

Schedule of rules, standards, and values to be used in appraising property in Harnett County for the reappraisal effective January 1, 2022.

**HARNETT COUNTY  
BOARD OF COMMISSIONERS**

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**Approved**

November 15, 2021  
*Date*

**HARNETT COUNTY BOARD OF COMMISSIONERS**

**Signed**

  
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# HARNETT COUNTY

2022



## SCHEDULE OF VALUES

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**COMPONENTS OF A REAPPRAISAL**

To accomplish the task of valuing all parcels within a county as of the January 1 reappraisal date, the methodology of mass appraisal rather than the methodology of single-property appraisals must be utilized. Mass appraisal is the systematic appraisal of groups of properties as neighborhoods. This is accomplished by using standardized procedures and statistical testing. In a mass appraisal system, the assessor must make valuation judgments about groups of properties rather than single properties. The assessor must be able to develop, support and explain standardized adjustments in a valuation model among use classes, construction types, neighborhoods and other property groups. The guide used for this is the uniform schedule of values. The schedule of values is made up of schedules, standards, rules, tables and other factors used to apply the correct value to parcels. The schedule of values serves as the county's mass appraisal model and is implemented by means of a computer assisted mass appraisal system (CAMA). Incorporated in the schedule may be building cost figures derived from national data that have been adjusted to reflect local costs, local cost studies, qualifying arms-length sales, and income and expense formulas. The schedule of values sets forth values for appropriate unit of measurement for use in appraising land and buildings. For example, land may be valued by a set amount per square foot, lot, acre, or home-site, depending on the highest and best use, while a dwelling is typically valued using an established amount per square foot. The land unit per appropriate unit of measurement also will vary depending on the neighborhood in which the land is situated. Factors that warrant adjustments are also set forth in the schedule of values for various types of property. The schedule typically authorizes adjustments to land value based on factors such as home-site size, excess acreage, road frontage, topography, zoning, the presence of easements and other factors. A county's schedule also typically prescribes ranges of characteristics and corresponding percentage adjustments for recognized factors.

Mass appraisal for ad valorem purposes entails many of the same principles as an independent fee, single-property appraisal. Mass appraisal techniques, however, emphasize valuation modules (expressed as equations, tables and schedules), standards of practice, and statistical quality control. A reassessment program consists of these subsystems:

1. A data management system
2. A sales analysis system
3. A valuation system
4. An administrative system



## **DATA MANAGEMENT SYSTEM**

The data management system has components for collection, entry, editing, organization, conversion, storage, and security of property characteristics and ownership. Quality control of this system is very important because the accuracy of the values determined depends on the reliability of the data from which they are generated. In addition, data collection, conversion, and maintenance are the most expensive aspect of any reappraisal program. Special care must be given to the thought and planning required of managing logic to minimize cost.

Data maintenance is the protocol for creating new parcels, capturing and valuing new construction, and making changes to the current property database. The maintenance protocol consists of three components:

1. County land records system: the daily creation of new parcels from the recording of “splits” (dividing of an existing parcel), combining existing parcels, and the recording of new subdivision plats feeds the second component.
2. Permits and inspections: as the appraisal staff receives notice of new permits and inspections, property record cards are accessed, and new data is collected. Staff receives this information and monitors the construction progress and makes determinations of the percentage of construction completed as of January 1 each calendar year.
3. Periodic re-inspection of all properties: routine field visits are supplemented with information obtained from the latest Orthophotography and provided by property owners as part of the annual listing abstracts and requests from taxpayers for review or appeal.

## **SALES ANALYSIS SYSTEM**

The sales analysis system has components for sales data collection, sales screening and processing, ratio studies, and sales reporting. Assessment/sales ratio studies are the primary tool for measuring mass appraisal performance. They are invaluable for monitoring appraisal results, identifying reappraisal priorities, adjusting valuations to the market, and assisting the administrative system in planning and scheduling.

Ratio studies and sales reports draw on values produced by the valuation system and on property characteristics maintained in data management.

## VALUATION SYSTEM

The valuation system (CAMA) consists of mass appraisal applications of the three approaches to value and/or allows for various adjustments that recognize specific aspects of each approach. The three approaches are:

1. Cost Approach: requires maintenance and application of computerized cost schedules and equations, depreciation schedules, and indexing factors. This data comes from contractors, building material suppliers, etc.
2. Sales Comparison Approach: applications include multiple regression analysis and model building for automated comparable sales analysis.
3. Income Approach: will require income multipliers and overall rates. The information to generate this comes from rental, leasing, sales, etc., data provided by owners and tenants.

The optimum results of the valuation system will be to consider all three approaches to value, as appropriate to property type, and determine which method(s) produces the best results for the final appraisal. Properly executed, any of the three approaches to value will yield creditable results, however the sales comparison and income approaches are highly dependent on available data. Of the three approaches, only the cost approach can be uniformly applied with limited data.

The economy can affect the number of arm's length sales occurring in the market. A general county-wide reappraisal depends on data being available from a wide variety of sources in order to properly apply each of the three approaches to value. Even when an abundance of relevant data is available for applying the sales comparison approach and the income approach, that data may also be utilized in refining the cost approach. In the absence of relevant data prior to the final determination of reappraisal values, the cost approach becomes the more reliable approach for all property types. Below is a comparison of the three approaches to value and when best to apply them.

### RESIDENTIAL

- 1.Sales Comparison
- 2.Cost
- 3.Income

### COMMERCIAL

- 1.Sales Comparison
- 2.Income
- 3.Cost

### INDUSTRIAL/ SPECIAL PURPOSE

- 1.Cost
- 2.Sales Comparison
- 3.Income

For an assessor to undertake their responsibilities and duties properly, the assessor must be familiar with the legal framework in which to perform their function. The legal framework sets the guidance and rules to follow for a reappraisal. Some general statutes, but not all, are included in this section. Others will be included throughout this schedule as applicable.

## STATUTORY REQUIREMENTS

### *G S 105-286. Time for general reappraisal of Real Property.*

(a) Octennial Cycle. - Each county must reappraise all real property in accordance with the provisions of G.S. 105-283 and G.S. 105-317 as of January 1 of the year set out in the following schedule and every eighth year thereafter, unless the county is required to advance the date under subdivision (2) of this section or chooses to advance the date under subdivision (3) of this section.

- (1) Schedule of Initial Reappraisals.  
Division One - 1972: Harnett
- (2) Mandatory Advancement. - A county whose population is 75,000 or greater according to the most recent annual population estimates certified to the Secretary by the State Budget Officer must conduct a reappraisal of real property when the county's sales assessment ratio determined under G.S. 105-289(h) is less than .85 or greater than 1.15, as indicated on the notice the county receives under G.S. 105-284. A reappraisal required under this subdivision must become effective no later than January 1 of the earlier of the following years:
  - a. The third year following the year the county received the notice.
  - b. The eighth year following the year of the county's last reappraisal.
- (3) Optional Advancement. - A county may conduct a reappraisal of real property earlier than required by subdivision (1) or (2) of this subsection if the Board of County Commissioners adopts a resolution providing for advancement of the reappraisal. The resolution must designate the effective date of the advanced reappraisal and may designate a new reappraisal cycle that is more frequent than the octennial cycle set in subdivision (1) of this subsection. The Board of County Commissioners must promptly forward a copy of the resolution adopted under this subdivision to the Department of Revenue. A more frequent reappraisal cycle designated in a resolution adopted under this subdivision continues in effect after a mandatory reappraisal required under subdivision (2) of this subsection unless the board of county commissioners adopts another resolution that designates a different date for the county's next reappraisal.

*Note:* Under the provisions of *G S 105-286(a)(3)*, for 2022 the Harnett County Board of Commissioners adopted a resolution to advance the reappraisal date to January 1, 2022, and continue on a four-year reappraisal cycle from this date.

***G S 105-273(13). Definitions***

Real property, real estate, or land. - Any of the following:

- a. The land itself.
- b. Buildings, structures, improvements, or permanent fixtures on land.
- c. All rights and privileges belonging or appertaining to the property.
- d. A manufactured home as defined in G.S. 143-143.9(6), unless it is considered tangible personal property for failure to meet all of the following requirements:
  1. It is a residential structure.
  2. It has the moving hitch, wheels, and axles removed.
  3. It is placed upon a permanent foundation either on land owned by the owner of the manufactured home or on land in which the owner of the manufactured home has a leasehold interest pursuant to a lease with a primary term of at least 20 years and the lease expressly provides for disposition of the manufactured home upon termination of the lease.

***G S 105-296(b). Powers and duties of assessor.***

Within budgeted appropriations, he shall employ listers, appraisers, and clerical assistants necessary to carry out the listing, appraisal, assessing, and billing functions required by law. The assessor may allocate responsibility among such employees by territory, by subject matter, or on any other reasonable basis. Each person employed by the assessor as a real property appraiser or personal property appraiser shall during the first year of employment and at least every other year thereafter attend a course of instruction in his area of work. At the end of the first year of their employment, such persons shall also achieve a passing score on a comprehensive examination in property tax administration conducted by the Department of Revenue.

***G S 105-299. Employment of experts.***

The Board of County Commissioners may employ appraisal firms, mapping firms or other persons or firms having expertise in one or more of the duties of the assessor to assist him or her in the performance of such duties. The county may make available to such persons any information it has that will facilitate the performance of a contract entered into pursuant to this section. Persons receiving such information shall be subject to the provisions of G.S. 105-289(e) and G.S. 105-259 regarding the use and disclosure of information provided to them by the county. Any person employed by an appraisal firm whose duties include the appraisal of property for the county shall be required to demonstrate that he or she is qualified to carry out such duties by achieving a passing grade on a comprehensive examination in the appraisal of property administered by the Department of Revenue. In the employment of such firms, primary consideration shall be given to the firms registered with the Department of Revenue pursuant to the provisions of G.S. 105-289(i). A copy of the specifications to be submitted to potential bidders and a copy of the proposed contract may be sent by the board to the Department of Revenue for review before the invitation or acceptance of any bids. Contracts for the employment of such firms or persons shall be deemed to be

contracts for personal services and shall not be subject to the provisions of Article 8, Chapter 143, of the General Statutes.

(1939, c. 310, s. 408; 1971, c. 806, s. 1; 1973, c. 476, s. 193; 1975, c. 508, s. 2; 1983, c. 813, s. 4; 1985, c. 601, s. 2; 1989, c. 79; 2002-184, s. 7; 2003-416, s. 9; 2012-152, s. 2; 2012-194, s. 61.5(b).)

***G S 105-317. Appraisal of real property; adoption of schedules, standards, and rules.***

(a) Whenever any real property is appraised it shall be the duty of the persons making appraisals:

(1) In determining the true value of land, to consider as to each tract, parcel, or lot separately listed at least its advantages and disadvantages as to location; zoning; quality of soil; waterpower; water privileges; dedication as a nature preserve; conservation or preservation agreements; mineral, quarry, or other valuable deposits; fertility; adaptability for agricultural, timber-producing, commercial, industrial, or other uses; past income; probable future income; and any other factors that may affect its value except growing crops of a seasonal or annual nature.

(2) In determining the true value of a building or other improvement, to consider at least its location; type of construction; age; replacement cost; adaptability for residence, commercial, industrial, or other uses; past income; probable future income; and any other factors that may affect its value.

(3) To appraise partially completed buildings in accordance with the degree of completion on January 1.

(b) In preparation for each revaluation of real property required by G.S. 105-286, It shall be the duty of the assessor to see that:

(1) Uniform schedules of values, standards, and rules to be used in appraising real property at its true value and at its present-use value are prepared and are sufficiently detailed to enable those making appraisals to adhere to them in appraising real property.

(2) Repealed by Session Laws 1981, c. 678, s. 1.

(3) A separate property record be prepared for each tract, parcel, lot, or group of contiguous lots, which record shall show the information required for compliance with the provisions of G.S. 105-309 insofar as they deal with real property, as well as that required by this section. (The purpose of this subdivision is to require that individual property records be maintained in sufficient detail to enable property owners to ascertain the method, rules, and standards of value by which property is appraised.)

(4) The property characteristics considered in appraising each lot, parcel, tract, building, structure and improvement, in accordance with the schedules of values, standards, and rules, be accurately recorded on the appropriate property record.

(5) Upon the request of the owner, the Board of Equalization and Review, or the Board of County Commissioners, any particular lot, parcel, tract, building, structure or improvement be actually visited and observed to verify the accuracy of property characteristics on record for that property.

(6) Each lot, parcel, tract, building, structure and improvement be separately appraised by a competent appraiser, either one appointed under the provisions of G.S. 105-296 or one employed under the provisions of G.S. 105-299.

(7) Notice is given in writing to the owner that he is entitled to have an actual visitation and observation of his property to verify the accuracy of property characteristics on record for that property.

(c) The values, standards, and rules required by subdivision (b)(1) shall be reviewed and approved by the Board of County Commissioners before January 1 of the year they are applied. The Board of County Commissioners may approve the schedules of values, standards, and rules to be used in appraising real property at its true value and at its present-use value either separately or simultaneously. Notice of the receipt and adoption by the Board of County Commissioners of either, or both, the true value and present-use value schedules, standards, and rules, and notice of a property owner's right to comment on and contest the schedules, standards, and rules shall be given as follows:

(1) The assessor shall submit the proposed schedules, standards, and rules to the Board of County Commissioners not less than 21 days before the meeting at which they will be considered by the board. On the same day that they are submitted to the board for its consideration, the assessor shall file a copy of the proposed schedules, standards, and rules in his office where they shall remain available for public inspection.

(2) Upon receipt of the proposed schedules, standards, and rules, the Board of County Commissioners shall publish a statement in a newspaper having general circulation in the county stating:

a. That the proposed schedules, standards, and rules to be used in appraising real property in the county have been submitted to the Board of County Commissioners and are available for public inspection in the assessor's office; and

b. The time and place of a public hearing on the proposed schedules, standards, and rules shall be held by the Board of County Commissioners at least seven days before adopting the final schedules, standards, and rules.

(3) When the Board of County Commissioners approves the final schedules, standards, and rules, it shall issue an order adopting them. Notice of this order shall be published once a week for four successive weeks in a newspaper having general circulation in the county, with the last publication being not less than seven days before the last day for challenging the validity of the schedules, standards, and rules by appeal to the Property Tax Commission. The notice shall state:

a. That the schedules, standards, and rules to be used in the next scheduled reappraisal of real property in the county have been adopted and are open to examination in the office of the assessor; and

b. That a property owner who asserts that the schedules, standards, and rules are invalid may except to the order and appeal therefrom to the Property Tax Commission within 30 days of the date when the notice of the order adopting the schedules, standards, and rules was first published.

(d) Before the Board of County Commissioners adopts the schedules of values, standards, and rules, the assessor may collect data needed to apply the schedules, standards, and rules to each parcel in the county. (1939, c. 310, s. 501; 1959, c. 704, s. 4; 1967, c. 944; 1971, c. 806, s. 1; 1973, c. 476, s. 193; c. 695, s. 5; 1981, c. 224; c. 678, s. 1; 1985, c. 216, s. 2; c. 628, s. 4; 1987, c. 45, s. 1; c. 295, s. 1; 1997-226, s. 5.)

### ***G S 105-283. Uniform appraisal standards.***

All property, real and personal, shall as far as practicable be appraised or valued at its true value in money. When used in this Subchapter, the words "true value" shall be interpreted as meaning market value, that is, the price estimated in terms of money at which the property would change hands between a willing and financially able buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of all the uses to which the property is adapted and for which it is capable of being used. For the purposes of this section, the acquisition of an interest in land by an entity having the power of eminent domain with respect to the interest acquired shall not be considered competent evidence of the true value in money of comparable land. (1939, c. 310, s. 500; 1953, c. 970, s. 5; 1955, c. 1100, s. 2; 1959, c. 682; 1967, c. 892, s. 7; 1969, c. 945, s. 1; 1971, c. 806, s. 1; 1973, c. 695, s. 11; 1977, 2nd Sess., c. 1297.)

**Note: The Machinery Act of North Carolina has been provided as an integral part of these Uniform Schedules of Value, Standards, and Rules. All applicable standards not recited in this text are included by reference.**

In addition to the specific statutory direction and appellate court rulings, it is necessary to be well-versed with the nature of appraised values of property and with the basic economic principles that serve as the foundation of the valuation process.

## **APPRAISAL THEORY**

An appraisal, in itself, is nothing more than an opinion of value. This does not imply, however, that one opinion is necessarily as good as another; there are valid and accurate appraisals, and there are invalid and inaccurate appraisals. The validity of an appraisal can be measured against the supporting evidence from which it was derived, and its accuracy against that very thing it is supposed to predict - the actual behavior of the market. Each is fully contingent upon the ability of the appraiser to record adequate data and to interpret that data into an indication of value.

Appraising real property, like the solving of any problem, is an exercise in reasoning. It is a discipline, and like any discipline, it is founded on fundamental economic and social principles. From these principles evolve certain premises which, when applied to the valuation of property, serve to explain the reaction of the market. This section concerns itself with those concepts and principles basic to the property valuation process. One cannot overstate the necessity of having a workable understanding of them.

## **CONCEPT OF PROPERTY**

The definition of property should begin the discussion of assessing value. Property is associated with the right of any person to possess, use, enjoy and dispose of a thing. Property, then, is a broad term expressing the relationship between owners and their rights in and to possessions. In appraising real property, the parcel to be appraised includes the rights inherent in ownership of the property and should be included in the opinion of value rendered by the reappraisal.

All property may be divided into two major categories--real property and personal property. Real property is defined as the sum of the tangible and intangible rights in land and improvements. This refers to the interest, benefits, and rights inherent in the ownership of physical real estate. Real estate is the physical land, and everything permanently attached to it. Personal property consists of moveable items not permanently affixed to, or part of, the real estate and is commonly known as "personal" or "chattels".

Real estate may be divided into two categories--land and improvements. Land is defined as the surface of the earth together with everything under its boundary and everything over it. Improvements (land improvements, such as paving, fencing, structures, and landscaping etc.) consist of immovable items affixed to and becoming part of the real estate. "Permanently affixed" refers to the original intent of the owner and economic life of the improvements.



Defining the term “affixed” has been the subject of much litigation, and the courts are subject to change the meaning. In general terms, personal property annexed to land is called a fixture. Chattels that have been annexed to land are called a fixture.

These chattels that have been annexed to the land, so as to lose their character as chattels, become real estate for ad valorem tax purposes. In determining the nature of the annexation of personal property, there are two basic considerations: first, the adaptability of the personal property to the use part of the realty; and second, the person by whom the annexation is made and his interest in the land and the personal property.

Courts have held that, if the chattel is affixed to the land so that it loses its original physical character and cannot be restored to its original condition, it loses its nature as personal property and becomes real property. Two tests relied upon to determine if personal property becomes real estate are: first, the intention of the person who put the item in its place; and second, whether the item may be removed from the real estate without damaging either the item or the real estate. Also, to be considered are the use of the item and the generally accepted conveyance of the item in real estate transactions.

In identifying property, a distinction must be made between that of tangible and intangible property. Tangible property consists of actual physical property. Intangible property is evidence of ownership of property rights. Some examples of intangible property are patent rights, copyrights, notes, mortgages, deeds of trust, and stock certificates.

## **BUNDLE OF RIGHTS**

Real estate and real property are often used interchangeably. Generally speaking, real estate pertains to the real or fixed improvements to the land such as structures and other appurtenances, whereas real property encompasses all the interests, benefits and rights enjoyed by the ownership of the real estate.

Real property ownership involves the Bundle of Rights Theory which asserts that the owner has the right to enter it, use it, sell it, lease it, or give it away, as the owner so chooses. Law guarantees these rights, but they are subject to certain governmental and private restrictions.

The Governmental restrictions are found in its power to:

- Tax property
- Take property by condemnation for the benefit of the public, providing that just compensation is made to the owner (Eminent Domain)
- Police property by enforcing any regulations deemed necessary to promote the safety, health, morals and general welfare of the public
- Provide for the reversion of ownership to the state in cases where a competent heir to the property cannot be ascertained (Escheat)

Private restrictions imposed upon property are often in the form of agreements incorporated into the deed. The deed also spells out precisely which rights of the total bundle of rights the buyer is acquiring. Since value is related to each of these rights, the appraiser should know precisely which rights are involved in his/her appraisal.

Appraisals for Ad Valorem tax purposes generally assume the property is, owned in the "Fee Simple", meaning that the total bundle of rights is considered to be intact.

## THE NATURE AND MEANING OF VALUE

An appraisal is an opinion or estimate of value. The concept of value is basic to the appraisal process and calls for a thorough understanding. The American Institute of Real Estate Appraisers' Appraisal Terminology Handbook, offers the following definitions of value:

"The measure of value is the amount (for example, of money) which the potential purchaser probably will pay for possession of the thing desired."

"The ratio of exchange of one commodity for another, for example, one bushel of wheat in terms of a given number of bushels of corn; thus the value of one thing may be expressed in terms of another thing. Money is the common denominator by which value is measured."

"It is the power of acquiring commodities in exchange, generally with a comparison of utilities - the utility of the commodity parted with (money) and that of the commodity acquired in the exchange (property)."

"Value depends upon the relation of an object to unsatisfied needs; that is, supply and demand."

"Value is the present worth of future benefits arising out of ownership to typical users and investors."

With these definitions, one can see that value is not an intrinsic characteristic of the commodity itself. On the contrary, value is determined by people, created by desire, modified by varying degrees of desire and reduced by lack of desire. Throughout the definitions a relationship between the purchase and the commodity (property) is implied; this relationship is "value". A purchaser desires a property because it is a useful commodity in that it has utility. Utility is a prerequisite to value, but utility standing alone does not sufficiently cause value. If a great supply of a useful commodity exists, as for example air, needs would be automatically satisfied, want would not be stimulated, and therefore value would not be created. Therefore, besides having utility, to effectively stimulate wants, the commodity must also be scarce.

One additional factor is necessary to complete the value equation, the ability to become a buyer. A translation must be made of wanting into a unit of exchange; a buyer must have purchasing power. The relationship is now complete; the commodity has utility and is relatively scarce, it stimulates want, and the buyer is able to satisfy that want by trading for it; value is created. The question is how much value, and herein lies the job of the appraiser.

Numerous definitions of value have been offered, some simple and some complex. It would seem though that any valid definition of value would necessarily embody the elements of utility, desire, scarcity and purchasing power. Furthermore, the concept of value very rarely stands alone. Instead, it is generally prefixed by a descriptive term that serves to relate it to a specific appraisal purpose or activity such as "loan value". Since appraisals are made for a variety of reasons, it is important for the appraiser to clarify the specific purpose for the appraisal and the type of value that he seeks to estimate.

For Ad Valorem Tax purposes, the value sought is generally market value. North Carolina Machinery Act describes market value as follows:

***G S 105-283*** All property, real and personal, shall as far as practicable be appraised or valued at its true value in money. When used in this Subchapter, the words "true value" shall be interpreted as meaning market value, that is, the price estimated in terms of money at which the property would change hands between a willing and financially able buyer and a willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of all the uses to which the property is adapted and for which it is capable of being used. For the purposes of this section, the acquisition of an interest in land by an entity having the power of eminent domain with respect to the interest acquired shall not be considered competent evidence of the true value in money of comparable land.

## **VALUE IN USE AS OPPOSED TO VALUE IN EXCHANGE**

We have stated that there are a number of qualifying distinctions made in reference to the meaning of value. One of the most common and probably the most important relative to the purpose of this manual is the distinction between value in use and value in exchange. We have defined market value as a justifiable price which buyers, in general, will pay in the market. The question arises then as to the value of property which, by nature of its special and highly unique design, is useful to the present owner, but relatively less useful to buyers in the market. One can readily see that such a property's utility value may differ greatly from its potential sales price. It is even possible that no market for such a property exists. Such a property is said to have value in use, which refers to the actual value of a commodity to a specific person, as opposed to value in exchange, which aligns itself with market value, referring to the dollar-value of a commodity to buyers in general. In a sense, value in use embodies the object premise, which maintains that value is within the object. This concept easily accommodates cost. While with value in exchange the subjective element is accentuated. Value in exchange, being the primary concern for the assessor, reflects the actions and reactions of buyers, sellers and investors and is considered market value.

In any discussion of value, a comparison of the terms “cost” and “price” is useful. Cost may be defined as the sacrifice made in the acquisition of property and commonly reflects the perspective of the buyer. Either the purchase of an existing property or the construction of a new property may incur cost. Price may be defined as the amount of money given, expected or arrived at arranging for the exchange of property. Cost and price may be the same, but not necessarily. An example would be; a purchaser pays \$200,000 to buy a property, it may be stated that the property cost \$200,000. However, while price is defined in terms of money, cost is expressed as a sacrifice. A sacrifice may be in terms of money, labor, or time. Also, when property is sold, the price may be either above or below the owner’s cost.

## MARKET VALUE

The terms “value” and “market value” though similar are not the same. There are many different definitions for market value provided by statutes and constitutions of all fifty states for property taxation and realtors used to market property. The assessor must adhere to the definition of market value as stated in *G S 105-283* (see section on statutes) and decisions rendered by the North Carolina Appellate Courts.

The following important points regarding market value should be noted:

1. It is the most probable price.
2. It is not the highest, lowest, or average price.
3. It is expressed in terms of money.
4. It implies a reasonable time for exposure to the market.
5. It implies that both buyer and seller are well-informed of the uses to which the property may be put. It requires an arm’s length transaction in the open market.
6. It requires a willing buyer and willing seller, with no advantage being taken by either buyer or seller. Neither buyer nor seller placed in a position of having to purchase or sell to avoid legal action or dispose of property. This is a constraint against consideration of foreclosures and short sales.
7. It recognizes the present use as well as the potential use of property.

*Note:* In analyzing sales of property, close attention is paid to identifying all transactions that are the result of a foreclosure or short sale. Such sales are not retained for further consideration in determining the schedules set out elsewhere in this document, and neither will they be considered in analyzing the reappraisal results via the State-mandated assessment/sales ratio study. For a complete list of conditions, the North Carolina Department of Revenue distributes to all 100 counties to be used in determining qualified or disqualified sales (not consider an arm’s length transaction).

## **PRINCIPLE OF HIGHEST AND BEST USE**

The way in which property is used, or could be used, plays an essential role in determining its market value. An assessor recognizes this as the highest and best use. The highest and best use for a property is that use which will produce the highest net return to the land for a given period of time within the limits of those uses which are economically feasible, probable and legally permissible.

On a community-wide basis, the major determining factor in highest and best use is the maximum quantity of land that can be devoted to a specific use and still yield a satisfactory return. Once a suitable basic use has been chosen for a specific property, each increment of capital investment to the existing or planned improvement will increase the net return to the land only up to a certain point; after this point is reached; the net return to the land begins to diminish. This is the point at which the land is at its highest and best use.

For example, in planning a high-rise office building, each additional upper floor represents an extra capital expenditure that must yield a certain return to the investor. This return will be dependent upon the levels of economic rent that the market will bear at the time. An optimum number of floors can be calculated above which the income yield requirements of additional expenditures will no longer be satisfactorily met. This, notwithstanding the possibility of other more particular considerations, should determine the number of stories of the building.

Detailed analysis of this type is rarely thrust upon the property tax appraiser. Generally, the tax appraiser will find the most prudent course of action to consider the present use and follow development rather than anticipate it.

Just as everything changes with time, the highest and best use of property will change. The character of a neighborhood may be altered, thereby creating demands for different uses. The assessor periodically reviews conclusions as to highest and best use and revises them according to the data that are collected. As an example, zoning, one of the restraints on use, may be changed, which changes the allowable use.

## **BASIC PRINCIPLES OF VALUE**

Certain principles are generally accepted as having a direct effect on the modern concept of value evolving from economic doctrine. It should be emphasized that these principles rarely, if ever, can be considered in isolation. It is typical to conceive them in an interrelated setting, for they tend to complement and accompany one another. These principles, after considering the interrelationship among them, result in the highest and best use.

The following principles are essential to appraisal function:

## **PRINCIPLE OF ANTICIPATION**

Market value is the present worth of all the anticipated future benefits to be derived from the property. Income stream and amenities may be considered benefits. Anticipated future benefits are those benefits anticipated by the market. Past sales of the property and past income are important only when they are an indication of what may be expected in the future. The principle of change works in conjunction with the principle of anticipation.

## **PRINCIPLE OF BALANCE**

The principle of balance, when applied to a property, states that maximum market value is reached when the four agents of production – labor, coordination or management, capital, and land attain a state of equilibrium.

## **PRINCIPLE OF CHANGE**

The principle states that market value is never constant because economic, social, and governmental forces are at work to change property and its environment. Because change is continuous, the estimate of market value is valid only on the effective day for which it is made. This principle works in conjunction with the principle of anticipation.

The impact of change on the value of real property manifests itself in the life cycle of a neighborhood. The cycle is characterized by three stages of evolution: the development and growth evidenced by improving values; the leveling off stage evidenced by static values; and finally, the stage of infiltration of decay evidenced by declining values.

The highest and best use today is not necessarily the highest and best use tomorrow. The highest and best use of the land often lies in a succession of uses. A declining single-family residential neighborhood may be ripe for multi-family, commercial or industrial development. Whether it is or not depends upon the relationship of present or anticipated future demand with existing supply.

In estimating value, the appraiser is obligated to reasonably anticipate the future benefits, as well as the present benefits derived from ownership and to evaluate the property in light of the quality, quantity, and duration of these benefits based on actual data as opposed to speculative or potential benefits that may or may not occur.

## **PRINCIPLE OF COMPETITION**

This principle states that when substantial profits are being made, competition is created. This leads to the aphorism that profit tends to breed competition and that excess profit breeds ruinous competition.

## **PRINCIPLE OF CONFORMITY**

The principle of conformity states that maximum market value is reached when a reasonable degree of economic and social homogeneity is expected in the foreseeable future. As applied to improvements, reasonable homogeneity implies reasonable similarity, not monotonous uniformity. Similarity in age, income, background, etc., is conformity when applied to residents. In understanding the neighborhood concept in mass appraisal, conformity is essential and works with the principles of progression and regression.

## **PRINCIPLE OF CONSISTENT USE**

This principle states that the property must be valued with a single use for the entire property. Property valued on the basis on one use for land and another for the improvements is improper. The principle is especially applicable to a property in transition from one use to another. While the improvements on a parcel ready for a high use may theoretically have a long physical life, their economic life may have already terminated.

## **PRINCIPLE OF CONTRIBUTION**

This principle states that a value of an agent of production (or a property component) depends upon its contribution to the whole. This is another way of saying that cost does not necessarily equal value. Some examples are:

1. A garage is erected on an existing home at a cost of \$30,000. Based on comparable sales analysis, it is determined that such a garage adds \$35,000 to the overall market value of the property. In this case \$35,000 is the value contribution of the garage.
2. On the contrary, cost does not always equal value. A stone fireplace cost \$10,000 to construct. Sales analysis in this neighborhood reflects a standard fireplace only adds \$5,000 of value to a home. A stone fireplace may only add \$6,000 of contribution to the value of the home, not the cost of \$10,000.

This principle is the basis for the adjustment process of the comparative sales approach to value and the direct sales comparison method of land valuation, for determining whether physical deterioration and functional obsolescence are curable or incurable, and for justifying remodeling and modernization. Many of the adjustments to value that are detailed herein for various property characteristics are based on their contribution to the whole property, not their actual cost. This principle works in conjunction with the principles of balance, increasing and decreasing returns, and surplus productivity.

