

B. All plants shall be installed in accordance with the latest edition of the *American Standards for Nursery Stock*, published by the American Nurserymen's Association and the American National Standards Institute (ANSI).

C. No trees identified as large trees or having a mature height of 15 feet or higher shall be planted within 30 feet of overhead utility lines or within five (5) feet of a utility easement. This does not include low-voltage insulated or covered lines of 240 volts or less or telecommunication lines.

D. All plant material installed shall be free from disease and scarring and shall be installed in a manner that ensures the availability of sufficient soil and water to sustain healthy growth, and which is not intrusive to utilities or pavement.

E. Except as herein provided, on a corner lot in any district, no hedge, shrubbery, tree, natural growth, sign, fence, wall, or other obstruction shall be placed or maintained within a sight triangle as defined by this Ordinance.

F. Required landscaping shall be installed with the minimum size specifications:

▼ **TABLE 5.10 PLANT INSTALLATION SIZE STANDARDS**

Type	Min. Height at Maturity (ft)	Min. Height at Planting (ft)	Min. Caliper at Planing (in)*	Min. Spacing (ft on center)
Large Trees	40	8	2	20
Small Trees	15	6	1.5	10
Large Shrubs	8	4	N/A	4
Medium Shrubs	4	2	N/A	2
Small Shrubs	2	1	N/A	2

▼ TABLE 5.11 APPROVED PLANT LIST

LARGE TREES								
BOTANICAL & COMMON NAME	WATER USE ZONE	NC HARDINESS ZONE	TEXTURE	FORM	HEIGHT/ SPREAD (FT)	GROWTH RATE	GROUP	EXPOSURE
Acer floridanum/Florida Maple or Southern Sugar Maple	1,2,3	6b to 8	Medium	Oval	40-50/20-25	Medium to Fast	Deciduous	Sun/Semi-Shade
Acer rubrum/Red Maple	1,2	6b to 8	Medium	Rounded	40-50/25-35	Medium	Deciduous	Sun/Semi-Shade
Acer saccharum/Sugar Maple	1,2	6b to 7a	Medium	Oval	60-80/25-40	Medium to Fast	Deciduous	Sun/Semi-Shade
Betula nigra/River Birch	1,2	6b to 8	Medium	Oval	40-70/40-60	Fast	Deciduous	Sun
Cedrus Libani/Cedar of Lebanon	1,2	5 to 7	Medium	Conical	80-100/80-100	Fast	Evergreen	Sun
Cryptomeria japonica/ Japanese Cryptomeria	1,2,3	6 to 8	Fine	Conical	50-60/20-30	Slow to Medium	Evergreen	Sun
Fraxinus americana/White Ash	1,2,3	6 to 7	Medium	Oval	80/50	Fast	Deciduous	Sun
Franxius pennsylvanica/ Green Ash	1,2,3	6b to 8	Medium	Upright, Spreading	50-60/20-30	Medium	Deciduous	Sun
Gingko biloba/Gingko or Maiden Hair Tree(male only)	1,2	6b to 8	Medium	Irregular	50-70/30-40	Very Slow	Deciduous	Sun
Gleditsia Triacanthos var. inermis/Thornless Honey Locust	1,2	6 to 8	Fine	Oval/ Rounded	50-75/35-50	Fast	Deciduous	Sun
Gymnocladus dioicus/ Kentucky Coffee Tree	1,2	3 to 8	Medium to Coarse	Horizontal Branching	60-80/40-55	Slow to Medium	Deciduous	Sun
Liriodendron tulipifera/ Tuliptree(Yellow Poplar)	1,2,3	6b to 8	Coarse	Broad, Rounded	70-90/35-50	Fast	Deciduous	Sun
Magnolia grandiflora/ Southern Magnolia	1,2	6b to 8	Course	Upright, Pyramidal	60-80/40-50	Slow to Medium	Evergreen	Sun
Metasequoia glyptosfroboides/Dawn Redwood	1,2	6b to 8	Fine	Conical	40-50/20-25	Fast	Deciduous	Sun
Pinus strobus/White Pine	1,2	6b to 7a	Medium	Pyramidal	80-100/25-40	Medium	Evergreen	Sun
Pinus taeda/Loblolly Pine	1,2,3	6b to 7	Medium	Horizontal Branching	80-100/20-30	Fast	Evergreen	Sun
Platanus x acerfolia/London Planetree	1,2	4 to 8	Medium to Coarse	Pyramidal	75-100/60-75	Medium	Deciduous	Sun
Platanus occidentalis/ Sycamore	1,2	6 to 8	Coarse	Oval/ Rounded	75-100/75-100	Fast	Deciduous	Sun
Quercus acutissima/ Sawtooth Oak	1,2,3	6b to 8	medium	Broad, Oval	35-45/35-45	Medium	Deciduous	Sun
Quercus falcate/Southern Red Oak	1,2	6b to 8	Coarse	Rounded	70-80/30-40	Medium	Deciduous	Sun
Quercus nigra/Water Oak	1,2,3	6b to 8	Medium	Rounded	80-90/40-50	Medium to Fast	Deciduous	Sun
Quercus nuttalli/Nuttall Oak	1,2	5 to 9	Medium	Pyramidal	40-60/35-50	Medium to Fast	Deciduous	Sun
Quercus palustris/Pin Oak	1,2	6b to 8a	Medium	Pyramidal	70-80/40-50	Medium	Deciduous	Sun
Quercus phellos/Willow Oak	1,2	6b to 8	Fine	Rounded	80-100/40-50	Medium	Deciduous	Sun

LARGE TREES								
BOTANICAL & COMMON NAME	WATER USE ZONE	NC HARDINESS ZONE	TEXTURE	FORM	HEIGHT/ SPREAD (FT)	GROWTH RATE	GROUP	EXPOSURE
Quercus shumardii/ Shumard Oak	1,2,3	6b to 8	Medium	Pyramidal	40-60/40-60	Medium	Deciduous	Sun
Quercus virginiana/Live Oak	1,2,3	7b to 8	Medium	Rounded	60-80/50-60	Medium	Evergreen	Sun
Taxodium distichum/ Common Baldcypress	1,2,3	6b to 8	Fine	Conical	50-70/20-30	Medium	Deciduous	Sun
Tilia cordata/Littleleaf Linden	1,2	6 to 8	Medium	Oval	50-70/35-50	Medium	Deciduous	Sun/Semi-Shade
Tilia platyphyllos/Bigleaf Linden	1,2	2 to 6	Medium	Pyramidal	60-80/30-50	Medium	Deciduous	Sun/Semi-Shade
Ulmus parvifolia/True Chinese Elm (Lacebark Elm)	1,2,3	6b to 8	Medium	Rounded	40-50/30-40	Fast	Deciduous	Sun
Zelkova serrate/Japanese Zelkova	1,2,3	6b to 8a	Medium	Broad, Oval	50-80/50-60	Fast	Deciduous	Sun

SMALL TREES								
BOTANICAL & COMMON NAME	WATER USE ZONE	NC HARDINESS ZONE	TEXTURE	FORM	HEIGHT/ SPREAD (FT)	GROWTH RATE	GROUP	EXPOSURE
Acer buergeranun/ Trident Maple	1,2,3	7b to 8	Medium	Oval	20-25/10-15	Slow	Deciduous	Sun
Acer ginnala/Amur Maple		3 to 8	Medium	Rounded	15-20/15-28	Slow	Deciduous	Sun/Semi-Shade
Acer griseum/Paperbark Maple		4 to 8	Medium	Upright	20-30/15-25	Slow	Deciduous	Sun/Semi-Shade
Acer palmatum/ Japanese Maple	1,2	5 to 8	Fine to Medium	Rounded	15-25/10-25	Slow to Medium	Deciduous	Shade
Carpinus caroliniana/ American Hornbean (Ironwood)	1,2,3	6b to 5	Medium	Loose, Rounded	20-30/15-25	Slow	Deciduous	Sun/Shade
Catalpa bignonioides/ Southern Catalpa		5 to 9	Coarse	Irregular	25-40/20-30	Fast	Deciduous	Sun/Semi-Shade
Cercis canadensis/ Redbud or Judas Tree	1,2	6b to 8	Medium	Oval	25-30/20-28	Medium	Deciduous	Sun/Shade
Chionanthus virgincus/ Fringe Tree or Grancy Gray-beard	1,2	6b to 8	Coarse	Irregular	10-20/15-20	Slow to Medium	Deciduous	Sun/Semi-Shade
Cornus florida/Flowering Dogwood	1,2	6 to 8	Medium	Conical	20-30/20-25	Slow to Medium	Deciduous	Sun/Semi-Shade
Cornus Kousa/Kousa Dogwood	1,2	6 to 7	Medium	Horizontal Branching	10-15/8-10	Medium	Deciduous	Sun/Semi-Shade
Cupressocyparis leyiandii/ Leyland Cypress	1,2,3	6b to 8	Fine	Upright	60-70	Fast	Evergreen	Sun/Semi-Shade
Halesia Carolina/Silverbell	1,2,3	6b to 8	Medium	Spreading	20-30/15-20	Medium	Deciduous	Sun/Semi-Shade
Ilex x attenuata / Savannah, Savannah Holly	1,2,3	6b to 8	Coarse	Pyramidal	25-30/10-15	Medium	Evergreen	Sun/Shade
Ilex decidua/Possumhaw	1,2,3	6b to 8	Medium	Loose, Rounded	20-30/15-20	Medium	Deciuous	Sun/Semi-Shade
Ilex latifolia/Lusterleaf Holly	1,2,3	6b to 8	Coarse	Pyramidal	20-25/15-20	Medium	Evergreen	Sun/Shade
Ilex x'Nellie R. Stevens'/ Nellie R. Stevens' Holly	1,2,3	6b to 8	Coarse	Pyramidal	15-25/10-15	Medium	Evergreen	Sun/Shade
Ilex opaca/ AmericanHolly	1,2	6b to 8	Medium to Coarse	Pyramidal	20-30/15-20	Medium	Evergreen	Sun/Shade
Ilex x attennata 'Fosteri'/ Foster's Holly		6 to 9	Fine to Medium	Upright, Pyramidal	20-30/7-10	Fast	Evergreen	Sun/Semi-Shade
Juniperus virginiana/ Eastern Red Cedar	2,3	2 to 9	Fine to Medium	Upright	30-40/10-20	Medium	Evergreen	Sun
Koelreuteria paniuclata/ Goldenraintree	1,2,3	6b to 8	Fine	Rounded	20-30/10-15	Medium	Deciduous	Sun
Lagerstroemia indica/ Crape Myrtle(appropriate varieties)	1,2,3	6b to 8	Fine	Upright	20-30/10-15	Fast	Deciduous	Sun
Magnolia grandiflora 'Little Gem'/Little Gem Magnolia	1,2	7 to 8	Coarse	Symmetrical	40-60/25-30	Medium to Fast	Evergreen	Sun/Semi-Shade

