

Chapter 4: Overlay Districts

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Section 4.1 Purpose

This chapter sets forth the regulations that apply for the Urban Service Areas, ETJ Extension, the Watershed Overlay, the Airport Overlay and the Floodplain Overlay.

Section 4.2 Urban Service Area

Section 4.2.1 Purpose and Application

In order for Iredell County to effectively address future development outside of the local municipal limits, Urban Service Areas (USAs) have been established within the 2030 Horizon Plan. These areas have been developed with the assistance of the Towns of Troutman and Mooresville and the City of Statesville. The USA boundaries have been established based on the assumption that the municipalities will grow within these areas and utilities will be extended either voluntarily or upon request. These boundaries are not static; they are based on the ability of the municipalities to deliver utilities and services. Therefore, the USAs are subject to change.

The USA boundaries will serve as the basis for three (3) primary functions to facilitate and address future growth:

1. Extraterritorial Jurisdiction (ETJ) extension (Section 4.3),
2. The adoption of certain municipal standards (Section 4.4), and
3. Land use decisions (Section 4.4.2)

Section 4.3 ETJ Extension

Section 4.3.1 Municipal ETJ Requests

In certain situations the Board of Commissioners may consider ETJ requests from local municipalities. This would apply to areas that are strategically targeted for growth by the requesting town. When a request is made to the Board the following criteria must be addressed before making a decision.

A. Location Within an Urban Services Area

An area proposed for ETJ expansion shall be within the USA associated with the municipality. Areas outside the USA will NOT be considered for expansion of ETJ.

B. Commitment to Comprehensive Planning

The municipality should demonstrate a commitment to comprehensive planning by including in a request for ETJ expansion the following: adopted land use, public facilities and transportation plans, and a CIP (or a similar plan or arrangement that shows a timeline for utility construction, either associated with a development proposal or town initiated). This commitment must be demonstrated through official actions by the governing body. Future land use and transportation plans are

paramount to ensure that the foundation of the USA (including the development densities, form, and function) is upheld. It is understood that most of the expansions to the utilities systems come through development-funded requests. Therefore, significant pieces of information may come just prior to an ETJ request. Determining whether an area can be reasonably served by utilities within a given amount of time (5 years by this arrangement) must be resolved prior to a decision to release county jurisdiction.

C. Existing ETJ

When a municipality requests additional ETJ, the municipality must demonstrate its progress in annexing and supplying municipal services, especially water and sewer within existing ETJ areas.

D. Special Standards

When evaluating an ETJ expansion request, the municipality's application of special regulations to its existing ETJ, such as transportation improvements along significant corridors, should be considered as evidence of its willingness to apply these special regulations. The municipality must also demonstrate a willingness to adopt such or similar regulations for new areas under consideration for ETJ expansion. If the county has developed area-specific standards such as corridor protection overlays or perennial stream buffers it will be important to continue those protections.

E. Municipal Utilities

The municipality should show how the area proposed for ETJ expansion will be served by water and sewer service within five (5) years of the effective date of ETJ expansion. The systems should be designed with adequate treatment capacity and adequately sized major trunk line extensions to service the area proposed for ETJ expansion. The municipality should include needed improvements above and beyond those proposed in relation to a specific project in its capital improvements program. If the municipality will be required to make improvements or adjustments (generally oversizing) to utilities that will be attributed to a specific project they must be documented in the ETJ request.

F. School Capacity

The Iredell-Statesville and Mooresville Graded School Systems will be given the opportunity to comment on any ETJ extension request. These comments will be taken into consideration by the Board of Commissioners during their deliberation.

G. Traffic Impacts

An analysis of the traffic impacts resulting from the development proposed in the ETJ expansion area(s) will be submitted by the municipality for consideration by the Board of Commissioners.

H. Public Meetings

If the request is being made by a municipality to bring an area into the ETJ that includes over five (5) parcels a public meeting must be held prior to the request coming before the BOC. This public meeting would be the responsibility of the

municipality and the plans for the area would be expressed at the time. The minutes of the meeting would then be submitted as part of the overall request to the Board.

Section 4.3.2 Private ETJ Requests

If a request is being made by an individual or group of individuals (whose property would NOT have far reaching impacts if released) the following process shall apply.

- A. The applicant (developer, citizen, etc.) makes request to the Iredell County Department of Planning and Development.
- B. The Department verifies application information which includes:
 1. Authorization from the Town that the area will be accepted into their jurisdiction,
 2. An accurate map and description of the property, and
 3. The proposed use of the property.
- C. Once the information is verified by the Department of Planning and Development, the request is then sent to the Board of Commissioners to call for a public hearing.
- D. If the Board sets a date for the hearing then the following shall take place:
 1. The property is posted with a public hearing sign,
 2. Letters are sent to the affected property owners, and
 3. A legal ad is run in the local paper.
- E. If the Board does NOT call for the hearing, the request is denied.
- F. At the public hearing property owners may voice their opinions on the request. The Board has the authority to grant the request or deny it based solely on their discretion.

Section 4.4 Municipal Growth Overlay (MGO)

Section 4.4.1 Purpose and Application

The MGO has been developed to accommodate development that is located within the County's zoning jurisdiction but will likely be developed at a later date under one of the local municipality's regulations. This development pattern will likely happen because municipal utilities are, or soon will be, available and annexation may occur. This overlay is meant to foster a "seamless" development pattern between urban and rural uses by providing municipal-type development requirements which are administered by the County.