## **PRINCIPLE OF INCREASING AND DECREASING RETURN**

This principle states that, when successive increments of one agent of production are added to fixed amounts of other agents, future net benefits (income or amenities) will increase up to a certain point, (the point of decreasing returns), after which successive increments will decrease future net benefits.

## **PRINCIPLE OF PROGRESSION AND REGRESSION**

The principles of progression and regression relate to how surroundings affect the value of an object. Progression indicates that the value of a lesser object is enhanced by association with better objects of the same type. The principle of regression states that, when there are dissimilar properties within the same general classification and in the same area, the better property will be adversely affected.

## **PRINCIPLE OF SUBSTITUTION**

Value is created by the marketplace. It is the function of translating demand into a commodity of exchange. When the benefits and advantages derived from two properties are equal, the lowest priced property receives the greatest demand, and rightfully so. The informed buyer is not justified in paying anything more for a property than it would cost to acquire an equally desirable property. That is to say that the value of a property is established as that amount for which equally desirable comparable properties are being bought and sold in the market. Herein lies an approach to value . . . and the basis of the valuation process.

## **PRINCIPLE OF SUPPLY AND DEMAND**

In order for property to have value, there must be desirability, utility, scarcity, and economic purchasing power. Utility is the capacity of goods to create desire and should not be confused with usefulness. While utility is a subjective concept, usefulness is an objective concept inherent in the property.

Scarcity helps to create desire. There are two economic forces which determine scarcity, supply and demand.

Among the forces which constantly operate to influence supply and demand are population growth, new techniques in transportation, purchasing power, price levels, wage rates, taxation, governmental controls, and scarcity. A sudden population growth in an area would create an increase in demand for housing. If the demand increased at a higher rate than the supply, this could soon be a scarcity of housing. If the demand was backed up by purchasing power, rentals and sale prices would tend to increase and ultimately reach a level which would tend to stimulate more builders to compete for the potential profits and thus serve to increase the supply toward the level of demand. As the supply is increased demand would begin to taper off. This would cause rentals and sale prices to level off. When builders, due to increases in labor and material rates, are no



longer able to build cheaply enough to meet the new level of prices and rents, competition would tend to taper off and supply would level off. The cycle is then complete.

Balance occurs when reasonable competition serves to coordinate supply with demand. When competition continues unchecked to produce a volume that exceeds the demand, the net returns to investors are no longer adequate to pay all the costs of ownership, resulting in loss rather than profit and consequently, a decline in values.

A community may well support two shopping centers, but the addition of a third shopping center may increase the supply to excess. If this occurs, one of two effects are caused; either the net dollar return to all the shopping centers will be reduced below that level necessary to support the investment, or one of the shopping centers will flourish at the others' expense.

Utility and scarcity by themselves do not confer value on an object, unless the desire by the purchaser is present, a desire backed by the economic purchasing power of the buyer(s).

### **PRINCIPLE OF SURPLUS PRODUCTIVITY**

This principle states that the net income remaining after the cost of the agents of production-labor, coordination, and capital has been paid is considered surplus productivity.

### **TRADITIONAL APPROACHES TO VALUE**

In the preceding paragraphs, it has been stated that value is an elusive item that occurs in many different forms, and that the forces and influences which combine to create, sustain, or destroy value are numerous and varied. It is the appraiser's function to define the type of value sought, to compile and to analyze all related data, and giving due consideration to all the factors which may influence the value, to process and translate that data into a final opinion or *estimate of value*. This he/she must do for each property he/she is to appraise.

The processing of this data into a conclusion of value generally takes the form of three recognized approaches to value: Cost Approach, Sales Comparison Approach and Income Approach. Underlying each of the approaches is the principle that the justifiable price of a property is no more than the cost of acquiring and/or reproducing an equally desirable substitute property. The use of one or all three approaches in the valuation of a property is determined by the quantity, quality, and accuracy of the data available to the appraiser.

The *COST APPROACH* involves making an estimate of the depreciated cost of reproducing or replacing the building and site improvements. *Reproduction Cost* refers to the cost at a given point in time of reproducing a replica property, whereas *Replacement Cost* refers to the cost of producing improvements of equal utility. Depreciation is deducted from this cost new for loss in value caused by physical deterioration, and functional or economic obsolescence. This depreciated cost is then added to the estimated value of the land, resulting in an indication of value derived by the Cost Approach.

The significance of the Cost Approach lies in its extent of application . . . it is the one approach that can be used on all types of construction. It is a starting point for appraisers, and therefore it is a very effective “yardstick” in any equalization program for Ad Valorem taxes. Its widest application is in the appraisal of properties where the lack of adequate market and income data preclude the reasonable application of the other traditional approaches.

The *SALES COMPARISON APPROACH* involves the compiling of sales and offerings of properties that are comparable to the property being appraised. These sales and offerings are then adjusted for any dissimilarity, and a value range obtained by comparison of said properties. The approach is reliable to the extent that the properties are comparable, and the appraiser's judgment of proper adjustments is sound. The procedure for using this approach is essentially the same for all types of property with the only difference being the elements of comparison.

The significance of this approach lies in its ability to produce estimates of value, which directly reflect the attitude of the market. Its application is contingent upon the availability of comparable sales, and therefore finds its widest range in the appraisal of vacant land and residential properties. Some examples of applicable North Carolina Case Law are:

**Neither this section nor G S 105-317(a) requires the commission to value property according to its sale price in a recent arm's length transaction when competent evidence of a different value is presented.**

In re Greensboro Office Partnership, 72 N.C. App. 635, 235 S.E. 2d 24, cert. denied, 313 N.C. 602, 330 S.E. 2d 610 (1985)

**Where sale was not between a willing buyer and a willing seller, as contemplated by this section, sales price was not indicative of property's true value.**

In re Phoenix Ltd. Partnership, 134 N.C. App. 474, 517 S.E. 2d 903 (1999)

Essentially, North Carolina law prohibits the presumption that the sale price of any particular property must be the basis for its appraised value for ad valorem tax purposes. Instead, reliance is placed on the greater weight of evidence determined from a larger sampling of comparable properties and, as a result, the appraised value may be less than or greater than the sale price of any particular property.

The *INCOME APPROACH* measures the present worth of the future benefits of a property by the capitalization of the net income stream over the remaining economic life of the property. The approach involves making an estimate of the "effective gross income" of a property, derived by deducting the appropriate vacant and collection losses from its estimated economic rent, as evidenced by the yield of comparable properties. From this, then is deducted applicable operating expenses, the cost of taxes and insurance, and reserve allowances for replacements resulting in an estimate of net income, which may then be capitalized into an indication of value.

The approach has basic application in the appraisal of properties universally bought and sold on their ability to generate and maintain a stream of income for their owners. The effectiveness of the approach lies in the appraiser's ability to relate to the changing economic environment and to analyze income yields in terms of their relative quality and durability.

## PROPERTY VALUATION TECHNIQUES

### APPLYING THE COST APPROACH

If the highest and best use of a property is its present use, a valid indication of value may be derived by estimating the value of the land, and adding the land value to the depreciated value of the structures on the land; the resulting equation being . . .

$$\begin{array}{r} \text{Estimated Land Value} \\ + \text{ Estimated Replacement Cost New of Structures} \\ - \text{ Estimated Depreciation} \\ \hline = \text{ Indication of Property Value} \end{array}$$

Since estimating the land value is covered in a separate section, this section will address itself to the two remaining elements, Replacement Cost and Depreciation.

### REPLACEMENT COST

Replacement Cost is the current cost of producing an improvement of equal utility to the subject property; it may or may not be the cost of reproducing a replica property. The distinction being drawn is one between *Replacement Cost*, which refers to a substitute property of equal utility, as opposed to *Reproduction Cost*, which refers to a substitute replica property. In a particular situation the two concepts may be interchangeable, but they are not necessarily so. They both, however, have application in the Cost Approach to value, the difference being reconciled in the consideration of depreciation allowances.

In actual practice, outside of a few historic type communities in this country, developers and builders, for obvious economic reasons, replace buildings, not reproduce them. It logically follows that if an appraiser's job is to measure the actions of knowledgeable persons in the market place, the use of proper replacement costs should provide an accurate point of beginning in the valuation of most improvements.

The Replacement Cost includes the total cost of construction incurred by the builder whether preliminary to, during the course of, or after completion of the construction of a particular building. Among these are material, labor, all subcontracts, builders' overhead and profit, architectural and engineering fees, consultation fees, survey and permit fees, legal fees, taxes, insurance, and the cost of interim financing.

## ESTIMATING REPLACEMENT COST

There are various methods that may be employed to estimate replacement cost new. The methods widely used in the appraisal field are the quantity-survey method, the unit-in-place or component part-in-place method, and the model method.

The *Quantity-Survey Method* involves a detailed itemized estimate of the quantities of various materials used, labor and equipment requirements, architect and engineering fees, contractor's overhead and profit, and other related costs. This method is primarily employed by contractors and cost estimators for bidding and budgetary purposes and is much too laborious and costly to be effective in every day appraisal work, especially in the mass appraisal field. The method, however, does have its place in that it is used to develop certain unit-in-place costs which can be more readily applied to estimating for appraisal purposes.

The *Unit-in-Place Method* is employed by establishing in-place cost estimates (including material, labor, overhead and profit) for various structural components. The prices established for the specified components are related to their most common units of measurement such as cost per yard of excavation, cost per lineal foot of footings, and cost per square foot of floor covering.

The unit prices can then be multiplied by the respective quantities of each as they are found in the composition of the subject building to derive the whole dollar component cost, the sum of which is equal to the estimated cost of the entire building, providing of course, that due consideration is given to all other indirect costs which may be applicable. The components part-in-place method of using basic units can also be extended to establish prices for larger components in-place such as complete structural floors (including the finish flooring, sub-floor, joists and framing) which are likely to occur repeatedly in a number of buildings.

The *Model Method* is still a further extension, in that unit-in-place costs are used to develop base unit square foot or cubic foot costs for total specified representative structures in place, which may then serve as "models" to derive the base unit cost of comparable structures to be appraised. The base unit cost of the model most representative of the subject building is applied to the subject building and appropriate tables of additions and deductions are used to adjust the base cost of the subject building to account for any significant variations between it and the model.

Developed and applied properly, these pricing techniques will assist the appraiser in arriving at valid and accurate estimates of replacement cost new as of a given time. The cost generally represents the upper limit of value of a structure. The difference between its replacement cost new and its present value is depreciation. The final step in completing the Cost Approach then is to estimate the amount of depreciation and deduct said amount from the replacement cost new.

## DEPRECIATION

Simply stated, depreciation can be defined as “a loss in value from all causes.” As applied to real estate, it represents the loss in value between market value and the sum of the replacement cost new of the improvements plus the land value as of a given time. The causes for the loss in value may be divided into three broad classifications: Physical Deterioration, Functional Obsolescence, and Economic Obsolescence.

*Physical Deterioration* pertains to the wearing out of the various building components, referring to both short-life and long-life terms, through the action of the elements, age, and use. The condition may be considered either “curable” or “incurable”, depending upon whether it may or may not be practical and economically feasible to cure the deficiency by repair and replacement.

*Functional Obsolescence* is a condition caused by either inadequacies or over-adequacies in design, style, composition, or arrangement inherent to the structure itself, which tends to lessen its usefulness. Like physical deterioration, the condition may be considered either curable or incurable. Some of the more common examples of functional obsolescence are excessive wall and ceiling heights, excessive structural construction, surplus capacity, ineffective layouts, and inadequate building services.

*Economic Obsolescence* is a condition caused by factors extraneous to the property itself, such as changes in population characteristics and economic trends, encroachment of inharmonious land uses, excessive taxes, and governmental restrictions. The condition is generally incurable in that the causes lie outside the property owner's realm of control.

## ESTIMATING DEPRECIATION

An estimate of depreciation represents an opinion of the appraiser as to the degree that the present and future appeal of a property has been diminished by deterioration and obsolescence. Of the three estimates necessary to the cost approach, it is the one most difficult to make. The accuracy of the estimate will be a product of the appraiser's experience in recognizing the symptoms of deterioration and obsolescence and the ability to exercise sound judgment in equating all observations to the proper monetary allowance to be deducted from the replacement cost new. There are several acceptable methods that may be employed:

Physical deterioration and/or functional obsolescence can be measured by observing and comparing the physical condition and/or functional deficiencies of the subject property as of a given time with either an actual or hypothetical, comparable, new and properly planned structure.

Curable physical deterioration and functional obsolescence can be measured by estimating the cost of restoring each item of depreciation to a physical condition as good as new or estimating the cost of eliminating the functional deficiency.

Functional and economic obsolescence can be measured by capitalizing the estimated loss in rental due to the structural deficiency, or lack of market demand.

Total accrued depreciation may be estimated by first estimating the total useful life of a structure and then translating its present condition, desirability, and usefulness into an effective age (rather than an actual age) which would represent that portion of its total life (percentage) which has been used up.

Total accrued depreciation may also be estimated by deriving the amount of depreciation recognized by purchasers as evidenced in the prices paid for property in the market place; the loss of value being the difference between the cost of replacing the structure now and its actual selling price (total property selling price less the estimated value of the land).

**APPLYING THE MARKET DATA APPROACH**

An indication of the value of a property can be derived through analysis of the selling prices of comparable properties. The use of this technique, often referred to as the “comparison approach” or “comparable sales approach”, involves the selection of a sufficient number of valid comparable sales and the adjustment of each sale to the subject property to account for variations in time, location, site and structural characteristics.

**INTRODUCTION TO THE SALES COMPARISON APPROACH**

For assessment purposes, market values are defined by constitutions, statutes and case law. When sales data is available, the sales comparison approach is generally considered the most reliable of the approaches to value. However, in North Carolina assessment litigation, under the “rules of evidence”, a bona fide sale of the subject property may not be considered the best evidence of market value “when competent evidence of different value is presented”. In re Greensboro Office Partnership, 72 N.C. App 635, 235 S.E. 2d 24, cert. denied, 313 N.C. 602, 330 S.E. 2d 610 (1985).

Emphasizing uniformity and the equitable distribution of the tax burden relative to the premise that similar properties should share similarly in that burden, North Carolina statutory language and the interpretation of relating actual sales to market value by the North Carolina Courts both provide this guidance.

The sales comparison approach models the behavior of the market by comparing the properties being appraised (subject property) with similar properties that have recently sold (comparable properties). Comparable properties are selected for their similarity to the subject property. Their sales prices are then adjusted for their differences from the subject. Finally, a market value for the subject is determined from the adjusted sales prices of the comparable properties.

To understand the sales comparison approach, an appraiser must understand the principles of supply and demand. The interaction of supply and demand factors impacts property prices. Supply depends on current inventories and, in a larger sense, the availability of human skills, materials, and capital, while demand is influenced by population levels, mortgage rates, income levels, local services, housing trends, and the cost of substitutes. The principal of substitution is one demand factor that implies that the market will recognize differences in utility between the subject and its best alternatives by a difference in price.



The sales comparison approach requires the following steps:

1. Definition of the appraisal problem.
2. Data collection
3. Analysis of market data to develop units of comparison and select attributes for adjustment (model specifications)
4. Development of reasonable adjustments (model calibration).
5. Application of the model to adjust the sales price of comparable properties to the subject property.
6. Analysis of the adjusted sales price to indicate the value of the subject property.

The entire valuation process depends on accurately defining the subject property because the nature of the property determines the sources of information, methods of comparable selection, and adjustment techniques.

Defining the subject property includes:

1. Identifying the property (parcel number or pin for ad valorem tax purposes)
2. The rights to be appraised (generally Fee Simple for ad valorem tax purposes)
3. The date of appraisal (January 1 of the appraisal year for NC ad valorem tax purposes)
4. The use (highest and best use)
5. The type of value to estimate (market value, for NC ad valorem tax purposes)

This approach has a wide application as a method of estimating value; however, there are factors that can or do limit the usefulness of the sales comparison approach. In spite of these limitations, this approach has a broad application in all appraisal work. The value estimates found by the use of this approach are considered particularly significant because they are expressions of value as established by transactions in the market place.

Even though the sales comparison approach is mostly used for estimating market value for residential property, it may also be used for some commercial and industrial properties if sufficient data is available. Additionally, some valuation parameters of the other valuation approaches (cost and income) are influenced by the application of and observations learned from the sales comparison approach.

## SELECTING VALID COMPARABLES

Since market value has been defined as the price which an informed and intelligent buyer, fully aware of the existence of competing properties and not being compelled to act is justified in paying for a particular property, it follows that if market value is to be derived from analyzing comparable sales, that the sales must represent valid "arm's length" transactions. Due consideration must be given to the conditions and circumstances of each sale before selecting the sales for analysis. Some examples of sales that do not normally reflect valid market conditions are as follows:

Sales in connection with: foreclosures, bankruptcies, condemnations and other legal actions.

Sales to or by federal, state, county and local governmental agencies.

Sales to or by religious, charitable or benevolent, tax exempt agencies.

Sales involving family transfers, or "love and affection."

Sales involving intra-corporate affiliations.

Sales involving the retention of life interests.

Sales involving cemetery lots.

Sales involving mineral or timber rights, and access or drainage rights.

Sales involving the transfer of part interests.

In addition to selecting valid market transactions, it is equally important to select properties that are truly comparable to the property under appraisal. For instance, sales involving both real property and personal property or chattels may not be used unless the sale can be adjusted to reflect only the real property transaction, nor can sales of non-operating or deficient industrial plants be validly compared with operating plants. The comparable sales and subject properties must exhibit the same use, and the site and structural characteristics must exhibit an acceptable degree of comparability.

## PROCESSING COMPARABLE SALES

All comparable sales must be adjusted to the subject property to account for variations in time and location. The other major elements of comparison will differ depending upon the type of property being appraised. In selecting these elements, the appraiser must give prime consideration to the same factors that influence the prospective buyers of particular types of properties.

The typical homebuyer is interested in the property's capacity to provide the family with a place to live. A primary concern is with the living area, utility area, number of rooms, number of baths, age, structural quality and condition, and the presence of a modern kitchen and recreational conveniences of the house. Equally important is the location and neighborhood, including the proximity to and the quality of schools, public transportation, and recreational and shopping facilities.

In addition to the residential amenities, the buyer of agricultural property is primarily interested in the productive capacity of the land, the accessibility to the market place, and the condition and functional utility of the farm buildings and structures on the land.

The typical buyer of commercial property, including warehouses and certain light industrial plants, is primarily concerned with its capability to produce revenue. Of special interest will be the age, design and structural quality and condition of the improvements, the parking facilities, and the location relative to transportation, labor markets and trade centers.

In applying the market data approach to commercial/industrial property, the appraiser will generally find it difficult to locate a sufficient number of comparable sales, especially of properties that are truly comparable in their entirety. It will, therefore, generally be necessary to select smaller units of comparison such as price per square foot, per unit, per room, etc. In doing so, great care must be exercised in selecting a unit of comparison that represents a logical common denominator for the properties being compared. A unit of comparison that is commonly used and proven to be fairly effective is the Gross Rent Multiplier, generally referred to as G.R.M., which is derived by dividing the gross annual income into the sales price. Using such units of comparison enables the appraiser to compare two properties that are similar in use and structural features but differ significantly in size and other characteristics.

Having selected the major factors of comparison, it remains for the appraiser to adjust each of the factors to the subject property. In comparing the site, adjustments for size, location, accessibility, and site improvements must be made. In comparing the structures, adjustments for size, quality, design, condition, and significant structural and mechanical components also must be made. The adjusted selling prices of the comparable properties will establish a range in value in which the value of the subject property will fall. Further analysis of the factors should enable the appraiser to narrow the range down to the value level that is most applicable to the subject property.

## **APPLYING THE INCOME APPROACH**

### **INTRODUCTION**

The justified price paid for income producing property is no more than the amount of investment required to produce a comparably desirable return; and since the market can be analyzed in order to determine the net return actually anticipated by investors, it follows that the value of income producing property can be derived from the income which it is capable of producing. What is involved is an estimate of income through the collection and analysis of available economic data, the development of a property capitalization rate, and the processing of the net income into an indication of value by employing one or more of the acceptable capitalization methods and techniques.

### **THE PRINCIPLES OF CAPITALIZATION**

Capitalization is the process for converting the net income produced by property into an indication of value. Through the years of appraisal history, a number of procedures have been recognized and employed by appraisal authorities in determining the value of real estate by the income approach. Although present-day practice recommends only certain methods, we will at least touch on the other approaches to value - even though they may not be accepted in today's appraisal scene because they do not accurately reflect the current market conditions.

### **EXPLORING THE RENTAL MARKET**

The starting point for the appraiser is an investigation of current economic rent in a specific area in order to establish a sound basis for estimating the gross income that should be returned from competitive properties. The appraiser must make a distinction between Economic Rent, the rent which property is normally expected to produce on the open market, as opposed to Control Rent, the rent which property is actually realizing at the time of the appraisal due to lease terms established sometime in the past.

The first step then is to obtain specific income and expense data on properties that best typify normal market activity. The data is necessary to develop local guidelines for establishing the economic rent and related expenses for various types of properties.

The next step is to similarly collect income and expense data on individual properties, and to evaluate the data against the established guidelines. The collection of income and expense data (I & E) is an essential phase in the valuation of commercial properties. The appraiser is primarily concerned with the potential earning power of the property. The objective is to estimate its expected net income. Income and Expense Statements of past years are valuable only to the extent that they serve this end. The statements must not only be complete and accurate but must also stand the test of market validity. Consideration of the following factors should assist the appraiser in evaluating the income and expense (I & E) data in order to arrive at an accurate and realistic estimate of net income.

Harnett County did not send surveys soliciting income and expense data from property owners and lessees of commercial (income-producing) property. Typically, the return results for these surveys are limited at best. A significant amount of information is made available as part of the appeal process. This data (income and expense) is generally provided in support of a claim seeking a decrease in appraisal value. The quality/worth of the data is dependent on the documentation provided. Lease information (lease rates, terms, and other stated considerations) is best, with undocumented statements the least useful.

The county may utilize other outside sources of information. Even though this may be done on a limited basis it could be useful during the appeal process.

### **QUESTIONS RELATING TO INCOME DATA**

- A. Was the reported income produced entirely by the subject property? Very often the rent will include an amount attributable to one or more additional parcels of real estate. In this case, it would be necessary to obtain the proper allocations of rent.
- B. Was the income attributable to the subject property as it physically existed at the time of the appraisal, or did the appraisal include the value of leasehold improvements and remodeling for which the tenant paid in addition to rent? If so, it may be necessary to adjust the income to reflect economic rent.
- C. Does the reported income represent a full year's return? It is often advisable to obtain both monthly and annual amounts as verification.
- D. Does the income reflect current economic rent? Is either part or all of the income predicated on old leases? If so, what are the provisions for renewal options and rates?
- E. Does the reported income reflect 100% occupancy? What percentage of occupancy does it reflect? Is this percentage typical of this type of property, or is it due to special non-recurring causes?
- F. Does the income include rental for all marketable space? Does it include an allowance for space, if any, which is either owner or manager occupied? Is the allowance realistic?
- G. Is the income attributable directly to the real estate and conventional amenities? Is some of the income derived from furnishings and appliances? If so, it will be necessary to adjust the income or make provisions for reserves to eventually replace them, whichever local custom dictates.
- H. In many properties an actual rental does not exist because the real estate is owner occupied. In this event it is necessary to obtain other information to provide a basis to estimate economic rent. The information required pertains to the business operation using the property. Proper analysis of the annual operating statements of the business, including gross sales or receipts, can provide an accurate estimate of economic rent. Information requirements for a few of the more common property uses are as follows:

- Retail Stores - The annual net gross sales. (Gross sales less returned merchandise)
- Hotels and Motels – The annual operating statement of the business. If retail or office space is leased in these properties, obtain the actual rent paid.
- Theaters – The annual gross receipts (including admissions and concessions) and seating capacity.
- Automobile Parking – The annual gross receipts.

## ANALYSIS OF EXPENSE DATA

The appraiser must consider only those expenses that are applicable to the cost of ownership; that is, those expenses that are normally owner incurred. Any portion of the expenses incurred directly or indirectly by the tenant should not be considered. Each expense item must stand the test of both legitimacy and accuracy. How do they compare with the established guidelines and norms? Are they consistent with the expenses incurred by comparable properties?

*Management* - refers to the cost of administration. These charges should realistically reflect what a real estate management company would actually charge to manage the property. If no management fee is shown on the statement; an allowance must be made, by the appraiser. On the other hand, if excessive management charges are reported, as is often the case, the appraiser must disregard the reported charges and use an amount that he/she deems appropriate and consistent with comparable type properties. The cost of management bears a relationship with the risk of ownership and will generally range between 4 to 10% of the gross income.

*General expenses* - may include such items as the cost of services and supplies not charged to a particular category. Unemployment and F.I.C.A. taxes, Workmen's Compensation, and other employee insurance plans are usually legitimate deductions when employees are a part of the building operation.

*Reimbursed expenses* - refer to the cost associated with the maintenance of public or common areas of the commercial property. This expense is passed on to the tenants and should, therefore, only be considered when the amount of reimbursement is included as income.

*Miscellaneous expenses* - is the “catch-all” category for incidentals. This item should reflect a very nominal percentage of the income. If expenses reported seem to be excessive, the appraiser must examine the figures carefully in order to determine if they are legitimate expenses, and if so, to allocate them to their proper category.

*Cleaning expenses* - are legitimate charges. They are for such items as general housekeeping and maid service; and include the total cost of labor and related supplies. All or a portion of the cleaning services may be provided by outside firms working on a “contract” basis. Cleaning expenses vary considerably and are particularly significant in operations such as offices and hotels. “Rule of thumb” norms for various operations are made available through national management associations. The appraiser should have little difficulty in establishing local guidelines.

*Utilities* - are generally legitimate expenses and if reported accurately, need very little reconstruction by the appraiser, other than to determine if the charges are consistent with comparable properties. Local utility companies can provide the appraiser with definite guidelines.

*Heat and Air Conditioning* - costs are often reported separately and in addition to utilities. The expenses would include the cost of fuel other than the fore mentioned utilities, and may include, especially in large installations, the cost of related supplies, inspection fees, and maintenance charges. These are generally legitimate costs, and the same precautions prescribed for “utilities” are in order.

*Elevator expenses* - including the cost of repairs and services, are legitimate deductions, and are generally handled through service contracts. These fees can generally be regarded as fairly stable annual recurring expenses.

*Decorating and minor alterations* - are necessary to maintain the income stream of many commercial properties. In this respect they are legitimate expenses. However, careful scrutiny of these figures is required. Owners tend to include the cost of major alterations and remodeling which are, in fact, capital expenditures, and as such are not legitimate operating expenses.

*Repairs and Maintenance* - expenses reported for any given year, are not necessarily a true indication of the average or typical annual expense for these items. For example, a statement could reflect a substantial expenditure for a specific year (possibly because the roof was replaced; and/or several items of deferred maintenance were corrected); yet the statement for the following year may indicate that repairs and maintenance charges were practically nil. It is necessary for the appraiser to either obtain complete economic history on each property in order to make a proper judgment as to the average annual expense for these items, or include a proper allowance based on norms for the type and age of the improvements to cover annual expenses. Since it is neither possible nor practical to obtain enough economic history on every property, the latter method is generally used: and the amounts reported for repairs and maintenance are then estimated by the appraiser.

*Insurance* - Caution must be used in accepting insurance expense figures. Cost shown may be for more than one year: or may be for blanket policies including more than one building. It is generally more effective for the appraiser to establish his/hers own guidelines for insurance. He/She must also be careful to include only items applicable to the real estate. Fire extended coverage and owner's liability are the main insurance expense items. Separate coverage on special component parts of the buildings, such as elevators and plate glass, are also legitimate expenses.

*Real Estate Taxes* - In making appraisals for tax purposes, the appraiser must exclude the actual amount reported for real estate taxes. Since future taxes will be based on his appraised value, the appraiser must express the taxes as a factor of the estimated value. This can be done, by including an additional percentage in the capitalization rate to account for real estate taxes.

*Depreciation* - The figure shown for depreciation on an operating statement is a "bookkeeping figure" which the owner uses for Internal Revenue purposes and should not be considered in the income approach. This reflects a tax advantage that is one of the benefits of ownership.

*Interest* - Although interest is considered a legitimate expense, it is always included in the Capitalization Rate. Most property is appraised as if it were "free and clear"; however, the appraiser does consider the interest of a current mortgage in the Capitalization Rate build-up.

*Land Rent* - When appraising for real estate tax purposes, only the sum of the leasehold and the leased fee is usually considered. Land rent is not deducted as an expense. Considered separately, rent from a ground lease would be an expense to the leasehold interest and an income to the leased fee. However, if land were rented from another property to supply additional parking for example, that land rent would be an allowable expense.

It is obvious that there are some expense items encountered on operating statements that the appraiser should not consider as allowable. This is because he/she is interested in legitimate cash expenses only. Income statements are usually designed for income tax purposes where credit can be taken for borrowing costs and theoretical depreciation losses.

It is virtually impossible and certainly not always practical to obtain a complete economic history on every commercial property being appraised. On many properties, however, detailed economic information can be obtained through the use of Income and Expense forms. One must realistically recognize the fact that the data obtainable on some properties is definitely limited.



In most cases, the gross income and a list of the services and amenities furnished can be obtained during the data gathering operation. However, in order to insure a sound appraisal, it may be necessary to estimate the fixed and operating expenses. This is best accomplished by setting guidelines for expenses, based on a percent of Effective Gross Income or a cost per square foot of leased area. These percentages or costs will vary depending on the services supplied and the type of property.

### CAPITALIZATION METHODS

The most prominent methods of capitalization are Direct, Straight Line, Sinking Fund, and Annuity. Each of these is a valid method for capitalizing income into an indication of value. The basis for their validity lies in the action of the market, which indicates that the value of income producing property can be derived by equating the net income with the net return anticipated by informed investors. This can be expressed in terms of a simple equation:

Value = Net Income divided by Capitalization Rate

The *Straight Line* and *Sinking Fund* methods are both actual forms of Straight Capitalization, with one using Straight Line recapture and the other using Sinking Fund recapture. Both methods follow the same basic principles as Direct Capitalization, differing only in that they provide for separate capitalization rates for land and buildings; the building rate differing from the land rate in that it includes an allowance for recapture.

*Straight Line Capitalization* allows for “recapture” based on remaining economic life of the building - implying that at the end of that period of time, there would be no improvement value. There are three fallacies in this thinking. First, the potential buyer (investor) has no intention of holding the property that long. The average investment period might average ten years. Second, the investor anticipates that at the end of that period he will either get all his money back or will make a profit. And third, is the depreciation allowance possible in connection with federal income taxes.

Depreciation allowances begin to “run out” between seven and ten years, so the advantages of owning the property are reduced considerably. A prudent owner may choose to sell the property at this point and re-invest in another property so that he may begin the depreciation cycle again and continue to take full advantage of the favorable tax laws.

For these reasons, the Straight- Line Capitalization Method does not usually follow what the market indicates.

*Straight Line* recapture calls for the return of investment capital in equal increments or percentage allowances spread over the estimated remaining economic life of the building.

*Sinking Fund recapture* calls for the return of invested capital in one lump sum at the termination of the estimated remaining economic life of the building. This is accomplished by providing for the annual return of a sufficient amount needed to invest and annually re-invest in “safe” interest-bearing accounts, such as government bonds or certificates of deposit, which will ultimately yield the entire capital investment during the course of the building's economic life.