SMALL TREES								
BOTANICAL & COMMON NAME	WATER USE ZONE	NC HARDINESS ZONE	TEXTURE	FORM	HEIGHT/ SPREAD (FT)	GROWTH RATE	GROUP	EXPOSURE
Magnolia stellata/Star Magnolia	1,2,3	6 to 8	Medium	Oval Upright	15-20/10-12	Slow	Deciduous	Sun/Semi-Shade
Magnolia virginiana/ Sweetbay Magnolia	1,2	7 to 8	Medium	Wide, Spreading Irregular	8-12/6-10	Slow	Deciduous	Semi-Shade
Magnolia x loebneri/ Sweetbay Magnolia		5 to 8	Medium	Rounded	20-30/20-30	Medium	Deciduous	Semi-Shade
Magnolia x soulangiana/ Saucer Magnolia	1,2,3	6b to 8	Coarse	Rounded	20-30	Medium	Deciduous	Sun/Semi-Shade
Malus species/Flowering Crab	1,2	6b to 8	Medium	Rounded to Upright	15-30/15-30	Medium	Deciduous	Sun
Oxydendrum arboretum/ Sourwood	1,2,3	6b, 7a	Medium to Coarse	Upright	30-40/15-20	Medium	Deciduous	Sun/Semi-Shade
Pinus thunbergiana/ Japanese Black Pine		5 to 8	Medium	Irregular	50-70/25	Slow to Medium	Evergreen	Sun
Pinus virginiana/Virginia Pine	1,2,3	6b to 8a	Fine	Conical	15-30/10-30	Slow	Evergreen	Sun
Prunus caroliniana/ Carolina Laurel, Cherry	1,2,3	7 to 8	Medium	Oval	20-30/15-20	Fast	Evergreen	Sun/Shade
Prunus serrulata/(many cultivars) Japanese Flowering Cherry	1,2	6b to 8a	Medium	Oval, Spreading, Weeping	20-30/20-30	Medium	Deciduous	Sun
Prunus x yedoensis/ Yoshino Cherry	1,2	6b to 8a	Medium	Oval, Spreading	10-15/20-25	Medium	Deciduous	Sun
Vitex agnus-castus/ Chastetree	1,2,3	6b to 8	Medium	Oval	15-20/10-15	Medium	Deciduous	Sun

LARGE SHRUBS								
BOTANICAL & COMMON NAME	WATER USE ZONE	NC HARDINESS ZONE	TEXTURE	FORM	HEIGHT/ SPREAD (FT)	GROWTH RATE	GROUP	EXPOSURE
Buddleia davidii/Butterfly Bush	1,2,3	6b to 8	Medium	Upright, Oval	10-15 ft	Fast	Deciduous	Sun
Calycanthus floridus/ Sweetshrub	1,2,3	6b to 8	Medium	Broad, Rounded	8-12 ft	Medium	Deciduous	Sun/Shade
Camellia japonica/ Camellia	1,2	6b to 8	Medium to Coarse	Rounded to Oval	8-10 ft	Slow to Medium	Evergreen	Sun/Semi-Shade
Camellia sansanqua/ Sansanqua Camellia	1,2	7 to 8	Medium	Irregular to Upright	8-10 ft	Slow to Medium	Evergreen	Sun/Semi-Shade
Chaenomeles speciosa/ Flowering Quince	1,2,3	6b to 8	Medium	Rounded	8-10 ft	Medium	Deciduous	Sun/Semi-Shade
Euonymus alatus/Winged Euonymous	1,2,3	6b to 8	Medium	Mounded	15-20 ft	Slow	Deciduous	Sun/Shade
Hamamelis vernalis/Vernal Witchhazel	1,2,3	6b to 8a	Medium	Dense, Rounded	8-12 ft	Medium	Deciduous	Sun/Semi-Shade
Hibiscus syriacus/Shrub Althea (Rose of Sharon)	1,2,3	6b to 8	Medium	Rounded	8-12 ft	Medium	Deciduous	Sun
Ilex x attenuate'Fosteri'/ Foster Holly	1,2	6b to 8	Medium	Upright	8-10 ft	Slow	Evergreen to Medium	Sun/Semi-Shade
Ilex cornuta 'Burfordii'/ Burford Holly	1,2,3	6b to 7b	Coarse	Oval to Rounded	8-12 ft	Medium to Fast	Evergreen	Sun/Semi-Shade
Ilex verticillata/ Winterberry	3	3 to 9	Medium	Oval Rounded	6-15/6-10	Slow to Medium	Deciduous	Sun/Semi-Shade
Ilex x 'Emily Bruner'/ Emily Bruner Holly		7 to 9	Medium	Pyramidal	15-20/8	Medium	Evergreen	Sun/Semi-Shade
Ilex x 'Nellie R. Stevens'/ Nellie Stevens Holly	1,2,3	6 to 9	Medium	Upright Pyramidal	30-40/10-15	Fast	Evergreen	Sun/Semi-Shade
Juniperus Chinesis 'Hetzi'/ Hetz Juniper	2,3	6b to 8	Fine	Upright	15 ft	Fast	Conifer	Sun
Juniperus chinensis 'Pfitzeriana'/ Pfitzer Juniper	2,3	6b to 8	Fine	Broad, Upright	8-10 ft	Fast	Conifer	Sun
Leucothoe populufolia/ Fetterbrush	1,2	7a to 8	Medium	Upright, Arching	8-12 ft	Medium	Evergreen	Semi-Shade/ Shade
Magnolia stellate/ Star Magnolia	1,2,3	6b to 8a	Coarse	Rounded	10-15 ft	Medium	Deciduous	Sun/Semi-Shade
Osmanthus fortune/ Fortunes Osmanthus	1,2,3	6b to 8	Medium	Rounded	8-10 ft	Slow to Medium	Evergreen	Semi-Shade
Pittosporum tobira/ Japanese Pittosporum	1,2	7b to 8b	Medium	Rounded	8-10 ft	Fast	Evergreen	Sun/Semi-Shade
Podocarpus macrophyllus var maki/Southern Yew	1,2	7a to 8b	Medium	Upright	8-12 ft	Medium	Evergreen	Sun/Semi-Shade
Pyrancantha species/ Firethorn	1,2	6b to 8	Medium	Irregular	10-12 ft	Fast	Evergreen	Sun
Rhododendron austrinum/ Florida Azalea (Red flower)	1,2	6b to 7	Medium	Rounded	8-12 ft	Medium	Deciduous	Semi-Shade/ Shade
Rhododendron calendulaceum/ Flame Azalea (Yellow-pink flower)	1,2	6b to 7	Medium	Rounded	10-15 ft	Medium	Deciduous	Semi-Shade/ Shade

LARGE SHRUBS								
BOTANICAL & COMMON NAME	WATER USE ZONE	NC HARDINESS ZONE	TEXTURE	FORM	HEIGHT/ SPREAD (FT)	GROWTH RATE	GROUP	EXPOSURE
Rhododendron canescens/ Piedmont Azalea (Rosy Purple Flower)	1,2	6b to 7	Medium	Rounded	10-15 ft	Medium	Deciduous	Semi-Shade/ Shade
Rhus typhina/ Staghorn Sumac	1,2,3	6b to 8	Fine	Open, Spreading	15-25 ft	Fast	Deciduous	Sun/Semi-Shade
Ternstoemia gymnathera/ Cleyera	1,2	6b to 8	Medium	Upright	8-10 ft	Slow to Medium	Evergreen	Sun/Semi-Shade
Thuja occidentalis 'Emerald'/ Emerald Arborvitae	1,2,3	4 to 8	Fine	Pyramidal	15/3-4	Medium	Evergreen	Sun
Viburnum lantana/ Wayfaringtree, Viburnum	1,2,3	6b to 8a	Coarse	Round, Spreading	10-15 ft	Medium	Deciduous	Sun/Semi-Shade
Viburnum opulus/ European, Cranberrybush, Viburnum	1,2,3	6b to 8a	Coarse	Upright, Spreading	8-12 ft	Medium	Deciduous	Sun/Semi-Shade
Viburnum plicatum var. tomentosum/ Doublefile Viburnum	1,2,3	6b to 8a	Coarse	Round, Spreading	8-10 ft	Medium	Deciduous	Sun/Semi-Shade
Viburnum x pragense/ Prague Viburnum	1,2,3	6b to 8a	Medium	Oval	10-12 ft	Medium	Deciduous	Sun/Semi-Shade

MEDIUM SHRUBS								
BOTANICAL & COMMON NAME	WATER USE ZONE	NC HARDINESS ZONE	TEXTURE	FORM	HEIGHT/ SPREAD (FT)	GROWTH RATE	GROUP	EXPOSURE
Abelia x grandiflora/ Abelia	1,2,3	6b to 8	Fine	Irregular	3-4 ft	Slow to Medium	Evergreen	Sun/Semi-Shade
Aucubajaponica/ Japanese Aucuba	1,2	6b to 8	Coarse	Upright	6-8 ft	Medium	Evergreen	Semi-Shade/ Shade
Buxus sempervirens/ Common Boxwood	1,2,3	6b to 7a	Fine to Medium	Rounded	5-8 ft	Slow to Medium	Evergreen	Semi-Shade
Camelia japonica/ Japanese Camelia	1,2	7 to 8	Medium	Upright Columnar	8-15/6-7	Fast	Evergreen	Semi-Shade
Callicarpa dictoma/ Purple Beautyberry	1,2	5 to 8	Medium	Slender, Arching Branches	3-4/4-5	Medium to Fast	Deciduous	Sun/Semi-Shade
Clethera alnifola/ Summersweet Clethra	1,2	3 to 9	Medium	Oval, Upright	4-10/4-6	Slow	Deciduous	Sun/Semi-Shade
Chamae cyparis pisifera (cultivars)/ Japanese False Cypress	1,2	4 to 8	Medium	Pyramidal	50-70/10-20	Medium	Evergreen	Sun
Cytissus scoparius/ Scotch Broom	1,2,3	6b to 8a	Fine	Upright Open	5-6 ft	Medium	Evergreen	Sun
Forsythia intermedia Hybrids/ Border Forsythia	1,2	6b to 8	Medium	Irregular	5-7 ft	Fast	Deciduous	Sun
Hydrangea macrophylla/ Bigleaf Hydrangea	1,2	6b to 8	Course	Rounded	5-8 ft	Fast	Evergreen	Semi-Sun
Hydrangea quercifolia/ Oakleaf Hydrangea	1,2,3	6b to 8	Coarse	Upright	6-8 ft	Medium	Deciduous	Sun
Ilex cornuta 'Burfodii Nana', Dwarf Burford Holly	1,2,3	6b to 8	Medium to Coarse	Rounded	5-6 ft	Slow	Evergreen	Sun/Semi-Shade
Ilex glabra, Inkerry Holly	1,2,3	6b to 8	Medium	Rounded	6-8 ft	Medium	Evergreen	Sun
Illicium floridanum/Anise-tree	1,2,3	7 to 9	Medium	Rounded	6-10/4-8	Fast	Evergreen	Sun/Semi-Shade
Itea virginica/Virginia Sweetspire	1,2,3	5 to 9	Medium	Rounded	3-6/4-6	Medium to Fast	Evergreen	Sun/Semi-Shade
Juniperus virginiana 'Grey Owl'/Grey Owl Juniper		2 to 9	Fine	Horizontal Branching	2-3/4-6	Fast	Evergreen	Sun
Kalmia latifolia/ Mountain Laurel	1,2	6b to 7	Medium	Upright	5-8 ft	Slow to Medium	Evergreen	Semi-Shade
Prunus laurocerasus 'Schipkaensis'/Schipka Laurel		6 to 8	Fine to Medium	Upright Spreading	3-4/3-4	Medium	Evergreen	Sun, Shade
Prunus laurocerasus 'Otto Luyken'/Otto Luyken Laurel		6 to 8	Fine to Medium	Upright Spreading	3-4/3-4	Medium	Evergreen	Sun, Shade
Spiraea prunifolia 'Plena'/ Bridalwreath Spirea	1,2,3	6b to 8	Fine to Medium	Rounded	5-7 ft	Medium to Fast	Deciduous	Sun
Spiraea vanhouttei/ Vanhoutte Spirea	1,2,3	6b to 7b	Medium	Rounded	5-7 ft	Medium to Fast	Deciduous	Sun