In making the decision(s) to establish an MGO, the Board of County Commissioners, upon recommendation by the Planning Board, should consider the following:

- A. Location within a USA depicted in the 2030 Horizon Plan, and
- B. The time in which municipal utilities will be available to the site, or the general area. Municipal utilities should be available (sewer trunk lines and/or major water lines), or planned to be available, within two (2) years of the establishment of the MGO. This may be shown through inclusion in a capital improvements plan or via an agreement between the municipality and a developer, property owner, or other legal entity with property within the proposed area.

Section 4.4.2 Land Use Decisions

Proposed land use changes in areas that lie within an MGO shall be subject to a higher level of review than those found outside these districts. The 2030 Horizon Plan has incorporated the adopted land use and/or comprehensive plans for the City of Statesville and the Towns of Mooresville and Troutman. As part of any requested land use change within an MGO the Iredell County Department of Planning and Development shall request, in writing, a statement of consistency from the municipality in whose USA the development lies. This statement shall be included as part of the application for the change and shall be considered by the appointed and elected boards that are making the decision.

The decision making body is NOT bound by the statement of consistency. However, if the decision runs contrary to the statement of the municipality, the decision making body shall explain why the decision was made and justify the change.

Section 4.4.3 Site Plan Review

Any non-residential site plan submitted for review for a project within an MGO shall also be considered by the municipality in whose USA the development lies. These plans shall be reviewed by the municipality to insure compliance with the requirements found in the following section. The municipality shall have 14 days in which to review these plans. Failure to respond to the Department of Planning and Development shall constitute the municipality's support of the project.

Section 4.4.4 Regulations and Required Improvements

These regulations apply to all uses within the overlay. This overlay has been developed based on USAs designated by the City of Statesville, and the Towns of Mooresville and Troutman.

- A. Developments that occur within an MGO shall meet the required stormwater management guidelines adopted by the jurisdiction in whose USA the development is located.

- B. Sidewalks shall be required for subdivisions and developments that fall within this overlay and may be constructed to the standards required by the municipality in whose USA the development is located.
- C. Curb and gutter may be required for subdivisions and developments that fall within this overlay and shall be constructed to the standards required by the municipality in whose USA the development is located.

Section 4.4.5 Billboards

New off-premises signs or billboards are expressly prohibited within this overlay district.

Section 4.5 Watershed Development Overlay

Section 4.5.1 Establishment of Watershed Areas

For purposes of Water Supply Watershed protection, Iredell County is hereby divided into the following areas:

- WS-II-BW (Balance of Watershed)
- WS-III-BW (Balance of Watershed)
- WS-IV-CA (Critical Area)
- WS-IV-PA (Protected Area)

Section 4.5.2 Watershed Areas Described

A. WS-II Watershed Areas - Balance of Watershed (WS-II-BW)

In order to maintain predominantly undeveloped land use intensity pattern, single family residential uses shall be allowed at a maximum of one (1) dwelling unit per acre. All other residential and non-residential development shall be allowed a maximum built-upon area of twelve percent (12%) built-upon area.

1. Allowed Uses

- a. Agriculture, subject to the provisions of the Food Security Act of 1985 and the Food, Agricultural, Conservation and Trade Act of 1990.
- b. Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15 NCAC 11.6101-.0209).
- c. Residential development.
- d. Non-residential development excluding discharging landfills.

2. Density and Built-upon Limits (See Table 4.1)

- a. Single Family Residential-Development shall NOT exceed one dwelling unit per acre on a project by project basis. No residential lot shall be less than one acre, except within an approved cluster development as described Chapter 3, R 5.
- b. All other shall NOT exceed twelve percent (12%) built-upon area on a project by project basis except as follows:

- i. Within the **Yadkin Back Creek Watershed**, up to ten percent (10%) of the balance of the watershed may be developed at up to seventy percent (70%) built-upon area ratio. Non-residential uses which can qualify for the seventy percent (70%) built upon ratio shall be served by public or community water and sewer and zoned for business or industrial uses (N-B, G-B, H-B, M-1, M-2).
- ii. Within the **Coddle Creek Watershed**, up to ten percent (10%) of the balance of the watershed may be developed at up to seventy percent (70%) built-upon area ratio. In order to qualify for the seventy percent (70%) built-upon area ratio in Coddle Creek, the development shall be non-residential in nature.
- iii. For the purpose calculating built-upon area, total project area shall include total acreage in the tract on which the project is to be developed. Additionally, no tract of land shall be further subdivided to an acreage that would exempt the divided property from the required built upon area without first assigning the impervious area to each proposed lot. The assignment of impervious area from the greater tract shall be identified on a map approved by the watershed Administrator and shall be held on file at the Iredell County Department of Planning & Development.

B. WS-III Watershed Areas - Balance of Watershed (WS-III-BW)

In order to maintain low to moderate land use intensity, no single-family residential lot shall be less than 25,000 square feet, except within an approved cluster development (See Chapter 3, R 5.). All other residential and non-residential development shall be allowed at a maximum of twenty-four percent (24%) built-upon area.

1. Allowed Uses

- a. Agriculture, subject to the provisions of the Food Security Act of 1985 and the Food, Agricultural, Conservation and Trade Act of 1990.
- b. Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15 NCAC 11.6101-.0209).
- c. Residential development.
- d. Non-residential development excluding discharging landfills.

2. Density and Built-upon Limits(See Table 4.1)

- a. No single-family residential lot shall be less than 25,000 square feet, except within an approved cluster developments (See Chapter 3, R 5) shall also be allowed.
- b. All Other Residential and Non-Residential--Development shall NOT exceed twenty-four percent (24%) built-upon area on a project by project basis except that up to ten percent (10%) of the balance of the watershed may be developed with new development and expansions to existing development at up to seventy percent (70%) built-upon area on a project by project basis.
- c. For the purpose of calculating built-upon area, total project area shall include total acreage in the tract on which the project is to be developed.