*Annuity Capitalization* lends itself to the valuation of long-term leases. In this method, the appraiser determines, by the use of annuity tables, the present value of the right to receive a certain specified income over stipulated duration of the lease. In addition to the value of the income stream, the appraiser must also consider the value that the property will have once it reverts back to the owner at the termination of the lease. This reversion is valued by discounting its anticipated value against its present worth. The total property value then is the sum of the capitalized income stream plus the present worth of the reversion value.

### **CURRENT TECHNIQUES**

There are two methods, however, that do lend themselves to an accurate measure of market value based on potential income. These are Direct Capitalization, utilizing the Direct Comparison Method of Rate Selection, and Mortgage Equity Capitalization.

In *Direct Capitalization*, the appraiser determines a single “overall” capitalization rate. This is done through analysis of actual market sales of similar types of properties. He develops the net income of each property: and divides the net income by the sales price to arrive at an overall rate to provide an indication of value.

*Mortgage Equity Capitalization* is a form of direct capitalization with the major difference in the two approaches being the development of the overall capitalization rate.

In this method, equity yields, and mortgage terms are considered influencing factors in construction of the interest rate. In addition, a plus or minus adjustment is required to compensate for anticipated depreciation or appreciation. This adjustment can be related to the recapture provisions used in other capitalization methods and techniques.

## RESIDUAL TECHNIQUES

It can readily be seen that any one of the factors of the Capitalization Equation (Value = Net Income divided by Capitalization Rate) can be determined if the other two factors are known. Furthermore, since the value of property is the sum of the land value plus the building value, it holds that either of these can be determined if the other is known. The uses of these mathematical formulas in capitalizing income into an indication of value are referred to as the residual techniques, or more specifically, the property residual, the building residual, and the land residual techniques.

The *Property Residual Technique* is an application of Direct Capitalization. In this technique, the total net income is divided by an overall capitalization rate (which provides for the return on the total investment) to arrive at an indicated value for the property. This technique has received more popular support in recent years because it closely reflects the market. With this technique, the capitalization rate may be developed by either “direct comparison” in the market or by the Mortgage Equity Method.

The *Building Residual Technique* requires the value of the land to be a known factor. The amount of net income required to earn an appropriate rate of return on the land investment is deducted from the total net income. The remainder of the net income (residual) is divided by the building capitalization rate (which is composed of a percentage for the return on the investment, plus a percentage for the recapture of the investment) to arrive at an indicated value for the building.

The *Land Residual Technique* requires the value of the building to be a known factor. The amount of net income required to provide both, a proper return on and the recapture of the investment is deducted from the total net income. The remainder of the net income (residual) is then divided by the land capitalization rate (which is composed of a percentage for the return on the investment) to arrive at an indicated value for the land.

## MORTGAGE EQUITY METHOD EXAMPLE

For purposes of illustration, assume an investment financed with a 70% loan at 14.0% interest. The term of the mortgage is 20 years, paid off in level monthly payments. The total annual cost for principal and interest on such a loan can be determined by referring to the mortgage equity tables. Select the Constant Annual percent for an interest rate of 14.0% and a term of 20 years. Note that the constant is 14.92% of the amount borrowed, or .92% more than the interest rate alone.

Assume that the equity investor will not be satisfied with less than an 18% yield. The income necessary to satisfy both Lender and Equity can now be shown. The product of the percent portion and the rate equals the weighted rate. The total of each weighted rate equals the weighted average.

	<b>PORTION</b>	<b>RATE</b>	=	<b>WEIGHTED RATE</b>
Mortgage loan (principle interest)	70%	.1492	=	.1044
Equity (down payment)	30%	.18	=	.0540
Weighted Average	100%			100%

*Note* that the “constant annual percent” is used for the rate of the loan.

Since there is a gain in equity's position through the years by the loan being paid off little by little, it is necessary to calculate the credit for “Equity Build-Up”. Assume that the investor plans to hold the property for ten years. Since the mortgage is for 20 years, only a portion of the principal will be paid off and this amount must be discounted, as it won't be received for ten years. From the Table of Loan Balance and Debt Reduction, at the end of ten years for a twenty- year mortgage at 14%, the figure is .199108. Consulting the sinking fund tables indicates that the discount factor for 18% and 10 years is .0425.

The credit for Equity Build-Up can now be deducted from the basic rate, thus . . .

$$\begin{array}{rclcl}
 .199108 & & 70\% & & .0425 & = & \underline{.0059} \\
 (\% \text{ of loan paid in 10 yrs.}) & \times & (\text{loan rate}) & \times & (\text{sinking fund 18\% for 10 yrs.}) & & \\
 \text{Resulting Net Rate} & & & & & = & .1525
 \end{array}$$

**LAND VALUATION TECHNIQUES**

In making appraisals for Ad Valorem Tax purposes, it is generally necessary to estimate separate values for the land and the improvements on the land. In actuality, the two are not separated and the final estimate of the property as a single unit must be given prime consideration. However, in arriving at that final estimate of value, aside from the requirements for property tax appraisals, there are certain other reasons for making a separate estimate of value for the land:

An estimate of land value is required in the application of the Cost Approach.

An estimate of land value is required to be deducted, from the total property sales price in order to derive indications of depreciation through market-data analysis. (Depreciation being equal to the difference between the replacement cost new of a structure and the actual price paid in the market place for the structure.)

As land is not a depreciable item, a separate estimate of land value is required for bookkeeping and accounting purposes; likewise, the total capitalization rate applicable to land will differ from the rate applicable to the improvements on the land.

Since land may or may not be used to its highest potential, the value of land may be completely independent of the existing improvements on the land.

Real Estate is valued in terms of its highest and best use. The highest and best use of the land (or site), if vacant and available for use, may be different from the highest and best use of the improved property. This will be true when the improvement is not an appropriate use and yet makes a contribution to total property value in excess of the value of the site. Highest and Best Use (Highest and Most Profitable Use; Optimum Use) is that reasonable and probable use which will support the highest present value as of the date of the appraisal. Alternatively, it is the most profitable likely use to which a property can be put. It may be measured in terms of the present worth of the highest net return that the property can be expected to produce over a stipulated long run period of time. (American Institute of Real Estate Appraisers' Appraisal Terminology Handbook, 1981 edition.)

As appraisers' opinions are based on data derived from the market, it is necessary to study and adapt, if possible, procedures used by those closest to everyday transactions.

## **COMPARABLE SALES METHOD**

The most frequently used method in estimating the value of land is the comparable sales method in which land values are derived from analyzing the selling prices of similar sites. This method is in essence the application of the market data approach to value and all the considerations pertaining thereto are equally applicable here.

The appraiser must select comparable and valid market transactions; and must weigh and give due consideration to all the factors significant to value, adjusting each to the subject property. The comparable sites must be used in the same way as is the subject property; and subjected to the same zoning regulations and restrictions. It is also preferable, whenever possible, to select comparable sales from the same or a similar neighborhood. The major adjustments will be to account for variations in time, location, and physical characteristics to include size, shape, topography, landscaping, access, as well as other factors which may significantly influence the selling price, such as the productivity of farm land.

Although it is always preferable to use sales of unimproved lots for comparison, it is not always possible to do so. Older neighborhoods are not likely to yield a sufficient number of representative sales of unimproved lots to permit a valid analysis. In such cases, in order to arrive at an estimate of land values using the comparable sales approach, it is necessary to consider improved property sales and to estimate the portion of the selling price applicable to the structure. The procedure would be to estimate the replacement

cost of the buildings as of the date of sale, estimate the accrued depreciation and deduct that amount from the replacement cost resulting in the estimated selling price of the buildings, which can be deducted from the total selling price of the property to derive the portion of the selling price which can be allocated to the land. The equation is as follows:

$$\begin{array}{r} \text{Selling Price of Property} \\ - \text{Estimated Depreciated Value of Buildings} \\ \hline = \text{Indication of Land Value} \end{array}$$

In some of these older neighborhoods, vacant lots will exist often as a result of fire or normal deterioration. Since the desirability as a new building site is restricted, value is generally determined by adjoining property owners who have a desire for additional land area.

In order to apply the comparable sales method, it is first necessary to establish a common unit of comparison. The units generally used in the valuation of land are price per front foot, price per square foot, price per acre, price per lot, site or home site, price per apartment unit, and price per motel unit. The selection of any one particular unit depends upon the type of property being appraised; frontage being commonly used for platted, uniform type residential lots, and square footage and acreage for larger, un-platted tracts, as well as irregularly shaped lots lacking in uniformity. Use of square footage is especially desirable in Central Business Districts where the entire lot maintains the same level of value: depth factor adjustments have a tendency to distort this concept. Commercial arteries are also best valued on a square foot basis.

The utility of a site will vary with the frontage, width, depth, and overall area. Similarly, the unit land values should be adjusted to account for differences in size and shape between the comparable and the subject property. Since such an adjustment is generally necessary for each lot, it is beneficial that the appraiser adopts and/or develops standardized procedures for adjusting the lot size and the unit values to account for the variations. It is not uncommon for all lots within a development to market at the same price. Should data indicate this, it is necessary to make alterations or adjustments to maintain this value level. In some cases, a "site value" concept has advantages. Site value tables provide for uniform pricing of standard sized lots within homogenous neighborhoods or subdivisions. Some of the techniques commonly employed are as follows:

*Standard lot sizing techniques* provide for the adjustment of the frontage, width, and depth of irregular shaped lots to make the units of measurement more comparable with uniform rectangular lots. Incremental and decremented adjustments can be applied to account for size differences.

*Standard Depth Tables* provide for the adjustment of front foot unit values to account for variations in depth from a predetermined norm.

*Frontage Tables* provide for the adjustment of front footage unit values to account for variations in the relative utility value of excessive or insufficient frontage as compared to a predetermined norm.

*Acreage or Square Footage Tables* provide for the adjustment of unit values to account for variations in the relative utility value of excessive or insufficient land sizes as compared to a predetermined norm.

During the process of adjusting the comparable sales to account for variations between them and the subject property, the appraiser must exercise great care to include all significant factors and to properly consider the impact of each of the factors upon the total value. If done properly, the adjusted selling prices of the comparable properties will establish a range in value in which the value of the subject property will fall. Further analysis of the factors should enable the appraiser to narrow the range down to the value level that is most applicable to the subject property.

## **THE LAND RESIDUAL TECHNIQUE**

In the absence of sufficient market data, income-producing land may be valued by determining the portion of the net income attributable to the land and capitalizing the net income into an indication of value. The procedure is as follows:

1. Determine the highest and best use of the land, which may be either its present use or hypothetical use.
2. Estimate the net income which the property can be expected to yield.
3. Estimate the replacement cost new of the improvements.
4. If the case involves the present use, estimate the proper allowance for depreciation, and deduct that amount from the replacement cost new of the improvements to arrive at an estimate of their depreciated value.
5. Develop appropriate capitalization rates.
6. Calculate the income requirements of the improvements; and deduct the amount from the total net income to derive that portion of the income that can be said to be attributable to the land.
7. Capitalize the residual income attributable to the land to an indication of value.

**RATIO METHOD**

A technique useful for establishing broad indications of land values is a “typical” allocation or ratio method. In this technique, the ratio of the land value to the total value of improved properties is observed in situations where there is good market and/or cost evidence to support both the land values and total values. This market abstracted ratio is then applied to similar properties where the total values are known, but the allocation of values between land and improvements are not known. The ratio is usually expressed as a percentage that represents the portion of the total improved value that is land value, or as a formula:

$$\frac{\text{Total Land Value}}{\text{Total Property Value}} \times 100\% = \% \text{ Land Is of Total Property Value}$$

This technique can be used on most types of improved properties, with important exceptions being farms and recreational facilities, provided that the necessary market and/or cost information is available. In actual practice, available market information limits this technique primarily to residential properties, and to a much lesser extent, commercial and industrial properties such as apartments, offices, shopping centers, and warehouses. The ratio technique cannot give exact indications of land values. It is nevertheless useful, especially when used in conjunction with other techniques of estimating land values because it provides an indication of the reasonableness of the final estimate of land value.

The ratio should be extracted from available market information and applied to closely similar properties. It should be noted that any factor that affects the value could also affect the ratio of values. Zoning is particularly important because it may require more or less improvements be made to the land; or may require a larger or smaller minimum size. This tends to have a bearing on the land values and may influence the ratio of values considerably from community to community.

The following is an example of a residential land valuation situation:

Market information derived from an active new subdivision

Typical Lot Sale Price (most lots equivalent)				\$15,000
Improved Lot Sales (range)				\$65,000 to \$75,000
Indicated Ratio	$\frac{\$15,000}{75,000}$	To	$\frac{15,000}{65,000}$	X 100% 20% to 23%



Similar subdivision, but 100% developed

Typical Lot Sale Price (most lots equivalent)	Unavailable
Improved Lot Sales (range)	\$85,000 to \$105,000
Broadest Indicated Range of Lot Values (20% x \$85,000 to 23% x \$105,000)	\$17,000 to \$24,150
Narrowest Indicated Range of Lot Values (23% x \$85,000 to 20% x \$105,000)	\$19,550 to \$21,000

If both lots and improvements vary considerably, the broadest range is most appropriate. If most lots vary little and are judged equivalent but the improvements vary somewhat, the narrowest range is appropriate. Most subdivisions exhibit a combination of the two ranges, showing a narrow typical range, but a wider actual range of land values.

## MASS APPRAISING

In preceding sections, we have outlined the fundamental concepts, principles, and valuation techniques underlying the Appraisal Process. We will now approach the problem at hand; the reappraisal of certain specified real property within a total taxing jurisdiction, be it an entire county or any subdivision thereof; and to structure a systematic mass appraisal program to affect the appraisal of said properties in such a way as to yield valid, accurate, and equitable property valuations at a reasonable cost dictated by budgetary limitations, and within a time span totally compatible with assessing administration needs.

The key elements of the program are validity, accuracy, equity, economy, and efficiency. To be effective, the program must:

- incorporate the application of proven and professionally acceptable techniques and procedures;
- provide for the compilation of complete and accurate data and the processing of that data into an indication of value approximating the prices actually being paid in the market place;
- provide the necessary standardization measures and quality controls essential to promoting and maintaining uniformity throughout the jurisdiction;
- provide the appropriate production controls necessary to execute each phase of the operation in accordance with a carefully planned budget and work schedule; and;

- provide techniques especially designed to streamline each phase of the operation, eliminating superfluous functions, and reducing the complexities inherent in the Appraisal Process to more simplified but equally effective procedures.

In summary, the objective of an individual appraisal is to arrive at an opinion of value, the key elements being the validity of the approach and the accuracy of the estimate. The objective of a mass appraisal for tax purposes is essentially the same. However, in addition to being valid and accurate, the value of each property must be equitable to that of each other property, and what's more, these valid, accurate, and equitable valuations must be generated as economically and efficiently as possible.

### OVERVIEW

The prime objective of mass appraisals for tax purposes is to equalize property values. Not only must the value of one residential property be equalized with another, but it must also be equalized with each agricultural, commercial, and industrial property within the political unit.

The common denominator or the basis for equalization is market value; that price which an informed and intelligent person, fully aware of the existence of competing properties and not being compelled to act, is justified in paying for a particular property.

The job of the appraiser is to arrive at a reasonable estimate of that justified price. To accomplish this, the coordination of approaches to the valuation of the various classes of property must be made so that they are related one to another in such a way as to reflect the motives of the prospective purchasers of each type of property.

A prospective purchaser of a residential property is primarily interested in its capacity to render service to the family as a place to live. Its location, size, quality, design, age, condition, desirability and usefulness are the primary factors to be considered in making a selection. By relying heavily upon powers of observation and inherent intelligence, knowing what could be afforded and simply comparing what is available, one property will eventually stand out to be more appealing than another. So, it is likewise the job of the appraisers to evaluate the relative degree of appeal of one property to another for tax purposes.

The prospective purchaser of agricultural property will be motivated somewhat differently. The primary interest will be in the productive capabilities of the land. It is reasonable to assume that the purchaser will be familiar, at least in a general way, with the productive capacity of the farm. It might be expected that the prudent investor will have compared one farm's capabilities against another. Accordingly, the appraiser for local tax equalization purposes must rely heavily upon prices being paid for comparable farmland in the community.

The prospective purchaser of commercial property is primarily interested in the potential net return and tax shelter the property will provide. That price which is justified to pay for the property is a measure of the prospects for a net return from the investment. Real estate, as an investment then, must not only compete with other real estate, but also with stocks, bonds, annuities, and other similar investment areas. The commercial appraiser must explore the rental market and compare the income-producing capabilities of one property to another.

The prospective purchaser of industrial property is primarily interested in the overall utility value of the property. Of course, in evaluating the overall utility, individual consideration must be given to the land and each improvement thereon. Industrial buildings are generally of special purpose design, and as such, cannot readily be divorced from the operation for which they were built. As long as the operation remains effective, the building will hold its values. If the operation becomes obsolete, the building likewise becomes obsolete. The upper limit of its value is its replacement cost new, and its present value is some measure of its present usefulness in relation to the purpose for which it was originally designed.

Any effective approach to valuations for tax purposes must be patterned in such a way as to reflect the “modus operandi” of buyers in the market place. As indicated above, the motives influencing prospective buyers tend to differ depending upon the type of property involved. It follows that the appraiser's approach to value must differ accordingly.

The residential appraiser must rely heavily upon the market data approach to value; analyzing the selling prices of comparable properties and considering the very same factors of location, size, quality, design, age, condition, desirability, and usefulness, which were considered by the buyer.

The commercial appraiser will find that since commercial property is not bought and sold as frequently as is residential property, the sales market cannot be readily established. By relying heavily on the income approach to value, the net economic rent that the property is capable of yielding can be determined, and the amount of investment required to affect that net return at a rate commensurate with that normally expected by investors could also be determined. This can only be achieved through a comprehensive study of the income-producing capabilities of comparable properties and an analysis of present-day investment practices.

The industrial appraiser will not be able to rely on the market data approach because of the absence of comparable sales, each sale generally reflecting different circumstances and conditions. Also, it is not possible to rely upon the income approach; again because of the absence of comparable investments, and because of the inability to accurately determine the contribution of each unit of production to the overall income produced. Therefore, by relying heavily on the cost approach to value, a determination must be made of the upper limit or replacement cost new of each improvement and the subsequent loss of value resulting overall from physical, functional and economic factors.

The fact that there are different approaches to value, some of which are more applicable to one class of property than to another, does not, by any means, preclude equalization between classes. Remember that the objective in each approach is to arrive at a price which an informed and intelligent person, fully aware of the existence of competing properties and not being compelled to act, is justified in paying for any one particular property. Underlying, and fundamental to each of the approaches is the comparison process. Regardless of whether the principal criteria are actual selling prices, income-producing capabilities, or functional usefulness, like properties must be treated alike. The primary objective is equalization. The various approaches to value, although valid in themselves, must nevertheless be coordinated one to the other in such a way as to produce values that are not only valid and accurate, but are also equitable. The same “yardstick” of values must be applied to all properties; and must be applied by systematic and uniform procedures.

It is obvious that sales on all properties are not required to effectively apply the market data approach. The same is true regarding any other approach. What is needed is a comprehensive record of all the significant physical and economic characteristics of each property in order to compare the properties of “unknown” values with the properties of “known” values. All significant differences between properties must in some measure, either positively or negatively, be reflected in the final estimate of value.

Each property must be given individual treatment, but the treatment must be uniform and standardized, and essentially no different than that given to any other property. All the factors affecting value must be analyzed and evaluated for each and every property within the entire political unit. It is only by doing this that equalization between properties and between classes of properties can be ultimately affected.

All this, at best, is an oversimplification of the equalization process underlying the entire Mass Appraisal Program. The program itself consists of various operational phases, and its success depends primarily upon the systematic coordination of collecting and recording data, analyzing the data, and processing the data to an indication of value.

### **DATA INVENTORY**

Basic to the appraisal process is the collecting and recording of pertinent data. The data will consist of general supporting data, referring to the data required to develop the elements essential to the valuation process; neighborhood data, referring to information regarding pre-delineated neighborhood units; and specific property data, referring to the data compiled for each parcel of property to be processed into an indication of value by the cost, market and/or income approach.

The data must be comprehensive enough to allow for the adequate consideration of all factors that significantly affect property values. In keeping with the economics of a mass appraisal program, it is costly and impractical to collect, maintain, and process data of no or marginal contribution to the desired objectives. The axiom “too much data is better than insufficient data” does not apply. What does apply is the proper amount of data, no more or no less, which is necessary to provide the database necessary to generate the desired output.

*Cost data* must be sufficient enough to develop or select and validate the pricing schedules and cost tables required to compute the replacement cost new of improvements needed to apply the cost approach to value.

All data pertaining to the cost of total buildings in place should include the parcel identification number, property address, and date of completion, construction cost, name of builder, source of information, structural characteristics, and other information pertinent to analysis.

Cost information may be recorded on the same form (unassigned property record card) used to record specific property data.

The principal sources for obtaining cost data are builders, suppliers, and developers, and it is generally advisable to collect cost data in conjunction with new construction pick-ups.

*Sales data* must be sufficient enough to provide a representative sampling of comparable sales needed to apply the market data approach, to derive unit land values and depreciation indicators needed to apply the cost approach, and to derive gross rent multipliers and elements of the capitalization rate needed to apply the income approach.

All sales data should include the parcel identification number, property qualification code, month and year of sale, selling price, source of information, i.e., buyer, seller, agent, or fee, and a reliable judgment as to whether or not the sale is representative of a true arm's length transaction.

Sales data should be recorded on the same form (assigned property record card) used to record specific property data; and verified during the property-listing phase.

The principal source for obtaining sales data is the County Register of Deeds Office, MLS, Sales Letters, Fee Appraisers and the real estate transfer returns. Other sources may include developers, realtors, lending institutions, and individual owners during the listing phase of the operation.

*Income and expense data* must be sufficient enough to derive capitalization rates and accurate estimates of net income needed to apply the income approach. Income and expense data should include both general data regarding existing financial attitudes and practices, and specific data regarding the actual incomes and expenses realized by specific properties.

The general data should include such information as equity return expectations, gross rentals, vacancy and operating cost expectations and trends, prevailing property management costs, and prevailing mortgage costs.

Specific data should include the parcel identification number, property address (or building ID), source of information, the amount of equity, the mortgage and lease terms, and an itemized account of the annual gross income, vacancy loss, and operating expenses for the most recent two-year period.

The general data should be documented in conjunction with the development of capitalization procedural guidelines. The specific data, since it is often considered confidential and not subject to public access, should be recorded on special forms, designed in such a way as to accommodate the property owner or agent thereof in submitting the required information. The forms should also have space reserved for the appraiser's analysis and calculations.

The principal sources for obtaining the general financial data are investors, lending institutions, fee appraisers and property managers. The primary sources for obtaining specific data are the individual property owners and/or tenants during the listing phase of the operation.

*Neighborhood data.* At the earliest feasible time during the data inventory phase of the operation, and after a thorough consideration of the living environment and economic characteristics of the overall county, or any political sub-division thereof, the appraisal staff should delineate the larger jurisdictions into smaller “neighborhood units,” each exhibiting a high degree of homogeneity in residential amenities, land use, economic trends, and housing characteristics such as structural quality, age, and condition. The neighborhood delineation should be outlined on an index (or comparable) map and each assigned an arbitrary Neighborhood Identification Code, which when combined with the parcel identification numbering system, will serve to uniquely identify it from other neighborhoods.

Neighborhood data must be comprehensive enough to permit the adequate consideration of value-influencing factors to determine the variations in selling prices and income yields attributable to benefits arising from the location of one specific property as compared to another. The data should include the taxing district, the school district, the neighborhood identification code, special reasons for delineation (other than obvious physical and economic boundaries), and various neighborhood characteristics such as the type (urban, suburban, etc.), the predominant class (residential, commercial, etc.), the

trend (whether it is declining, improving, or relatively stable), its accessibility to the central business district, shopping centers, interstate highways and primary transportation terminals, its housing characteristics, the estimated range of selling prices for residentially-improved properties, and a rating of its relative durability.

All neighborhood data should be recorded on a specially designed form during the delineation phase. The existing property record card can serve in this capacity as it contains the current data on file.

Specific property data must be comprehensive enough to provide the data base needed to process each parcel of property to an indication of value, to generate the tax roll requirements, to generate other specified output, and to provide the assessing officials with a permanent record to facilitate maintenance functions and to administer taxpayer assistance and grievance proceedings.

The data should include the parcel identification number, ownership and mailing address, legal description, property address, property classification code, local zoning code, neighborhood identification code, site characteristics, and structural characteristics.

All the data should be recorded on a single, specially-designed property record card customized to meet individual assessing needs. Each card should be designed and formatted in such a way as to accommodate the listing of information and to facilitate data processing. In addition to the property data items noted above, space must be provided for a building sketch, land and building computations, summarization, and memoranda. In keeping with the economy and efficiency of a mass appraisal program, the card should be formatted to minimize writing by including a sufficient amount of site and structural descriptive data that can be checked and/or circled. The descriptive data should be comprehensive enough to be suitable for listing any type of land and improvement data regardless of class, with the possible exception of large industrial, institutional, and utility complexes that require lengthy descriptions. In these cases, it will generally be necessary to use a specially- designed supplemental property record document, keyed and indexed to the corresponding property record card. The property record card should be made a permanent part of the assessing system, and used not only in conjunction with the revaluation, but also to update the property records for subsequent assessments.

The specific property data should be compiled from existing assessing records and field inspections. The parcel identification number, ownership, mailing address, and legal description may be obtained from existing tax rolls. Property classification codes may also be obtained from existing tax rolls (whenever available) and verified in the field. Local zoning codes may be obtained from existing zoning maps. Neighborhood identification codes may be obtained from the neighborhood delineation maps. Lot sizes and acreage may be obtained from existing tax maps. The property address, and the site and structural characteristics may be obtained by making a physical inspection of each property.

In transferring lot sizes from the tax maps to the property record cards, the personnel performing the tasks must be specially trained in the use of standardized lot sizing techniques and depth tables, may be used, which are necessary to adjust irregular shaped lots and abnormal depths to account for variations from predetermined norms. In regard to acreage, the total acreage may be transferred, but the acreage breakdowns required to affect the valuation of agricultural, residential, forestry, commercial, and industrial properties must be obtained in the field from the property owner and verified by personal observation and aerial photographs, if available.

Field inspections must be conducted by qualified listers under the close supervision of the appraisal staff. During this phase of the operation, the lister must visit each property and attempt personal contact with the occupant. In the course of the inspection, the following procedures must be adhered to.

Identification of the property.

Recording the property address.

Interviewing the occupant of the building and recording all pertinent data.

Inspection, when possible, of the interior of the building and recording of all pertinent physical data.

Measuring and inspecting the exterior of the building, as well as all other improvements on the property, and recording the story height, and the dimensions and/or size of each.

Recording a sketch of the principal building(s), consisting of a plan view showing the main portion of the structure along with any significant attached exterior features, such as porches, etc. All components must be identified; and the exterior dimensions shown for each.

Selection of and recording the proper quality grade of the improvement.

Selection of and recording of the proper adjustments for all field priced items.

Reviewing the property record card for completeness and accuracy.

After the field inspection is completed, the property record cards must be submitted to clerical personnel to review the cards for completeness, calculate the areas, and make any necessary mathematical extensions.

Complete and accurate data are essential to the program. Definite standardized data collection and recording procedures must be followed if these objectives are to be met.



## PROCESSING THE DATA

This phase of the operation involves the analysis of data compiled during the data inventory phase and the processing of that data to an indication of value through the use of the cost, market, and income approaches to value.

During the analytical phase, it will be necessary to analyze cost, market, and income data in order to provide a basis for validating the appropriate cost schedules and tables required to compute the replacement cost new of all buildings and structures; for establishing comparative unit land values for each class of property; for establishing the appropriate depreciation tables and guidelines for each class of property; and for developing gross rent multipliers, economic rent and operating expense norms, capitalization rate tables and other related standards and norms required to effect the mass appraisal of all the property within an entire political unit on an equitable basis.

After establishing the appropriate standards and norms, it remains to analyze the specific data compiled for each property by giving due consideration to the factors influencing the value of that particular property as compared to another, and then to process the data into an indication of value by employing the techniques described in the section of the manual dealing with the application of the traditional approaches to value.

Any one, or all three of the approaches, if applied properly, should lead to an indication of market value; of primary concern is applying the approaches on an equitable basis. This will require the coordinated effort of a number of individual appraisers, each appraiser acting as a member of a team, with the team effort directed toward a valid, accurate and equitable appraisal of each property within the political unit. Each property must be physically reviewed, during which time the following procedures must be adhered to.

- Verification of the characteristics recorded on the property record card.
- Certification that the proper schedules and cost tables were used in computing the replacement cost of each building and structure.
- Determination of the proper quality grade and design factor to be applied to each building to account for variations from the base specifications.
- Making a judgment of the overall condition, desirability, and usefulness of each improvement in order to arrive at a sound allowance for depreciation.
- Capitalization of net income capabilities into an indication of value in order to determine the loss of value attributable to functional and economic obsolescence.
- Addition of the depreciated value of all improvements to the land value; and reviewing the total property value in relation to the value of comparable properties.

At the completion of the review phase, the property record cards must be, once again, submitted to clerical personnel for final mathematical calculations and extensions, and a final check for completeness and accuracy.

Once the final values have been established for each property, the entire program should be evaluated in terms of its primary objectives: do the values approximate a satisfactory level of market value, and what's more important, are the values equitable? Satisfactory answers to these questions can best be obtained through a statistical analysis of recent sales in an appraisal-to-sale ratio study, if sufficient sales are available.

To perform the study, it is necessary to take a representative sampling of recent valid sales and compute the appraisal-to-sale ratio for each of the sales. If the sample is representative, the computed median appraisal-to-sale ratio will give an indication of how close the appraisals within each district approximates the market value. This is providing, of course, that the sales included represent true market transactions. It is then necessary to determine the deviation of each individual appraisal-to-sale ratio from the median ratio, and to compute either the average or the standard deviation, which will give an indication of the degree of equity within each individual district. What remains then is to compare the statistical measures across property classes in order to determine those areas, if any, which need to be further investigated, revising the appraisal, if necessary, to attain a satisfactory level of value and equity throughout the entire jurisdiction.

The techniques and procedures set forth herein, if applied skillfully, should yield highly accurate and equitable property valuations, and should provide a sound property tax base. It should be noted, however, that no program, regardless of how skillfully administered, can ever be expected to be error-free. The appraisal must be "fine-tuned" and this can best be done by giving the taxpayer an opportunity to question the value placed upon his property and to produce evidence that the value is inaccurate or inequitable. During this time, the significant errors will be brought to light, and taking the proper corrective action will serve to further the objectives of the program. What's important in the final analysis is to use all these measures as well as any other resources available to produce the highest degree of accuracy and equity possible.

## **ESTIMATING REPLACEMENT COST NEW**

The informed buyer is not justified in paying anything more for a property than what it would cost him/her to acquire an equally desirable substitute property. Likewise, the upper limit of value of most improvements is the cost of reproducing an equally desirable substitute improvement. It follows, then, that a uniform starting point for an Equalization Program is to determine the Replacement Cost New of each and every improvement.

## **REPLACEMENT COST**

Replacement Cost is the current cost of producing an improvement of equal utility to the subject property; it may or may not be the cost of reproducing a replica property. The distinction being drawn is one between Replacement Cost, which refers to a substitute property of equal utility, as opposed to Reproduction Cost, which refers to a substitute replica property.