SMALL SHRUBS								
BOTANICAL & COMMON NAME	WATER USE ZONE	NC HARDINESS ZONE	TEXTURE	FORM	HEIGHT/ SPREAD (FT)	GROWTH RATE	GROUP	EXPOSURE
Aucubajaponica/ Dwarf Aucuba	1,2,3	6b to 8	Coarse	Oval	3-4 ft	Slow	Evergreen	Shade/ Semi-Shade
Azaleas, Hybrids	1, 2	6b to 8	Fine	Upright	3-5 ft	Slow to Medium	Evergreen	Semi-Shade
Berberis thunbergii/ Japanese Barberry	1,2,3	6b to 8a	Medium	Oval	3-5 ft	Medium	Evergreen	Sun/Semi-Shade
Buxus microphylla var. japonica/ Japanese Boxwood	1,2,3	7a to 8	Fine	Rounded	3-4 ft	Slow	Evergreen	Sun/Semi-Shade
Deutzia gracilis/ Slender deutsia	1,2,3	6b to 8a	Fine	Mounded	2-4 ft	Medium	Semi-Evergreen	Sun/Semi-Shade
Euonymus alatus 'Rudy Haag'/ Winged Euonymus		6 to 8	Medium	Upright, Horizontal	8-10/8-10	Medium	Deciduous	Sun/Semi-Shade
Hydrongea arborescens/ 'Annabelle' Smooth Hydrangea	1, 2	6b to 8	Coarse	Rounded	3-5 ft	Fast	Semi-Evergreen	Sun
Ilex cornuta/ 'Carissa' Carissa Holly	1,2,3	6b to 8	Medium	Rounded	3-4 ft	Slow	Evergreen	Sun/Semi-Shade
Ilex cornuta/ 'Rotunda' Dwarf Chinese Holly	1,2,3	6b to 8	Coarse	Rounded	3-4 ft	Slow	Evergreen	Sun/Semi-Shade
Ilex crenata/ 'Compacta' Compact Holly	1,2	6b to 7	Fine to Medium	Rounded	3-4 ft	Medium	Evergreen	Sun/Semi-Shade
Ilex crenata/ 'Green Lustre'	1,2,3	6b to 8a	Fine to Medium	Rounded	3-5 ft	Medium	Evergreen	Sun/Semi-Shade
Ilex crenata/ 'Helleri' (Heller) Japanese Holly	1,2	6b to 7	Fine	Spreading	2-3 ft	Slow	Evergreen	Semi-Shade
Ilex cranata/ 'Hetzi' Hetz Holly	1,2	6b to 7	Fine to Medium	Rounded	4-5 ft	Medium	Evergreen	Sun/Semi-Shade
Itea virginica/ Virginia Sweetspire	1,2,3	6b to 8b	Medium Branching	Upright	3-5 ft	Medium	Deciduous	Sun/Shade
Jasminum nudiflorum/ Winter Jasmine	1,2,3	6b to 8	Fine	Mounded Spreading	3-4 ft	Fast	Evergreen	Sun/Shade
Juniperus chinensis 'Parsonii'/ Parsons Juniper	2,3	6 to 8	Fine	Spreading	2-3/4-7	Slow	Evergreen	Sun/Semi-Shade
Kerria japonica/ Japanese Kerria	1,2,3	6b to 8	Medium	Upright Arching	3-5 ft	Medium	Evergreen	Sun
Pyracantha koidzumii/ 'Santa Cruz'	1,2,3	7b to 8	Medium	Prostrate Spreading	2-3 ft	Medium	Evergreen	Sun
Spirea x bumalda/ Bumald Spirea	1,2,3	6b to 8a	Fine	Mounded	2-3 ft	Fast	Deciduous	Sun/Semi-Shade
Spirea nipponica/ 'Snowmound'	1,2,3	6b to 8a	Fine	Mounded	3-5 ft	Fast	Deciduous	Sun/Semi-Shade
Spirea thunbergii/ Thunberg Spirea	1,2,3	6b to 8	Fine	Irregular	3-4 ft	Medium	Deciduous	Sun

Source: NC Cooperative Extension Publication AG 508-3 Drought Tolerant Plants for North Carolina

5.4.14 LANDSCAPING MAINTENANCE

A. The owners of the property, and any tenant on the property where screening is required, shall be jointly and severally responsible for the maintenance of all landscaping materials. Such maintenance shall include all actions necessary to keep the screened area free of litter and debris, to keep plantings healthy; to keep planting areas neat in appearance; to keep plant growth from interfering with safe vehicular and pedestrian travel, or use of parking areas; to keep plant growth from creating nuisances to adjoining properties; and to keep walls, fences and berms in good repair and neat appearance.

B. Required landscaping shall be maintained to mature growth habit, and trees shall not be topped.

C. Any vegetation that is part of a required landscaping area shall be replaced within 60 days in the event that it dies. All landscaping materials shall be protected from damage by erosion, motor vehicles, or pedestrians which could reduce the effectiveness of the required landscaping.

D. See the *American National Standards for Tree Care Operations: Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Pruning)* published by the American National Standards Institute (ANSI A300) for pruning tips.

5.5 PARKING & ACCESS STANDARDS

5.5.1 PURPOSE & APPLICABILITY

A. The purpose of this Section is to ensure that adequate and well-designed parking and site access is provided for developments in the Town of Mineral Springs.

B. Unless otherwise specified, the requirements of this Section shall be initiated by any one (1) or more of the following activities on a property:

1. New construction or the initial use of the property;

2. A substantial change of use or change in zoning classification; and/or

3. Any building or parking expansion of greater than 25%.

C. A one-time only enlargement of a structure or increase in the amount of land used may be made for existing uses deficient in off-street parking, provided that the enlargement or increase does not represent a requirement in excess of five (5) off-street parking spaces. In the event that such increase represents a requirement in excess of five (5) off-street parking spaces, such increase shall require complete compliance of the provisions of this Article for the entire use.

D. The requirements of this section do not apply to single-family or two-family residential development on existing lots of record, except that a minimum of 2 parking spaces shall be provided for each unit.

5.5.2 GENERAL PROVISIONS

A. No off-street parking area shall be located over an on-site wastewater drain field.

B. Off-street parking areas shall be properly maintained in all respects. In particular, off-street parking area surfaces shall be kept in good condition (free from potholes, crumbling pavement, etc.) and parking space lines or markings shall be kept clearly visible and distinct.

C. Parking as required herein shall be located on the same lot as the principal use except in the TC and MU districts, and when specifically permitted to be located elsewhere. Driveways shall be considered as providing off-street parking spaces for all single-family dwellings.

D. Parking lots shall be landscaped in accordance with the requirements of Section 5.4.8.

E. Parking lot stormwater design shall meet the requirements of Section 5.6.7.

5.5.3 PARKING LOT DESIGN

A. Off-street parking areas shall be designed so that parked vehicles do not encroach upon, extend onto, or cause vehicles to back into public rights-of-way, sidewalks or strike against or damage any wall, vegetation, utility, or other structure.

B. Off-street parking areas shall be designed to facilitate adequate movement and access by sanitation, emergency and other public service vehicles.

C. No surface parking or circulation driveway is permitted within any required or established buffer area, except that driveways providing access to the parking area may be installed across these areas.

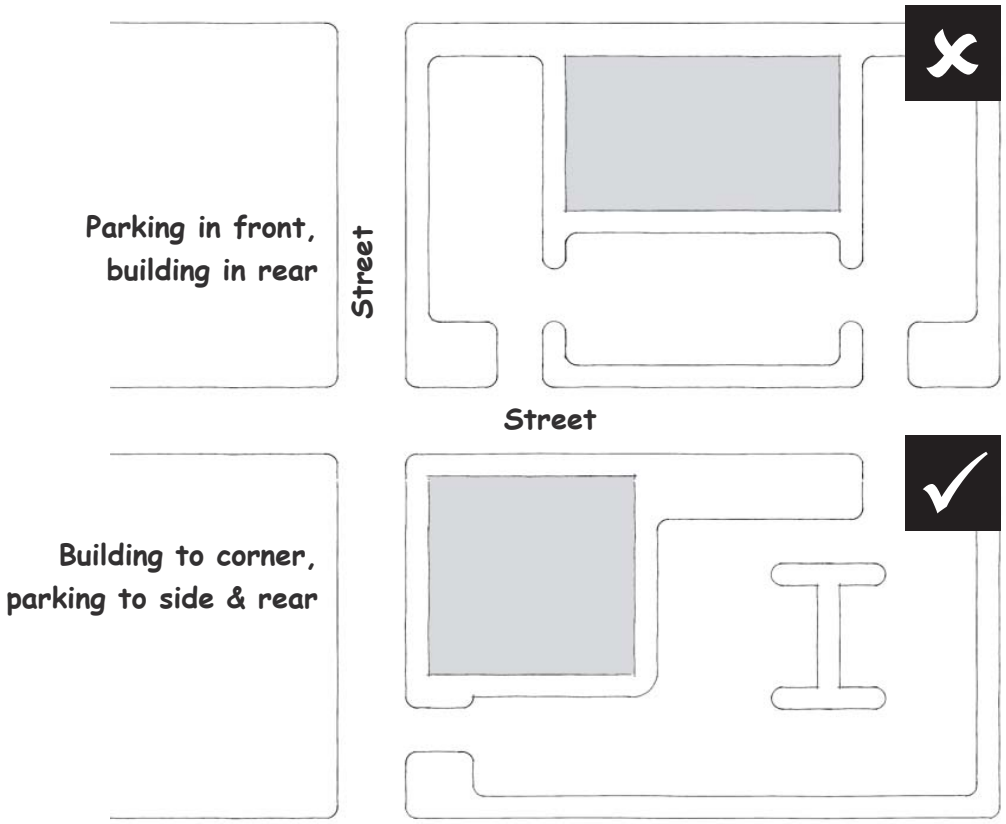
D. No parking aisle serving the general public that contains more than 10 parking spaces shall dead end, except that the Administrator may approve dead-end aisles for up to 20 spaces on small lots where expected traffic is minimal. Any parking aisle that dead-ends shall be provided a suitable turnaround.

E. Parking lots shall not be located closer than 10 feet from a public right-of-way, except in the TC zoning district.

F. In the TC zoning district, parking lots shall not be located closer than five (5) feet from the public right-of-way.

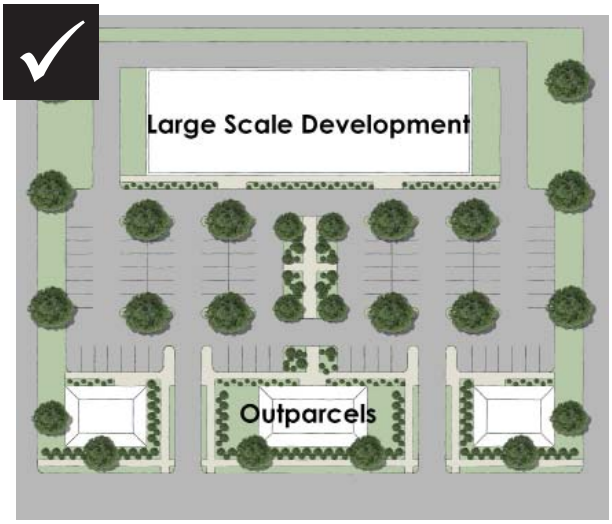
G. Parking for non-residential uses shall be located in the side or rear yard of the principal building. No new off-street parking area shall extend toward a public street right-of-way beyond the front wall of the closest adjacent building. See Figure 5.14. For large-scale non-residential uses parking may be shared and screened with outparcel buildings as shown Figure 5.15. If there are site constraints that prevent the parking from being located in the side or rear yard, then the Town Council may approve an Alternative Design Proposal in accordance with Section 3.8.