Additionally, no tract of land shall be further subdivided to an acreage that would exempt the divided property from the required built upon area without first assigning the impervious area to each proposed lot. The assignment of impervious area per the greater tract shall be identified on a map approved by the Watershed Administrator and shall be held on file at the Iredell County Department of Planning & Development.

C. WS-IV Watershed Areas - Critical Area (WS-IV-CA)

New development activities that require an erosion/sedimentation control plan under State law or approved local program are required to meet the provisions of this Ordinance when located in a WS-IV watershed. This also includes additions to existing development activities that would cause the development to total an acre or more. This district is meant to accommodate a moderate to high land use intensity.

1. Allowed Uses

- a. Agriculture subject to the provisions of the Food Security Act of 1985 and the Food, Agriculture, Conservation and Trade Act of 1990 and the rules and regulations of the Soil and Water Conservation Commission.
Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15 NCAC 11.6101-.0209).
- b. Residential development.
- c. Non-residential development, excluding: 1) landfills and 2) sites for land application of residuals or petroleum contaminated soils.

2. Density and Built-upon Limits(See Table 4.1)

- a. Single Family Residential. No residential lot shall be less than 30,000 square feet, except within an approved cluster development See Chapter 3, R 5).
- b. All Other Residential and Non-Residential-Development shall NOT exceed twenty-four percent (24%) built-upon area on a project by project basis. For the purpose of calculating the built-upon area, total project area shall include total acreage in the tract on which the project is to be developed.
- c. Additionally, no tract of land shall be further subdivided to an acreage that would exempt the divided property from the required built upon area without first assigning the impervious area to each proposed lot. The assignment of impervious area per the greater tract shall be identified on a map approved by the Watershed Administrator and shall be held on file at the Iredell County Department of Planning & Development.
- d. The high density option shall be available for use in the Catawba Lake Norman and Lookout Shoals Lake watersheds. High density development using engineered stormwater control devices is permitted in this district. Ultimate responsibility for the operation and maintenance of these facilities will rest with the local government. Please refer to Section 8.10.1 & Section 10.13 for a more detailed explanation of this topic.

D. WS-IV Watershed Areas - Protected Area (WS-IV-PA)

New development activities that require an erosion/sedimentation control plan

under State law or approved local government program are required to meet the provisions of this Ordinance when located in a WS-IV watershed. This also includes additions to existing development activities that would cause the development to total an acre or more. This district is meant to accommodate a moderate to high land use intensity.

1. Uses Allowed

- a. Agriculture subject to the provisions of the Food Security Act of 1985 and the Food, Agricultural, Conservation and Trade Act of 1990.
Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15 NCAC 11.6101-.0209).
- b. Residential development.
- c. Non-residential development.

2. Density and Built-upon Limits(See Table 4.1)

- a. Single Family Residential-Development. No residential lot shall be less than 25,000 square feet, except within an approved cluster development (See Chapter 3, R 5).
- b. All Other Residential and Non-Residential Development shall NOT exceed twenty-four percent (24%) built-upon area on a project by project basis. For projects without a curb and gutter street system, development shall NOT exceed thirty-six percent (36%) built-upon area on a project by project basis. For the purpose of calculating built-upon area, total project area shall include acreage in the tract on which the project is to be developed.
- c. Additionally, no tract of land shall be further subdivided to an acreage that would exempt the divided property from the required built upon area without first assigning the impervious area to each proposed lot. The assignment of impervious area per the greater tract shall be identified on an approved map and shall be held on file at the Iredell County Department of Planning & Development.
- d. In the Catawba Lake Norman and Lookout Shoals Lake watersheds only, development under the high density option of up to seventy percent (70%) built-upon area is allowed. High density development using engineered stormwater control devices is permitted in this district. Ultimate responsibility for the operation and maintenance of these facilities will rest with the local government. Please refer to Chapter 10 for a more detailed explanation of this topic.
- e. In addition to the development allowed under paragraph b., new development and expansions to existing development may occupy up to ten percent (10%) of the protected area of both the Cooleemee and South Yadkin River watersheds with up to seventy percent (70%) built-upon area on a project by project basis, when approved as a special intensity allocation (SIA). The Watershed Administrator is authorized to approve SIAs consistent with the provisions of this ordinance. Projects must, to the maximum extent practicable, minimize built-upon surface area, direct stormwater away from surface waters and incorporate best management practices from the North Carolina Division of Water Quality's *Stormwater Best Management Practices*

Manual to minimize water quality impacts. For the purpose of calculating built-upon area, total project area shall include total acreage in the tract on which the project is to be developed.