The Replacement Cost of an improvement includes the total cost of construction incurred by the builder, whether preliminary to, during the course of, or after completion of its construction. Among these are materials, labor, all sub-contracts, builder's overhead and profit, architectural and engineering fees, consultation fees, survey and permit fees, legal fees, taxes, insurance and the cost of interim financing.

## **PRICING SCHEDULES**

Pricing schedules and related cost tables are included in this manual to assist the appraiser in arriving at accurate estimation of Replacement Cost New. They have been developed by applying unit-in-place costs to the construction of specified hypothetical or model buildings. Application of the schedules involves the selection of the model which most nearly resembles the subject building and adjusting its price to compensate for all significant variations.

Pricing schedules are included for various types of Residential, Agricultural, Institutional, Commercial and Industrial structures.

Cost adjustments for the variations which are most frequently encountered in a particular type building are included. Adjustments for other variations may be made by using either the other Feature Cost Tables or other appropriate schedules.

**SELECTING THE PROPER QUALITY GRADE**

The quality of materials and workmanship is the one most significant variable to be considered in estimating the replacement cost of a structure. Two buildings may be built from the same general plan, each offering exactly the same facilities and with the same specific features, but with widely different costs due entirely to the quality of materials and workmanship used in their construction. For instance, the cost of a dwelling constructed of high quality materials and with the best of workmanship throughout can be more than twice that of one built from the same floor plan, but with inferior materials and workmanship.

The schedules included in this manual have been developed to provide the appraiser with a range of grades comprehensive enough to distinguish all significant variations in the quality of materials and workmanship which may be encountered; the basic specifications for each grade as to the type of facility furnished remain relatively consistent throughout, and the primary criterion for establishing the grade being the overall quality of materials and workmanship.

The majority of buildings erected fall within a definite class of construction, involving the use of average quality of materials with average quality of workmanship. This type of construction being the most common, it can readily be distinguished by the layman as well as the professional appraiser. Consequently, better or inferior quality of construction can be comparatively observed. The quality grading system and pricing schedules in this manual are keyed to this obvious condition; the basic grade being representative of that cost of construction using average quality of materials with average quality workmanship. The principal Quality Grade classifications are as follows:

Grade XX	Superior Quality
Grade X	Excellent Quality
Grade A	Very Good Quality
Grade B	Good Quality
Grade C	Average Quality
Grade D	Fair Quality
Grade E	Poor Quality

The seven grades listed above will cover the entire range of construction quality, from the poorest quality to the finest quality.

The general quality specifications for each grade are as follows:

- XX Grade Buildings generally having an exceptional architectural style and design, constructed with the finest quality materials and custom workmanship. Superior quality interior finish, built-in features, deluxe heating system, plumbing and lighting fixtures.
- X Grade Buildings generally having an outstanding architectural style and design, constructed with the finest quality materials and workmanship. Superior quality interior finish, built-in features, deluxe heating system, plumbing and lighting fixtures.
- A Grade Architecturally attractive buildings constructed with excellent quality materials and workmanship throughout. High quality interior finish and built-in features. Deluxe heating system and very good grade plumbing and lighting fixtures.
- B Grade Buildings constructed with good quality materials and above average workmanship throughout. Moderate architectural treatment. Good quality interior finish and built-in features. Good grade heating, plumbing and lighting fixtures.
- C Grade Buildings constructed with average quality materials and workmanship throughout, conforming to the base specifications used to develop the pricing schedule. Minimal architectural treatment. Average quality interior finish and built-in features. Standard grade heating, plumbing and lighting fixtures.
- D Grade Buildings constructed with economy quality materials and fair workmanship throughout. Void of architectural treatment. Cheap quality interior finish and built-in features. Low grade heating, plumbing and lighting fixtures.
- E Grade Buildings constructed with a very cheap grade of materials, usually “culls”, “seconds” and poor- quality workmanship; resulting from unskilled, inexperienced, “do-it-yourself” type labor. Low grade heating, plumbing, and lighting fixtures.

In order to facilitate using this grading system, and again to promote and maintain uniformity in approach, the value relationship of grade to grade as just described has been incorporated into the development of the base specifications relating to each schedule used in the manual.

Note: The appraiser must exercise extreme caution not to confuse the concepts “quality” and “condition” when selecting the proper grade. This is

especially applicable to older buildings, wherein a deteriorated condition can have a noticeable effect on their physical appearance. A building will always retain its initial grade of construction, regardless of its existing deteriorated condition. The Quality Grade ultimately selected must reflect that original built-in quality, and the selection of that grade cannot be influenced in any way by the physical condition of the building.

**APPLYING THE PROPER GRADE FACTOR**

Grading would be a relatively simple process if all buildings were built to conform to the quality grade specifications outlined above. The fact is, however, that this ideal condition does not exist. It is not unusual for any conventional building to be built incorporating construction qualities that fall between the established grade levels. The grading system in this manual has been designed in such a way as to provide the appraiser with a method for accounting for such variations by establishing intermediate grades.

If the Subject building is judged to be of a better or inferior quality than the actual grade levels, a grade factor of plus (+) or minus (-) should be applied, i.e., C+ would be better than a straight "C" Grade, B- poorer than a straight "B" Grade, etc.

There is rarely a clear-cut designation of a specific grade factor. The appraiser will generally select a range, such as C+ to B-, and then weigh the various quality factors exhibited in the construction in order to select the proper factor.

Following the above procedures results in the full range of Quality Grade Factors, examples of these factors are listed below.

XX (+)	350%	A (+)	165%	C (+)	110%	E (+)	65%
XX	325%	A	155%	C	100%	E	55%
XX (-)	300%	A (-)	145%	C (-)	95%	E (-)	45%
X (+)	275%	B (+)	135%	D (+)	90%		
X	250%	B	125%	D	85%		
X (-)	200%	B (-)	120%	D (-)	75%		

Note: the quality factor ultimately selected should represent a composite judgement of the overall Quality Grade. Generally, the quality of materials and workmanship is fairly consistent throughout the construction of a specific building. However; since this is not always the case, it is frequently necessary to weight the quality of each major component in order to arrive at the proper "overall" Quality Grade. Equal consideration must also be given to any "Additions" which are constructed of materials and workmanship inconsistent with the quality of the main building.

**PRICING SCHEDULES AND COST TABLES**

The Pricing Schedules and Cost Tables in this manual are provided to assist the appraiser in arriving at accurate and uniform valuations. Used properly, they should prove to be an invaluable tool. Quality valuations, however, are not the product of schedules and tables themselves, but rather of the appraiser's ability to use them effectively. In order to bring this about, a thorough understanding of the make-up and the capabilities and limitations of each schedule is essential. The appraiser must know the specifications, from which the base prices were derived, the composition of the prices, and the proper techniques and procedures for applying the prices. What's more important, the appraiser must be able to exercise good common sense and sound judgement in selecting and using them.

It should also be noted that the schedules and tables in the manual have been developed primarily for mass appraisal and tax equalization purposes. They have, therefore, been designed to provide the appraiser with an uncomplicated, fast, and effective method of arriving at an accurate estimate of replacement costs. In order to maintain simplicity in the schedules, techniques, and procedures, it is often necessary to make certain compromises from a strictly technical and engineering point of view. Extensive effort has been made in developing the schedules to minimize these compromises and limit them to variables that have minimal influence on the final value of the building. The schedules have been designed to reflect actual building costs and practices. Field tests have proven them to be both accurate and reliable, and when applied properly, highly effective in arriving at realistic replacement costs.

**GENERAL RESIDENTIAL PRICING SCHEDULES**

**QUALITY GRADE OR CLASS**

The quality grade of materials and workmanship is the one most significant variable to be considered in estimating the replacement cost of a structure. Two buildings may be built from the same general plan, each offering exactly the same facilities and with the same specific features, but with widely different cost due entirely to the quality of materials and workmanship used in their construction. For instance, the cost of a dwelling constructed of high-quality materials and with the best of workmanship throughout can be more than twice that of one built from the same floor plan but with inferior materials and workmanship prevailing.

The following schedule has been developed to distinguish between variations in cost. This schedule represents the full range of conventional dwelling construction. The basic specifications for each grade, as to type of facilities furnished is relatively constant; that is, each has a specific type of heating system, two bathrooms, kitchen unit, and other typical living facilities, but with variable quality of materials and workmanship prevailing.

The basic grade represents cost of construction using average quality materials, with average workmanship. The majority of dwellings erected fall within one class above and one class below the base grade of C. The layman or professional appraiser can readily distinguish between these classes. The three classes of grade of quality for this group of dwelling have been established as follows:

Grade B	Good	Quality 125%
Grade C	Average	Quality 100%
Grade D	Fair	Quality 85%

In order to justify variation in cost, maintain uniformity and retain complete control throughout the cost range, we have established these base grades. The pricing spread between each grade is based upon the use of better grade materials and higher quality workmanship from C Grade to B Grade. B Grade dwellings are found to have better individual features and interior finish, which reflects higher costs than a C Grade. Likewise, the D Grade dwelling would be constructed of lesser quality than C Grade, due to the type of materials used and workmanship. Consequently, better quality of construction or construction of cheaper quality can be comparatively observed.



To cover the entire range of dwelling construction, three additional classes of dwellings above the three base grade dwellings must be considered along with one grade dwelling below the base three grades.

The three base grades above are:

“A”	Excellent Quality	155%
“X”	Superior Quality	250%
“XX”	Ultimate Quality	325%

The A, X and XX Grade dwelling incorporates the best quality of materials and workmanship. Construction costs of XX Grade dwellings usually run substantially higher than the cost of C Grade dwellings. The prestige type and the mansion, or country estate-type homes are usually in this class. The X Grade dwellings having exceptional architectural style and design are generally the custom- built homes and are better in overall construction than the C Grade dwellings. The A Grade dwellings having outstanding architectural style and design are generally the custom-built homes and are 55% better in overall construction than the C Grade dwellings.

The dwelling of the cheapest quality construction built of low-grade materials and is the E Grade quality.

These seven (7) established base graded or classes of quality will cover the entire range of dwelling construction, from the cheapest to the finest in quality.

**USE OF GRADE FACTORS**

The grading method is based on C Grade as standards of quality and design. Quality adjustments are established by means of grade factor multipliers. Since not all dwellings are constructed to fall into one of the precise grade levels with no adjustments, it becomes necessary to further refine our grading system. It is not unusual for conventional houses to be built incorporating qualities that fall above or below these established grades. If the house that is being appraised does not fall exactly on a specific grade, but should be classified within that grade, the use of Grade Factor Symbols (+ or -) will accomplish this adjustment in the Grade XX, X, A, B, C, D and E Classes.

For a grading increase in the X Grade category, a plus factor can be used, which will result in each factor being higher than the last.

### A Sample Would Be –

A dwelling with outstanding architectural style and design, constructed with the finest quality materials and workmanship throughout, Superior quality interior, finish with extensive built-in features, Deluxe heating system and high-grade lighting and plumbing fixtures may be graded A+. The A+ Grade places this house in the Superior Quality range. The + part of the A+ Grade places this house one level above the A Grade category. Grade A+ has a multiplier of 165%. Thus, once you have priced this house to the base level of C, a multiplier of 165% would be applied to adjust the C Grade base level up to the A+ Grade level you desired.

The same approach would apply should you have a house constructed with a very cheap grade of materials, usually culls and seconds, and very poor-quality workmanship resulting from unskilled, inexperienced, do-it-yourself type labor. Minimal code, low-grade mechanical features and fixtures may be graded E. The E Grade places this house in the Cheap Quality range. Grade E has a multiplier of 55%; once you have priced this house to the base level of “C”, a multiplier of 55% would be applied to adjust the C Grade base level down to the E Grade level you desired.

**NOTE:** The quality factor ultimately selected is to represent a composite judgment of the overall Quality Grade. Generally, the quality of materials and workmanship is fairly consistent throughout the construction of a specific building; however, since this is not always the case, it is frequently necessary to weigh the quality of each major component in order to arrive at the proper overall Quality Grade. Equal consideration must also be given to any additions which are constructed of materials and workmanship inconsistent with the quality of the main building.

The appraiser must use extreme caution not to confuse Quality and Condition when establishing grades for older houses in which a deteriorated condition may have a noticeable effect on their appearance. Grades should be established on original built-in quality as new dwellings, and not be influenced by physical condition. Proper grading must reflect replacement cost of new buildings. Bear in mind a house will always retain its initial grade of construction, regardless of its present deteriorated condition.

## **XX Quality Dwellings**

These dwellings are constructed of the finest quality materials and workmanship, exhibiting unique and elaborate architectural styling and treatment, and having all the features typically characteristic of mansion-type homes.

### **BASE SPECIFICATIONS**

**FOUNDATION:** Brick or reinforced concrete foundation walls on concrete footings with interior piers.

**EXTERIOR WALLS:** Stone, brick veneer, stucco, log, or frame siding. All exterior walls will be of high quality and constructed with much detail and workmanship. Ample insulation and numerous openings for windows and doors are typical.

**ROOF:** Slate, tile, cedar shake, or architectural asphalt shingles on quality sheathing with well braced rafters having various slopes and ridges.

**INTERIOR FINISH:** The interior of these homes is of the highest custom design and construction with much attention given to fine detail and master craftsmanship.

**FLOORS:** Heavy construction utilizing wood or steel joists and sub floor with the best quality combination of hardwoods, ceramic tile, terrazzo, marble or granite tile, vinyl, or luxurious carpeting.

**PLUMBING:** A combination of high quality fixtures, good quality materials, and skilled workmanship. Considered typically and adequate for the type of construction, generally exceeding a total of twelve fixtures.

**CLIMATE CONTROL:** A heating system equal to forced air with ample capacity and insulated ductwork throughout. Air conditioning is included as a part of the specifications; however, this item is considered an add-on item and is excluded from base pricing.

**ELECTRICAL:** Good quality wiring, maximum electrical outlets and expensive light fixtures.



**Grade XX**

## X Quality Dwellings

These homes are architecturally designed; and custom built by contractors who specialize in good quality construction. Extensive detail is given to ornamentation with the use of good grade materials and skilled craftsmanship. Homes of this quality are located in affluent areas that will enhance and benefit the home the most.

### BASE SPECIFICATIONS

**FOUNDATION:** Brick or reinforced concrete foundation walls on concrete footings with interior piers.

**EXTERIOR WALLS:** Stone, brick veneer, stucco, log, or frame siding. All exterior walls will be of high quality and constructed with much detail and workmanship. Ample insulation and numerous openings for windows and doors are typical.

**ROOF:** Slate, tile, cedar shake, or architectural asphalt shingles on quality sheathing with well braced rafters having various slopes and ridges.

**INTERIOR FINISH:** The interior of these homes is of the highest custom design and construction with much attention given to fine detail and master craftsmanship.

**FLOORS:** Heavy construction utilizing wood or steel joists and sub floor with the best quality combination of hardwoods, ceramic tile, terrazzo, marble or granite tile, vinyl, or luxurious carpeting.

**PLUMBING:** A combination of high quality fixtures, good quality materials, and skilled workmanship. Considered typically and adequate for the type of construction, generally exceeding a total of twelve fixtures.

**CLIMATE CONTROL:** A heating system equal to forced air with ample capacity and insulated ductwork throughout. Air conditioning is included as a part of the specifications; however, this item is considered an add-on item and is excluded from base pricing.

**ELECTRICAL:** Good quality wiring, maximum electrical outlets and expensive light fixtures.



**Grade X+**

**Grade X+**

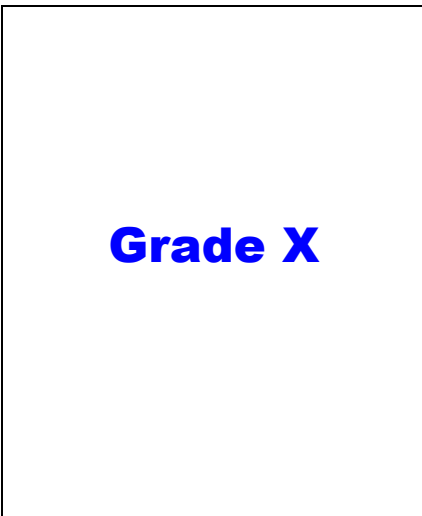


**Grade X+**





**Grade X**



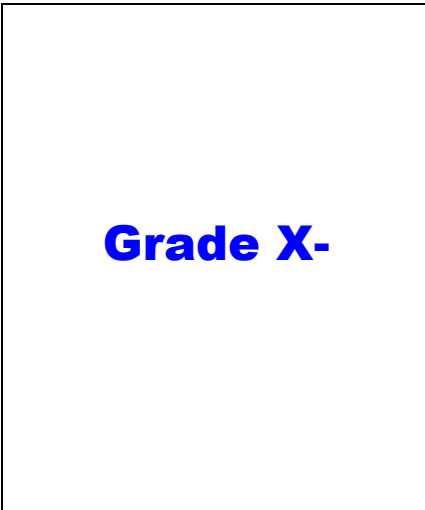
**Grade X**



**Grade X**



**Grade X-**



**Grade X-**



**Grade X-**



## A Quality Dwellings

These homes are architecturally designed; and custom built by contractors who specialize in good quality construction. Extensive detail is given to ornamentation with the use of good grade materials and skilled craftsmanship. Homes of this type are located in areas that are specifically developed for this level of quality.

### BASE SPECIFICATIONS

**FOUNDATION:** Brick or reinforced concrete foundation walls on concrete footings with interior piers.

**EXTERIOR WALLS:** Stone, brick veneer, stucco, log, or frame siding. All exterior walls will be of good quality and constructed with detail and workmanship. Ample insulation and adequate openings for windows and doors is typical.

**ROOF:** Slate, tile, cedar shake, or architecture asphalt shingles on quality sheathing with well braced rafters having various slopes and ridges.

**INTERIOR FINISH:** The interior of these homes is of good design and good construction with much attention given to detail and good quality craftsmanship.

**FLOORS:** Heavy construction utilizing wood or steel joists and sub floor with a good quality combination of hardwoods, ceramic tile, marble or granite tile, vinyl, or good quality carpeting.

**PLUMBING:** A combination of good quality fixtures, good quality materials, and skilled workmanship. Considered typically and adequate for the type of construction, generally exceeding a total of twelve fixtures.

**CLIMATE CONTROL:** A heating system equal to forced air with ample capacity and insulated ductwork throughout. Air conditioning is included as a part of the specifications; however, this item is considered an add-on item and is excluded from base pricing.

**ELECTRICAL:** Good quality wiring, maximum electrical outlets and expensive light fixtures.



**Grade A+**

**Grade A+**



**Grade A+**







**Grade A**

**Grade A**



**Grade A**



**Grade A-**

**Grade A-**



**Grade A-**



## B Quality Dwellings

These homes are architecturally designed and built by contractors who specialize in good quality construction. Much detail is given to ornamentation with the use of good grade materials and skilled workmanship. Custom built homes normally fall into this classification.

### BASE SPECIFICATIONS

**FOUNDATION:** Brick or reinforced concrete foundation walls on concrete footings with interior piers.

**EXTERIOR WALLS:** Stone, brick veneer, stucco, log, or frame siding. All exterior walls will be of good quality and constructed with detail and workmanship. Ample insulation and adequate openings for windows and doors is typical.

**ROOF:** Slate, tile, cedar shake, or architecture asphalt shingles on quality sheathing with well braced rafters having various slopes and ridges.

**INTERIOR FINISH:** The interior of these homes is of good design and good construction and good quality workmanship.

**FLOORS:** Moderate construction utilizing wood or steel joists and sub floor with a good combination of hardwoods, ceramic tile, vinyl, or good quality carpeting.

**PLUMBING:** A combination of quality fixtures, quality materials, and skilled workmanship. Considered typically and adequate for this type of construction, generally having at least eight fixtures.

**CLIMATE CONTROL:** A heating system equal to forced air with ample capacity and insulated ductwork throughout. Air conditioning is included as a part of the specifications; however, this item is considered an add-on item and is excluded from base pricing.

**ELECTRICAL:** Good quality wiring, maximum electrical outlets and good light fixtures.





**Grade B+**

**Grade B+**

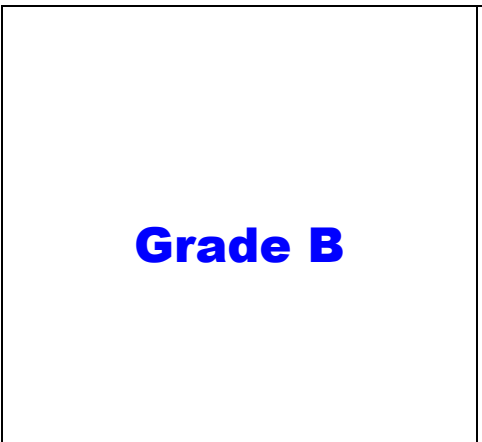


**Grade B+**





**Grade B**



**Grade B**



**Grade B**





**Grade B-**

**Grade B-**



**Grade B-**





## C Quality Dwellings

These homes are designed and built by contractors who specialize in average quality construction. Adequate detail is given to ornamentation with the use of average grade materials and typical workmanship. Homes of this type are located in areas that are specifically developed for this level of quality. These homes represent the prevalent quality.

### BASE SPECIFICATIONS

**FOUNDATION:** Brick or reinforced concrete foundation walls on concrete footings with interior piers.

**EXTERIOR WALLS:** Stone, brick veneer, stucco, log, or frame siding. All exterior walls will be average quality and constructed with detail and workmanship. Ample insulation and adequate openings for windows and doors is typical.

**ROOF:** Tile, cedar shake, or asphalt shingles on average quality sheathing with frame trusses and having typical slopes.

**INTERIOR FINISH:** The interior of these homes is of average design and average construction with attention given to detail and average quality workmanship.

**FLOORS:** Moderate construction utilizing wood or steel joists and sub floor with an average combination of hardwoods, ceramic tile, vinyl, or average quality carpeting.

**PLUMBING:** A combination of average quality fixtures, average quality materials, and workmanship. Considered typically and adequate for the type of construction, generally not exceeding a total of twelve fixtures.

**CLIMATE CONTROL:** A heating system equal to forced air with ample capacity and insulated ductwork throughout. Air conditioning is included as a part of the specifications; however, this item is considered an add-on item and is excluded

**ELECTRICAL:** Average quality wiring, adequate electrical outlets and average light fixtures from base pricing.



**Grade C+**

**Grade C+**

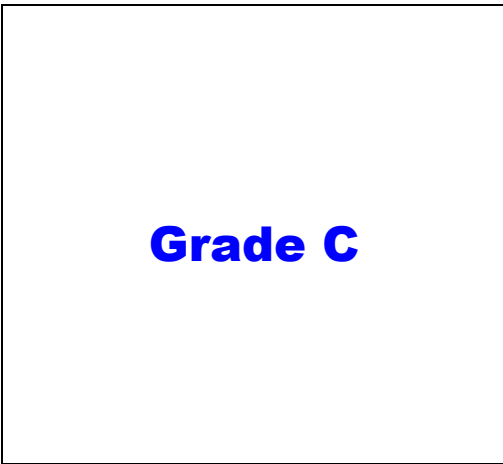


**Grade C+**





**Grade C**



**Grade C**



**Grade C**





**Grade C-**

**Grade C-**



**Grade C-**



## D Quality Dwellings

These homes are usually built of fair quality materials with expense-saving construction. Economy built homes would normally fall into this classification.

### BASE SPECIFICATIONS

**FOUNDATION:** Brick or concrete block walls on concrete footings.

**EXTERIOR WALLS:** Stone, brick veneer, stucco, log, or frame siding. All exterior walls are average quality or less and constructed with minimal detail and workmanship. Insulation is minimal and openings for windows and doors are typical.

**ROOF:** Light weight asphalt shingles on adequate sheathing and frame trusses with minimal slope.

**INTERIOR FINISH:** The interior of these homes is below average design and construction with limited attention given to detail and quality workmanship.

**FLOORS:** Low cost construction utilizing wood or steel joists and sub floor with some hardwoods, vinyl, and/or low- quality carpeting.

**PLUMBING:** A combination of fair quality fixtures and typical quality materials and workmanship. Considered typical and adequate for this type of construction, normally has eight fixtures or less.

**CLIMATE CONTROL:** A heating system equal to forced air with minimal capacity and ductwork throughout. Air conditioning is not a part of the specifications. This item is excluded from base pricing and should be added if applicable.

**ELECTRICAL:** Adequate quality wiring, minimal electrical outlets and low- cost light fixtures.



**Grade D+**

**Grade D+**



**Grade D+**







**Grade D**

**Grade D**

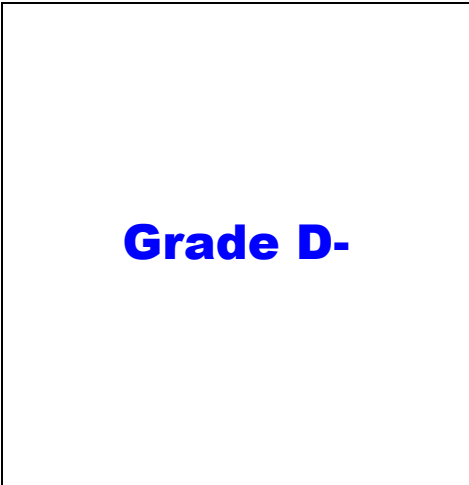


**Grade D**





**Grade D-**



**Grade D-**



**Grade D-**



## E Quality Dwellings

These homes are constructed of low quality materials and usually designed not to exceed minimal building code. Little detail is given to interior or exterior finish. They are usually built for functional use only. Homes of this type are not specifically located within housing developments but may be built as in-fill housing.

### BASE SPECIFICATIONS

**FOUNDATION:** Brick or concrete block foundation walls on concrete footings, piers, or concrete slab.

**EXTERIOR WALLS:** Stone, brick veneer, stucco, log, frame siding, or concrete block. All walls are cheaply constructed with minimal detail and workmanship. Little or no insulation and minimal windows and doors are typical.

**ROOF:** Light weight asphalt shingles, roll roofing, or metal on plywood sheathing and frame trusses with minimal slope.

**INTERIOR FINISH:** The interior of these homes is of fair design and construction with low cost materials. Little attention is given to detail and quality workmanship.

**FLOORS:** Low cost construction utilizing wood or steel joists and sub floor with some hardwoods, vinyl, and/or low -quality carpeting.

**PLUMBING:** A combination of fair quality fixtures, typical quality materials, and workmanship. Considered adequate for the type of construction. Generally, not have more than a total of five fixtures.

**CLIMATE CONTROL:** A heating system equal to forced air with minimal capacity and ductwork throughout. Air conditioning is not a part of the specifications. This item is excluded from base pricing and should be added if applicable.

**ELECTRICAL:** Minimal quality wiring, limited electrical outlets and inexpensive lighting.



**Grade E+**

**Grade E+**

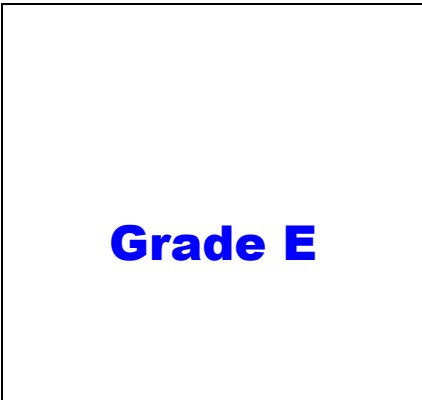


**Grade E+**





**Grade E**



**Grade E**



**Grade E**





**Grade E-**

**MANUFACTURED HOUSING**

## General

Manufactured housing can be single-wide mobile homes, double-wide mobile homes, multi-sectional homes, or modular homes. Non-modular structures are designed with a steel undercarriage and wheel assemblies for transporting to the site. Note: most modular homes have wood joist rather than a steel undercarriage. For mass appraisal purposes, both wood joist and steel undercarriage homes that are classified as modular are considered to be like stick-built homes.

As of June 15, 1976, all manufactured homes built, after that time, must meet or exceed Federal Standards outlined in Title VI, Housing and Community Development Act of 1974. These standards (building codes) are administered by United States Department of Housing and Urban Development (HUD). The HUD code, unlike conventional building codes, requires manufactured homes to be constructed on permanent chassis. Manufactured homes that are not consider modular homes must have a red/silver certification (HUD certification) on the exterior of each transportable section when transported from the factory.

Modular homes are constructed on the same state, local and regional building codes (conventional building codes) as site--built homes which exceed the HUD code and have a “State of North Carolina Modular Construction Validating Stamp” on the interior of the home. For mass appraisal purposes all factory constructed homes are to be classified as either manufactured (single-wide, double-wide, etc.) or modular.

**MODULAR HOME CLASSIFICATION STANDARDS**

All homes constructed in a factory may be considered a manufactured home, but only those that meet or exceed the North Carolina State Residential Building Code may be considered modular homes. North Carolina General Statute 105-164.3(21b) defines modular home as “a factory-built structure that is designed to be used as a dwelling, is manufactured in accordance with the specifications for modular homes under the North Carolina State Residential Building Code (NCSRBC), and bears a seal or label issued by the Department of Insurance pursuant to G.S. 143-139.1”. Also, in addition to NCSRBC, modular homes may be required to be constructed to local and/or regional building codes. North Carolina addresses the construction and definition of modular homes under the North Carolina State Building Code Volume VIII – Modular Construction Regulations. The quality of modular homes is considered to be the same as site--built homes per memorandum from the North Carolina Department of Insurance (see memorandum, page 383). For mass appraisal purposes structures that are considered modular must meet current general statute requirements. Note: All homes classified as modular will be considered as real property, even if on someone else’s land.

## MANUFACTURED HOME CLASSIFICATION STANDARDS

All manufactured homes not meeting the requirements of a modular home are to be considered using the term “manufactured home” for mass appraisal purposes. N.C.G.S. 105-273(13), in defining real property, provides for the inclusion of manufactured homes. Also, N.C.G.S. 105-316.7 defines mobile home and manufactured home.

Any manufactured home will be considered *real property* and will be valued in accordance with the schedule of values if the owner of the land and the owner of the home placed upon the land are the same, having the towing hitch and axle assembly removed and placed upon a permanent foundation as required by the Harnett County Planning Department.

If the owner of the manufactured home does not own the land it occupies, the home will be considered a *personal property* item. If the manufactured home is considered a *personal* item, it will be noted within the miscellaneous items section of the property record card.



**BAS-03  
Single-Sect  
Manufactured  
Home**

**BAS-02  
Multi-Sect  
Manufactured  
Home**



**BAS  
Modular  
Home**

## RESIDENTIAL COST SCHEDULES

The Cost Approach to value lends itself best to property valuation for tax purposes for two principle reasons.

- 1) Appraisals for Ad Valorem purposes require separate land value estimates.
- 2) The Cost Approach can be applied to all classes of property.

The use of one approach to the exclusion of others is contrary to the appraisal process. The approach outlined in this manual includes cost schedules which have been developed and are supported through analysis and incorporation of economic factors indicated by all three approaches to value: Cost, Income and Market.

The following cost schedules are based on a model residence constructed using typical components, average quality workmanship and materials, consisting of one thousand five hundred (1,500) square feet, 2 full baths, central a/c, heat pump, prefab fireplace and continuous footing.