▼ FIGURE 5.14 NON-RESIDENTIAL PARKING LOCATION



▼ FIGURE 5.15 EXAMPLE OF PARKING AREA FOR LARGE SCALE DEVELOPMENT

No outparcels



Parking screened and shared with outparcels

H. All new or expanding off-street parking areas in the TC zoning district that abut a public street right-of-way shall be screened with a hedgerow, masonry wall, or fence of at least three (3) feet in height that meets the fence and wall requirements of Section 5.4.12. These features shall not impede sight lines within sight triangles as defined in Section 5.2.1 (E).

I. No more than three (3) parking aisles (defined as a travel lane and the parking located on each side) shall abut. Otherwise, parking aisles shall be separated from each other by planted medians which may include pedestrian walkways. Large parking lots shall be designed to allow pedestrians to safely move from their vehicles to the building (s).

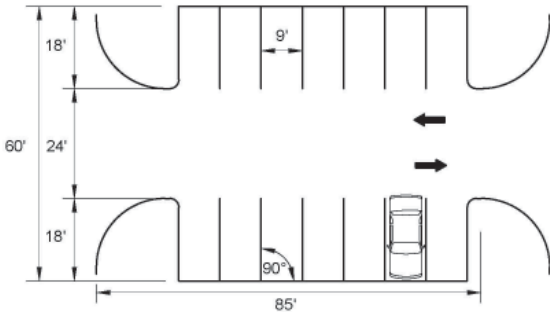
5.5.4 PARKING DIMENSIONS

All new parking spaces shall meet the following dimensional requirements:

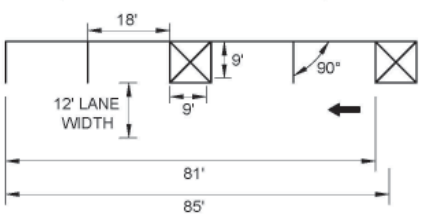
▼ **TABLE 5.12 PARKING DIMENSIONS**

Angle (degrees)	Stall Width (feet)	Stall Depth (feet)	Aisle Width		Parking Bay Width		Bumper Overhang (front)
			One-way aisle (feet)	Two-way aisle (feet)	One-way aisle (feet)	Two-way aisle (feet)	
0	9	26	12	20	30	38	N/A
45	9	18	12	24	44	56	2
60	9	18	18	24	46	58	2
90	9	18	N/A	24	N/A	60	2

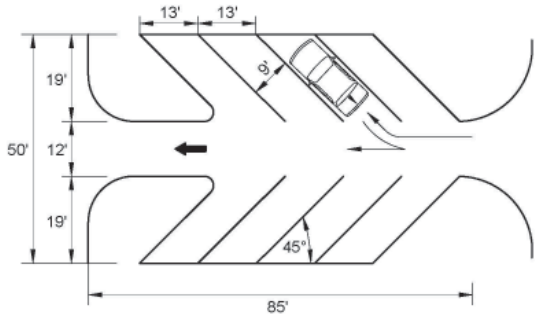
▼ **FIGURE 5.16 PARKING DIMENSIONS**



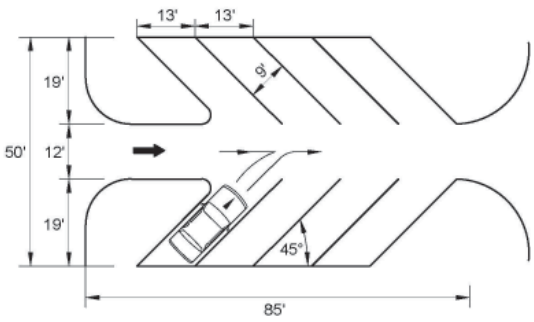
Two-way Aisle 90°



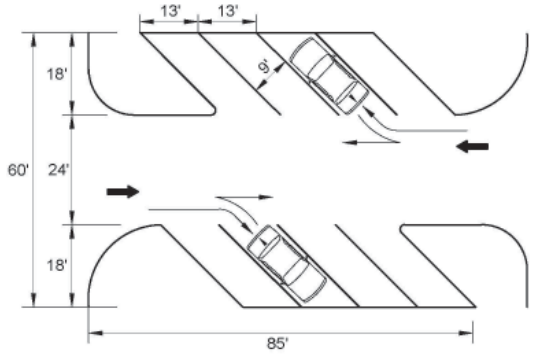
Typical 0° Parking



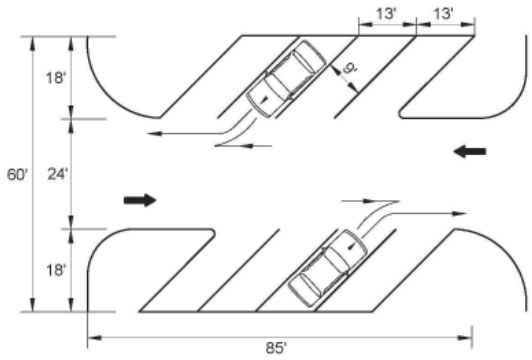
One-way Aisle 45° (Typical)



One-way Aisle 45° (Reverse Angle)

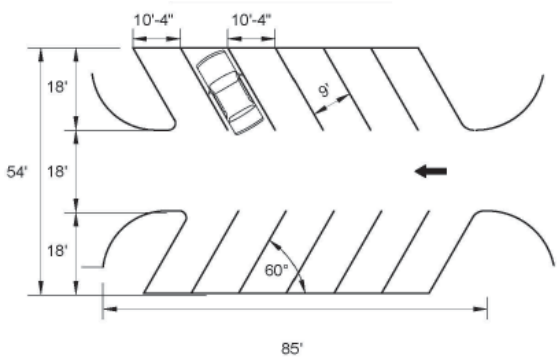


Two-way Aisle 45° (Typical)

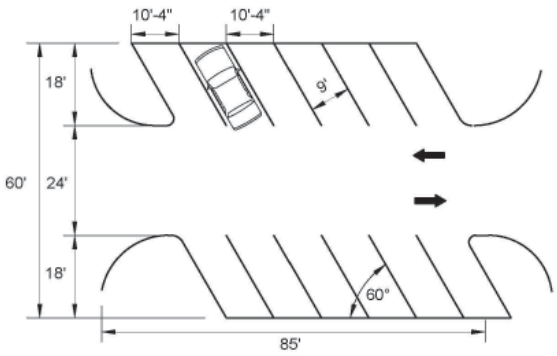


Two-way Aisle 45° (Reverse Angle)

▼ **FIGURE 5.16 PARKING DIMENSIONS (CONT.)**



One-way Aisle 60°



Two-way Aisle 60°

5.5.5 PARKING SURFACE, CURB & GUTTER

A. The following areas shall be paved with asphalt, concrete, pavers or similar paving material meeting the minimum standards for subdivision roads as set forth in the NCDOT Subdivision Roads - Minimum Construction Standards publication:
   - The minimum number of spaces for each use, as set forth in Section 5.5.6 (except agricultural uses, single-family and two-family residential uses);
   - All front and side yard parking areas;
   - Driveways; and
   - ADA parking spaces.

B. Any additional parking areas located in rear yards may be gravel. Parking for religious institutions and recreational uses may also be gravel if approved as part of a Special Use Permit.

C. All parking areas of greater than 20 spaces shall be constructed with standard or valley curb and gutter or an alternative Low Impact Development (LID) method as shown in the pictures below, provided that landscaping is protected from damage by vehicles.

Standard curb and gutter

Standard curb and gutter directed into landscaped areas

Recessed curb with sheet flow drainage to landscaped area

5.5.6 NUMBER OF PARKING SPACES

A. All new developments in all zoning districts shall provide a sufficient number of off-street parking spaces to accommodate the number of vehicles that ordinarily are to be attracted to the development in question. Proof of sufficient parking shall be provided upon application for a Zoning Permit. Except in the TC district, no portion of any street right-of-way shall be considered as fulfilling or partially fulfilling the required number of off-street parking spaces. Parking minimums for the MU district shall be determined as part of the Conditional Zoning process.

B. Minimum parking space requirements are set forth in the Parking Requirements Table on the following pages. The Administrator may reduce the minimum number of parking spaces required or increase the maximum number allowed by up to 10% if the applicant can demonstrate that the number of required parking spaces is excessive or inadequate due to use or property constraints. The Town recognizes that the Parking Requirements Table cannot and does not cover every possible situation that may arise. Therefore, in cases not specifically covered, the Administrator is authorized to determine the parking requirements using the Table as a guide.

C. Except for uses providing 20 or fewer on-site parking spaces, the maximum number of parking spaces provided shall be 125% of the required minimum shown in the Parking Requirements Table on the following pages. Any number of parking spaces above the maximum shall utilize permeable pavers or Low Impact Development design.

D. The number of ADA accessible spaces shall be installed in accordance with NC Building Code. ADA spaces may be included in the total required number of parking spaces.

E. The requirements for off-street parking spaces shall be computed as follows:

1. When units of measurement determining the number of required parking spaces result in a fractional space, any fraction of one-half (1/2) or more shall require one parking space.

2. Where seats consist of pews or benches, each 20 inches in length of pew or a bench shall be considered as one seat.

3. Lots containing more than one (1) principal use shall provide parking in the amount equal to the total of the requirements for each use.

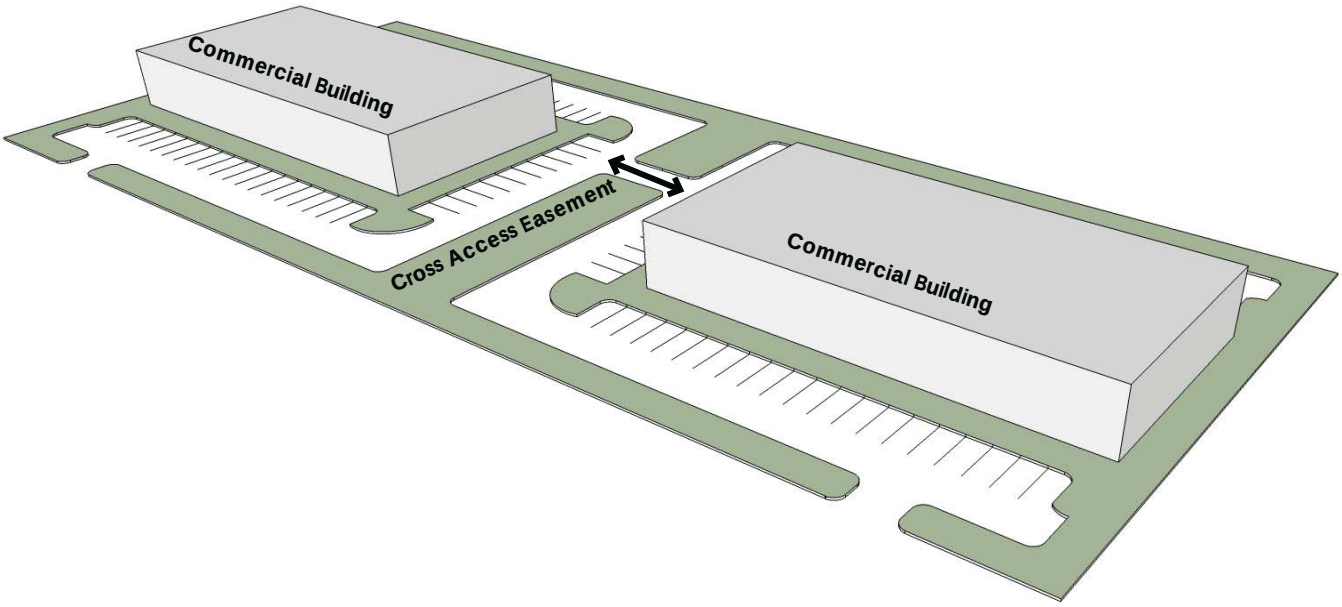
5.5.7 PARKING LOCATION, SHARING, AND CONNECTIVITY

A. The minimum number of required spaces shall be provided on the same lot of record with the use or on a separate lot within 400 feet. Parking for residential uses must be provided on the same lot of record. In the TC zoning district, minimum parking standards may be reduced by half, and minimum parking can be calculated based on the zoning district as a whole.