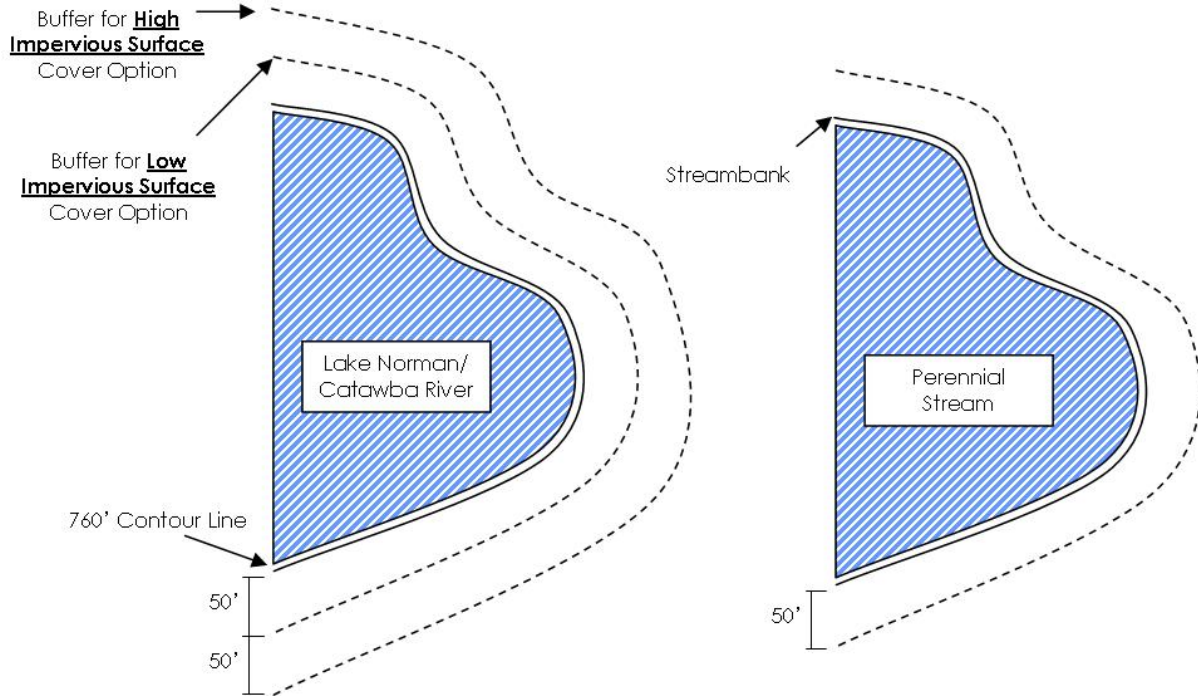
Table 4.1 Watershed Densities

Watershed	Single-Family Residential Density	Non-Residential Low Density Option	Non-Residential High Density Option
Back Creek WSII-BW	43,560 square feet/lot (1 acre)	70% w/ water & sewer (10/70 rule) 12% after 10% used	N/A
Coddle Creek WSII-BW	43,560 square feet/lot (1 acre)	70% (10/70 rule) 12% after 10% used	N/A
Hunting Creek WSIII-BW	25,000 square feet/lot (.57 acre)	70% (10/70 rule) 24% after 10% used	N/A
Catawba/Lake Norman WSIV-CA	30,000 square feet/lot (.69 acre)	24%	24-50%
Catawba/Lake Norman WSIV-PA	25,000 square feet/lot (.57 acre)	24% w/ curb & gutter 36% w/o curb & gutter	24%-70% w/ curb & gutter 36%-70% w/o curb & gutter
Cooleemee WSIV-PA	25,000 square feet/lot (.57 acre)	70% (10/70 rule) 24% w/ Curb & Gutter (36% w/o) after 10% used	N/A
Lookout Shoals WSIV-CA	30,000 square feet/lot (.69 acre)	24%	24-50%
Lookout Shoals WSIV-PA	25,000 square feet/lot (.57 acre)	24% w/ curb & gutter 36% w/o curb & gutter	24% w/ curb & gutter 36% w/o curb & gutter
South Yadkin WSIV-CA	30,000 square feet/lot (.69 acre)	24%	N/A
South Yadkin WSIV-PA	25,000 square feet/lot (.57 acre)	70% (10/70 rule) 24% w/ Curb & Gutter (36% w/o) after 10% used	N/A

Section 4.5.3 Buffer Areas Required

- A. A minimum 100 foot vegetative buffer measured perpendicularly from the streambank is required for all new development activities that exceed the low density option; otherwise, a minimum fifty (50) foot vegetative buffer for development activities is required along all perennial waters indicated on the most recent versions of U.S.G.S. 1:24,000 (7.5 minute) scale topographic maps or as determined by local government studies (See Figure 4.1). Desirable artificial streambank or shoreline stabilization is permitted.

Figure 4.1 Perennial Water Buffer



B. Uses permitted in the buffer include water dependent structures, other structures which result in only diminutive increases in impervious area, public projects such as road crossings and greenways where no practical alternative exists, and recreational structures such as decks, gazebos and sheds which meet the following criteria:

1. Structures must be elevated above pervious ground;
2. Installation cannot result in the removal of trees; and
3. When the cumulative footprint of all structures will exceed 150 square feet, written approval by the Division of Water Quality must be submitted prior to permitting.

These activities should minimize built-upon surface area, direct runoff away from the surface waters and maximize the utilization of stormwater Best Management Practices.

Section 4.5.4 Application of Regulations

A. No building or land shall hereafter be used and no development shall take place except in conformity with the regulations herein specified for the watershed area in which it is located.

- B. No area required for the purpose of complying with the provisions of this ordinance shall be included in the area required for another building.
- C. If a use or class of use is not specifically indicated as being allowed in a watershed area, such use or class of use is prohibited.

Section 4.5.5 Subdivisions in Watersheds

Provisions in Section 4.5.5 shall apply only within the corporate limits of the Towns of Love Valley and Harmony. All others areas within the jurisdiction of this Ordinance (unincorporated areas not within the planning jurisdiction of another municipality) shall follow the subdivision regulations contained in Chapters 8-10.

A. General Provisions

1. No subdivision plat of land within the corporate limits of Love Valley and Harmony which lies within the Public Water Supply Watershed shall be filed or recorded by the Register of Deeds until it has been approved in accordance with the provisions of this Article. Likewise, the Clerk of Superior Court shall NOT order or direct the recording of a plat if the recording of such plat would be in conflict with this Article.
2. The approval of a plat does not constitute or effect the acceptance by Love Valley and Harmony or the public of the dedication of any street or other ground, easement, right-of-way, public utility line, or other public facility shown on the plat and shall not be construed to do so.
3. All subdivisions shall conform with the mapping requirements contained in G.S.47-30.
4. All subdivisions of land within the jurisdiction of Love Valley and Harmony after the effective date of this ordinance shall require a plat to be prepared, approved, and recorded pursuant to this ordinance.