The general pricing procedure is as follows:

1. Determine the Subarea Code type of residential building. (Ex. Single Family Residential Code is BAS)
2. Multiply the base square footage of the first floor by the subarea price, plus the rate for foundation, Ext Wall, Heat Fuel, Heat Type and A/C Type. This will give a RCN value. (Replacement Cost New)  
(Ex. 1000 sq. ft. X (\$112+\$3.70+\$3.80) \$119.50 = \$119,500)
3. Determine how many full/half baths are in the home and we will multiply the rate for a full bath (\$3,000) and a half bath (\$2,000) by how many baths we have and then we will add that to the above RCN of \$119,500.  
(Ex: 2 full baths (\$3,000 X 2) \$6,000 + \$119,500= \$125,500)
4. It then takes our new RCN of \$125,500 and multiplies by the size factor for the total square footage (1,500) of the home which is .84 (\$125,500 X .84=**\$105,420**)
5. For buildings with an upper floor, we use code FUS which is \$95.60 a square foot plus the rate for foundation, Ext Wall, Heat Fuel, Heat Type and A/C Type . We multiply the upper floor square footage by the adjusted base rate.  
(Ex. 500 sq. ft. (upper floor area) X (\$95.60 + \$3.70+\$3.80) \$102.70 = \$51,380)
6. Then it takes the new RCN of \$51,380 and multiplies it by the size factor for the total square footage (1,500) of the home which is .84 (\$51,380 X .84=**\$43,134**)
7. It will then take the attachments and use their respected square footage rate. In this case the rate for FOP is \$28.70.  
(Ex: FOP at 90 sq.ft. \$28.70=\$2,583)
8. Then it takes that value (\$2,583) and multiplies it by the size adjustment for the total square footage of the Subarea Code. (1.00) (Ex: \$2,583 X 1.00=**\$2,583**)
9. It then takes the RCN from all the subareas and totals them together to get the total new RCN (Ex: \$105,420 + \$43,134 + \$2,583=\$151,137)
10. Base rate includes No Fireplace but since we have a Prefab Fireplace, we will take the rate of a Prefab Fireplace \$1,850 + (the above RCN) \$151,137= \$152,987.
11. Quality Grade and Condition will be considered next. Ex: This home was built in 2002 is in average condition "C" and "AV".
  - The Quality Grade of a C has no adjustment.
  - The Condition of "AV" at the age of 20 is 15% good so it has a depreciation adjustment of 85%.(Ex: \$152,987 X .85=\$130,039)
12. If you have any adjustments that need to be added or any neighborhood adjustments, this is where those will come in.

All adjustments from base specifications are included in the following schedules:

**BASE PRICE FOR RESIDENTIAL SCHEDULE BAS SINGLE FAMILY RESIDENCE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$ 112.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING  EXTERIOR WALLS: VINYL SIDING OR EQUAL  PARTITIONS: ADEQUATE FOR SEPARATION OF ROOMS/STORAGE AREAS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR FIREPLACES GARAGES/PORCHES/BASEMENT AREAS ADDITIONAL PLUMBING ADD FOR COOLING SYSTEM
		FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  HEATING/COOLING: FORCED HOT AIR OR EQUAL  PLUMBING: 8 PLUMBING FIXTURES

**BASE PRICE FOR RESIDENTIAL SCHEDULE DUP/TRI DUPLEX/TRIPLEX**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$ 101.50	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING  EXTERIOR WALLS: VINYL SIDING OR EQUAL  PARTITIONS: ADEQUATE FOR SEPARATION OF ROOMS/STORAGE AREAS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR ATTACHMENTS ADD FOR EXTRA PLUMBING ADD FOR COOLING SYSTEM  FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  HEATING/COOLING: FORCED HOT AIR  PLUMBING: 8 PLUMBING FIXTURES

**BASE PRICE FOR RESIDENTIAL SCHEDULE BAS CONDO/TOWNHOUSE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$ 112.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING  EXTERIOR WALLS: VINYL SIDING OR EQUAL  PARTITIONS: ADEQUATE FOR SEPARATION OF ROOMS/STORAGE AREAS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR ATTACHMENTS ADD FOR EXTRA PLUMBING ADD FOR COOLING SYSTEM  FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  HEATING/COOLING: FORCED HOT AIR  PLUMBING: 8 PLUMBING FIXTURES

**BASE PRICE FOR RESIDENTIAL SCHEDULE BAS MODULAR HOME**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$ 112.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING  EXTERIOR WALLS: VINYL SIDING OR EQUAL  PARTITIONS: ADEQUATE FOR SEPARATION OF ROOMS/STORAGE AREAS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR ATTACHMENTS ADD FOR EXTRA PLUMBING ADD FOR COOLING SYSTEM  FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  HEATING/COOLING: FORCED HOT AIR  PLUMBING: 8 PLUMBING FIXTURES

# Schedule of Values

# Harnett County 2022

## BASE PRICE FOR RESIDENTIAL SCHEDULE BAS-02 MANUFACTURED HOME

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$ 76.50	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING  EXTERIOR WALLS: VINYL SIDING OR EQUAL  PARTITIONS: ADEQUATE FOR SEPARATION OF ROOMS/STORAGE AREAS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR ATTACHMENTS ADD FOR EXTRA PLUMBING ADD FOR COOLING SYSTEM
		FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  HEATING/COOLING: FORCED HOT AIR  PLUMBING: 8 PLUMBING FIXTURES

# Schedule of Values

# Harnett County 2022

## BASE PRICE FOR RESIDENTIAL SCHEDULE BAS-03 MANUFACTURED HOME

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$ 65.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING  EXTERIOR WALLS: VINYL SIDING OR EQUAL  PARTITIONS: ADEQUATE FOR SEPARATION OF ROOMS/STORAGE AREAS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR ATTACHMENTS ADD FOR EXTRA PLUMBING ADD FOR COOLING SYSTEM
		FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  HEATING/COOLING: FORCED HOT AIR  PLUMBING: 8 PLUMBING FIXTURES

**MAIN AREA BASE RATES**

<b>Use Code</b>	<b>Description</b>	<b>Rate</b>
01-BAS	Base Living	\$112.00
02-BAS-02	Doublewide Manufactured Homes	\$76.50
03-BAS-03	Singlewide Manufactured Homes	\$65.00
62-DUP/TRI	Duplex/Triplex	\$101.50
04-CONDO	Condominium	\$112.00
05-PATIO HOME	Patio Home	\$112.00
07-MODULAR	Modular/Steel Frame	\$112.00
09-TOWNHOUSE	Townhouse Single Family	\$112.00

**MODEL CODES – NO MONETARY VALUE – USED IN VALUATION TO DIRECT  
TO THE CORRECT DEPRECIATION.**

<b>Model Code</b>	<b>Description</b>
00	Vacant
01	Single Family Home
02	Manufactured Home
03	Condominiums
04	Office Construction
05	Apartments
06	Warehouse/Industrial
07	Commercial
UN	Unknown



**MAIN AREA BASE RATES**

**Base Rate Includes 1 type of the following Heat Type: Baseboard Heat, Forced Air-Not Ducted, Radiant Ceiling Heat, Radiant-Electric. 1 type of the following Foundation: Piers and Continuous Footing Foundation. 1 type of the following Ext. Walls: Minimum Siding, Wood on Sheathing, Vinyl Siding, Stucco on Conc. Block and No A/C and No Fireplace**

Code	Heat Type	SQ.FT. ADJ.	Code	Foundation	SQ.FT. ADJ.
01	No Heat	(-) \$4.60	01	Earth	(-) \$3.00
02	Baseboard Heat	BASE	02	Piers	BASE
03	Forced Air-Not Ducted	BASE	03	Continuous Footing	BASE
04	Forced Air-Ducted	(+) \$3.80	04	Spread Footing	\$1.00
05	Radiant Ceiling Heat	BASE	05	Special Footing	\$1.50
06	Hot Water	(+) \$1.20			
07	Steam	(+) \$1.20		<b>Plumbing</b>	<b>Rate</b>
08	Radiant-Electric	BASE		Full Bath	\$3,000
09	Radiant-Water	(+) \$1.20		Half Bath	\$2,000
10	Heat Pump	(+) \$3.80			
Code	A/C	SQ.FT. ADJ.	Code	Fire place	Rate
01	None	BASE	01	None	BASE
02	Wall Unit	(-) \$2.10	02	Prefab	\$1,850
03	Central	(+) \$3.70	03	1 Sty Single	\$3,700
04	Packaged Rooftop	(+) \$3.70	04	2 Sty Single/1 Dbl	\$4,700
05	Chilled Water	(+) \$3.70	05	2 or more	\$6,150
			06	Massive	\$6,765
			07	2 or more Massive	\$7,380
Code	Basement	SQ. FT. ADJ.	Code	Ext. Wall	SQ.FT. ADJ.
FBM	Basement Finished	\$62.20	01	Siding Minimum	BASE
FGB	Fin. Basement Garage	\$28.80	02	Corrugated Metal (light)	(-) \$0.80
UBM	Basement Unfin.	\$27.20	03	Composition or Wall Board	(+) \$3.50
UGB	Unfin. Basement Garage	\$27.20	05	Asbestos Shingle	(-) \$0.80
			08	Masonite on Sheathing	(+) \$0.20
			09	Wood on Sheathing/Plywood	BASE
			10	Aluminum/Vinyl Siding	BASE
			11	Concrete Block	(-) \$0.50
			12	Stucco on Con. Block	BASE
			13	Stucco on Tile/Wood	(+) \$0.90
			16	Wood Shingle/Log	(+) \$2.70
			18	Siding Maximum	(+) \$3.50
			19	Cem BR/SPLBLK	(+) \$3.50
			20	Jumbo/Comm Brick	(+) \$2.70
			21	Face Brick	(+) \$2.20
			22	Stone	(+) \$3.80
			23	Corrugated Metal (heavy)	(-) \$0.30
			24	Prefab/Mod Metal	(-) \$0.50
			25	Reinforced Concrete	(+) \$4.40
			26	Precast Panel	(+) \$2.20
			28	Glass/Thermopane	(+) \$5.50

**DESCRIPTIVE CODES - NO VALUE TIED TO THESE**

Code	Sub Floor System	Code	Roofing Structure	Code	Style of Dwelling
01	Earth/No Sub Floor	01	Flat	01	1.0 Story
02	Slab on Grade	02	Shed	02	1.5 Stories
03	Slab Above Grade	03	Gable	03	2.0 Stories
04	Plywood	04	Hip	04	2.5 Stories or more
05	Wood	05	Gambrel/Mansard	05	Ranch w/ basement
06	Slab Platform Hght	06	Irregular/Cathedral	06	A Frame
07	Structural Slab	07	Wood Truss	07	Split Level
		08	Irregular/Wood Truss	08	Split Foyer
		09	Rigid Frame w/ bar joist	09	1.25 Stories
		10	Steel Frame or Truss	10	1.75 Stories
		11	Bowstring Truss	11	2.25 Stories
		12	Reinforced Concrete		
		13	Prestress Concrete		
Code	Roofing Cover	Code	Interior Wall Construction		
01	Min. Roofing (Corr. Or Sh. M.)	01	Masonry or Minimum		
02	Rolled Compisition	02	Wall Board/Wood Wall/Metal		
03	Asphalt or Composition Shingle	03	Plastered		
04	Built up tar and grave/Rubber	04	Plywood Panel		
05	Corrugated Asbestor/Rubber	05	Drywall/Sheetrock		
06	Asbestos Shingle/Corr.	06	Custom Interior		
07	Concrete/Clay Tile				
08	Cedar Shake				
09	Enamel Metal Shingle/Copper				
10	Wood Shingle/ 3 1 0 Shingle				
11	Slate				
12	Metal				
Code	Heating Fuel	Code	Interior Floor Cover		
01	None	01	None		
02	Oil, Wood or Coal	02	Minimum, Plywood, Linoleum		
03	Gas	03	Concrete Finished		
04	Electric	04	Concrete Tapered		
05	Solar	05	Asphalt Tile		
		06	Vinyl Asbestos		
		07	Cork or Vinyl Tile		
		08	Sheet Vinyl		
		09	Pine or Soft Woods		
		10	Terrazzo Monolithic		
		11	Ceramic Clay Tile		
		12	Hardwood		
		13	Parquet		
		14	Carpet		
		15	Quarry or Hard Tile		
		16	Terrazzo Epoxy Strip		
		17	Precast Concrete		
		18	Slate		
		19	Marble		

# Schedule of Values

# Harnett County 2022

## MAIN AREA SIZE ADJUSTMENTS (Size-Res, Size-DW)

AREA	ADJ.
0001-0299	175.00%
0300-0309	167.00%
0310-0319	165.00%
0320-0329	163.00%
0330-0339	161.00%
0340-0349	160.00%
0350-0359	158.00%
0360-0369	156.00%
0370-0379	154.00%
0380-0389	153.00%
0390-0399	151.00%
0400-0409	149.00%
0410-0419	148.00%
0420-0429	147.00%
0430-0439	145.00%
0440-0449	144.00%
0450-0459	143.00%
0460-0469	142.00%
0470-0479	140.00%
0480-0489	139.00%
0490-0499	138.00%
0500-0509	137.00%
0510-0519	135.00%
0520-0529	134.00%
0530-0539	133.00%
0540-0549	132.00%
0550-0559	130.00%
0560-0569	129.00%
0570-0579	128.00%
0580-0589	127.00%
0590-0599	125.00%
0600-0609	124.00%
0610-0619	123.00%
0620-0629	122.00%
0630-0639	121.00%
0640-0649	120.00%
0650-0659	119.00%
0660-0669	118.00%
0670-0679	117.00%
0680-0689	116.00%
0690-0699	115.00%
0700-0719	114.00%
0720-0739	113.00%
0740-0759	112.00%
0760-0779	111.00%

AREA	ADJ.
0780-0799	110.00%
0800-0819	109.00%
0820-0839	108.00%
0840-0859	106.00%
0860-0879	105.00%
0880-0899	104.00%
0900-0924	103.00%
0925-0949	102.00%
0950-0974	102.00%
0975-0999	100.00%
1000-1019	100.00%
1020-1039	99.00%
1040-1059	98.00%
1060-1079	97.00%
1080-1099	96.00%
1100-1124	95.00%
1125-1149	94.00%
1150-1174	93.00%
1575-1199	92.00%
1200-1224	91.00%
1225-1249	90.00%
1250-1274	90.00%
1275-1299	89.00%
1300-1349	88.00%
1350-1399	87.00%
1400-1449	86.00%
1450-1499	85.00%
1500-1574	84.00%
1575-1649	84.00%
1650-1724	83.00%
1725-1799	82.00%
1800-1899	81.00%
1900-1999	80.00%
2000-2099	79.00%
2100-2249	78.00%
2250-2399	77.00%
2400-2599	77.00%
2600-2799	76.00%
2800-2999	75.00%
3000-3249	74.00%
3250-3499	73.00%
3500-3999	72.00%
4000-4499	72.00%
4500-4999	71.00%
5000-UP	70.00%

# Schedule of Values

# Harnett County 2022

## MANUFACTURED SINGLE SECTION MAIN AREA SIZE ADJUSTMENTS

(Size-SW)

AREA	ADJ.
0001-0524	110.00%
0525-0549	110.00%
0550-0574	109.00%
0575-0599	109.00%
0600-0624	108.00%
0625-0649	108.00%
0650-0674	107.00%
0675-0699	107.00%
0700-0724	106.00%
0725-0749	106.00%
0750-0774	105.00%
0775-0799	105.00%
0800-0824	104.00%
0825-0849	104.00%
0850-0874	103.00%
0875-0899	103.00%
0900-0924	102.00%
0925-0949	102.00%
0950-0974	101.00%
0975-0999	101.00%
1000-1049	100.00%

AREA	ADJ.
1050-1074	100.00%
1075-1099	99.00%
1100-1124	99.00%
1125-1149	98.00%
1150-1174	98.00%
1175-1199	97.00%
1200-1224	97.00%
1225-1249	96.00%
1250-1274	96.00%
1275-1299	95.00%
1300-1324	95.00%
1325-1349	94.00%
1350-1374	94.00%
1375-1399	93.00%
1400-1424	93.00%
1425-1449	92.00%
1450-1474	92.00%
1475-1499	91.00%
1500-1524	91.00%
1525-UP	90.00%

**MAIN BUILDING SUBAREA CODES**

<b>Code</b>	<b>Description</b>	<b>Rate</b>	<b>Size Adj</b>
APT	Apartment	\$105.00	RES
SFB	Base Semi Finished	\$44.20	RES
CAN	Canopy	\$11.60	A5
CDN	Canopy Detached	\$11.60	A5
FCP	Carport Finished	\$18.90	A3
UCP	Carport Unfinished	\$18.90	A3
FDC	Carport Finished Detached	\$18.90	A3
UDC	Carport Unfinished Detached	\$18.90	A3
FGR	Garage Finished (No Door)	\$28.80	A2
FGD	Garage Finished w/ Door	\$30.00	A2
UGR	Garage Unfinished (No Door)	\$27.80	A2
UGD	Garage Unfinished w/ Door	\$29.00	A2
FDG	Garage Finished Detached	\$28.80	A2
UDG	Garage Unfinished Detached	\$28.80	A2
CLP	Loading Plot Covered	\$21.75	A4
ULP	Loading Plot Uncovered	\$16.00	A4
MEZ	Mezzanine	\$16.50	A1
PTO	Patio	\$11.35	A4
FEP	Porch Enclosed Finished	\$47.15	A6
UEP	Porch Enclosed Unfinished	\$47.15	A6
FOP	Porch Open Finished	\$28.70	A5
UOP	Porch Open Unfinished	\$28.70	A5
FSP	Porch Screen Finished	\$33.00	A6
USP	Porch Screen Unfinished	\$33.00	A6
FDS	Porch Screen Finished Detached	\$33.00	A6
UDS	Porch Screen Unfinished Detached	\$33.00	A6
STP	Stoop	\$15.40	A4
FST	Storage Finished	\$22.50	A1
UST	Storage Unfinished	\$22.50	A1
OVH	Overhang (1 <sup>st</sup> floor only w/ no foundation)	\$45.50	A2
TER	Terrace	\$11.35	A4
FUS	Upper Story Finished	\$95.20	RES
UUS	Upper Story Unfinished	\$45.00	RES
FUS3	Upper Story Finished (3 <sup>rd</sup> Story)	\$95.20	RES
UUS3	Upper Story Unfinished (3 <sup>rd</sup> Story)	\$45.00	RES
WDD	Wood Deck	\$16.70	A5

**ATTACHMENT CODE SIZE ADJUSTMENT**

A1	
AREA	ADJ
001-150	110
151-200	108
201-250	106
251-300	104
301-350	102
351-600	100
601-650	98
651-700	96
701-750	94
751-800	92
801-UP	90

A2	
AREA	ADJ
001-050	110
051-100	105
101-150	102
151-400	100
401-550	98
551-700	96
701-850	94
851-1000	92
1001-UP	90

A3	
AREA	ADJ
001-150	110
151-200	105
201-250	102
251-400	100
401-600	98
601-700	96
701-800	94
801-900	92
901-UP	90

A4	
AREA	ADJ
001-040	100
041-080	98
081-150	96
151-300	94
301-UP	90

A5	
AREA	ADJ
001-020	110
021-040	106
041-060	104
061-080	102
081-200	100
201-300	98
301-400	96
401-500	94
501-UP	90

A6	
AREA	ADJ
001-020	110
021-040	106
041-060	104
061-080	102
081-200	100
201-300	98
301-400	96
401-500	94
501-UP	90

**QUALITY GRADE**

QUALITY GRADE	PERCENT
XX+	350%
XX	325%
XX-	300%
X+	275%
X	250%
X-	200%
A+	165%
A	155%
A-	145%
B+	135%
B	125%
B-	120%
C+	110%
C	100%
C-	95%
D+	90%
D	85%
D-	75%
E+	65%
E	55%
E-	45%



**C.D.U. TABLE**

YEAR BUILT	EX	VG	GD	AV	FR	PR	VP	UN
2021	0	0	0	0	5	10	15	25
2020	0	0	0	0	6	12	18	30
2019	0	0	0	1	7	14	21	35
2018	0	0	0	1	8	16	24	40
2017	0	0	1	2	9	18	27	45
2016	0	0	1	3	10	20	30	50
2015	0	1	1	3	12	22	32	62
2014	0	1	1	4	14	24	34	70
2013	0	1	1	4	16	26	36	80
2012	0	1	2	5	18	28	38	90
2011	0	1	2	6	20	30	40	90
2010	0	1	2	7	22	32	42	90
2009	0	1	2	8	23	33	43	90
2008	0	1	2	9	24	34	44	90
2007	0	1	3	10	25	35	45	90
2006	1	2	3	11	26	36	46	90
2005	1	2	3	12	27	37	47	90
2004	1	2	4	13	28	38	48	90
2003	1	2	4	14	29	39	49	90
2002	1	2	5	15	30	40	50	90
2001	1	2	5	15	30	40	50	90
2000	1	2	6	16	31	41	51	90
1999	1	2	6	16	31	41	51	90
1998	1	2	7	17	32	42	52	90
1997	1	2	8	18	33	43	53	90
1996	2	2	8	18	33	43	53	90
1995	2	2	9	19	34	44	54	90
1994	2	2	9	19	34	44	54	90
1993	2	2	10	20	35	45	55	90
1992	2	3	10	20	35	45	55	90
1991	2	3	11	21	36	46	56	90
1990	2	3	11	21	36	46	56	90
1989	2	3	12	22	37	47	57	90
1988	2	3	12	22	37	47	57	90
1987	3	3	13	23	38	48	58	90
1986	3	3	14	24	39	49	59	90
1985	3	3	14	24	39	49	59	90
1984	3	3	15	25	40	50	60	90
1983	3	3	15	25	40	50	60	90
1982	3	4	16	26	41	51	61	90
1981	3	4	16	26	41	51	61	90

**C.D.U. TABLE (CONTINUED)**

YEAR BUILT	EX	VG	GD	AV	FR	PR	VP	UN
1980	3	4	17	27	42	52	62	90
1979	3	4	17	27	42	52	62	90
1978	3	4	18	28	43	53	63	90
1977	3	5	18	28	43	53	63	90
1976	3	5	19	29	44	54	64	90
1975	3	5	19	29	44	54	64	90
1974	3	5	20	30	45	55	65	90
1973	3	5	20	30	45	55	65	90
1972	3	5	21	31	46	56	66	90
1971	4	6	21	31	46	56	66	90
1970	4	6	22	32	47	57	67	90
1969	4	6	22	32	47	57	67	90
1968	4	6	23	33	48	58	68	90
1967	4	6	23	33	48	58	68	90
1966	5	7	24	34	49	59	69	90
1965	5	7	24	34	49	59	69	90
1964	5	7	25	35	50	60	70	90
1963	5	7	25	35	50	60	71	90
1962	5	7	25	36	51	61	71	90
1961	5	8	26	36	51	61	71	90
1960	5	8	26	37	52	62	72	90
1959	5	8	26	37	52	62	72	90
1958	5	8	26	38	53	63	73	90
1957	6	8	27	38	53	63	73	90
1956	6	9	27	39	54	64	74	90
1955	6	9	27	39	54	64	74	90
1954	6	9	27	39	54	64	74	90
1953	6	9	28	40	55	65	75	90
1952	7	9	28	40	55	65	75	90
1951	7	10	28	40	55	65	75	90
1950	7	10	28	41	56	66	76	90
1949	7	10	29	41	56	66	76	90
1948	7	10	29	41	56	66	76	90
1947	7	10	29	42	57	67	77	90
1946	7	11	29	42	57	67	77	90
1945	7	11	30	42	57	67	77	90
1944	7	11	30	43	58	68	78	90
1943	7	11	30	43	58	68	78	90
1942	8	11	30	43	58	68	78	90
1941	8	11	31	44	59	69	79	90
1940	8	12	31	44	59	69	79	90
1939	8	12	31	44	59	69	79	90
1938	8	12	31	45	60	70	80	90

**C.D.U. TABLE (CONTINUED)**

YEAR BUILT	EX	VG	GD	AV	FR	PR	VP	UN
1937	8	12	32	45	60	70	80	90
1936	8	12	32	45	60	70	80	90
1935	8	12	32	46	61	71	81	91
1934	8	13	32	46	61	71	81	91
1933	8	13	33	46	61	71	81	91
1932	9	13	33	47	62	72	82	92
1931	9	13	33	47	62	72	82	92
1930	9	13	33	47	62	72	82	92
1929	9	14	34	48	63	73	83	93
1928	9	14	34	48	63	73	83	93
1927	9	14	34	48	63	73	83	93
1926	9	14	34	49	64	74	84	94
1925	9	15	34	49	64	74	84	94
1924	9	15	34	49	64	74	84	94
1923	10	15	35	50	65	75	85	95
1922-Older	10	15	35	50	65	75	85	95

# Schedule of Values

# Harnett County 2022

## MANUFACTURED SINGLE SECTION C.D.U. TABLE

YEAR BUILT	MEX	MVG	MGD	MAV	MFR	MPR	MVP	MUN
2021	1	2	2	4	10	20	50	95
2020	1	3	4	5	13	22	50	95
2019	1	4	5	6	15	24	51	95
2018	1	5	6	8	18	26	52	95
2017	2	8	8	9	21	28	53	95
2016	3	9	10	11	23	30	54	95
2015	4	10	11	13	25	32	55	95
2014	5	10	13	15	27	34	56	95
2013	6	11	15	17	31	36	57	95
2012	7	11	17	18	35	38	58	95
2011	8	12	19	20	37	40	59	95
2010	8	12	21	22	43	44	60	95
2009	8	13	22	24	45	48	61	95
2008	9	14	22	26	47	50	62	95
2007	9	14	23	28	49	52	63	95
2006	9	15	23	29	53	54	64	95
2005	10	15	24	31	55	58	65	95
2004	10	16	24	33	56	60	66	95
2003	10	17	25	35	57	60	67	95
2002	11	17	25	36	58	62	68	95
2001	11	18	26	38	59	63	69	95
2000	11	19	27	40	59	63	70	95
1999	12	20	27	42	60	64	71	95
1998	12	20	28	43	61	65	71	95
1997	12	21	28	45	61	65	72	95
1996	13	21	29	46	62	66	72	95
1995	13	22	29	46	63	70	73	95
1994	13	23	30	47	63	70	73	95
1993	14	23	31	47	64	71	74	95
1992	14	24	31	48	65	72	74	95
1991	14	25	32	48	65	72	75	95
1990	15	25	32	49	66	73	75	95
1989	15	26	33	49	67	74	76	95
1988	15	26	34	50	67	74	76	95
1987	16	27	34	50	68	75	77	95
1986	16	28	35	51	69	76	77	95
1985	16	28	35	51	69	76	78	95
1984	17	29	35	52	70	77	78	95
1983	17	29	36	52	70	78	80	95
1982	17	29	36	53	71	78	81	95
1981	18	30	36	53	72	79	82	95

**MANUFACTURED SINGLE SECTION C.D.U. TABLE (CONTINUED)**

YEAR BUILT	MEX	MVG	MGD	MAV	MFR	MPR	MVP	MUN
1980	18	30	37	54	73	80	83	95
1979	18	31	37	54	74	80	84	95
1978	19	32	37	55	75	81	85	95
1977	19	32	38	56	76	82	86	95
1976	19	33	39	58	77	82	87	95
1975	20	33	39	58	78	83	88	95
1974	20	34	40	59	79	84	89	95
1973-Older	20	35	41	60	80	85	90	95

**OTHER BUILDING AND YARD ITEMS PRICING SCHEDULES**

The Other Building and Yard Item pricing schedules are provided to calculate the replacement cost new of a variety of types of structures typically associated with residential property.

Base prices and adjustments are provided for swimming pools, detached garages, greenhouses, carports, canopies, utility buildings, tennis courts, boat houses, and boat docks. Each structure has been assigned a unique Structure Type Code to be utilized on Computer-Assisted Mass Appraisal (CAMA) programs.

Depreciation allowances, where applicable, are included on the appropriate schedule. Additional tables can be found in the Depreciation Schedules and Tables section of the Manual.

The general pricing procedure is as follows:

1. Determine the Miscellaneous Structure code that best describes the structure. (Ex. Detached garage is a code 02)
2. Multiply the square footage of the building by the square foot rate times the size factor for that structure code. (Ex. 900 Sq. Ft X \$21.00 X .90 = \$17,010)
3. Apply the proper Quality Grade Factor to arrive at the Replacement Cost New. The standard pricing schedule is at a C grade building.
4. Apply the proper depreciation from the correct table. (Ex. A garage built in 2007 in normal condition is reduced by 25% to its final value)
5. The final value for the building is finished.