B. The joint use of shared off-street parking between two (2) uses may be made by contract by two (2) or more adjacent property owners. A copy of the contract or agreement shall be provided to the Town prior to the issuance of a Zoning Permit for the use. Developments that operate at different times may jointly use or share the same parking spaces with a maximum of one-half (1/2) of the parking spaces credited to both uses.

C. All newly constructed parking lots shall be designed to accommodate interconnection between the sites unless natural features prevent connection.

▼ **FIGURE 5.17 PARKING CONNECTIVITY**



▼ **TABLE 5.13 MINIMUM NUMBER OF PARKING SPACES**

Use	Minimum Number of Spaces
Agricultural	
Agricultural uses (unless otherwise specified)	N/A
Equestrian uses, riding stables	1 per horse stall
Farm supply, garden supply, greenhouse or horticultural nursery	1 per 800 square feet of gross sales floor area
Produce stand (permanent)	1 per 300 square feet of gross floor area
Residential	
Residential uses (unless otherwise specified)	2 per dwelling
Accessory dwellings	1 per dwelling
Bed & breakfast inns	2 +1 per guest room
Home occupations (includes daycare homes)	Residential use requirement + 1 space
Civic, Government, & Institutional Uses	
Civic, Government, and Institutional uses (unless otherwise specified)	1 per 300 square feet of gross floor area
Colleges, Universities, & associated facilities	1 per 4 students enrolled
Correctional facility	1 per 2 employees on peak shift
Emergency Services (fire, police, EMS, & similar)	1 per employee + 1 per 3 volunteer personnel on peak shift + 1 per 200 square feet of office space
Group Care Homes	1 space per 2 beds
Hospitals, public and private	1 per 400 square feet of gross floor area of administrative area + 1 per bed
Religious institutions & related uses	1 per 4 seats
Research facilities	1 per 2 employees on peak shift
Residential care facilities	1 space per 2 beds
Schools, elementary and secondary	see Section 4.4.3.2
Schools (trade & vocational)	1 per 4 students enrolled
Office & Service	
Office and Service uses (unless otherwise specified)	1 per 300 square feet of gross floor area
Artists, craftsmen, galleries	1 per employee
Crematories	1 per employee at peak shift
Funeral homes and mortuaries	1 per 4 people of allowable occupancy
Hotels and motels	1 per room + 2 spaces per 3 employees at peak shift
Motion picture production	1 per employee at peak shift

Retail	
Retail uses (unless otherwise specified)	1 per 300 square feet of gross floor area
Automotive, truck, motorcycle sales or rental	3 spaces + 1 space per every 400 square feet of building gross floor area
Farmer's markets	1 per every 4 persons of max. capacity
Restaurants	1 space per employee at peak shift + 1 per every 3 seats
Wholesale	1 per 400 square feet of gross office & sales floor area + 2 per each 3 employees at peak shift
Recreation & Entertainment	
Recreation and Entertainment Uses (unless otherwise specified)	1 per 150 square feet of gross floor area or 1 per every 4 persons of max. capacity (as applicable)
Campgrounds	1.25 per campsite at campground (1 at each campsite)
Industrial, Wholesale, Transportation, & Utility	
Industrial, Wholesale, Transportation, and Utility uses (unless otherwise specified)	2 per each 3 employees on peak shift
Microbreweries, microwineries, and microdistilleries	1 per 300 square feet of gross floor area or 1 per every 3 seats (if seating is provided)
Warehouse, self-storage	1 per 4,000 square feet of gross floor area
Wireless telecommunications towers	1 space
Other	
Drive-throughs (associated with permitted use)	Stacking for 5 vehicles at each bay (on-site)
Temporary Uses	Adequate for use

5.5.8 LOADING AREA REQUIREMENTS

A. Whenever the normal operation of any development requires that goods, merchandise, or equipment be routinely delivered to or shipped from that development, a sufficient off-street loading and unloading area must be provided in accordance with this Section to accommodate the delivery or shipment operations in a safe and convenient manner.

B. Loading and unloading areas shall be so located and designed so that the vehicles intended to use them can:
   - Maneuver safely and conveniently to and from a public right-of-way;
   - Complete the loading and unloading operations without obstructing or interfering with any public right-of-way or any parking space or parking lot aisle.

C. No area allocated to loading and unloading facilities may be used to satisfy the area requirements for off-street parking.

D. Loading areas shall be designed and paved to the same standards as the parking area.

E. The following table shows the minimum number of loading spaces based on gross floor area of any nonresidential building. A loading space shall be a minimum of 12 feet by 25 feet with an overhead clearance of 14 feet.

▼ **TABLE 5.14 LOADING SPACES**

Gross Floor Area of Building (square feet)	Number of Spaces
1,000-10,000	1
10,000-30,000	2
30,000 +	add one space for each additional 30,000 sq. ft.

5.5.9 PARKING OF SPECIFIC TYPES OF VEHICLES

A. In residential areas, the parking or storage of manufactured homes shall be prohibited. Boats, motor homes, recreational vehicles, and camping trailers may, however, be stored or temporarily parked in residential districts; consistent with any more restrictive subdivision covenants.

B. No more than two (2) inoperative motor vehicles per dwelling unit may be stored outdoors, and shall be parked behind the residence, and screened from the public right-of-way and shall also satisfy any more restrictive subdivision covenants that may exist.

C. On any residentially-zoned or used lot, commercial vehicles shall be parked in the side or rear yard only. This shall not apply to agricultural uses.

D. No residentially-developed lot may be used as the base of operation for any freight hauling truck.

E. For purposes of this Ordinance, a recreational vehicle shall not be deemed a dwelling unit and the usage of a recreational vehicle for living, sleeping or housekeeping purposes and the connection of such vehicle to utility services (other than for periodic maintenance and/or repair purposes) shall be prohibited unless the vehicle is located in a camping and recreational vehicle park so designed to accommodate recreation vehicles. Recreational vehicles may only be used as temporary dwellings in accordance with the standards of Section 4.4.8.5.

5.5.10 BICYCLE PARKING

Provision of a bicycle rack for all new developments in the TC zoning district at a rate of two bicycle spaces for every 20 parking spaces is required. Bicycle racks are encouraged for non-residential and multi-family residential uses in all other zoning districts.

5.5.11 DRIVEWAYS

A. Driveways that connect to state-maintained streets shall comply with NCDOT standards.

B. All non-residential driveways shall comply with the following standards:

1. Driveways shall be located a minimum of 60 feet from an intersection with another street.

2. Driveways shall be not less than 10 feet in width for one-way traffic and 18 feet in width for two-way traffic. Driveway width shall not exceed 36 feet.

3. Ten (10)-foot wide driveways are permissible for two-way traffic when:
   - The driveway is not longer than 50 feet;
   - The driveway provides access to not more than five (5) parking spaces; and
   - Sufficient turning space and stacking area is provided so that vehicles need not back into a public street.

C. Driveways shall be as nearly perpendicular to the street right-of-way as possible and shall not exceed 10% grade, dependent upon approval of the Fire Code Official in consultation with the Fire Chief based on fire apparatus size.

D. Driveways shall line up with other driveways across the street and be shared between adjacent uses wherever possible.

E. Unless otherwise required by NCDOT, the maximum number of access points shall be one (1) per 300 feet of frontage. Only one (1) combined entrance and exit connection will be permitted where the frontage is less than 300 feet. Any lot of record in existence on the effective date of this section shall be allowed one (1) access point to the roadway notwithstanding the provisions of this Section that may prohibit such access; provided, however, that two (2) or more lots under common ownership shall be considered one (1) lot and shall comply with the requirements of this Section.

F. All driveways to paved parking areas shall be paved. All driveways to unpaved parking areas, as permitted, shall have a minimum 10-foot deep asphalt or concrete apron.

G. Driveways to parking areas with curb and gutter shall also have curb and gutter.

H. Driveways providing access to a street right-of-way for single-family and two-family residential dwellings shall have a minimum length of 20 feet measured from the edge of the right-of-way towards the interior of the lot. No portion of a driveway which lies within a structure covered by a roof and/or enclosed by wall shall count toward the minimum 20-foot driveway length.

5.6 INFRASTRUCTURE STANDARDS

5.6.1 PURPOSE & APPLICABILITY

A. The purpose of this Section is to ensure that new developments provide adequate infrastructure that is compatible with adopted plans and Town standards.

B. Unless otherwise specified, the requirements of this Section shall be initiated by any one (1) or more of the following activities on a property:

1. New construction or the initial use of the property;

2. A substantial change of use or change in zoning classification;

3. Any building or parking expansion of greater than 25%; or

4. New major subdivisions.

5.6.2 CONFORMANCE WITH COMPREHENSIVE TRANSPORTATION PLAN (CTP)

A. The location and design of streets shall be in conformance with the Mineral Springs Comprehensive Transportation Plan (CTP). Pursuant to NCGS 136-66.2, for new developments with frontage along a state-maintained street, half of the minimum width of the cross section designated in the CTP shall be reserved along the frontage as "future right-of-way", and no structures or parking shall be constructed within this area.

B. In any case where any part of a development lies within the corridor of a thoroughfare shown on a roadway corridor map adopted pursuant to NCGS Chapter 136, Article 2E, no development approval shall be granted with respect to the property in the roadway corridor. Provided, however, no development plan approval shall be delayed by the provision of the roadway corridor map procedure for more than three (3) years from the date of its original submittal.

5.6.3 STREETS

5.6.3.1 MINIMUM CONSTRUCTION STANDARDS

A. Unless otherwise specified, all street design criteria shall meet the standards in the latest published editions of NCDOT's *Subdivision Roads Minimum Construction Standards* and *Standard Specifications for Roads and Structures,* unless otherwise specified in this Ordinance. Street cross sections shall follow those set forth for rural areas in the NCDOT *Complete Streets Planning and Design Guidelines* and shall meet the minimum standards of the International Fire Code. The diagrams below show the typical cross sections for local streets with and without on-street parking.