B. Subdivision Application and Review Procedures

1. All proposed subdivisions (as designated in Section 4.5.5 A) shall be reviewed prior to recording with the Register of Deeds by submitting a vicinity map to the Subdivision Administrator to determine whether or not the property is located within a designated Public Water Supply Watershed. Subdivisions within the corporate limits of Love Valley or Harmony that are not within the designated watershed area shall not be subject to the provisions of this ordinance and may be recorded provided the Subdivision Administrator signs the Certificate of Approval for recording. In addition, subdivisions within a WS-IV protected watershed are subject to the provisions of this Ordinance only when an erosion

and sedimentation plan is required to be filed under the provisions of State law, or approved local program. Subdivisions within the designated watershed area shall comply with the provisions of this Article and all other state and local requirements that may apply.

2. Subdivision applications shall be filed with the Subdivision Administrator. The application shall include a completed application form, two (2) copies of the plat and supporting documentation deemed necessary by the Subdivision Administrator.
3. The Subdivision Administrator shall review the completed application and shall either approve, approve conditionally or disapprove each application. The Subdivision Administrator shall take final action within thirty (30) days of submission of the application. The Subdivision Administrator may provide public agencies an opportunity to review and make recommendations. However, failure of the agencies to submit their comments and recommendations shall not delay action within the prescribed time limit.
4. If the Subdivision Administrator approves the application, such approval shall be indicated on both copies of the plat by the appropriate certificate in Appendix A and signed by the Subdivision Administrator.
5. If the Subdivision Administrator disapproves or approves conditionally the application, the reasons for such action shall be stated in writing for the applicant. The subdivider may make changes and submit a revised plan which shall constitute a separate request for the purpose of review.

C. Subdivision Standards and Required Improvements

1. All lots shall provide adequate building space in accordance with the development standards contained in Section 4.5.
2. For the purpose of calculating built-upon area and density, total project area shall include total acreage in the tract on which the project is to be developed. Additionally, no tract of land shall be further subdivided to an acreage that would exempt the divided property from the required built upon area without first assigning the impervious area to each proposed lot. The assignment of impervious area per the greater tract shall be identified on an approved map and shall be held on file at the Iredell County Department of Planning and Development.
3. The application shall be accompanied by a description of the proposed method of providing storm water drainage. The subdivider shall provide a drainage system that diverts stormwater runoff away from surface waters and incorporates best management practices to minimize water quality impacts.
4. The application shall, where required, be accompanied by a written statement that a Sedimentation and Erosion Control Plan has been submitted to and

approved by either the N.C. Division of Land Resources or the Iredell County Department of Planning and Development as long as they are considered and approved delegated Sedimentation and Erosion Control program.

5. Roads constructed in critical areas and watershed buffer areas. Where possible, roads should be located outside of critical areas and watershed buffer areas. Roads constructed within these areas shall be designed and constructed to minimize their impact on water quality.

Section 4.6 Airport Overlay Regulations

Section 4.6.1 Airport Zones

In order to carry out the purposes of air safety, there are hereby created and established certain zones, which include all of the land lying beneath the approach surfaces, transitional surfaces, horizontal surfaces, and conical surfaces as they apply to Statesville Regional Airport. Such zones are shown on the Height Zoning Map (See Figure 4.2) dated September 2007, which is incorporated into the comprehensive zoning map. An area located in more than one (1) of the following zones is considered to be only in the zone with the more restrictive height limitation. The various zones are hereby established and defined as follows:

A. Non-Precision Instrument Approach Zone

The inner edge of this approach zone coincides with the width of the primary surface and is 1,000 feet wide. The approach zone expands outward uniformly at a slope of thirty-four (34) feet horizontally for every one (1) foot vertically to a width of 4,000 feet at a horizontal distance 10,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.

B. Precision Instrument Runway Approach Zone

The inner edge of this approach zone coincides with the width of the primary surface and is 1,000 feet wide. The approach zone expands outward uniformly at a slope of fifty (50) feet horizontally for every one (1) foot vertically for a horizontal distance of 10,000 feet, then at a slope of forty (40) feet horizontally for every one (1) foot vertically to a width of 16,000 feet for a horizontal distance of 50,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.

C. Primary Approach Zones

The Primary Approach Zones begin at each runway end starting at the pavement edge at a width of 1,000 feet and extend to a width of 6,940 for a horizontal distance of 20,000 feet. This zone provides that no structure may be built within this zone that rises above a height as determined in the underlying zoning district as directed in Chapter 2 or to a maximum of fifty (50) feet above ground elevation, whichever is less. No structures will be exempt from this requirement, and under no circumstance shall any structures be located in the Primary Approach Zone that are taller than fifty (50) feet above ground elevation.

D. Primary Zone

The primary zone is the area beneath the primary surface. This zone extends 200 feet beyond each end of the runway, has a width of 1,000 feet, and is centered on the runway centerline.

E. Transitional Zones

The transitional zones are the areas beneath the seven (7) foot horizontal to one (1) foot vertical transitional surface.

F. Horizontal Zone

The horizontal zone is established by swinging arcs of 10,000 feet radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by drawing lines tangent to those arcs. The horizontal zone does not include the approach and transitional zones. This zone contains the Horizontal Surface, which is located 150 feet above the established airport elevation.