**01  
STORAGE  
BUILDING**



**02M  
PRE FAB  
GARAGE**

**03  
CARPORT**







**03M  
METAL  
CARPORT**



**07/08  
SWIMMING  
POOL**

**24  
SHED**




**25  
BARN**



**26  
POULTRY  
HOUSE**



<p><b>28 SILO CON. STAVE AND GLASS LINED</b></p>	
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	<p><b>39 LEAN TO/CANOPY/OPEN POLE SHED</b></p>
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**39  
LEAN  
TO/CANOPY/  
OPEN POLE  
SHED**



**99  
STABLE**

**QUALITY GRADE FACTORS**

XX(+)	350%	A (+)	165%	C (+)	110%	E (+)	65%
XX	325%	A	155%	C	100%	E	55%
XX(-)	300%	A (-)	145%	C (-)	95%	E (-)	45%
X (+)	275%	B (+)	135%	D (+)	90%		
X	250%	B	125%	D	85%		
X (-)	200%	B (-)	120%	D (-)	75%		

**RESIDENTIAL OUTBUILDING AND YARD ITEMS**

<b>Code</b>	<b>Description</b>	<b>Rate</b>	<b>Size Adj.</b>	<b>Deprec.</b>
01	Storage	\$10.00	A4	S2
02M	Garage Prefab (metal)	\$21.00	A1	S3
02	Garage	\$21.00	A1	S3
02FA	Garage w/ Finished Upper Story 100%	\$51.25	A1	S3
02FU	Garage w/ Finished Upper Story <100%	\$48.50	A1	S3
02UA	Garage w/ Unfinished Upper Story <100%	\$38.00	A1	S3
02US	Garage w/ Unfinished Upper Story 100%	\$40.45	A1	S3
03M	Carport Prefab (metal)	\$4.25	A5	S3
03	Carport	\$6.00	A5	S3
04	Patio	\$5.00	A1	S3
07	Pool/Concrete	\$35.00	A1	S1
08	Pool/Vinyl	\$29.55	A1	S1
11	Porch	\$18.00	A5	S3
13	Greenhouse	\$7.50	A4	S2
14	Fireplace	\$4,000	-	S3
16	Addition	Code to not use	-	-
18	Penthouse	\$25.00	A1	S3
19	Spa/Tub	\$3,500	-	S1
20	Tobacco Barn	\$18.00	A4	S2
21	Grain Bin	\$1.75	A4	S2
22	Bulk Barn	\$18.00	A4	S2
23	Pack Barn	\$17.50	A4	S2
24	Shed	\$15.00	A4	S2
25	Barn	\$18.00	A4	S2
26	Poultry/Dark	\$10.00	A1	S2
27	Hog Parlor	\$9.75	A4	S1
28	Silo	\$8.50	-	S1
29	Poultry House	\$10.00	A1	S2
30	Tunnel	Code to not use	-	-
31	Commercial Area	Code to not use	-	-
39	Canopy/Lean to/Open Pole Shed	\$5.00	A5	S3
45	Freight Elevator	\$40,000	-	S2
46	Passenger Elevator	\$75,000	-	S2
47	Quonset	\$17.00	A1	S3
55	Gazebo	\$1,500	-	S1
60	Bath House	\$50.00	A2	S2
66	Dwelling	Code to not use	-	-
67	Pier	\$30.00	A3	S1
68	Docks	\$25.00	A1	S1
69	Metal Building	\$12.85	A1	S3
77	Boathouse	\$30.00	A1	S1

**RESIDENTIAL OUTBUILDING AND YARD ITEMS (continued)**

<b>Code</b>	<b>Description</b>	<b>Rate</b>	<b>Size Adj</b>	<b>Deprec.</b>
81	Boat Ramp	\$15.00	A1	S1
82	Milk Barn	Code to not use	-	-
83	Bulkhead	\$100	-	S2
87	Terrace	Code to not use	-	-
88	Deck	\$12.50	A5	S3
89	Apron	\$3.50	A1	S1
90	Pump House	\$7.00	A1	S1
91	Patio Covered	\$11.35	A1	S3
92	Crib	\$5.50	A4	S1
93	Dock Board	\$15.00	A4	S2
94	Boat Slip	\$25.00	-	-
95	Boat Slip Covered	\$25.00	-	-
96	Pier Covered	\$30.00	A3	S2
97	Shelter/ 3 Sided Shed	\$7.00	A4	S2
99	Stable	\$23.50	A4	S2
B6	Shop	\$24.00	A4	S2
D8	Home Site	\$4,000	-	-



**OTHER BUILDING AND YARD ITEMS CODE SIZE ADJUSTMENT**

A1		
AREA		ADJ
< 150		110
151-200		108
201-250		106
251-300		104
301-350		102
351-600		100
601-650		98
651-700		96
701-750		94
751-800		92
801-UP		90

A2		
AREA		ADJ
< 050		110
051-100		105
101-150		102
151-400		100
401-550		98
551-700		96
701-850		94
851-1000		92
1001-UP		90

A3		
AREA		ADJ
< 150		110
151-200		105
201-250		102
251-400		100
401-600		98
601-700		96
701-800		94
801-900		92
901-UP		90

A4		
AREA		ADJ
< 040		100
041-080		98
081-150		96
151-300		94
301-UP		90

A5		
AREA		ADJ
< 020		110
021-040		106
041-060		104
061-080		102
081-200		100
201-300		98
301-400		96
401-500		94
501-UP		90

A6		
AREA		ADJ
< 020		110
021-040		106
041-060		104
061-080		102
081-200		100
201-300		98
301-400		96
401-500		94
501-UP		90

**OTHER BUILDING AND YARD ITEMS DEPRECIATION**

<b>S1</b>	
AGE	DEPR.
01	10%
02	20%
03	25%
04	30%
05	35%
06	40%
07	45%
08-UP	50%

<b>S2</b>	
AGE	DEPR.
01	5%
02	10%
03	15%
04	20%
05	25%
06	30%
07	35%
08	40%
09	45%
10	50%
11	55%
12	60%
13	65%
14	70%
15-UP	75%

<b>S3</b>	
AGE	DEPR.
00--03	5%
04--06	10%
07--09	15%
10--12	20%
13--15	25%
16--18	30%
19--21	35%
22--24	40%
25--27	45%
28--30	50%
31--35	55%
36--40	60%
41--45	65%
46--50	70%
51--UP	75%

<b>S4</b>	
AGE	DEPR.
00--04	5%
05--08	10%
09--12	15%
13--16	20%
17--20	25%
21--24	30%
25--28	35%
29--32	40%
33--36	45%
37--40	50%
41--44	55%
45--48	60%
49--52	65%
53--56	70%
57--UP	75%

<b>S5</b>	
AGE	DEPR.
00--05	5%
06--10	10%
11--15	15%
16--20	20%
21--25	25%
26--30	30%
31--35	35%
36--40	40%
41--45	45%
46--50	50%
51--55	55%
56--60	60%
61--65	65%
66--70	70%
71--UP	75%

## COMMERCIAL/INDUSTRIAL SCHEDULES

Commercial and Industrial pricing schedules are provided for a variety of buildings based on the use of the property. The General Commercial Schedule is to be used as a guide for computing the replacement cost of mercantile type buildings, offices, and similar type structures, commercial living accommodations and associated support structures and manufacturing and warehouse storage type structures.

The general application of all the schedules is essentially the same; selecting the base price (per square foot) which is most representative of the subject building and adjusting the base price to account for any significant variation.

### SCHEDULE FORMAT - BASE PRICES

The schedules designate base prices by use type for a series of perimeter-area ratios and wall types. "C" Grade base prices are provided for various finish types at different floor levels with specified floor-to-floor heights, for fire resistant construction with brick (or equal), frame (or equal), and metal superstructure walls and reinforced concrete basement walls.

**Wood Frame (W)** – buildings that are constructed of combustible materials with wood framed exterior walls covered by shingles, wood siding, stucco, asbestos, aluminum, or vinyl. Roof structure is usually wood frame or pre-constructed trusses with wood sheathing and composition shingles, built-up or corrugated metal cover. Floor structure may be perimeter footing with reinforced concrete slab or wood joists and sheathing.

**Masonry (M)** – buildings that are constructed of double brick, brick on concrete block, stone or ornamental concrete block exterior walls which are usually load bearing. Roof structure is usually wood frame or pre-constructed trusses with wood sheathing and composition shingles, built-up or corrugated metal cover. Floor structure may be perimeter footing with reinforced concrete slab or wood joist and sheathing.

**Concrete (C)** – buildings that are constructed with poured reinforced concrete super structure, or reinforced concrete or pre-cast concrete panel load bearing exterior walls. Super structure may have a variety of exterior walls covers including pre-cast panels and masonry veneers, or steel frame and stationary glass. Roof structure may be steel joists with metal decking and poured concrete or concrete planks or other non-combustible construction. Floors are usually reinforced concrete slab on grade.

**Rigid Steel or Pre-Engineered (R)** – buildings that are constructed with pre-fabricated structural members with exterior wall cover of pre-constructed panels or sheet siding. Roof structure is steel joists or beams usually with corrugated metal cover. Floors are usually reinforced concrete slab on grade.

The base price is determined by selecting the appropriate square foot price based on exterior wall type, construction and use. The base price is driven by construction type and is adjusted for variations in wall height, and area perimeter ratio adjustments.

Base prices also include: normal footings and foundation construction for a building at grade level, normal parapets and coping, ground floor slab including base and cement finish, normal roof construction consisting of insulation, decking, framing, and utility service.

Basements include excavation and backfill and structural floor (for first floor) construction consisting of sub floor and framing.

Note: The cost of the basement exterior wall construction and spread footings exclude an allowance for the normal foundation construction included with the first floor.

Stairways (with enclosures in the finished use types) are included in the basement and upper floor prices.

Normal partitions, plumbing, and lighting are included for each floor level based on use type. Adjustments may be made for the various base price components if the component is greater or less than what is considered normal for the use type.

Example: For general retail, normal is considered a cross partition (separating the sales area from the stock area) and partitions for two toilet rooms. If the store would be divided into several sales areas, an addition for excessive partitions would be applicable.

## CONSTRUCTION TYPES

**Wood Frame/Joist/Beam** to indicate construction, which incorporates wood, stud balloon or platform framing or wood post and beam framing (mill construction). This category also includes masonry structures, which incorporate wood joist or plank floor systems, or wood joist, truss, or rafter roof systems.

**Fire Resistant** to indicate buildings with exposed structural steel, or reinforced concrete columns and beams. Multi-story structures will have steel floor joists with concrete plank or a reinforced concrete floor system. Exterior walls will typically be masonry or metal and glass panels.

**Fireproof** to indicate typically high- rise buildings with fabricated, heavy, structural steel column and beam framing which has been enveloped in a fire-proof material such as concrete or gypsum. Floors will be reinforced concrete or pre-cast concrete plank on steel joists protected by a gypsum-vermiculite plaster on metal lath ceiling. Exterior walls will be masonry or metal and glass panels.

## QUALITY GRADE SPECIFICATIONS

The base prices are for normal "C" Grade buildings erected with average quality materials and workmanship. A Table of Quality Factors is provided to adjust the "C" Grade prices in order to account for variations in construction quality.

**XX Grade** Buildings generally having an outstanding architectural style and design, constructed with the finest quality materials and workmanship. Superior quality interior finish, built-in features, heating system, and very good grade plumbing and lighting fixtures.

**X Grade** Buildings generally having an outstanding architectural style and design, constructed with the finest quality materials and workmanship. Superior quality interior finish, built-in features, deluxe heating system, plumbing and lighting fixtures.

**A Grade** Architecturally attractive buildings constructed with excellent quality materials and workmanship. High quality interior finish, built-in features, heating system, and very good grade plumbing and lighting fixtures.

**B Grade** Buildings constructed with good quality' materials and above average workmanship, moderate architectural treatment. Good quality interior finish, built-in features, heating, plumbing, and lighting fixtures.

- C Grade Buildings constructed with average quality materials and workmanship conforming with the base specifications used to develop the pricing schedule. Minimal architectural treatment. Average quality interior finish and built-in features. Standard quality heating system, plumbing, and lighting fixtures.
  
- D Grade Buildings constructed with economy quality materials and fair workmanship. Void of architectural treatment. Cheap quality interior finish and built-in features. Low grade heating, plumbing, and lighting fixtures.
  
- E Grade Buildings constructed with a very cheap grade of materials, usually "seconds" and very poor- quality workmanship resulting from unskilled, inexperienced, "do-it-yourself" type labor. Low grade heating, plumbing, and lighting fixtures.

Note: The quality factor selected is to represent a composite judgment of the overall grade. Generally, the quality of materials and workmanship is consistent throughout the construction of a specific building. However, since this is not always the case, it is necessary to weigh the quality of each major component in order to arrive at the proper "overall" quality grade. Particular consideration must be given to "special features" such as elevators and banking features, since variations for quality are already considered in the respective pricing tables. Equal consideration must also be given to those "additions" which are constructed of materials and workmanship inconsistent with the quality of the main building.

**QUALITY GRADE FACTORS**

XX(+)	350%	A (+)	165%	C (+)	110%	E (+)	65%
XX	325%	A	155%	C	100%	E	55%
XX(-)	300%	A (-)	145%	C (-)	95%	E (-)	45%
X (+)	275%	B (+)	135%	D (+)	90%		
X	250%	B	125%	D	85%		
X (-)	200%	B (-)	120%	D (-)	75%		

## GENERAL APPLICATION

The general pricing procedure is as follows:

1. Determine the Subarea Code.
2. Apply the appropriate base rate to the selected Subarea Code plus Ext. Wall, Heat Fuel, Heat Type and A/C Type.
3. If there are any Fixtures, those will be taken into the valuation calculations.
4. Adjust for wall height, Table **H1** or **H2**.
5. A story height adjustment of .90 is applied to any Subarea Code above level 1.
6. Determine the area perimeter ratio and apply to each main area section. (Note: for Apartments, Mini-Storage Buildings, Fast Food Restaurants, Hotels and Motels and Car Washes use an adjustment of 100% area perimeter ratio adjustment.)
7. Sub-total the replacement cost of all main area components.
8. Add the cost of attachments or additions to arrive at the total "C" Grade Replacement Cost.
9. If there are any listed Fireplaces, those will be included into the valuation calculations.
10. Apply the proper Quality Grade Factor to arrive at the Replacement Cost New.
11. Deduct for depreciation based on age, condition and structural framing.
12. Apply necessary neighborhood factor.

## SPECIAL APPLICATION

Although the General Commercial and Industrial schedules have been designed to be used primarily for computing the replacement cost of mercantile type buildings, offices, commercial apartments, warehouses, and manufacturing facilities, the schedules can also be effectively adapted to the pricing of other special purpose buildings. In order to maintain uniformity of the approach in pricing special purpose buildings, specific instructions and procedures have been developed and included in the schedules.



**27-AUTO  
SALE/SERV  
AUTO  
SALES &  
SERVICE**

**23-  
BANK  
BANK**



**20-  
BEAUT/BARB  
BEAUTY  
BARBER  
SHOP**







**12A-AUTO  
CARWSH  
CAR WASH  
(AUTO.)**

**57-CONV.  
RES  
CONVERTED  
/RESIDENCE  
/COMM**



**78-  
COUNTRY  
CLUB  
COUNTRY  
CLUB**



**13-DEPT STR  
DEPART.  
STORE**

**65-DISC STR  
DISCOUNT  
STORE**



**40-INDUST  
INDUSTRIAL  
MANUFACT.**



**66-  
LAUNDRY  
LAUNDRY**



**74-HFTA  
HOME FOR  
THE AGED**

**39-  
MOTEL  
MOTEL**



**17-OFFICE  
OFFICE**



**21-REST  
RESTAU-  
RANT**



**58-  
RETAIL  
RETAIL**





**96-DNTWN  
ROW  
DOWNTOWN  
ROW**



**53-SERV  
GARG  
SERVICE  
GARAGE**

**26-SERV  
STATION  
SERVICE  
STATION**



**14-  
SUPERMRKT  
SUPER-  
MARKET**



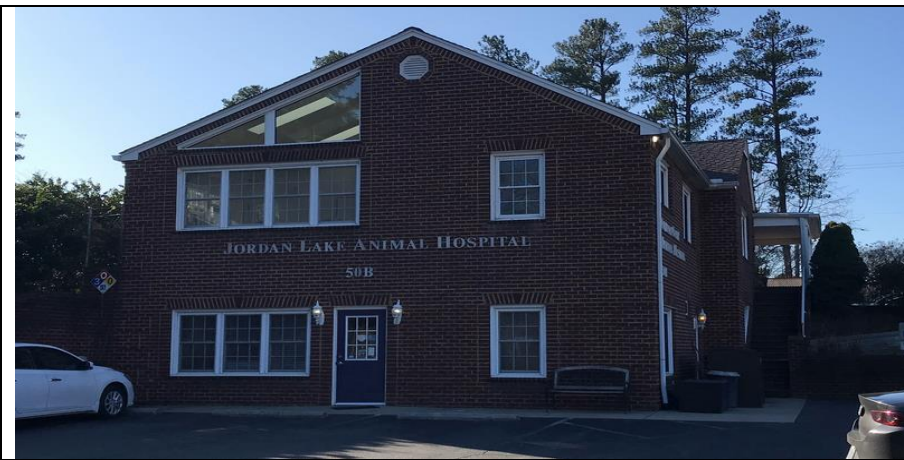
**32-  
THEATER  
THEATER**

**48-WHSE  
WAREHOUSE**





**11-CONT  
ST  
CONVEN.  
STORE**



**56-VETS  
VET.  
OFFICE**



**34-  
BOWLING  
BOWLING  
ALLEY**

**79-  
FUNERAL  
FUNERAL**



**82-RADIO  
RADIO/TV  
STATION**



**19-MED  
BLDG  
MEDICAL  
BUILDING**





**89 MINI  
LUBE  
MINI-  
LUBE**



**31-  
DAYCARE  
DAY  
CARE  
CENTER**

**12M-MAN  
CARWASH  
MANUAL  
CARWASH**



**BASE PRICE FOR COMMERCIAL SCHEDULE 11- CONVENIENCE STORE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$187.70	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: MINIMAL  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES: ABUNDANT FLUORESCENT LIGHTING ADD FOR HEATING/COOLING ADD FOR SPRINKLER SYSTEM  FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM  INTERIOR FINISH: DRYWALL/PANEL EXPOSED BRICK  PLUMBING: 5 FIXTURES  OTHER FEATURES: ALUM/PLATE GLASS STORE FRONT AVERAGE DISPLAY AREA GLASS DOORS

**BASE PRICE FOR COMMERCIAL SCHEDULE 12A- AUTO CAR WASH**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$ 89.20	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: JUMBO BRICK  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF BAYS  FRAMING: RIGID STEEL JOIST/TRUSS  REMARKS/ADDITIONAL FEATURES:  FLOURESCENT LIGHTING
		FLOOR COVER/FINISH: CONCRETE SLAB  INTERIOR FINISH: EXPOSED BRICK/BLOCK  PLUMBING: FLOOR DRAINS  OTHER FEATURES:

**BASE PRICE FOR COMMERCIAL SCHEDULE 12M- CAR WASH-SELF SERVICE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 84.80	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: JUMBO BRICK  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF BAYS/SALES AREA  FRAMING: RIGID STEEL JOIST/TRUSS  REMARKS/ADDITIONAL FEATURES:  FLUORESCENT LIGHTING  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: VINYL/CONCRETE SLAB  INTERIOR FINISH: EXPOSED BRICK  PLUMBING: 05-08 PLUMBING FIXTURES  OTHER FEATURES: FLOOR DRAINS

**BASE PRICE FOR COMMERCIAL SCHEDULE 13- DEPARTMENT STORE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$80.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF RETAIL/STORAGE AREA  FRAMING: WOOD JOIST  FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM  INTERIOR FINISH: DRYWALL/PANEL/PLASTER EXPOSED BRICK  PLUMBING: 10-15 FIXTURES  OTHER FEATURES: METAL/VITREOUS/GLASS STORE FRONT/DISPLAY
REMARKS/ADDITIONAL FEATURES		
ABUNDANT FLUORESCENT LIGHTING		
ADD FOR HEATING/COOLING ADD FOR SPRINKLER SYSTEM		

**BASE PRICE FOR COMMERCIAL SCHEDULE 14- SUPERMARKET**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 71.70	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF SERVICE/STORAGE AREA  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ABUNDANT FLUORESCENT LIGHTING  ADD FOR HEATING/COOLING  ADD FOR SPRINKLER SYSTEM
		FLOOR COVER/FINISH: FINISHED CONCRETE SLAB  INTERIOR FINISH: DRYWALL/PANEL PAINTED BLOCK  PLUMBING: 8-10 FIXTURES  OTHER FEATURES: ALUM/GLASS STORE FRONT AUTOMATIC DOORS



**BASE PRICE FOR COMMERCIAL SCHEDULE 17- OFFICE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$78.85	<p>STORY HEIGHT: FIRST FLOOR AREA</p> <p>FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB</p> <p>EXTERIOR WALLS: FACE BRICK OR EQUAL</p> <p>PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF SERVICE AREA</p> <p>FRAMING: WOOD JOIST</p> <p>FLOOR COVER/FINISH: VINYL/CARPET</p> <p>INTERIOR FINISH: DRYWALL/PANEL</p> <p>PLUMBING: 8-10 FIXTURES</p> <p>OTHER FEATURES: ALUMINIUM/GLASS WINDOW WALLS</p>
REMARKS/ADDITIONAL FEATURES:		
ADD FOR HEATING/COOLING		

**BASE PRICE FOR COMMERCIAL SCHEDULE 19- MEDICAL OFFICE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$140.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ABUNDANT FOR SEPARATION OF TREATMENT/EXAM ROOMS  FRAMING: WOOD FRAME  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING  ADD FOR SPRINKLER SYSTEM  FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  PLUMBING: 15-25 FIXTURES  OTHER FEATURES:

**BASE PRICE FOR COMMERCIAL SCHEDULE 20- BEAUTY/BARBER SHOP**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$ 67.55	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE/JUMBO BRICK  PARTITIONS/COMMON WALLS: ADEQUATE  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: WOOD/VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  PLUMBING: 5-10 PLUMBING FIXTURES  OTHER FEATURES:

**BASE PRICE FOR COMMERCIAL SCHEDULE 21- RESTAURANT**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$105.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF KITCHEN/DINING AREA  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ABUNDANT FLUORESCENT LIGHTING  ADD FOR HEATING/COOLING ADD FOR SPRINKLER SYSTEM
		FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM  INTERIOR FINISH: DRYWALL/PANEL  PLUMBING: 10-15 FIXTURES  OTHER FEATURES: QUARRY TILE/KITCHEN AREA FLOOR DRAINS

**BASE PRICE FOR COMMERCIAL SCHEDULE 23- BANK**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$125.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF OFFICE AREAS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ABUNDANT FLUORESCENT LIGHTING  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  INTERIOR FINISH: PAINTED BLOCK/DRYWALL/PANEL  PLUMBING: 08-12 FIXTURES  OTHER FEATURES: DRIVE UP WINDOWS, RECORD VAULT, MONEY VALULT

**BASE PRICE FOR COMMERCIAL SCHEDULE 26- SERVICE STATION**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$83.75	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: STEEL OR EQUAL PAINTED  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF OFFICE/SERVICE AREA  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  GOOD FLUORESCENT LIGHTING  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: FINISHED CONCRETE SLAB QUARRY TILE OR EQUAL  INTERIOR FINISH: PAINTED BLOCK  PLUMBING: 5-8 FIXTURES  OTHER FEATURES: OVERHEAD DOORS/HOSE BIBS/ DRAINS/SALES/OFFICE AREA/ PLATE GLASS WINDOWS

**BASE PRICE FOR COMMERCIAL SCHEDULE 27-AUTO SALES & SERVICE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 65.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF SHOWROOM/OFFICE/STORAGE  FRAMING: WOOD JOIST/STEEL TRUSS  FLOOR COVER/FINISH: VINYL/CARPET FINISHED CONCRETE SLAB  INTERIOR FINISH: PAINTED BLOCK/DRYWALL/PANEL  PLUMBING: 10-12 PLUMBING FIXTURES  OTHER FEATURES: GARAGE DOORS/HOSE BIBS/ FLOOR DRAINS
REMARKS/ADDITIONAL FEATURES:  ABUNDANT FLUORESCENT LIGHTING  ADD FOR HEATING/COOLING ADD FOR SHOWROOM		



**BASE PRICE FOR COMMERCIAL SCHEDULE 28- PARKING GARAGE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 39.25	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: POURED CONCRETE COLUMNS  PARTITIONS/COMMON WALLS: MINIMAL  FRAMING: REINFORCED CONCRETE  REMARKS/ADDITIONAL FEATURES:  FLOOR COVER/FINISH: NONE  INTERIOR FINISH: NONE  PLUMBING: NONE  OTHER FEATURES:

## BASE PRICE FOR COMMERCIAL SCHEDULE MA 30- LABORATORY/RESEARCH

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$115.50	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL LOAD BEARING WALLS  PARTITIONS/COMMON WALLS: SMALL OFFICE AREAS  FRAMING: REINFORCED CONCRETE  REMARKS/ADDITIONAL FEATURES  ADD FOR ENCLOSURES AND MEZZANINES  ADD FOR HEATING/COOLING  ADD FOR SPRINKLER SYSTEM  ABUNDANT FLORESCENT LIGHTING  ADD FOR CLEAN ROOMS
		FLOOR COVER/FINISH: CONCRETE SLAB  INTERIOR FINISH: PAINTED BLOCK OR EQUAL  PLUMBING: 10-15 FIXTURES  OTHER FEATURES: OVERHEAD DOORS/DOCK BUMPERS

**BASE PRICE FOR COMMERCIAL SCHEDULE 31- DAY CARE CENTER**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$80.60	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK  PARTITIONS/COMMON WALLS: ADEQUATE TO SEPARATE OFFICE/ CLASSROOMS/KITCHEN AREA  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING  ADD FOR SPRINKLER SYSTEM
		FLOOR COVER/FINISH: CONCRETE SLAB/VINYL/CARPET  INTERIOR FINISH: PAINTED BLOCK/DRYWALL  PLUMBING: 10-15 FIXTURES  OTHER FEATURES:

**BASE PRICE FOR COMMERCIAL SCHEDULE 32- THEATER**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 95.93	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF SERVICE/STORAGE AREA  FRAMING: RIGID STEEL JOIST/TRUSS  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING  ADD FOR SPRINKLER SYSTEM
		FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM FINISHED CONCRETE SLAB  INTERIOR FINISH: DRYWALL/PANEL PAINTED BLOCK  PLUMBING: 10-12 FIXTURES  OTHER FEATURES: ELEVATED PROJECTION BOOTH/PLATE GLASS FRONT TICKET BOOTH

**BASE PRICE FOR COMMERCIAL SCHEDULE 34- BOWLING ALLEY**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 65.00	<p>STORY HEIGHT: FIRST FLOOR AREA</p> <p>FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB</p> <p>EXTERIOR WALLS: FACE BRICK OR EQUAL</p> <p>PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF SERVICE/STORAGE AREA</p> <p>FRAMING: RIGID STEEL JOIST/TRUSS</p> <p>FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM FINISHED CONCRETE SLAB</p> <p>INTERIOR FINISH: DRYWALL/PANEL PAINTED BLOCK</p> <p>PLUMBING: 10-15 FIXTURES</p> <p>OTHER FEATURES: ALUM/GLASS ENTRANCE</p>
REMARKS/ADDITIONAL FEATURES:		
ABUNDANT FLUORESCENT LIGHTING ADD FOR HEATING/COOLING		
ADD FOR SPRINKLER SYSTEM		

**BASE PRICE FOR COMMERCIAL SCHEDULE 37- HOTEL**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$ 96.62	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF SERVICE AREA/GUEST ROOMS  FRAMING: WOOD JOIST  FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM CARPET  INTERIOR FINISH: DRYWALL/PANEL/PLASTER PAINTED BLOCK  PLUMBING: 3-5 FIXTURES PER ROOM  OTHER FEATURES: QUARRY TILE/KITCHEN AREA
REMARKS/ADDITIONAL FEATURES		
ABUNDANT FLUORESCENT LIGHTING		
ADD FOR HEATING/COOLING ADD FOR SPRINKLER SYSTEM		

**BASE PRICE FOR COMMERCIAL SCHEDULE 39- MOTEL**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$ 85.82	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF SERVICE AREA/GUEST ROOMS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING ADD FOR SPRINKLER SYSTEM
		FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM CARPET  INTERIOR FINISH: DRYWALL/PANEL PAINTED BLOCK  PLUMBING: 3-5 FIXTURES PER ROOM  OTHER FEATURES: ALUMINIUM/GLASS WINDOW WALLS



**BASE PRICE FOR COMMERCIAL SCHEDULE 40- INDUSTRIAL/  
MANUFACTURING**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 34.15	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE/JUMBO BRICK  PARTITIONS/COMMON WALLS: SMALL OFFICE AREAS  FRAMING: STEEL FRAME  FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM CARPET  INTERIOR FINISH: PAINTED BLOCK  PLUMBING: 10-15 FIXTURES  OTHER FEATURES:
REMARKS/ADDITIONAL FEATURES		
ADD FOR ENCLOSURES AND MEZZANINES		
ADD FOR HEATING/COOLING		
ADD FOR SPRINKLER SYSTEM		
OVERHEAD DOORS/DOCK BUMPERS		

**BASE PRICE FOR COMMERCIAL SCHEDULE 43- LUMBER STORAGE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 23.55	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: POURED CONCRETE SLAB  EXTERIOR WALLS: RIGID STEEL FRAME  PARTITIONS/COMMON WALLS: MINIMAL  FRAMING: RIGID STEEL FRAME  FLOOR COVER/FINISH: CONCRETE SLAB  INTERIOR FINISH: NONE  PLUMBING: NONE  OTHER FEATURES: OVERHEAD DOORS MINIMAL
REMARKS/ADDITIONAL FEATURES:		
ADD FOR SPRINKLER SYSTEM		

**BASE PRICE FOR COMMERCIAL SCHEDULE 47- SKATING RINK**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 71.10	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF SALES/RINK AREA  FRAMING: RIGID STEEL JOIST/TRUSS  FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM CARPET  INTERIOR FINISH: DRYWALL/PANEL PAINTED BLOCK  PLUMBING: 12-15 FIXTURES  OTHER FEATURES: ALUM/GLASS ENTRANCE
REMARKS/ADDITIONAL FEATURES:  ABUNDANT LIGHTING  ADD FOR HEATING/COOLING		

**BASE PRICE FOR COMMERCIAL SCHEDULE 48- WAREHOUSE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 29.50	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: SMALL OFFICE AREAS  FRAMING: STEEL FRAME  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING  ADD FOR SPRINKLER SYSTEM  ADD FOR MAJOR ENCLOSURES AND MEZZANINES
		FLOOR COVER/FINISH: FINISHED CONCRETE SLAB  INTERIOR FINISH: PAINTED BLOCK  PLUMBING: 0-5 FIXTURES  OTHER FEATURES: OVERHEAD/ROLLING DOORS WOOD OR STEEL

**BASE PRICE FOR COMMERCIAL SCHEDULE 49- REGIONAL SHOPPING**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 88.70	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK/PAINTED BLOCK  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF RETAIL STORES  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ABUNDANT FLOURESCENT LIGHTING  ADD FOR HEATING/COOLING  ADD FOR SPRINKLER SYSTEM
		FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM CARPET  INTERIOR FINISH: DRYWALL/PANEL PAINTED BLOCK  PLUMBING: 15-20 FIXTURES  OTHER FEATURES: ALUM/GLASS STORE FRONT AUTOMATIC DOORS

**BASE PRICE FOR COMMERCIAL SCHEDULE 51- COLD STORAGE/  
FREEZER**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 56.60	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK/PRE-FAB PANELS LOAD BEARING WALLS  PARTITIONS/COMMON WALLS: SMALL OFFICE AREAS  FRAMING: STEEL BAR JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING (CREATURE COMFORT ONLY)
		FLOOR COVER/FINISH: CONCRETE SLAB  INTERIOR FINISH: EXPOSED BRICK/PANELS  PLUMBING: 5-10 FIXTURES  OTHER FEATURES: OVERHEAD/ROLLING DOORS METAL/STEEL

**BASE PRICE FOR COMMERCIAL SCHEDULE 52- TRUCK TERMINAL**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 55.50	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: OFFICE/LOUNGE AREA  FRAMING: STEEL FRAME  REMARKS/ADDITIONAL FEATURES:  ADD FOR MAJOR ENCLOSURES  ADD FOR SPRINKLER SYSTEM  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: CONCRETE SLAB/VINYL  INTERIOR FINISH: PAINTED BLOCK/EXPOSED BRICK  PLUMBING: 03-10 FIXTURES  OTHER FEATURES: OVERHEAD DOORS (ABUNDANT) DOCK BUMPERS

**BASE PRICE FOR COMMERCIAL SCHEDULE 54- OFFICE  
/WAREHOUSE/FLEX**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$ 63.30	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FIRE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: MINIMAL  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  PLUMBING: 08-10 FIXTURES  OTHER FEATURES:



**BASE PRICE FOR COMMERCIAL SCHEDULE 57- CONVERTED DWELLING**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
10	\$ 92.25	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS: ADEQUATE FOR SEPARATION OF ROOMS/STORAGE AREAS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR FIREPLACES GARAGES/PORCHES/BASEMENT AREAS ADDITIONAL PLUMBING ADD FOR HEATING/COOLING SYSTEM  FLOOR COVER/FINISH: VINYL/LINOLEUM/CARPET  INTERIOR FINISH: DRYWALL/PANEL  HEATING/COOLING: FORCED HOT AIR OR EQUAL  PLUMBING: 8 PLUMBING FIXTURES

**BASE PRICE FOR COMMERCIAL SCHEDULE 58- RETAIL**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$ 78.90	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: MINIMAL  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: CARPET/VINYL  INTERIOR FINISH: DRYWALL/PANEL  PLUMBING: 5 FIXTURES  OTHER FEATURES: ALUM/PLATE GLASS FRONT AVERAGE DISPLAY AREA GLASS DOORS

**BASE PRICE FOR COMMERCIAL SCHEDULE MA 65- DISCOUNT STORE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 105.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF RETAIL/STORAGE AREA  FRAMING: WOOD JOIST  FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM  INTERIOR FINISH: DRYWALL/PANEL/PLASTER PAINTED BLOCK  PLUMBING: 8-10 FIXTURES  OTHER FEATURES: ALUM/GLASS STORE FRONT AUTOMATIC DOORS
REMARKS/ADDITIONAL FEATURES		
ABUNDANT FLUORESCENT LIGHTING		
ADD FOR HEATING/COOLING ADD FOR SPRINKLER SYSTEM		