▼ **TABLE 5.15 ROADWAY SPECIFICATIONS**

Subdivision Type	Public/ Private	Min. R-O-W Width (ft)	Min. Roadway Width (ft)	Paving	Stormwater Conveyance	Sidewalk
Farmhouse Group	Private allowed	30	18	Dirt, Gravel, or Asphalt Paving	Ditch	N/A
Large Lot	Private allowed	40	20	Gravel or Asphalt Paving	Ditch	N/A
Conservation	Public except for 5.6.3.2	58*	24	Asphalt Paving	Curb & Gutter or Ditch	One side if majority of lots are less than 1 ac. in size
Conventional	Public only	58*	26	Ashpalt Paving	Curb & Gutter or Ditch	One side for densities over 1 DUA
Urban Cottage	Public only	58*	24	Asphalt Paving	Curb & Gutter	Both Sides
Non-Residential and Mixed Use	Public only	60	26	Asphalt Paving	Curb & Gutter	One Side or subject to CZ or CUP approval
TC District	Public Only	58*	24	Asphalt Paving	Curb & Gutter	Both Sides

*May be reduced to 50 feet if on-street parking prohibited and 3 on-site parking spaces provided for each residential unit

B. All streets shall be graded to their full right-of-way width. Finished grade, cross section and profile shall meet NCDOT standards as established herein.

C. In addition to new streets, paving, curb and gutter may be required by the Town Council for major subdivisions or by the Technical Review Committee (TRC) for site plans in the following situations:

1. Any existing street segment that has not been accepted for maintenance by the NCDOT, and that is to serve as the required frontage for one (1) or more lots created pursuant to these regulations, shall be improved and dedicated to the public, as provided for above, in such a way that the street segment meets the standards of these regulations for the particular classification of street, including right-of-way width. Such street segment shall be directly connected to the existing public street system by way of at least one (1) public street accepted for maintenance by the NCDOT. No development shall be permitted on any street that is not connected directly to the public street system.

2. Where a development fronts on any existing street segment maintained by NCDOT and the street does not meet the minimum standards of these regulations for the classification of street, the developer shall improve the portion of street adjoining the development to meet the minimum standards including construction and width. When the development adjoins only one (1) side of an existing street, one-half (1/2) of the minimum right-of-way shall be provided, measured from the centerline of the street.

3. The Town Council or TRC may require pavement widening, curb and gutter, and/or storm drainage for turning lanes along any street that forms a significant entrance to a proposed development where, in the opinion of the Town Council or TRC, such improvements are necessary in order to provide for safe vehicular movement into and out of the proposed development.

4. Where a street is stubbed into adjoining property for future extension and such street serves as the frontage for one (1) or more lots, which are not corner lots, the Town Council or Technical Review Committee may require the pavement of a temporary turn-around in a form similar to a cul-de-sac on such street where such turnaround is necessary for the public convenience, safety and service.

5.6.3.2 PRIVATE STREETS

A. Farmhouse Group and Large Lot subdivisions may be allowed to have private streets that are not owned and maintained by NCDOT. All such subdivisions must be developed in accordance with the regulations of this section, other applicable regulations of this Ordinance.

B. In no case shall Farmhouse Group and Large Lot subdivisions with private roads be gated. Conservation subdivisions may obtain approval for a gated residential subdivision subject to the following standards:

1. Plans for a gated entrance in a Conservation Subdivision shall be submitted to Subdivision Administrator as part of the sketch plan for the subdivision and shall be included as part of the Preliminary Plat review process. If the developer and/or the homeowners' association requests a gated entrance after Final Plat approval, the applicant shall submit a sketch plan along with the required fee to the Administrator for Planning Board and Town Council approval.

2. All gated entrances shall meet the following requirements:
   - Have a minimum setback of 200 feet from any major, minor or local thoroughfare as designated in the Comprehensive Transportation Plan;
   - The number of lots in the subdivision shall not exceed 60% of the number of lots shown on the yield plan;
   - All mechanical equipment for the gated functions shall be hidden from plain view and comply with noise ordinances; and
   - All building materials for pillar/walls shall have a natural contour (i.e. stone, wood, etc.) and shall coincide with the overall preservation concepts adopted as Ordinances by the Town of Mineral Springs, including, but not limited to approved plants/shrubs.

3. Maintenance of the gated entrance shall be the sole responsibility of the developer and/or the homeowners association.

C. All private roads, traffic signs and markings shall meet all applicable minimum right-of-way, pavement, construction and design standards for public roads as established by the North Carolina Department of Transportation (NCDOT), except that a four-inch layer of crusher run rock may be provided in lieu of paving in Farmhouse Group and Large Lot subdivisions.

D. The Town of Mineral Springs reserves the right to have streets inspected during the construction phase to insure that they are being built in accordance with all applicable NCDOT standards. The developer of the subdivision shall bear all costs borne by the Town in association with such inspections.

E. Prior to the approval of a final plat, the subdivider shall submit to the Town evidence that the subdivider has created a homeowners' association whose responsibility it will be to maintain private streets within the subdivision. Such evidence shall include filed copies of the articles of incorporation, declarations, and homeowners' association bylaws.

F. The maintenance and upkeep of internal streets, curb, gutter, and sidewalks shall be the sole responsibility of the subdivider and/or any duly incorporated and active homeowners' association.

G. The subdivider and homeowners' association shall guarantee immediate access to all private streets by emergency and law enforcement vehicles. The subdivider and homeowners' association shall guarantee access to all private streets by the Town of Mineral Springs, Union County agencies, State of North Carolina agencies, and all public utility companies. Town of Mineral Springs, Union County, and State of North Carolina Officials and staff shall be permitted entry to the gated residential development to perform zoning inspections and other governmental regulatory activities. Public Utility company vehicles and personnel shall be permitted entry to the gated residential development to perform installation and maintenance activities of public utility infrastructure. A statement to this effect shall appear on or accompany the Final Plat.

5.6.3.3 STREET CONNECTIVITY

A. An approved NCDOT permit is required to connect to any existing state system street.

B. Except in Farmhouse Group and Large Lot subdivisions, proposed streets shall be extended to the boundary of the development for connection to existing streets on the boundary of adjoining property or for future connection, if the adjacent property has future development potential. Where, in the opinion of the Town Council or TRC it is necessary to provide for street access to an adjoining property, proposed streets shall be extended.

C. Cul-de-sacs shall not be used to avoid connection with an existing street to avoid the extension of a thoroughfare or collector street, or to avoid connection to adjoining property.

D. The proposed street layout within a development shall be coordinated with the existing street system of the surrounding area and where possible, existing principal streets shall be extended.

E. Where a development abuts or contains an existing or proposed thoroughfare, the Town Council or Technical Review Committee (TRC) may require marginal access streets, reverse frontage or such other treatment, as may be necessary for adequate separation of through and local traffic. Where a tract of land to be subdivided adjoins NC Highway 75, a marginal access street shall be provided for the lots to be developed adjacent to the highway. In cases where it is not feasible or practical for the subdivider to provide a marginal access street, or when the Town Council determines that the installation of a marginal access would result in a less desirable subdivision design, the Town Council may grant a modification to the requirement for a marginal access street, if permissible by NCDOT. In granting such an exception, the Town Council may require additional conditions such as increased buffering along the highway. Before granting said exception, the Town Council shall find that the spirit and intent of this Ordinance are preserved and that circumstances particular to the subject property, such as topography or shape of the tract, exist to warrant such an exception.

F. Reserve strips and non-access easements adjoining street rights-of-way for the purpose of preventing access to or from adjacent property (except those required by the Town Board or NCDOT to prevent access to thoroughfares) and half-streets shall not be permitted under any condition.

G. Residential collector and local streets shall be laid out in such a way that their use by through traffic will be discouraged. Streets shall be designed or walkways offered for dedication to assure convenient access to parks, playgrounds, schools, or other places of public assembly.

5.6.3.4 FIRE ACCESS AND SECONDARY ACCESS

A. For developments of greater than 30 lots, a minimum 30-foot secondary access easement is required for Fire Department access. The easement shall be cleared so that a fire truck may pass, but does not have to be improved to public road standards.

B. At least two (2) entry points, constructed to NCDOT road standards, shall be provided in developments that contain 100 or more dwelling units and to all lots within the development. Alternatives may be allowed by the Technical Review Committee (TRC) if the curb cuts for the two (2) accesses cannot meet the minimum distance allowed according to NCDOT or Town regulations at any location.

5.6.3.5 CUL-DE-SACS

Except in Farmhouse Group, Rural, and Large-Lot Subdivisions, permanent dead end streets should not exceed 600 feet in length unless a Alternative Design Proposal is granted per Section 3.8. Said modification may be granted as part of the plat approval process. The length of the cul-de-sac shall be computed from the point where the centerline of the dead end street intersects with the center of a through street to the center of the turnaround of the cul-de-sac. Where one (1) cul-de-sac intersects with another cul-de-sac, the end of each cul-de-sac shall be no more than 600 feet from a through street, measured as stated above, unless a modification is granted by the Town Council. The distance from the edge of pavement on the vehicular turnaround to the right-of-way line shall not be less than the distance from the edge of pavement to right-of-way line on the street approaching the turnaround. Cul-de-sacs must be terminated in accordance with Appendix D of the North Carolina Fire Code. Cul-de-sacs should not be used to avoid the extension of an existing street, unless a modification is granted by the Town Council.

5.6.3.6 STREET ALIGNMENT AND SEPARATION

Streets shall be designed 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 60 degrees. Streets crossing natural areas or streams shall cross at or near to right angles as possible within limits of topographic conditions. Offset intersections shall be avoided. A minimum intersection offset of 200 feet shall be maintained on local streets.

5.6.3.7 BLOCKS

A. The lengths, widths, and shapes of blocks shall be determined with due regard to provision of adequate building sites suitable to the special needs of the type of use contemplated; zoning requirements; needs for vehicular and pedestrian circulation; control and safety of street traffic; limitations and opportunities of topography; avoidance of permanent structures of any kind in floodplains or wetlands; and convenient access to water areas.

B. Except in Farmhouse Group, Rural, Large-Lot and Conservation Subdivisions, blocks shall not be less than 400 feet nor more than 1,500 feet in length. Where a longer block will reduce the number of railroad grade crossings, major stream crossings, or where blocks will result in less traffic through residential subdivisions from adjoining business areas, the Town Council may authorize block lengths in excess of 1,500 feet.

C. Blocks shall have sufficient width to allow two (2) rows of lots of minimum depth per applicable zoning regulations except where single row lots are required to separate residential development from through vehicular traffic or another type of use, in nonresidential subdivisions, or where abutting floodplain or wetlands, or a water area.

5.6.3.8 STREET NAMES AND SIGNS

A. Proposed streets which are obviously in alignment with existing streets shall be given the same name. In assigning new names, duplication of existing names shall be avoided and in no case shall the proposed name be phonetically similar to existing names irrespective to the use of a suffix such as street, road, drive, place, court, etc.

B. Street names shall be subject to the approval of the Union County E-911 Addressing Coordinator. Street signs meeting NCDOT and County emergency management specifications shall be installed at all street intersections as the developer's expense.

5.6.3.9 SUBDIVISION STREET DISCLOSURE STATEMENT

All streets shown on the Final Plat shall be designated in accordance with NCGS 136-102.6 and designated as public streets, and shall be conclusively presumed to include an offer of dedication to the public. Where streets are dedicated to the public but not accepted into the NCDOT System, and before any lots are sold, a statement explaining the status of the street shall be included with the final plat.

5.6.3.10 CLUSTER MAIL BOX UNITS

Residential subdivision shall incorporate centralized cluster mailbox in accordance United States Postal Service standards and NCDOT policy on the placement of mail cluster box units (CBU).