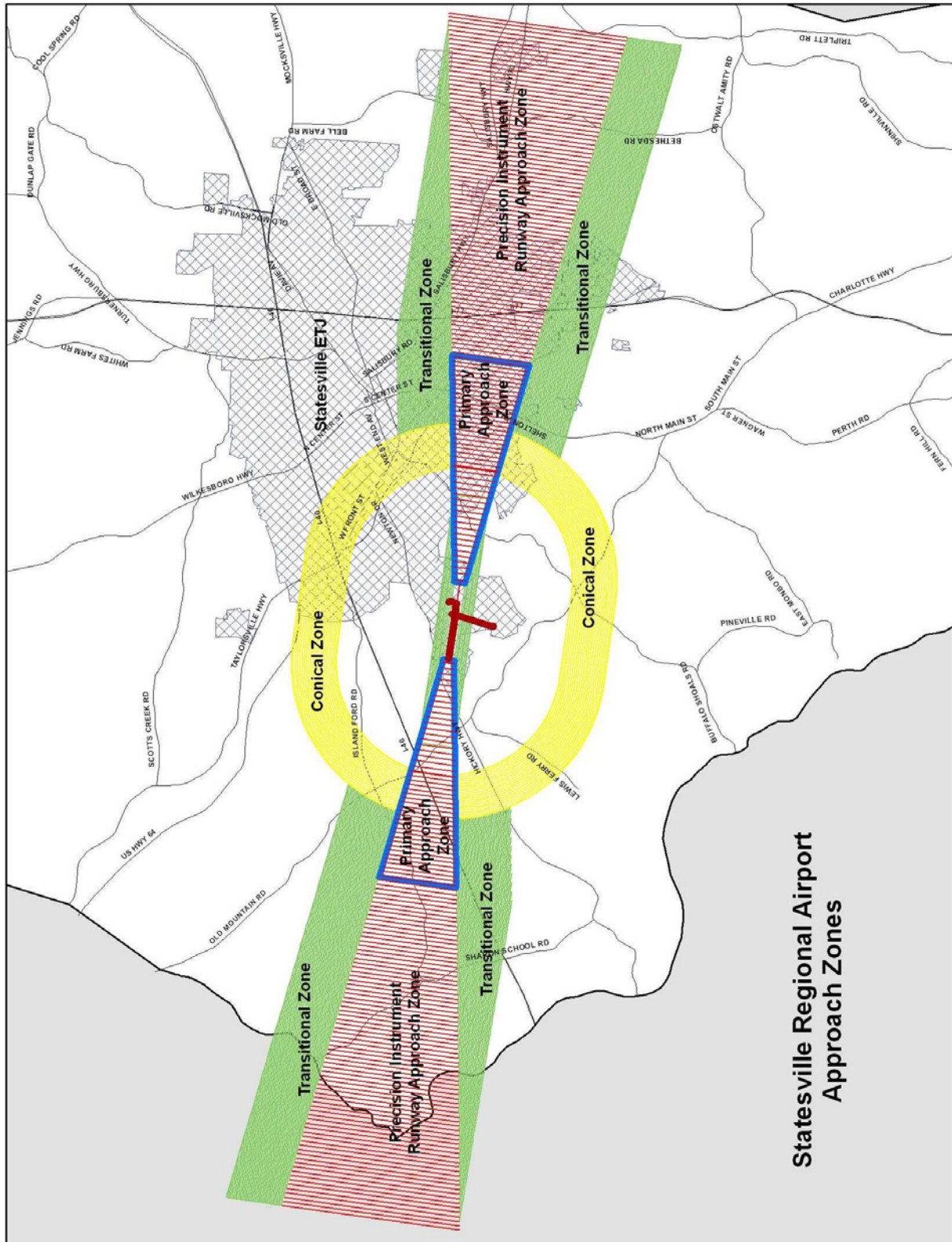
G. Conical Zone

The conical zone is established as the area that commences at the periphery of the horizontal zone and extends outward there from a horizontal distance of 4,000 feet. This zone contains the Conical Surface, which contains a slope of twenty (20) feet horizontally for every one (1) foot vertically.

Section 4.6.2 Height Limitations

No structure or tree shall be erected, altered, allowed to grow or maintained in the airport zones to a height in excess of the height limit as determined by the aerial contours appearing on the Height Zoning Map or referred to in Section 4.6.1. Except for the City of Statesville, the property owner of a tree, determined to be an airport hazard, shall not be responsible for bringing such tree into conformance with this ordinance.

Figure 4.2 Height Zoning Map



Section 4.6.3 Use Restrictions

Notwithstanding any other provisions of this Ordinance, no use may be made of land or water within any zone established by this Ordinance in such a manner as to create electrical interference with navigational signals or radio communication between the airport and aircraft, make it difficult for pilots to distinguish between airport lights and others, resulting in glare in the eyes of pilots using the airport, impair visibility in the vicinity of the airport, create bird strike hazards, or otherwise in any way endanger or interfere with the landing, takeoff, or maneuvering of aircraft intending to use the airport.

Section 4.6.4 Permits

- A. No person shall erect or alter any structure within the airport zones without first applying for and receiving a permit in accordance with the provisions of this ordinance.
- B. Before any existing structure may be replaced, substantially altered or repaired, or rebuilt within the airport zones, a permit must be secured authorizing such replacement, change or repair. No such permit shall be granted that would allow the establishment or creation of an airport hazard or permit a nonconforming structure to be made or become higher than the height limit as determined by the aerial contours appearing on the Height Zoning Map or referred to in Section 4.6.1.
- C. When compliance with the aerial contour height limits cannot be clearly established without further information, the zoning administrator may require that the permit include, but not be limited to, the ground elevation of the area in question with certification by a registered land surveyor or professional engineer.