**BASE PRICE FOR COMMERCIAL SCHEDULE 66- LAUNDRY/CLEANERS**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$ 69.65	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE/JUMBO BRICK  PARTITIONS/COMMON WALLS: ADEQUATE  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: WOOD/VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL/UNFINISHED  PLUMBING: 5-10 PLUMBING FIXTURES  OTHER FEATURES:

**BASE PRICE FOR COMMERCIAL SCHEDULE 74- HOME FOR THE AGED**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$98.00	<p>STORY HEIGHT: FIRST FLOOR AREA</p> <p>FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB</p> <p>EXTERIOR WALLS: FACE BRICK OR EQUAL</p> <p>PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF HOUSING/TREATMENT/KITCHEN</p> <p>FRAMING: WOOD JOIST</p> <p>FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM</p> <p>INTERIOR FINISH: DRYWALL/PANEL PAINTED BLOCK</p> <p>PLUMBING: 3-5 FIXTURES PER ROOM</p> <p>OTHER FEATURES: QUARRY TILE/KITCHEN AREA FLOOR DRAINS</p>
REMARKS/ADDITIONAL FEATURES:		
GOOD FLUORESCENT LIGHTING		
ADD FOR HEATING/COOLING ADD FOR SPRINKLER SYSTEM		

**BASE PRICE FOR COMMERCIAL SCHEDULE 78-COUNTRY CLUB/  
CLUBHOUSE**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 84.95	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF RETAIL/DINING AREA  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR SPRINKLER SYSTEM  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: VINYL/LINOLEUM/CARPET  INTERIOR FINISH: DRYWALL/PANEL  PLUMBING: 15-20 PLUMBING FIXTURES  OTHER FEATURES: KITCHEN AREA/QUARRY TILE FLOOR DRAINS

**BASE PRICE FOR COMMERCIAL SCHEDULE 79- FUNERAL HOME**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$85.80	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF SALES/VIEWING CHAPEL  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: CARPET/VINYL OR RUBBER TILE  INTERIOR FINISH: DRYWALL/PANEL  PLUMBING: 10-15 FIXTURES  OTHER FEATURES: FLOOR DRAINING/QUARRY TILE/PREPARATION AREA

**BASE PRICE FOR COMMERCIAL SCHEDULE 81- HANGER**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 41.60	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: POURED CONCRETE SLAB  EXTERIOR WALLS: RIGID STEEL FRAME  PARTITIONS/COMMON WALLS: MINIMAL  FRAMING: RIGID STEEL FRAME  FLOOR COVER/FINISH: CONCRETE SLAB  INTERIOR FINISH: NONE  PLUMBING: 1-3 FIXTURES  OTHER FEATURES: OVERHEAD DOORS
REMARKS/ADDITIONAL FEATURES		
ABUNDANT FLUORESCENT LIGHTING		
ADD FOR HEATING/COOLING ADD FOR SPRINKLER SYSTEM		



**BASE PRICE FOR COMMERCIAL SCHEDULE 82- RADIO/TELEVISION STATION**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$93.95	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE/JUMBO BRICK  PARTITIONS/COMMON WALLS: ADEQUATE TO SEPARATE BROADCAST/OFFICE AREAS  FRAMING: STEEL BAR JOIST  REMARKS/ADDITIONAL FEATURES:  ADD FOR HEATING/COOLING  ADD FOR SPRINKLER SYSTEM  FLOOR COVER/FINISH: CONCRETE SLAB/VINYL  INTERIOR FINISH: PAINTED BLOCK/DRYWALL  PLUMBING: 5-10 FIXTURES  OTHER FEATURES: SOUNDPROOF INSULATION

## BASE PRICE FOR COMMERCIAL SCHEDULE 86- RESEARCH AND DEVELOPMENT

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
14	\$ 110.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE/JUMBO BRICK  PARTITIONS/COMMON WALLS: SMALL OFFICE AREAS  FRAMING: STEEL BAR JOIST  FLOOR COVER/FINISH: CONCRETE SLAB/VINYL  INTERIOR FINISH: PAINTED BLOCK WALLS OR EQUAL  PLUMBING: 10-15 FIXTURES  OTHER FEATURES: OVERHEAD DOORS/DOCK BUMPERS
REMARKS/ADDITIONAL FEATURES: ABUNDANT FLUORESCENT LIGHTING  ADD FOR SPRINKLER SYSTEM  ADD FOR HEATING/COOLING  ADD FOR MAJOR LAB/OFFICE ENCLOSURES		

**BASE PRICE FOR COMMERCIAL SCHEDULE 88- HEALTH CLUB**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$72.60	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF SERVICE/STORAGE AREA  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  GOOD FLUORESCENT LIGHTING  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: VINYL/HEAVY LINOLEUM/CARPET  INTERIOR FINISH: PAINTED BLOCK/EXPOSED BRICK  PLUMBING: 03-10 FIXTURES  OTHER FEATURES: OVERHEAD DOORS (ABUNDANT) DOCK BUMPERS

**MAIN AREA RATES PER SQUARE FOOT**

<b>USE CODE</b>	<b>OCCUPANCY</b>	<b>RATE PER SQ.FT.</b>	<b>HEIGHT ADJ</b>
10	*Commercial	-	-
11	Convenience Store	\$187.70	H2
12M	Manual Car Wash	\$84.80	H1
12A	Auto Car Wash	\$89.20	H1
13	Department Store	\$80.00	H2
14	Supermarket	\$71.70	H2
15	Shopping Mall	\$88.70	H2
16	Shopping Center (Strip)	\$79.85	H2
17	Office	\$78.85	H2
18	Office High Rise	\$86.73	H2
19	Medical Building	\$140.00	H2
20	Beauty/Barber Shop	\$67.55	H2
21	Restaurant	\$105.00	H2
22	Fast Food	\$250.00	H1
23	Bank	\$125.00	H2
26	Service Station	\$83.75	H2
27	Auto Sales and Service	\$65.00	H2
28	Parking Garage	\$39.25	H2
29	Mini Storage	\$36.00	H1
30	Laboratory/Research	\$115.50	H2
31	Day Care	\$80.60	H2
32	Theater	\$95.93	H2
33	Lounge/Night Club	\$92.42	H2
34	Bowling Alley	\$65.00	H2
37	Hotel	\$96.62	H1
38	Furniture Showroom	\$74.25	H2
39	Motel	\$85.82	H1
40	Industrial	\$34.15	H2
41	Light Manufacturing	\$34.15	H2
42	Heavy Manufacturing	\$34.15	H2
43	Lumber Yard	\$23.55	H2
44	Packing Plant/Food Processing	\$34.15	H2
46	Distillery/Brewery/Winery	\$114.65	H2
47	Skating Rink	\$71.10	H2
48	Warehouse	\$29.50	H2
49	Regional Shops	\$88.70	H2
50	*Rural Home Site	-	-
51	Cold Storage/Freezer	\$56.60	H2
52	Truck Terminal	\$55.50	H2
53	Service Garage	\$65.00	H2
54	Office/Warehouse/Flex	\$63.30	H2
55	Drug Store	\$70.15	H2
55F	Franchise Drug Store	\$250.00	H2
56	Veterinarians Office	\$84.35	H2

# Schedule of Values

# Harnett County 2022

## MAIN AREA RATES PER SQUARE FOOT (Continued)

USE CODE	OCCUPANCY	RATE PER SQ.FT.	HEIGHT ADJ
57	Converted Residence/Commercial	\$92.25	H2
58	Retail	\$78.90	H2
59	Kennel	\$92.75	H2
60	Garden Apartment	\$105.00	H1
61	Townhouse Apartment	\$83.00	H1
63	High Rise Apartment	\$126.50	H1
64	Convenience Store Fast Food	\$121.32	H2
65	Discount Store	\$105.00	H2
66	Laundry	\$69.65	H2
67	Auditorium	\$74.40	H2
68	Armory	\$67.14	H2
69	Dormitory	\$75.30	H2
70	Institutional	\$88.90	H2
71	Church	\$106.25	H2
72	School/College Private	\$77.30	H2
73	Hospital	\$123.75	H2
74	Home For The Aged	\$98.00	H2
75	Police/Fire Station	\$74.25	H2
76	Mortuary	\$75.50	H2
77	Club, Lodge, Hall	\$84.95	H2
78	Country Club	\$84.95	H2
79	Funeral	\$85.80	H2
80	Marina	\$100.00	H2
81	Hanger	\$41.60	H2
82	Radio/Tv Station	\$93.95	H2
83	School	\$77.30	H2
84	College	\$77.30	H2
85	Cafeteria	\$88.85	H2
86	Research/Development	\$110.00	H2
87	Government Building	\$88.90	H2
88	Health Club	\$72.60	H2
89	Mini Lube	\$173.25	H2
91	Utility	\$78.85	H2
92	*Mining	-	-
94	Gymnasium	\$72.50	H2
95	Library	\$81.65	H2
96	Downtown Row	\$75.00	H2
99	*New Parcel	-	-
100	Classroom	\$77.30	H2

**\*Use Codes only used for descriptive purposes, no monetary value.**

**STORY ADJUSTMENT FOR COMMERCIAL BUILDINGS**

Anything above Level 1 gets a 90% adjustment of the Level 1 floor rate

**AREA PERIMETER RATIO PERCENTAGE**

Perim Sq. Ft	150	175	200	250	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
1000	122	126	130	132	-	-	-	-	-	-	-	-	-	-	-	-
1500	111	115	119	123	126	-	-	-	-	-	-	-	-	-	-	-
2000	104	107	111	117	120	125	-	-	-	-	-	-	-	-	-	-
2500	100	103	105	110	115	120	124	-	-	-	-	-	-	-	-	-
3000	97	100	102	106	110	119	120	-	-	-	-	-	-	-	-	-
4000	94	96	98	100	104	110	117	119	-	-	-	-	-	-	-	-
5000	92	94	95	97	100	105	110	115	-	-	-	-	-	-	-	-
6000	91	92	93	95	98	102	106	110	110	-	-	-	-	-	-	-
8000	89	90	91	92	94	97	100	104	107	110	-	-	-	-	-	-
10000	-	-	90	91	93	95	97	100	103	105	110	115	-	-	-	-
12000	-	-	89	90	91	93	95	97	100	102	106	110	115	-	-	-
14000	-	-	-	-	90	92	94	96	98	100	103	106	110	114	-	-
16000	-	-	-	-	-	91	93	94	96	97	100	104	107	110	-	-
18000	-	-	-	-	-	90	92	93	95	96	99	102	104	107	110	-
20000	-	-	-	-	-	89	91	92	94	95	97	100	103	105	108	110
25000	-	-	-	-	-	88	90	91	92	93	95	97	99	101	103	105
30000	-	-	-	-	-	87	89	90	91	92	93	95	97	98	100	102
35000	-	-	-	-	-	86	88	89	90	91	92	93	95	96	98	99
40000	-	-	-	-	-	85	87	88	89	90	91	92	94	95	96	98
50000	-	-	-	-	-	-	86	87	88	89	90	91	92	93	94	95
75000	-	-	-	-	-	-	85	85	85	86	87	88	89	90	91	92
100000	-	-	-	-	-	-	-	-	-	84	85	86	87	88	89	90
199999	-	-	-	-	-	-	-	-	-	-	-	85	86	87	88	89
999999	-	-	-	-	-	-	-	-	-	-	-	-	85	85	85	85

**WALL HEIGHT ADJUSTMENTS**

<b>Code</b>	<b>Height</b>	<b>Adjust.</b>
H1	ALL	100%
H2	8	94%
H2	9	96%
H2	10	100%
H2	11	100%
H2	12	100%
H2	13	100%
H2	14	100%
H2	15	102%
H2	16	104%
H2	17	106%
H2	18	108%
H2	19	110%
H2	20	112%
H2	21	114%
H2	22	116%
H2	23	118%
H2	24	120%
H2	25	122%
H2	26	124%

<b>Code</b>	<b>Height</b>	<b>Adjust.</b>
H2	27	126%
H2	28	128%
H2	29	130%
H2	30	132%
H2	31	134%
H2	32	136%
H2	33	138%
H2	34	140%
H2	35	142%
H2	36	144%
H2	37	146%
H2	38	148%
H2	39	150%
H2	40	152%
H2	41	154%
H2	42	156%
H2	43	158%
H2	44	160%
H2	45	162%
H2	46-OVER	164%

<b>Heat Type</b>		
<b>Code</b>	<b>Type</b>	<b>Rate</b>
11	None	BASE
12	Baseboard Heat	\$3.00
13	Forced Air-Not Ducted	\$3.30
14	Forced Air-Ducted	\$3.30
15	Radiant Ceiling Heat	\$3.00
16	Hot Water	\$3.00
17	Steam	\$3.00
18	Radiant-Electric	\$3.00
19	Radiant-Water	\$3.00
20	Heat Pump	\$6.00
21	Industrial Unit	\$1.75
22	Industrial Heat	\$2.00
22	Industrial Heat & A/C	\$5.50

<b>A/C Type</b>		
<b>Code</b>	<b>Type</b>	<b>Rate</b>
06	None	BASE
07	Wall Unit	\$1.50
08	Central	\$5.75
09	Packaged Rooftop	\$5.50
10	Chilled Water	\$5.50

**COMMERCIAL BASEMENT RATES**

<b>FINISHED COMMERCIAL BASEMENT CODES</b>		
<b>CODE</b>	<b>DESCRIPTION</b>	<b>RATES</b>
FAB	Finished Apt. Basement	\$40.75
FRE	Finished Retail Basement	\$38.25
FOB	Finished Office Basement	\$45.85
FWB	Finished Warehouse Basement	\$19.35
FMB	Finished Manufacturing Basement	\$20.70
FFB	Finished Fast Food Basement	\$72.00
FSB	Finished Storage Basement	\$22.25
FGO	Finished Govern. Basement	\$48.50
FCL	Finished Classroom Basement	\$42.15
FRB	Finished Rest. Basement	\$49.95
FHM	Finished Hotel/Motel Basement	\$46.35

<b>UNFINISHED COMMERCIAL BASEMENT CODES</b>		
<b>CODE</b>	<b>DESCRIPTION</b>	<b>RATES</b>
UAB	Unfinished Apt. Basement	\$12.50
URE	Unfinished Retail Basement	\$12.50
UOB	Unfinished Office Basement	\$12.50
UWB	Unfinished Warehouse Basement	\$12.50
UMB	Unfinished Manufacturing Basement	\$12.50
UFM	Unfinished Fast Food Basement	\$12.50
USB	Unfinished Storage Basement	\$10.00
UGO	Unfinished Govern. Basement	\$12.50
UCL	Unfinished Classroom Basement	\$12.50
URB	Unfinished Rest. Basement	\$12.50
UHM	Unfinished Hotel/Motel Basement	\$12.50



**DESCRIPTIVE CODES – NO VALUE TIED TO THESE**

Code	Sub Floor System	Code	Roofing Structure	Code	Style of Dwelling
01	Earth/No Sub Floor	01	Flat	01	1.0 Story
02	Slab on Grade	02	Shed	02	1.5 Stories
03	Slab Above Grade	03	Gable	03	2.0 Stories
04	Plywood	04	Hip	04	2.5 Stories or more
05	Wood	05	Gambrel/Mansard	05	Ranch w/ basement
06	Slab Platform Hght	06	Irregular/Cathedral	06	A Frame
07	Structural Slab	07	Wood Truss	07	Split Level
		08	Irregular/Wood Truss	08	Split Foyer
		09	Rigid Frame w/ bar joist	09	1.25 Stories
		10	Steel Frame or Truss	10	1.75 Stories
		11	Bowstring Truss	11	2.25 Stories
		12	Reinforced Concrete		
		13	Prestress Concrete		
Code	Roofing Cover	Code	Interior Wall Construction	Code	Structural Frame
01	Min. Roofing (Corr. Or Sh. M.)	01	Masonry or Minimum	01	None
02	Rolled Composition	02	Wall Board/Wood Wall/Metal	02	Wood Frame
03	Asphalt or Composition Shingle	03	Plastered	03	Pre Fab
04	Built up tar and grave/Rubber	04	Plywood Panel	04	Masonry
05	Corrugated Asbestor/Rubber	05	Drywall/Sheetrock	05	Reinforced Concrete
06	Asbestos Shingle/Corr.	06	Custom Interior	06	Steel
07	Concrete/Clay Tile			07	Fireproof Steel
08	Cedar Shake			08	Special
09	Enamel Metal Shingle/Copper				
10	Wood Shingle/ 3 1 0 Shingle				
11	Slate				
12	Metal				
Code	Heating Fuel	Code	Interior Floor Cover	Code	Ceiling & Insulation
01	None	01	None	01	Suspended-Ceiling Insulated
02	Oil, Wood or Coal	02	Minimum, Plywood, Linoleum	02	Suspended-Wall Insulated
03	Gas	03	Concrete Finished	03	Suspended-Ceiling & Wall Insulated
04	Electric	04	Concrete Tapered	04	Suspended-No Insulation
05	Solar	05	Asphalt Tile	05	Not Suspended-Ceiling Insulated
06	None (Comm.)	06	Vinyl Asbestos	06	Not Suspended-Wall Insulated
07	Oil, Wood or Coal (Comm.)	07	Cork or Vinyl Tile	07	Not Suspended-Ceiling & Wall Insulated
08	Gas (Comm.)	08	Sheet Vinyl	08	Not Suspended-No Insulation
09	Electric (Comm.)	09	Pine or Soft Woods	09	No Ceiling-Roof Insulated
10	Solar (Comm.)	10	Terrazzo Monolithic	10	No Ceiling-Wall Insulated
		11	Ceramic Clay Tile	11	No Ceiling-Roof & Wall Insulated
		12	Hardwood	12	No Ceiling-No Insulation
		13	Parquet		
		14	Carpet		
		15	Quarry or Hard Tile		
		16	Terrazzo Epoxy Strip		
		17	Precast Concrete		
		18	Slate		
		19	Marble		

**ATTACHMENT CODE SIZE ADJUSTMENT**

A1	
AREA	ADJ
001-150	110
151-200	108
201-250	106
251-300	104
301-350	102
351-600	100
601-650	98
651-700	96
701-750	94
751-800	92
801-UP	90

A2	
AREA	ADJ
001-050	110
051-100	105
101-150	102
151-400	100
401-550	98
551-700	96
701-850	94
851-1000	92
1001-UP	90

A3	
AREA	ADJ
001-150	110
151-200	105
201-250	102
251-400	100
401-600	98
601-700	96
701-800	94
801-900	92
901-UP	90

A4	
AREA	ADJ
001-040	100
041-080	98
081-150	96
151-300	94
301-UP	90

A5	
AREA	ADJ
001-020	110
021-040	106
041-060	104
061-080	102
081-200	100
201-300	98
301-400	96
401-500	94
501-UP	90

A6	
AREA	ADJ
001-020	110
021-040	106
041-060	104
061-080	102
081-200	100
201-300	98
301-400	96
401-500	94
501-UP	90



**COMMERCIAL OUTBUILDINGS AND YARD ITEMS**

<b>Code</b>	<b>Description</b>	<b>Rate</b>	<b>Size Adj</b>	<b>Deprec.</b>
05	Wood Fence	\$9.00	-	C10
06	CL Fence	\$3.00	-	C10
09	Asphalt Paving	\$2.00	-	C10
10	Concrete Paving	\$3.50	-	C15
12	Tennis Court	\$6.00	-	C25
15	Mobile Home Space (MHP)	\$4,000	-	-
17	Office	\$40.00	A1	S3
32	Golf Green	\$100,000	-	S3
34	Vaults –Record	\$50.00	-	S3
35	Water Tank	\$1.75	-	S2
36	Petro Tank	\$1.75	-	S3
37	Elev Tank	\$2,500	-	S2
38	Scale	\$5,000	-	S1
39G	Gas Station Canopy	\$25.00	A5	C20
40	Loading Dock	\$12.50	A5	S2
41	Dock Level	\$6,500	-	S5
42	Sprinkler	\$1.25	-	S2
43	Rail Side	\$75.00	A1	S1
44	Yard Lights	\$1,800	-	C20
45	Freight Elevator	\$40,000	-	-
46	Passenger Elevator	\$75,000	-	-
49	Overhead Doors	\$500	A2	C20
50	Laundry	\$69.65	A1	C20
51	Club House	\$84.95	A1	C20
53	Escalator	\$100,000	-	-
59	Cemetery Lot	\$450	-	-
62	Air Conditioner	\$4.00	-	-
64	Crypt	\$900	-	-
65	Guard House	\$82.50	A1	C25
72	Leasehold	\$1.00	-	-
73	Cooler	\$10.50	A3	S2
74	Freezer	\$13.25	A3	S2
75	Car Wash	\$42.40	A2	C15
78	Truck Well	\$20.00	A4	C15
79	Boiler Room	\$8.00	A1	S2
84	Hanger	\$20.50	A1	S3
85	Mini Golf	\$10,000	-	S3
98	Mezzanine	\$16.50	A1	S2
A1	Backstop	\$3.00	A1	S1
A2	Ball Court	\$6.00	A1	S2
A4	Booth	\$82.50	A1	S2
A6	Classroom	\$77.30	A1	C25
A7	Driving Range	\$10,000	-	S3
A8	Dugout	\$11.60	A4	S2

**COMMERCIAL OUTBUILDINGS AND YARD ITEMS  
(CONTINUED)**

<b>Code</b>	<b>Description</b>	<b>Rate</b>	<b>Size Adj</b>	<b>Deprec.</b>
B1	Kennel	\$6.00	A1	S1
B3	Recreation Building	\$25.00	A1	S3
B4	Restroom	\$109.75	A1	S2

**EXEMPT/INSTITUTIONAL BUILDINGS**

This section of the Manual includes basic procedures and applications to be utilized to determine the Replacement Cost New for a variety of institutional type structures. Prices are provided based on the structure type and exterior wall material.

**BASE SPECIFICATIONS**

Base prices assume normal construction, mechanical, and other features such as plumbing, heating, air conditioning, interior finish, framing, elevators, etc., according to the designed building structure type.

**SCHEDULE APPLICATION**

Select the structure type which is most representative of the subject building. Establish the Quality Grade of the building, which is contingent upon the exterior wall material of the structure type. Determine the total square feet of floor area and multiply the cost per square foot by the total area to establish the replacement cost.

Note: separate prices are provided for finished or unfinished basements.

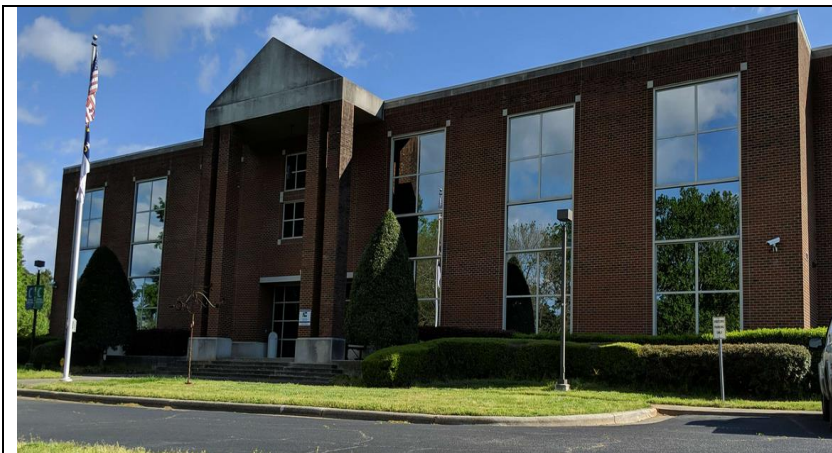
**PERCENT (%) GOOD GUIDELINES**

Physical deterioration of institutional buildings should be based on the effective age and condition. Structures of this type normally have an expected life which is longer than other types of similar structures. Actual age and life expectancy can be extended through continued maintenance and renovation. When establishing the percent (%) good, the adjustment should be based on anticipated additional life as compared to normal life guidelines.



**68-ARM  
ARMORY**

**71-  
CHURCH  
CHURCH**



**100-  
CLASSRM  
CLASSROOM**





**94-GYM  
GYMNASIUM**

**75-  
POLICE/FIRE  
FIRE/POLICE  
STATION**



**73-HOSP  
HOSPITAL**





**87-GOVERN  
BLDG  
GOVERNMENT  
BUILDING**

**70-INSTIT  
INSTITUTIONAL**



**95-  
LIBRARY  
LIBRARY**

## **MULTI-FAMILY APARTMENTS**

An apartment is a residential living unit with the same living accommodations normally found in a single-family residence. An apartment house is a multifamily residence containing four or more residential living units, and generally providing each unit with a number of common facilities, services and amenities. Two or more apartment buildings operating as a single unit are generally referred to as an apartment complex.

The increased development of multi-family residential housing units since the 1950's has brought the development of both apartment complexes and "high-rise" apartment buildings. Each of these offer complete living accommodations with all the modern conveniences and amenities. In addition, they generally provide a variety of recreational facilities and services for their occupants.

## **VALUATION**

As with other types of property the replacement cost method of valuation is a starting point for the appraiser. There are two types of apartment buildings that must be considered: 1) the walk-up apartment normally found in apartment complexes; and 2) the high-rise or elevator building.

Apartment units found in a given apartment building or complex of buildings vary in size and arrangement. They may be one room efficiency units consisting of a bedroom and kitchenette; two room studio units consisting of a bedroom and living room/den and kitchenette combination; and conventional units consisting of a kitchen, dining area, living room and one or more bedrooms. Each apartment unit has one or more bathrooms, and conventional units often have a separate dining room, den, or family room.

One of the most significant variables in determining the replacement cost of an apartment building is the average size of the individual units. The pricing schedule provided in this section is designed to account for this variation.

## **BASE PRICES - APARTMENTS**

Base square foot prices have been developed for typical average "C" Grade quality apartment units, based on average unit sizes at various floor levels for Wood Joist construction. Adjustments are provided for Fire Resistant and Reinforced Concrete, together with Brick (or equal) and Frame/Concrete Block exterior walls.

The foundation, roof, and normal built-ins are included with the first -floor prices, thus making the schedule applicable to both one story and multi-story buildings.

## **APPLICATION**

Application of the pricing schedule involves the selection of the appropriate base price per floor based on the average unit sizes. Adjustments to the base price for air conditioning, central heating, and type of construction should be made to account for any variations between the subject building and the model building.

## **SPECIAL APPLICATION**

The Apartment Pricing Schedule is designed for garden/walk-up apartment buildings of four or more units. Two and three family residences should be priced by using the Residential Dwelling Schedule (included in the Residential section of the manual).

## **QUALITY FACTOR**

The schedule prices are for average "C" Grade construction quality, erected with average materials and workmanship. A table of Quality Factors is provided to adjust the "C" Grade prices in order to account for variations in construction quality.

## **INCOME APPROACH**

Apartment buildings, regardless of the type, are built, bought, and sold as investment or income producing property. The appraisal of apartments utilizing the Capitalization or Income Approach to value follows the same procedures discussed in the Property Valuation section of the manual.

The basic procedure is . . .

1. Collection of the income generated - including monthly rents for the units, parking, and other receipts, such as laundry facilities.
2. The collection of the expenses associated with the management and maintenance of the property.
3. The capitalization of the net income into an indication of value.

A special section is provided on the use of the economic data form to record all necessary income and expense data.

**PERCENT (%) GOOD GUIDELINES**

Physical deterioration of the structure should be based on age and condition of the property. Functional and Economic Depreciation allowances must be derived from the income and expense of each apartment project as it relates to other properties of similar utility and condition; and should be expressed as percent (%) good.

**BASE PRICE FOR COMMERCIAL SCHEDULE 60- GARDEN APARTMENT**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
9	\$105.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: WOOD FRAME OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF LIVING UNITS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES.  ADD FOR ATTACHMENTS  ADD FOR ADDITIONAL PLUMBING  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  PLUMBING: 5 FIXTURES PER UNIT  OTHER FEATURES:

**BASE PRICE FOR COMMERCIAL SCHEDULE 61-TOWNHOUSE  
APARTMENT**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
9	\$83.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: WOOD FRAME OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF LIVING UNITS  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES.  ADD FOR ATTACHMENTS  ADD FOR ADDITIONAL PLUMBING  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: VINYL/CARPET  INTERIOR FINISH: DRYWALL/PANEL  PLUMBING: 5 FIXTURES PER UNIT  OTHER FEATURES:

**60-GARDEN  
APT  
GARDEN  
APARTMENT**



**61-TWNHSE  
APT  
TOWNHOUSE  
APARTMENT**

**FRANCHISE FOOD RESTAURANTS**

Franchise Food restaurants have become a common place beginning in the 1950's. The buildings, though they offer similar accommodations, are highly distinctive in architectural style and design. Each operation is readily identifiable with a particular design and motif; and relies heavily on the appearance or "eye appeal" of its buildings to attract, maintain and promote business. The wide range of styles and designs have a direct influence on the replacement costs of the buildings. The size and quality of materials and workmanship alone are not the prime determining factors. Two restaurants showing no marked difference in size and construction quality may still show a considerable difference in cost due to the difference in design and décor. The replacement cost schedule provided is based upon specifications of size, quality, and design. The schedule is to be used as a guide for estimating replacement costs of franchise food restaurants. The proper use of the schedule, along with experience and sound judgment, should enable the appraiser to establish a reasonable estimate of replacement cost.

**BASE SPECIFICATIONS**

The Cost Schedule assumes a basic layout which includes a serving area, food preparation area, a small office area, an employee dressing area, two toilet rooms, and depending upon size, a dining area. General construction features include masonry foundation walls on spread footings; 4" reinforced concrete floor slab on a granular base; roof and exterior wall construction, interior finish, and building equipment and fixtures commensurate with the grade; stud and masonry partitioning; unfinished floor and painted masonry or dry wall interior finish in storage areas and mechanical rooms; utility service, heating, fluorescent lighting fixtures in the preparation and office areas, plumbing fixtures and drains.

**QUALITY GRADE SPECIFICATIONS**

A Grade      A unique design featuring elaborate architecture especially in the roof and exterior walls; built of high-quality materials and workmanship. A-Frame, Mansard, Gambrel, or Multi-Pitch type roofs with extensive overhangs, and copper, porcelain enamel shingles, wood shakes, slate, or comparable high- quality roofing on insulated wood or steel decking and framing, with laminated wood frame or steel frame supporting beams and columns often exposed to project architectural effects. Walls consist of a combination of face brick or ceramic glazed brick, decorative stone or wood and plate glass. High quality interior finish of ceramic or quarry tile flooring, exposed stone and brick or high- grade wood or porcelain enamel paneling and ceramic tile wall finish. Porcelain enamel or acoustical tile ceilings, often open to the roof slope: combined heating and air conditioning system, high grade



ornamental lighting fixtures in the dining and service areas; good quality plumbing fixtures for typical toilet room facilities.