5.6.4 SIDEWALKS, MULTI-USE PATHS, & GREENWAYS

A. Sidewalks or multi-use paths shall be provided in the following locations:

   1. For all new non-residential and multi-family residential development along any street front for which a sidewalk or multi-use path is included in the adopted Charlotte Regional Transportation Planning Organization (CRTPO) Comprehensive Transportation Plan (CTP); and

   2. Along new streets as indicated in Table 5.15.

B. Sidewalks in all districts except the TC district, shall be at least five (5) feet wide and shall be separated from the street by a minimum four (4) foot buffer. Sidewalks shall be constructed to NCDOT standards.

C. In the TC district, sidewalks shall be a minimum of six (6) feet wide, with a preferred width of 8-10 feet. Pedestrian benches shall be provided along sidewalks within non-residential and mixed-use areas at a minimum of every 200 feet, to be coordinated with placement of trash receptacles and lighting. If the sidewalk is less than 8 feet wide where the bench is placed, then a concrete pad shall be added behind the sidewalk to accommodate the bench.

D. Where required or provided, greenways and multi-use paths shall be a minimum of 8-feet wide with a preferred width of 10 feet. Multi-use paths adjacent to roadways shall be constructed to NCDOT standards. Greenway paths may be paved, crushed stone, or natural surface as determined by the Town Council during Preliminary Plat review.

5.6.5 LIGHTING STANDARDS

5.6.5.1 PURPOSE

The purpose of this section is to improve nighttime public safety, utility, and security by restricting the nighttime emission of light rays. New lighting technologies have produced lights that are extremely powerful, and these lights may be improperly installed so that they create problems of excessive glare, light trespass, and higher energy use. Excessive glare can be annoying and may cause safety problems. Light trespass reduces everyone's privacy, may be detrimental to the aesthetic values of the Town, and can restrict persons from the peaceful enjoyment of their property. Higher energy use results in increased costs for everyone. This section is intended to reduce the problems caused by excessive lighting, or by improperly designed and installed outdoor lighting.

5.6.5.2 APPLICABILITY

All public and private outdoor lighting installed in the Town of Mineral Springs shall be in conformance with the requirements established by this section. The provisions of this section are intended to supplement other applicable codes and requirements. Compliance with all applicable provisions of building, electrical, and other codes must be observed. In the event of a conflict between the requirements of this code and other requirements, the more stringent requirement shall apply.

5.6.5.3 CONTROL OF GLARE AND LIGHT TRESPASS

A. Any luminaire with a lamp or lamps rated at a total of more than 1800 lumens, and all flood or spot luminaires with a lamp or lamps rated at a total of more than 900 lumens, shall not emit any direct light above a horizontal plane through the lowest direct-light-emitting part of the luminaire.

B. Any luminaire with a lamp or lamps rated at a total of more than 1800 lumens, and all flood or spot luminaires with a lamp or lamps rated at a total of more than 900 lumens, shall be mounted at a height equal to or less than the value 3 + (D/3), where D is the distance in feet to the nearest property boundary. The maximum height of the luminaire may not exceed 25 feet.

C. Unless specified otherwise in this Ordinance, 75% of all outdoor light fixtures used for commercial, advertising, or industrial use, whether installed before, on, or after the effective

date of this Ordinance, shall be turned off between 11:00 PM and sunrise except when used for:

1. Commercial and industrial use (such as sales, assembly, and repair areas) where business is conducted after 11:00 PM, but only while the business is open to the public; or

2. Illuminated advertising signs on the premises of a business while it is open to the public.

5.6.5.4 EXCEPTIONS

A. Any luminaire with a lamp or lamps rated at a total of 1800 lumens or less, and all flood or spot luminaires with a lamp or lamps rated at 900 lumens or less, may be used without restriction to light distribution or mounting height, except that if any spot or flood luminaire rated 900 lumens or less is aimed, directed, or focused such as to cause direct light from the luminaire to be directed toward residential buildings on adjacent or nearby land, or to create glare perceptible to persons operating motor vehicles on public ways, the luminaire shall be redirected or its light output controlled as necessary to eliminate such conditions.

B. Luminaires used for public-roadway illumination may be installed at a maximum height of 25 feet and may be positioned at that height up to the edge of any bordering property.

C. All temporary emergency lighting needed by the Police or Fire Departments or other emergency services, as well as all vehicular luminaires, shall be exempt from the requirements of this Section.

D. All hazard warning luminaires required by Federal regulatory agencies are exempt from the requirements of this Section, except that all luminaires must be shown to be as close as possible to the Federally required minimum lumen output requirement for the specific task.

E. Motion detector security lights which are normally “off” and which are activated for less that five (5) minutes occasionally when motion is detected are exempt from this Section.

F. In the case of flags, statues or other top-of-pole mounted objects, including neighborhood entrances, which cannot be illuminated with down-lighting, upward lighting may be used only in the form of two (2) narrow-cone spotlight which confines the illumination to the object of interest.

G. This Section does not regulate the illumination of outdoor signs. Such regulations can be found in Article 7 of this Ordinance.

5.6.5.5 PROHIBITIONS

The following lighting types are prohibited:

A. Searchlights, lasers, or high-intensity beams;

B. Flashing, rotating or pulsating lighting devices;

C. Tube or strand lighting except between November 15 and January 15;

D. Flood or spot lamps aimed higher than 45 degrees above straight down (half-way between straight down and straight to the side); and

E. Non-shielded wall packs.

5.6.5.6 RECREATIONAL FACILITIES

Any light source permitted by this Section may be used for lighting of outdoor recreational facilities (public or private), such as, but not limited to, football fields, soccer fields, baseball and softball fields, tennis courts, or show areas, provided all fixtures used for event lighting shall comply with the requirements of Section 5.6.5.3 (A & B), or be provided with sharp cut-off capability, so as to minimize up-light, spill light, and glare.

5.6.5.7 TOWN CENTER DISTRICT LIGHTING

Decorative street lighting shall be installed a minimum of every 100 feet along all public streets within the TC district. Fixture and bulb types shall be consistent and approved by the Town of Mineral Springs.

5.6.5.8 APPLICATION TO PRE-EXISTING LUMINAIRES

All luminaires, in non-commercial areas, lawfully in place prior to the date of this Ordinance, are deemed "pre-existing luminaires". However, any luminaire that replaces a pre-existing luminaire, or any pre-existing luminaire that is moved, must meet the standards of this Ordinance subject to the above sentence.

5.6.5.9 AUTHORIZATION FOR INSTALLATION OF PUBLIC AREA AND ROADWAY LIGHTING

Installation of any new public area and roadway lighting fixtures other than for traffic control shall be specifically approved by the Town Council.

5.6.5.10 LIGHTING PLAN

A. The applicant for any permit required by this Ordinance with proposed work involving outdoor lighting fixtures shall submit evidence that the proposed work will comply with the requirements of this Section.

B. The submission shall contain, but shall not necessarily be limited to the following, all or part of which may be in addition to the information required elsewhere in this Ordinance upon application for the required permit:

1. Plans indicating the location on the premises, and the type of illuminating devices, fixtures, lamps, supports, reflectors, and other devices;

2. Description of the illuminating devices, fixtures, lamps, supports, reflectors, and other devices and the description may include, but is not limited to, catalog cuts by manufactures and drawings (including sections where required); and

3. Photometric data, such as that furnished by manufacturers, or similar showing the angle of cut off or light emissions.

C. If such plans, descriptions and data cannot enable this ready determination, by reason of the nature or configuration of the devices, fixtures, or lamps proposed, the applicant shall additionally submit as evidence of compliance to enable such determination such certified reports of tests as will do so provided that these tests shall have been performed and certified by a recognized testing laboratory.

5.6.5.11 DESIGN STANDARDS

A. Lighting design shall be coordinated throughout a development site.

B. Pedestrian scale lighting shall have a character compatible with the nature of the area and complementary to the building architecture. Pedestrian-scale lighting shall be provided at pedestrian intersections, public spaces and along paths to parking lots and other destinations.

C. Lighting shall not be mounted on wood poles, and all light poles and fixtures shall be black.

5.6.5.12 LAMP OR FIXTURE SUBSTITUTION

Should any outdoor light fixture, or the type of light source therein, be changed after the permit has been issued, a change request must be approved by the Administrator, and any substitute fixtures must meet all applicable requirements of this Ordinance.

5.6.5.13 MAINTENANCE

A. All light fixtures that are required to be shielded shall be installed and maintained in such a manner that the shielding is effective as required.

B. Anything other than routine servicing and same-type lamp replacement of any exterior lighting shall require town approval prior to installation.

C. Lighting shall be maintained in good condition. No poles shall remain in a damaged state or have excessive peeling or chipped paint. All bulbs shall be in working order.

5.6.6 UTILITY STANDARDS

5.6.6.1 WATER AND SANITARY SEWER SYSTEMS

A. Subject to availability of public water and/or sanitary sewer service from Union County, if county or municipal water and/or sanitary sewer lines are located within one-half (1/2) mile of any non-residential development of greater than 10,000 square feet of gross floor area or subdivision of 10 – 39 lots, or within one (1) mile of a subdivision of 40 lots or more, where the distances are measured along the roadway to the nearest edge of the property, then the developer must connect to these lines to provide water service, fire protection, and sewer service for the subdivision.

B. All developments shall be designed to either provide public water and sewer or meet Health Department requirements for on-site systems where public services are not available. Water and sewer system shall be designed in accordance with Union County and North Carolina Department of Environmental Quality (NCDEQ) standards. The developer shall be responsible for obtaining all necessary permits, approvals, and inspections.

C. Where water and/or sewer are to be connected to a public system, the Preliminary Plat shall be accompanied by a complete set of construction plans for the proposed system, prepared by a registered engineer, and approved by the engineer of the public sewer system or public water system, and the appropriate state agency.

D. The owner of the subdivision shall pay the cost of all materials necessary to connect to the public water and sewer system. This cost shall include but shall not be limited to tapping sleeves, tees, valves, valve boxes, encasement, and pipes.

E. Where public and private water supply and/or sewerage systems are not available or to be provided, a written statement from the Union County Health Department shall be submitted with the Preliminary Plat indicating that each lot has adequate land area and soil conditions suitable to accommodate the proposed methods of water supply and sewage disposal. The statement from the Health Department shall be based upon a field investigation. The field investigation for sewage disposal shall include a sufficient number of percolation tests (in accordance with state standards) to determine the absorption capacity of the soil and test holes at least six (6) feet deep (as needed) to determine the depth to the ground water table, and the presence of rock formations or other impervious strata.

F. The Town or Union County may, in order to serve future development, require the developer to install certain oversized water and sewer improvements and/or to increase such improvements to a size and/or extend beyond that necessary for the needs created by a nonresidential development. In such cases, the Town or County shall enter into an agreement to reimburse the developer for the oversizing and/or extension based upon rates as agreed to by the Town or County.

G. If substandard water and sewer services are within the immediate vicinity of the project and would require extending or accessing these facilities for the purpose of the development, then the developer is responsible for upgrading the facilities at no additional expense to the Town or Union County to meet the minimum design standards.

H. Any development, which has public water system lines available, shall be required to extend the public water system throughout the development to each lot located therein. All required water line extensions shall include appropriate valves, hydrants, taps and service to the property line of each lot as required by the standards of the Town. All required sewer line extensions shall include appropriate manholes, lift station pumps, clean outs, taps and service to the property line of each lot as required by the standards of the Town.

I. For developments within or partially within the Town, the term "available" shall mean that there is an existing water line of adequate size and water flow and/or pressure either crossing the development property or immediately available from an adjacent public right-of-way or the Town or County indicates its commitment to extend such a water line to the property line of the development at no cost to the developer.