Section 4.6.5 Hazard marking and lighting

Any permit or variance granted under Section 12.2.3 may, if such action is deemed advisable to effectuate the purposes of this ordinance, be so conditioned as to require the owner of the structure or tree in question, to permit the City of Statesville, at its own expense, to install, operate and maintain thereon such markers and lights as may be necessary to indicate to flyers the presence of an airport hazard.

Section 4.7 Floodplain Overlay Regulations

The flood prone areas within the jurisdiction of Iredell County 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. 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 of uses vulnerable to floods or other hazards.

The objectives of this overlay are to:

- A. protect human life, safety, and health;
- B. minimize expenditure of public money for costly flood control projects;
- C. minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. minimize prolonged business losses and interruptions;
- E. 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. help maintain a stable tax base by providing for the sound use and development of flood prone areas; and
- G. ensure that potential buyers are aware that property is in a Special Flood Hazard Area.

Section 4.7.1 Flood Hazard Overlay Applicability

This overlay shall apply to all Special Flood Hazard Areas within the jurisdiction of Iredell County and within the jurisdiction of any other community whose governing body agrees, by resolution, to such applicability.

Section 4.7.2 Provisions for Flood Hazard Reduction

A. General Standards

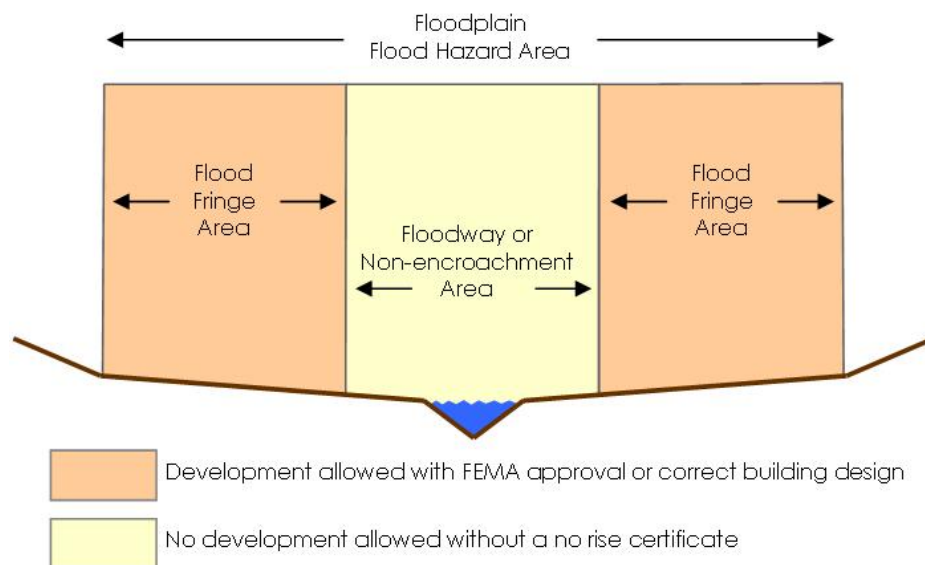
In all Special Flood Hazard Areas (See Figure 4.3) the following provisions are required:

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

2. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
3. All new construction and substantial improvements shall be constructed by methods and practices that minimize flood damages.
4. Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding to the regulatory flood protection elevation. These include, but are not limited to, HVAC equipment, water softener units, bath/kitchen fixtures, ductwork, electric/gas meter panels/boxes, utility/cable boxes, hot water heaters, and electric outlets/switches.
5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharges from the systems into flood waters.
7. On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding.
8. Any alteration, repair, reconstruction, or improvements to a structure, which is in compliance with the provisions of this code, shall meet the requirements of "new construction" as contained in this code.
9. Nothing in this ordinance shall prevent the repair, reconstruction, or replacement of a building or structure existing on the effective date of this ordinance 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 ordinance.
10. 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 12.2.3 C(8). 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 in accordance with the provisions of Section 9.8.3.
11. All subdivision proposals and other development proposals shall be consistent with the need to minimize flood damage.

12. 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.
13. All subdivision proposals and other development proposals shall have adequate drainage provided to reduce exposure to flood hazards.
14. 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.
15. 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.
16. When a structure is located in multiple flood hazard zones or in a flood hazard risk zone with multiple base flood elevations, the provisions for the more restrictive flood hazard risk zone and the highest base flood elevation shall apply.

Figure 4.3 Flood Hazard Areas



B. Specific Standards

In all Special Flood Hazard Areas where Base Flood Elevation (BFE) data has been provided, as set forth in Section 1.4.4, or Section 4.7.2(C), the following provisions, in addition to the provisions of Section 4.7.2(A), are required:

1. Residential Construction

New construction and 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, as defined in Chapter 16.

2. Non-Residential Construction

New construction and 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, as defined in Chapter 16. Structures located in A, AE, AO, and A1-30 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 4.7.2 F(2). A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator as set forth in Section 13.8.3, along with the operational and maintenance plans.

3. Manufactured Homes

- a. New and replacement manufactured homes shall be elevated so that the reference level of the manufactured home is no lower than the regulatory flood protection elevation, as defined in Chapter 16.
- b. 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 foundation. When the elevation of the chassis is above thirty-six (36) inches in height, an engineering certification is required.
- c. All enclosures or skirting below the lowest floor shall meet the requirements of Section 4.7.2 B (4).
- d. 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.