J. In the event the Town or County elects not to extend a water line of sufficient size, flow and/or pressure, to the development (if in the Town) or within the distance set forth in this Section, because of topographic features, legal obstacles, or financial reasons, then, the developer shall not be required to extend water lines to each lot nor provide water service to the development.

K. In any case where a water or sewer system intended to serve more than two (2) lots is proposed to be installed in a development as part of the plan approval process, such system shall be considered to be a "Required Improvement" within the context of this Ordinance regardless of whether such a system is an extension of the public system or not and such system shall be required to be installed by the developer. This requirement includes both

facilities within the development and off-site facilities, which are essential to providing the service to the property.

5.6.6.2 UTILITY LOCATION

A. Utilities shall be located within a dedicated right-of-way or easement. All utilities for new development shall be buried underground. Lines shall be buried to the depth and separation distance required by the utility providers and NCDEQ.

B. Utility pedestals shall be located a minimum of two (2) feet behind the sidewalk and near property lines between buildings and shall be screened with a wall, fence, or evergreen landscaping.

C. To provide for electric, telephone and gas service, community antenna television distribution systems, water and sewer lines and other such facilities within a subdivision, appropriate utility easements not less than 20 feet shall be provided on the final plat. The locations of such easements shall be based upon the approved construction plans. All subdivision plats shall have a note stating that all lot lines shall be subject to a 10-foot utility easement centered on the lot line. All utilities and wire services shall be placed underground. The developer shall be responsible for incorporating the design of all utilities and services into the easement and construction design.

D. All utilities located outside of the public right-of-way shall require a 20-foot easement centered on the utility line. No structures or retaining wall shall be allowed within this easement. The Town or County may require a developer to reserve a 20-foot utility easement for the purpose of extending sewer to adjacent properties at a location specified by the utility provider.

5.6.7 STORMWATER MANAGEMENT STANDARDS

5.6.7.1 STORMWATER SYSTEM REQUIREMENTS

A. It shall be the responsibility of the developer to provide a drainage system, which is designed to meet the following objectives:

1. No surface water shall be channeled or directed into a sanitary sewer;

2. Connect onto an existing storm drainage system, where feasible;

3. Where an existing storm drainage system cannot feasibly be extended to the development, a drainage system shall be designed to protect the proposed development and adjacent properties from water damage;

4. Provide for adequate drainage from all roads, parking lots and other developed areas;

5. Provide a suitable building area on each lot intended for building development, which is safe from inundation, erosion, or subsidence;

6. Prevent both the unnecessary impoundment of natural drainage ways and the creation of areas of standing water;

7. Ensure the existing drainage ways serving adjacent properties are maintained;

8. Ensure that natural runoff levels are not substantially increased in order to prevent harmful flooding downstream and to maintain desirable groundwater levels; and

9. Protect all roads, driveways, utilities and other types of development from major damages caused by improper drainage control.

B. Stormwater design shall follow the most recent editions of NCDOT's *Guidelines for Drainage*

Studies and Hydraulic Design and NCDEQ's *Division of Water Quality Stormwater Best Management Practices*. Additionally, the Town of Mineral Springs hereby adopts and incorporates herein the provisions contained in the *Charlotte-Mecklenburg Stormwater Manual*, as amended (hereinafter referenced as the "Stormwater Manual"), with the following exceptions:

1. Necessary deviations from the Stormwater Manual as may be necessary to accommodate soil types found in Union County, and Town of Mineral Springs Development Ordinance. When discrepancies are found between the Stormwater Manual and the Town of Mineral Development Ordinance or Subdivision Ordinance, the stricter regulation shall apply.

2. In order to prevent flooding and damage to properties, all developments shall provide stormwater detention to control the peak runoff from the 2-, 10-, 25-, 50- and 100-year, 24-hour storm events to pre-development levels. Developments disturbing less than one (1) acre and not part of a common plan of development are exempted from this stormwater detention regulation.

3. Minor residential subdivisions are exempt from the requirements of this section.

4. A design professional shall certify documents demonstrating that construction of the project or subdivision will not increase the rate of runoff from the site nor cause any adverse impacts on downstream facilities or property, unless otherwise exempted in Section 5.6.7.1 (B) 3 or 5.6.7.1 (B) 4.

5. Where ponds are proposed to be constructed, the owners, heirs, assigns or successors of the land shall agree to perpetual maintenance of the pond and shall release and hold harmless the Town of Mineral Springs from any liability, claims, demands, attorney's fees, and costs or judgments arising from said pond. At a minimum, ponds shall be inspected on a yearly basis.

6. No Certificate of Compliance or release of performance bond funds shall be issued for any development until a registered land surveyor has surveyed the as-built detention facilities and the revised calculations have been submitted and approved by the Town. The revised calculations must be sealed by a design professional. In addition, the Town shall not grant final plat approval unless the Town has approved the as-built detention plans and/or a performance bond has been secured.

7. When a detention facility serves more than one property, a "permanent detention easement" which encompasses the detention facility shall be shown on a recorded plat. This easement shall be described by metes and bounds description.
8. There shall be a note placed on the recorded plat that clearly describes who is responsible for maintenance of the detention facilities, pipes and/or channels located within the permanent detention facility.

9. The Town Engineer, on a case-by-case basis, may approve other deviations from the Stormwater Manual.

C. Stormwater systems for developments with more than one (1) acre of disturbed area ad more than 24% of proposed impervious area shall also be reviewed by NCDEQ for compliance with post-construction stormwater requirements. Documentation of satisfactory review of the stormwater system shall be provided prior to the approval of Construction Drawings or Zoning Permit.

D. As a stormwater design option, Low Impact Design may be utilized in accordance with NCDEQ requirements and the *Low Impact Development Guidebook for North Carolina*.

E. Any dam constructed within a development which is greater than 15 feet in height (measured from the lowest point on downstream top of the dam to the highest point on the fill) and is also greater than 10 acre-feet in area (measured from the top of the dam) shall comply with the North Carolina Dam Safety Law of 1967 and the North Carolina Administrative Code Title 15, Subchapter 2K.

5.6.7.2 DRAINAGE EASEMENTS

A. Where a development is traversed by a stream or drainage way, an easement shall be provided conforming with the lines of such a stream and shall be of sufficient width as will be adequate for the purpose. Other drainage easements may be required for the proper drainage of all lots. The design of storm drainage systems and plans, including calculations, shall clearly indicate the easements and dedicated areas required for the construction and maintenance of the drainage system. Where easements are required, they shall be noted on the Final Plat. The Administrator may require any water course or stormwater management facility to be located within dedicated a drainage easement officially recorded at the Union

County Register of Deeds as a "public storm drainage easement" that provides sufficient width for maintenance.

B. No fences or structures shall be constructed across an open drainage channel that will reduce or restrict the flow of water.

5.6.7.3 GRADING STANDARDS

The following standards shall be met in establishing the grading plan for any development:

A. No grading shall take place in an stream buffer, as identified in Section 5.3.2.

B. Developments shall be designed and constructed with a positive drainage flow away from buildings and towards approved storm water management facilities. Plans for drainage facilities shall be approved and sealed by a registered Professional Engineer.

C. Site grading and drainage facilities shall protect sinkholes, wetlands, ponds and lakes from increased sediment loading.

D. All disturbed areas within the dedicated right-of-way and easements of any development street shall be restored with vegetation and the landscaping standards of Section 5.4 shall be met. No grading in the future right-of-way shall exceed one (1) vertical foot for two (2) horizontal feet.

E. All grading shall meet North Carolina's Sedimentation and Erosion Control standards. Any site that proposes more than one (1) acre of disturbed area is subject to approval by NCDEQ. Documentation of satisfactory review and approval of a soil and erosion control plan shall be provided prior to approval of Construction Drawings or a Zoning Permit.

5.6.8 FIRE PROTECTION STANDARDS

A. All fire protection measures shall meet the standards of this Section and of the latest edition of the North Carolina Fire Prevention Code and appendices, adopted by the North Carolina Building Code Council. All amendments thereto shall be effective on the date prescribed by the North Carolina Building Code Council. The Union County Fire Marshal or his or her duly authorized representative is the Fire Code Official charged with administration and enforcement of the Fire Prevention Code. All persons empowered with the administration and enforcement of the Fire Prevention Code possess an appropriate valid certificate issued by the North Carolina Fire Code Officials Qualification Board.

B. Water supply systems shall be approved by the Fire Code Official as to location of hydrants and size of mains. No water mains shall be less than six (6) inches in diameter, and they shall be laid out so as to create a complete circuit, with no dead-end lines in excess of 300 feet. A water hydrant shall be placed at the dead-end. The developer shall install fire hydrants as required by the Fire Code Official dependent on available fire flow.

C. Fire hydrants shall be located such that each structure or portion thereof will be within 500 feet of a hydrant. Fire hydrants shall be located at the right-of-way and the hydrant shall be located as not to exceed 500 feet between hydrants. When practical, hydrants shall be located at street intersections, with intermediate hydrants between intersections, and at entrance drives to the property. In proposed subdivisions, where all structures have not been constructed, hydrant spacing shall be measured along the street right-of-way with spacing provided as shown above.

D. For any structures that have a sprinkler system or a standpipe system, a fire hydrant shall be located no more than 100 feet from the fire department connection. This hydrant shall be dedicated to the fire department connection and shall be in addition to the hydrants required above.

E. The determination of distance shall be made via vehicle access routes (roadways, fire lanes, etc.) and by hose placement from the firefighting equipment located adjacent to the fire hydrant in lieu of direct measurements. The distances specified above are meant to reflect the actual length of fire hose which would be laid by the fire department to reach the structure in the event of a fire at or in that structure. Distances shall be measured beginning at the point of the structure farthest from the hydrant, thence along an unobstructed

pathway to a point in the centerline of the street, thence along the centerline of the street to a point opposite the hydrant. Unobstructed pathway means a route which may be taken by firemen in laying fire hose. The unobstructed pathway shall be, and remain, free of trees and shrubs, walls, fences, wells, structures, or other obstacles to the passage of firefighters, hose and equipment for a width of 20 feet and a minimum vertical distance of 13 feet and six (6) inches (13'-6") and shall not be through, under, or over any portion of any structure, ditch or waterway.

F. The developer of any new subdivision or development, whether it be single or multiple, or whether residential or commercial, is responsible for funding and installing the required fire hydrant(s) and water main to comply with the above requirements.

5.6.9 GARBAGE AND REFUSE COLLECTION

A. All nonresidential and multi-family residential development shall be required to provide one (1) or more dumpsters for solid waste collection that are:
   - Located so as to facilitate collection and minimize any negative impact on persons occupying the development site, neighboring properties, or public rights-of-way;
   - Located in the side or rear yard; and
   - Screened in accordance with Section 5.4.10.

B. For new developments within the TC zoning district, pedestrian-oriented trash receptacles, as approved by the Town of Mineral Springs, shall be installed adjacent to the sidewalk a minimum of every 200 feet.

C. The method of garbage disposal shall be indicated on each Site Plan or Preliminary Plat that is submitted.

5.6.10 PLACEMENT OF MONUMENTS

Unless otherwise specified by this Ordinance, the Standards of Practice for Land Surveying as adopted by the NC State Board of Registration for Professional Engineers and Land Surveyors, under the provisions of Title 21 of the North Carolina Administrative Code, Chapter 56 (21 NCAC 56), shall apply when conducting surveys for subdivisions; to determine the accuracy for surveys and placement of monuments, control corners, markers, and property corner ties; to determine the location, design and material of monuments, markers, control corners, and property corner ties; and to determine other standards and procedures governing the practice of land surveying for subdivisions.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