4. Elevated Buildings

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

- a. 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;
- b. shall be constructed entirely of flood resistant materials at least to the regulatory flood protection elevation; and
- c. shall include, in Zones A, AO, AE, and A1-30, 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 or exceed the following minimum design criteria:
 - i. A minimum of two flood openings on different sides of each enclosed area subject to flooding;
 - ii. The total net area of all flood openings must be at least one (1) square inch for each square foot of enclosed area subject to flooding;
 - iii. If a building has more than one enclosed area, each enclosed area must have flood openings to allow floodwaters to automatically enter and exit;
 - iv. The bottom of all required flood openings shall be no higher than one (1) foot above the adjacent grade;
 - v. Flood openings may be equipped with screens, louvers, or other coverings or devices, provided they permit the automatic flow of floodwaters in both directions; and
 - vi. Enclosures made of flexible skirting are not considered enclosures 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. Additions/Improvements

- a. 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:
 - i. 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.
 - ii. a substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.
- b. Additions to post-FIRM structures with no modifications 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.
- c. Additions and/or improvements to post-FIRM structures when the addition and/or improvements in combination with any interior modifications to the existing structure are:

- i. not a substantial improvement, the addition and/or improvements only must comply with the standards for new construction.
 - ii. a substantial improvement, both the existing structure and the addition and/or improvements must comply with the standards for new construction.
- 6. Recreational vehicles shall either
 - a. be on site for fewer than 180 consecutive days and 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); or
 - b. meet all the requirements for new construction.
- 7. 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:

 - a. 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;
 - b. the name, address, and phone number of the individual responsible for the removal of the temporary structure;
 - c. the time frame prior to the event at which a structure will be removed (i.e., minimum of seventy-two (72) hours before landfall of a hurricane or immediately upon flood warning notification);
 - d. a copy of the contract or other suitable instrument with the entity responsible for physical removal of the structure; and
 - e. designation, accompanied by documentation, of a location outside the Special Flood Hazard Area, to which the temporary structure will be moved.
- 8. 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:

 - a. Accessory structures shall not be used for human habitation (including working, sleeping, living, cooking or restroom areas);
 - b. Accessory structures shall not be temperature-controlled;
 - c. Accessory structures shall be designed to have low flood damage potential;
 - d. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
 - e. Accessory structures shall be firmly anchored in accordance with the provisions of Section 4.7.2 A (1);
 - f. All service facilities such as electrical shall be installed in accordance with the provisions of Section 4.7.2 A (4); and
 - g. Flood openings to facilitate automatic equalization of hydrostatic flood forces shall be provided below regulatory flood protection elevation in conformance with the provisions of Section 4.7.2 B (4) (c).

An accessory structure with a footprint less than 150 square feet that satisfies the criteria outlined above does not require an elevation or floodproofing certificate. Elevation or floodproofing certifications are required for all other accessory structures in accordance with Section 9.8.3.

C. Standards for Floodplains without Established Base Flood Elevations

Within the Special Flood Hazard Areas designated as Approximate Zone A and established in Section 1.4.4, where no Base Flood Elevation (BFE) data has been provided by FEMA, the following provisions, in addition to the provisions of Section 4.7.2 A, shall apply:

1. 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 any increase in flood levels during the occurrence of the base flood discharge.
2. The BFE used in determining the regulatory flood protection elevation shall be determined based on the following criteria:
 - a. When Base Flood Elevation (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 4.7.2 A and 4.7.2 B.
 - b. 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 4.7.2 B and 4.7.2 E.
 - c. All subdivision, manufactured home park and other development proposals shall provide Base Flood Elevation (BFE) data if development is greater than five (5) acres or has more than fifty (50) lots/manufactured home sites. Such Base Flood Elevation (BFE) data shall be adopted by reference in accordance with Section 1.4.4 and utilized in implementing this ordinance.
 - d. When Base Flood Elevation (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 Chapter 16. All other applicable provisions of Section 4.7.2 B shall also apply.

D. Standards for Riverine Floodplains with Base Flood Elevations but without Established Floodways or Non-Encroachment Areas

Along rivers and streams where BFE data is provided by FEMA or is available from another source but neither floodway nor non-encroachment areas are identified for a Special Flood Hazard Area on the FIRM or in the FIS report, the following requirements shall apply to all development within such areas:

1. Standards of Sections 4.7.2 A and 4.7.2 B; and
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.

E. Floodways and Non-Encroachment Areas

Areas designated as floodways or non-encroachment areas are located within the Special Flood Hazard Areas established in Section 1.4.4. 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, in addition to standards outlined in Sections 4.7.2 A and 4.7.2 B, shall apply to all development within such areas:

1. No encroachments, including fill, new construction, substantial improvements and other developments shall be permitted unless:
 - a. it is demonstrated that the proposed encroachment would not result in any increase in the flood levels during the occurrence of the base flood, based on hydrologic and hydraulic analyses performed in accordance with standard engineering practice and presented to the Floodplain Administrator prior to issuance of floodplain development permit, or
 - b. a Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) must also be obtained upon completion of the proposed encroachment.
2. If Section 4.7.2 E (1) is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this ordinance.
3. No manufactured homes shall be permitted, except replacement manufactured homes in an existing manufactured home park or subdivision, provided the following provisions are met:
 - a. the anchoring and the elevation standards of Section 4.7.2 B(3); and
 - b. the no encroachment standard of Section 4.7.2 E(1).

F. Standards for Areas of Shallow Flooding (Zone AO)

Located within the Special Flood Hazard Areas established in Section 1.4.4, 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 4.7.2 A and 4.7.2 B, all new construction and substantial improvements shall meet the following requirements:

1. 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 one (1) foot, above the highest adjacent grade; or at least four (4) feet above the highest adjacent grade if no depth number is specified. A minimum of four (4) feet is recommended where a depth is not provided.
2. Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in Section 4.7.2 F(1) 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 9.8.3 and Section 4.7.2 B (2).
3. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

Section 4.7.3 Warning and Disclaimer of Liability

The degree of flood protection required by this ordinance 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 ordinance 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 ordinance shall not create liability on the part of Iredell County or by any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.