- B Grade Conventional design featuring custom architectural styling, built of good quality materials and workmanship. Mansard, Gambrel or Double-Pitch roofs with liberal overhangs, composition tar and gravel, stone chip, or asphalt shingle roofing on insulated wood or steel decking and framing; face brick, ceramic tile and plate glass exterior walls with moderate architectural treatment; good quality interior finish of ceramic or quarry tile flooring, exposed brick or wood paneling and ceramic wall finish; acoustical tile or drywall ceiling; combined heating and air conditioning system, ornamental lighting fixtures in the dining and serving areas, and good quality plumbing fixtures for typical toilet room facilities.
- C Grade Conventional design featuring moderate architectural styling, built of good quality workmanship and materials. Double-Pitch type roofs with normal overhangs, composition tar and gravel or asphalt shingle roofing on insulated wood or steel decking and framing; face brick, wood, or painted concrete block and plate glass exterior walls; good quality interior finish of quarry or vinyl asbestos tile flooring, wood paneling or drywall and part ceramic tile wall finish; drywall or acoustical tile ceiling; combined heating and air conditioning system; fluorescent lighting fixtures in the dining area, and good quality plumbing fixtures for typical toilet room facilities.
- D Grade Simple conventional design void of architectural styling; built of average quality materials and workmanship. Flat or Single Pitch roof with normal overhangs, composition roofing on insulated wood decking and framing; painted concrete block or wood exterior walls with a minimal amount of plate glass; average quality interior finish consisting of asphalt or vinyl asbestos tile flooring; painted concrete block, drywall or paneled wall finish and drywall ceiling; forced-air heating, wall unit air conditioning, fluorescent lighting fixtures, fair quality plumbing fixtures for typical toilet room facilities.
- E Grade Simple design void of architectural styling; built of fair quality materials and workmanship. Single-Pitch roof with normal overhangs, and composition roofing on wood decking and framing; painted concrete block or wood exterior walls with a minimal amount of plate glass; low quality interior finish consisting of asphalt tile flooring and painted concrete block and drywall; unit heaters, no air conditioning, fluorescent lighting fixtures, and fair quality plumbing fixtures for typical toilet room facilities,

## **SCHEDULE APPLICATION**

Base prices are included for Average "C" Grade construction for four typical exterior wall types. Select the base price based upon the structure size and exterior wall construction, and make adjustments for attached improvements, air conditioning and sprinkler systems as required. Apply the proper quality Grade factor to establish the replacement cost new.

## **PERCENT (%) GOOD GUIDELINES**

Franchise Food restaurants are special purpose buildings which are not readily adaptable to other uses. They go out of style both functionally and economically at a much faster rate than they deteriorate physically. The business is highly competitive and relies heavily on location and the physical appearance of its buildings. In order to keep abreast of competition, owners must frequently renovate the structures. Changing consumer habits, traffic patterns, and competition are but a few of the factors that influence the life span of the buildings and must therefore be considered in the evaluation process.



**22-FAST FD**  
**FAST FOOD**

**22-FAST FD**  
**FAST FOOD**



**22-FAST FD**  
**FAST FOOD**



**BASE PRICE FOR COMMERCIAL SCHEDULE 22- FAST FOOD RESTAURANT**

WALL HEIGHT	BASE PRICE	BASE SPECIFICATIONS
12	\$250.00	STORY HEIGHT: FIRST FLOOR AREA  FOUNDATION/BASEMENT: CONTINUOUS FOOTING OR POURED CONCRETE SLAB  EXTERIOR WALLS: FACE BRICK OR EQUAL  PARTITIONS/COMMON WALLS: ADEQUATE FOR SEPARATION OF KITCHEN/DINING AREA  FRAMING: WOOD JOIST  REMARKS/ADDITIONAL FEATURES:  ABUNDANT LIGHTING  ADD FOR HEATING/COOLING
		FLOOR COVER/FINISH: VINY/HEAVY LINOLEUM TERRAZZO/QUARRY TILE  INTERIOR FINISH: DRYWALL/PANEL/EXPOSED BRICK  PLUMBING: 10-15 FIXTURES  OTHER FEATURES: KITCHEN AREA/ SPRINKLER SYSTEM/ QUARRY TILE FINISH/ FLOOR DRAINS

**MOBILE HOME PARKS**

The pricing schedule included in this section is provided as a guide to assist the appraiser in arriving at a reasonable and equitable estimate of the cost of developing a variety of commercial mobile home and trailer parks. Typical site-costs are given for five Grades of parks; the general specifications are as follows:

- |         |  |
|---------|--|
| A Grade | Excellent quality and excellently planned mobile home parks designed to accommodate the largest tractor-drawn or on-site erected mobile homes, and to provide the user with the utmost in residential amenities, including spacious lots with extensive and attractive landscaping, ample off-street parking, and a wide variety of recreational facilities. Site areas will generally range from 4,500 to 5,500 sq. ft. |
| B Grade | Good quality and well-planned mobile home parks designed to accommodate the larger tractor-drawn mobile homes with room to spare for lawns and gardens, and featuring attractive landscaping, off-street parking, and complete recreational facilities. Site areas will generally range from 3,500 to 4,500 sq. ft.  |
| C Grade | Average quality and well-planned mobile home parks designed to accommodate mobile homes up to 55' to 60' long, and to provide the user with adequate utility services and facilities, but rather limited recreational facilities and other such amenities. Site areas will generally range from 2,500 to 3,500 sq. ft.   |
| D Grade | Fair quality and minimally planned trailer parks intended primarily for semi-permanent occupancy, built to accommodate car-drawn trailers up to 40' to 45' long, and offering only minimal utility and recreational facilities. Site areas will generally range from 1,750 to 2,500 sq. ft.  |
| E Grade | Cheap quality trailer parks designed to accommodate transient type trailers, and to provide the user with the minimum required facilities. Site areas will generally range from 1,000 to 1,750 sq. ft.   |

Application of the pricing schedule involves determining the Grade, which is the most representative of the subject property, selecting the corresponding base site-cost, and adjusting the base site-cost to account for any variations between the subject property and the model specifications.

## BASE COST COMPONENTS

The costs per site have been developed to include the cost of normal basic on-site improvements and do not include the cost of the land, service and recreational buildings, or major recreational structures, such as swimming pools. The base components are as follows:

Engineering. . . includes the design plans and specifications of the park (exclusive of buildings), engineering and surveying fees, and public fees and permits.

Grading. . . includes the normal grading involved in leveling the site for drainage and roughing out roads, but does not include any abnormal site preparation, such as the excavation and terracing required for hill-side sites.

Street Paving. . . includes base preparation and paving.

Patios and Walks. . . includes all flat work other than street paving.

Sewer. . . includes all on-site lines, but does not include hook up charges, sewage disposal systems, or any off-site connections to trunk lines.

Water. . . includes on-site mains and site services, but does not include wells, pumps, or any off-site connections to source lines.

Electrical. . . includes on-site conduit, electrical and telephone wiring, site outlets, and street and common area lighting commensurate with the Grade; but does not include the cost of any off-site connections.

Gas. . . includes on-site piping, and site and building connections, but does not include any off-site mains.

Other Features. . . include the cost of average entrance ornamentation, landscaping, and common area development commensurate with the park Grade. (Note: Outdoor recreational facilities, such as swimming pools, tennis courts, etc. are not included and should be computed separately.)

## **BASE COST ADJUSTMENTS**

Many mobile homes and trailer parks are apt to possess some features which are typical of one Grade and some features which are typical of another.

For example, an A Grade park may exhibit B Grade "other features" such as entrance decor, landscaping, and recreational facilities; or similarly, a park may be C Grade in all respects except for good quality streets. In such cases, the appraiser must analyze each park in terms of its individual component in order to determine the contribution of each component to the overall cost per site. In order to facilitate this, the specifications and corresponding costs for each component are detailed, thus enabling the appraiser to adjust the base cost either upward or downward to account for any significant variations.

## **PERCENT (%) GOOD GUIDELINES**

Mobile home parks generally can be expected to have a life expectancy of from 10 to 30 years, depending on the quality of the park. The components of a mobile home park, as described above, are subject to the same depreciating forces as are any other real estate improvements. Physical deterioration itself is difficult to observe; but is generally directly related to the functional and economic depreciation of the park. In a going and profitable park, the actual rate of physical deterioration is arrested somewhat by regular and normal maintenance. A park that is normally maintained will have components replaced or renewed as they age. As a park goes out of style functionally and economically, maintenance becomes more and more of a cost burden to the owner and is consequently reduced or curtailed completely, allowing the process of deterioration to accelerate.

## MOBILE HOME PARKS

The average quality mobile home park is designed to provide the user with adequate utility services and facilities. Recreational amenities are limited or nonexistent with streets and landscaping of minimal planning and construction.

Normal site improvements include; low cost concrete or asphalt pads and walks, and enough grading to allow adequate site preparation, drainage, and leveling, minimal on-site electrical service, on site well and septic service, on site public or private water and sewer systems.

The value attributed to land, and the cost of any supportive structures, are not included in the base cost site.

Any variation in overall quality from average should be reflected by the appropriate quality grade adjustment.

## REPLACEMENT COST PER SITE

**“15” Mobile Home Site \$4,000**



## GOLF COURSES

Golf courses are designed and built in a variety of types and sizes. The pricing schedules in this section are provided as a guide to assist the appraiser in arriving at a reasonable and equitable estimate of the cost of developing the various types of courses.

## REGULATION COURSES

A regulation golf course usually consists of 18 holes of varied length. There are generally four short holes, 130 to 200 yards (par 3); ten average holes 350 to 400 yards (par 4); and four long holes 450 to 550 yards (par 5). Average costs per hole are given for five grades of courses, the general specifications are as follows:

- |          |   |
|----------|---|
| XX Grade | Excellent course designed for professional play; rolling terrain; well landscaped with wide tree lined fairways and large, excellent quality greens and tees; numerous natural and man-made hazards; generally, 7200 yards long with a par 72 rating. |
| A Grade  | Excellent course design for championship play; rolling terrain; well landscaped with wide fairways and large, very good quality greens and tees; many natural and man-made hazards; generally, 6900 yards long with a par 72 rating.                  |
| B Grade  | Good course design for private club membership; rolling terrain; well landscaped with wide fairways and large good quality greens and tees; natural and some man-made hazards; generally, 6500 yards long with a par 70 rating.                       |
| C Grade  | Average course designed for municipal or general public play; flat terrain; landscaped fairways; average size and quality greens and tees; some natural and few, if any, man-made hazards; generally, 6000 yards long with a par 67 to 70 rating.     |
| D Grade  | Simply developed course often referred to as a "cow-pasture course"; flat terrain; very little landscaping; small greens and tees; few natural hazards; generally, 5400 yards long with a par 64 to 67 rating.  |

## BASE PRICE COMPONENTS

The costs per hole have been developed to include the cost of normal on course improvements and do not include the cost of land, clubhouse, or any recreational facilities. The base price components are as follows:

Grading and Clearing. . . includes the removal of brush and trees from the fairways, greens, or tees; landscaping and the seeding of grass.

Sprinkler System. . . includes the water source, pumps, piping, and sprinkler heads.

Greens. . . includes the building, seeding and care of the greens until the opening of the course.

Tees. . . includes the building and care of the tees until the opening of the course.

Bunkers. . . includes the building and care of the bunkers until the opening of the course.

Service and Cart Roads. . . includes base preparation, paving, and bridges over hazards.

Architect's Fees. . . includes all plans and supervision during construction.

## OTHER COURSES

Miniature Course      The entire course is comprised of a putting surface which has various obstacles and hazards placed between the tee and the cup.

Pitch and  
Putt Course              The course has greens, bunkers, tees, fairways, and very little, if any, rough area separating the holes. The holes are usually 60 to 120 yards long and the course often has lighting for night play.

Par 3 Course              The course is the same as a regulation course, but on a smaller scale with all the holes rated par 3, 140 to 160 yards long and the course may have lighting for night play.

Executive Course        Also called a par 60 course; the course is the same as a regulation course, but on a smaller scale with the holes 200 to 300 yards long. The holes are mostly par 3 with some par 4 and par 5 ratings.

Driving Range	Consists of a piece of land usually 10 to 15 acres with elevated tees along one side used for practice of hitting tee shots on regulation courses.
Practice Putting Greens	Consists of a large green with numerous cups used for putting practice.

**GENERAL APPLICATION**

The primary variables in golf courses are size, layout, sprinkler system, greens, tees, fairways, and bunkers. Costs of courses may vary from \$15,000 per hole for a course with minimal improvements to \$125,000 per hole for the best championship courses. The costs given are for average courses in each quality grade. Included in the cost per hole is normal clearing and grading, complete sprinkler systems, landscaping, greens, tees, bunkers, service and cart roads, and architect's fees. Costs do not include buildings, swimming pools, parking areas, or any other off-course improvements. Listed below is the procedure to be used for the appraisal of golf courses.

1. Identify the course by name and record the following data on the property record card (preferably in the top portion of the sketch area).
  - a. The type of course (regulation size, pitch and putt, miniature, etc.).
  - b. The year of completion (if developed in phases, describe the number of holes completed each year).
  - c. The number of holes and the amount of land used for the course.
  - d. The course length and par.
  - e. The terrain and topographical features.
  - f. The average size of the greens, tees, and the number of bunkers.
  - g. The type of sprinkler system.
2. Analyze the various components of the subject property, giving special consideration to the extent of planning, the natural contour of the land, clearing and grading of fairways, greens, and tees, the extent and quality of the sprinkler system: whether it is automatic, manual, covers the entire course or only the tees and greens, the average green and tee size, the average number of bunkers per hole, the quality of cart and service roads and any other characteristics essential to establishing the proper grade level of the course.
3. Determine the Quality Grade of the course by comparing its components, as analyzed above, with the given specifications for each grade and select the corresponding base cost per hole.

In many instances, the course will exhibit a composite quality which falls somewhere between two grades. In such cases it is necessary to interpolate between the base hole costs.

4. Multiply the average replacement cost per hole, as derived in Step #3, by the total number of holes to arrive at the total replacement cost of the course.
5. Determine the proper depreciation allowance based upon the condition, desirability, and usefulness of the course relative to its age, and apply it to the total replacement cost as derived in Step #4, to arrive at the depreciated value of the course.
6. Sketch, list, and compute by using the appropriate pricing schedule, the replacement cost and depreciated value of all improvements not included in the base cost.

See pricing example on following page.

**GOLF COURSE PRICING EXAMPLE**

Smith Golf Course - an 18 hole; regulation size course, 6500 yards long, par 72, located on 150 acres of rolling terrain. The course is 10 years old and has 10000 square foot greens, (3) 2500 square foot tee locations for each hole, and (3) bunkers per hole. Fairways and greens have automatic sprinkler system.

This course is judged to be an Average Quality Course with very good greens and tees, good overall condition, desirability and utility. Land value is estimated at \$5000 per acre

Base Cost per Hole Average Quality	\$ 100,000
Quality Factor + 0%	+ 0
Replacement Cost Per Hole	\$ 100,000
Number of Holes	X 18
Total Replacement Cost	\$1,800,000
Less Depreciation -10%	- 180,000
Total Value of Course Improvements	\$1,620,000
Land Value (150 acres @ \$5000)	+ 750,000
Total Value	\$2,370,000
Value per Hole (Rounded)	\$ 131,667

**GOLF COURSE PRICING**

**32 - REPLACEMENT COST \$100,000 PER HOLE.**

**HARNETT COUNTY REAPPRAISAL GOLF COURSE QUESTIONNAIRE**

Course Name \_\_\_\_\_ Architect \_\_\_\_\_

Number of Holes \_\_\_\_\_ Par/Course Rating \_\_\_\_\_

USGA Slope Rating:

Championship \_\_\_\_\_ Intermediate \_\_\_\_\_ Senior/Ladies \_\_\_\_\_

Number of Acres Utilized by Golf Course: \_\_\_\_\_

Irrigation System: Greens \_\_\_\_\_ Fairways \_\_\_\_\_ Both \_\_\_\_\_

Actual Year Built \_\_\_\_\_ Cost Per Hole \_\_\_\_\_

Year of Major Renovations \_\_\_\_\_

\_\_\_\_\_

Number of Anticipated Annual Rounds \_\_\_\_\_

Number of Actual Annual Rounds \_\_\_\_\_

Public/Guest Rates:

18 Holes Weekday – Seasonal \_\_\_\_\_

18 Holes Weekend/Holidays – Seasonal \_\_\_\_\_

Special Rates:

18 Holes Senior/Junior \_\_\_\_\_

18 Holes Twilight \_\_\_\_\_

18 Holes Off Season \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**HARNETT COUNTY REAPPRAISAL GOLF COURSE QUESTIONNAIRE**

Course Name \_\_\_\_\_

Number of Holes \_\_\_\_\_ Acres \_\_\_\_\_ Length \_\_\_\_\_ (yds)

Par/Course Rating \_\_\_\_\_ Zoning \_\_\_\_\_ Age \_\_\_\_\_

Annual Rounds Played This Year (anticipated) \_\_\_\_\_ Last Year \_\_\_\_\_

USGA Slope Rating \_\_\_\_\_ (Attach Scorecard)

Irrigation: Fairways \_\_\_\_\_ Greens \_\_\_\_\_ Both \_\_\_\_\_

List of Amenities: (please check)

- |                             |                             |
|-----------------------------|-----------------------------|
| Practice Green _____        | Driving Range _____         |
| Lockers _____               | Practice Sand Trap(s) _____ |
| Restaurant _____            | Bag Storage _____           |
| Bar/Lounge _____            | Snack Bar _____             |
| Rain Shelters _____         | Golf Cars _____             |
| Restrooms (on course) _____ | Snack Bar (on course) _____ |
| Swimming Pool _____         | Tennis Courts _____         |
| Other (list items) _____    |                             |

Course Rating: Excellent = 5; Good = 4; Average = 3; Fair = 2; Poor = 1

- |                            |                           |
|----------------------------|---------------------------|
| Greens/Fairways _____      | Clubhouse/Pro Shop _____  |
| Tees/Range/Hazards _____   | Trees/Scenic Beauty _____ |
| Layout Design _____        | Practice Facilities _____ |
| Food/Bev. Facilities _____ | Other Amenities _____     |
| Social Atmosphere _____    | Course Image _____        |
| Architect _____            |                           |
| Total Points _____         |                           |

Note: A score over 50 is excellent; 40-49 points is good; 30-39 points is average; 15-29 points is fair; and 14 points & under is poor.

Course Prices:

9-Hole Weekday \$ \_\_\_\_\_ 9-Hole Weekend \$ \_\_\_\_\_ 18-Hole WeekDay \$ \_\_\_\_\_  
 18-Hole Weekend \$ \_\_\_\_\_ Golf Car/9-Hole \$ \_\_\_\_\_ 18-Hole \$ \_\_\_\_\_  
 Special Rates-Senior \$ \_\_\_\_\_ Junior \$ \_\_\_\_\_ Twilight \$ \_\_\_\_\_

Date of Rating: \_\_\_\_\_

Name of Analyst: \_\_\_\_\_

Contact: \_\_\_\_\_ Telephone: \_\_\_\_\_

**FOR PROFIT CEMETERIES**

**North Carolina General Statute §105-278.2**

- (a) Real property set apart for burial purposes shall be exempted from taxation unless it is owned or held for purposes of (i) sale or rental or (ii) sale of burial rights therein.
- (b) Taxable real property set apart for human burial purposes is hereby designated a special class of property under authority of Article V, Section II (2) of the North Carolina Constitution, and it shall be assessed for taxation taking into consideration the following:
  - (1) The effect on its value by division and development into burial plots:
  - (2) Whether it is irrevocable dedicated for human burial purposes by plat recorded with the Register of Deeds in the County in which the land is located; and
  - (3) Whether the owner is prohibited or restricted by law or otherwise from selling, mortgaging, leasing or encumbering the same.
- (c) For the purposes of this section, the term “real property” includes; land, tombs, vaults; monuments and mausoleums and the term burial includes entombment. (1973, c. 695, s. 4; 1987, c. 724; 2018-113, s. 15.)

## CEMETERIES

Private or “for profit” cemeteries are appraised by determining the number of unsold units (lots, crypts and niches), the average selling price per unit and the absorption period necessary to deplete the unsold inventory.

The following formula has been utilized by Harnett County;

Number of unsold lots, crypts, niches (x) average selling price (x) discount rate.  
 $(\# \text{ units}) \times (\text{avg. } \$ \text{ price}) \times (\text{DR}) = \text{indicated value}$

NOTE: Other income (openings, closings, markers sales, etc.) is not included in the formula listed above. This additional income should be capitalized using a traditional income approach to determine value. Any excess land (non-platted or not dedicated for burial purposes) will be valued in accordance with the rates placed on surrounding parcels. The value of all land dedicated for burial purposes will be included in the value of the unsold units, land occupied by sold units will be considered exempt from taxation and will not be included in the final appraised value.

**NOTE: The gravesites, crypts and niches rates are specific to each cemetery and are listed in the miscellaneous building rates.**

EXAMPLE:

Spartan Cemetery

Property consists of: 21.584 acres totally dedicated for cemetery use, and 3,500 unsold gravesites. Gravesites sell at an average of \$450 each and the absorption period is estimated at 50 to 75 years.

$(3500 \text{ units}) \times (\$450/\text{unit}) = \$1,575,000 \times (10\% \text{ DR}) = \mathbf{\$157,500 \text{ Indicated Value}}$

**HARNETT COUNTY CEMETERY QUESTIONNAIRE**

Cemetery Name \_\_\_\_\_

Cemetery Address \_\_\_\_\_

1) How many grave sites remained unsold as of January 1, 2022? \_\_\_\_\_

2) How many grave sites were sold during 2021? \_\_\_\_\_

3) Total gross income received from the sale of grave sites during 2021. \_\_\_\_\_

4) What is the average price of the remaining unsold grave sites? \_\_\_\_\_

5) How many crypt sites remained unsold as of January 1, 2022? \_\_\_\_\_

6) How many crypt sites were sold during 2021? \_\_\_\_\_

7) Total gross income received from the sale of crypt sites during 2021. \_\_\_\_\_

8) What is the average price of the remaining unsold crypt sites? \_\_\_\_\_

9) How many niche sites remained unsold as of January 1, 2022? \_\_\_\_\_

10) How many niche sites were sold during 2021? \_\_\_\_\_

11) Total gross income received from the sale of niche sites during 2021. \_\_\_\_\_

12) What is the average price of the remaining unsold niche sites? \_\_\_\_\_

13) Were any grave sites, crypt sites, niche sites or mausoleums added during 2021? yes \_\_\_ no \_\_\_

14) Have you purchased or sold any cemetery land or made any other improvements during 2021? yes \_\_\_ no \_\_\_ if yes list type, amount and cost.

15) Has the property been appraised for any reason; sale, bankruptcy, merger, etc. since 2017? yes \_\_\_ no \_\_\_ if yes please provide copy of appraisal, etc.

Submitted by \_\_\_\_\_

Owner Name(s) \_\_\_\_\_

Telephone \_\_\_\_\_

Parcel Number \_\_\_\_\_

Date \_\_\_\_\_

## SOLAR FARMS

**G.S. 105-275** – Property classified and excluded from tax base.

80% of the appraised value of solar electric systems is excluded as exempt use.

*Solar Energy Electric System means* “all equipment used directly and indirectly for the conversion of solar energy to electricity.”

Solar Panels and other equipment shall be valued as business personal property. The land associated with this equipment will be valued at a range **\$8,000 to \$25,000** per acre based on location and the principal of **Highest and Best Use**.

## CELL TOWERS

For listing purposes 1.00 acre will be designated to support the cell tower and associated components required to run cellular operations.

The cellular components are listed as personal property. They usually consist of the cell tower, individual company's cellular antenna, operating equipment, equipment shelters and security fencing. Give any information attained about the cellular components to business personal property.

The land supporting the cell tower will be valued using the prevailing commercial and industrial land rates in the immediate area.

**SECTION 42 LOW-INCOME HOUSING****North Carolina General Statute # 105-277.16**

In North Carolina low-income housing which has been allocated a federal tax credit under Section 42 of the Code is designated a special class of property under Article V, Section 2 (2) of the North Carolina Constitution and must be appraised, assessed and taxed in accordance with this section. The assessor must use the income approach as the method of valuation for property classified under this section and must take rent restrictions that apply to the property into consideration in determining the income attributable to the property. The assessor may not consider income tax credits received under Section 42 of the Code or under G.S. 105-129.42 in determining the income attributable to the property. (2008-146, s. 3.1:2008-187, s. 47.6).

**General Application**

Identify the low-income housing property being appraised and request copies of the audited financial statements for current year (revaluation year) and three prior years.

Analyze the actual income stream; apply expense ratios, capitalization rates, and Gross Rent Multipliers (GRM) developed for use in the 2022 Harnett County Revaluation Project.

**Standardized Operating Expenses & Vacancy Rates****Operating Expenses**

Based on analysis an expense ratio of 55% has been adopted for use by Harnett County.

**Vacancy Rates**

Analysis of vacancy rates provided by IREM indicates average vacancy rates of 0% to 5%, a rate of 3% has been adopted for use by Harnett County.

**Reserve for Replacements**

Analysis of typical reserve for replacements for traditional apartment properties in Harnett County indicates a range of 3% to 5%. A rate of 5% has been selected for use in Section 42 low-income housing appraisal.

**Capitalization Rate**

A range of capitalization rates from 4.5%-7.5% have been adopted for Section 42 housing.

**SAMPLE INCOME APPROACH APPRAISAL****SECTION 42 LOW INCOME HOUSING****(G.S. 105-277.16)****100 UNIT APARTMENT COMPLEX @ \$450 PER MONTH BASE RENT**

<b>POTENTIAL GROSS INCOME (100 x \$450 x 12 MONTHS)</b>	<b>\$540,000</b>
<b>VACANCY (3%)</b>	<b>(-\$16,200)</b>
<b>OTHER INCOME</b>	
<b>EFFECTIVE GROSS INCOME</b>	<b>\$523,800</b>
<b>OPERATING EXPENSES (55%)</b>	<b>(-\$288,090)</b>
<b>RESERVE FOR REPLACEMENTS (5%)</b>	<b>(-\$26,190)</b>
<b>NET OPERATING INCOME</b>	<b>\$209,520</b>
<b>CAPITALIZATION RATE (6%)</b>	<b>{.06}</b>
<b>APPRAISED VALUE</b>	<b>\$3,492,000</b>
<b>VALUE PER UNIT (ROUNDED)</b>	<b>\$34,920</b>

## DWELLING PERCENT GOOD CONDITION RATING SYSTEM

As houses grow older, they wear out; they become less desirable, less useful. This universal decline in value is called depreciation, and appraisers are required to determine the degree of this loss in each property they examine. If all houses deteriorated at the same rate, this decline in value would be a simple function of the age of the structure - a certain percentage per year. However, houses depreciate at varying rates depending on a score or so of variables.

Every building is acted upon by two value reducing forces. One tends to shorten its physical life; the other shortens its economic life. Both forces act concurrently, overlap, and affect each other. A new house, or any type of structure for that matter, has its greatest value at the moment of completion. Its expectancy of life - both physical and economic - is longest on the day the key is handed over by the builder. The building is then most desirable and most useful. The future benefits which the occupant may expect to enjoy are at the maximum. From that day forward, however, decay and wear and tear act to lessen the value of the structure by curtailing its remaining capacity for use.

At the same time the house is "wearing out ", it is also "going out of style". It is becoming less desirable. It is progressively becoming less useful, both from the effect of forces within the property (obsolescence), and outside of it as well (encroachment of undesirable influences such as less desirable property uses).

Neither physical decline nor functional loss are constant in their action. Deterioration is a relatively steady process offset periodically by maintenance. Worn-out elements of the building are repaired or replaced at intervals, depending upon the policy of the owner. Cheaper houses generally deteriorate faster than better ones. Obsolescence and encroachment may come slowly or happen almost overnight. The forces which cause both deterioration and functional/economic depreciation may act and often do act simultaneously, but they are not necessarily related. A house may decline in physical condition, and yet throughout its entire life remain relatively functional.

Obviously enough, the age of a house remains an important factor in estimating accrued depreciation. A certain number of houses will receive "normal" maintenance and will experience "average" economic loss due to obsolescence and functional depreciation. These buildings will depreciate at an average rate as they grow older.



Other houses will lose value at lesser or more rapid rates. Condition Ratings provide a logical reasoning process, by means of which normal age depreciation may be modified according to the appraiser's best determination of the relative loss of value in a structure, as compared with the average loss that might be expected. Thus, the age of a dwelling is an unreliable indicator of the degree of depreciation from its cost new. For houses depreciate not merely because they grow older - but because they wear out and become less desirable and less useful from a variety of causes.

To assist the appraiser in establishing the "Condition Ratings" of buildings, several simple classifications have been established. These classifications or ratings are entirely natural and will fit the normal impressions of the appraiser as he examines a building. Following is a tabulation of Condition Ratings, with their accompanying definitions of the observed physical condition of the building, and its degree of desirability and usefulness for its age and for its type.

## CONDITION RATING GUIDE

CONDITION RATING OF DWELLING	DEFINITION
Excellent	Building is in perfect condition; very attractive and highly desirable
Very Good	Slight evidence of deterioration; still attractive and quite desirable.
Good	Minor deterioration visible; slightly less attractive and desirable, but useful.
Average	Normal wear and tear is apparent; average attractiveness and desirability.
Fair	Marked deterioration - but quite usable; rather unattractive and undesirable
Poor	Definite deterioration is obvious; definitely undesirable, and barely usable.
Very Poor	Condition approaches unsoundness; extremely undesirable and barely usable.
Unsound	Building is definitely unsound and practically unfit for use.

Age is reflected as an index of the normal deterioration and obsolescence in a structure which may be expected over the years. Condition represents a variable measure of the effects of maintenance and remodeling on a building. Desirability is a measure of the degree of appeal a particular building may have to prospective purchasers. Usefulness is a measure of the utility value of the structure for the purpose for which it may be used.

Percent good is defined as the resultant estimate of the diminishing value of an improvement, after subtracting the amount of estimated depreciation from the Replacement Cost New. For example, a structure which is estimated to be 45 percent depreciated as of a given time has a percent good of 55. Therefore, depreciation and percent good are complements of each other. Once the Condition Rating of a building has been established through a consideration of its condition, desirability, and usefulness for its age and its type, reference to the Basic Percent

Good Table will indicate the appropriate value percent remaining for a structure possessing these qualities, in the degree observed and noted by the appraiser.

The degree of deterioration and obsolescence, or loss of value from all causes, both within and without the property, is automatically taken into account. This is accomplished by means of a simple rating of the capabilities and qualities of the structure, in precisely the same terms as would a prospective purchaser. Sound valuation theory presupposes the existence of a prospective buyer with intelligence enough to compare the advantages and disadvantages of competing properties, and to rate the property he is examining according to its relative degree of desirability and usefulness.

### **APPLYING THE CONDITION SYSTEM**

To apply the Condition System, the appraiser rates each house according to his composite impression of its relative condition, desirability, and usefulness for its age and type. The following four actual cases illustrate this convenient and practical method of determining percent good in houses.

Case One: A fifteen-year-old single-family residence situated in an attractive residential suburb of a typical American community. Grade "B" with two baths. Minor deterioration is visible: slightly less attractive and desirable than new, but useful. A qualified observer would rate this house above average on the Condition Rating System. Accordingly, our appraiser has assigned it a Condition Rating of "Good". Referring to the table, we find 97% Good would be appropriate.

Case Two: A one story frame house seven years old. Grade "C" or average quality construction: three bedrooms, one and one-half baths. Structure shows normal wear and tear and has average attractiveness and desirability. The appraiser's impression is, "for a seven-year-old Grade "C" house, this would be rated as Average." From the table we find 97% Good is indicated.

Case Three: This century-old Colonial style frame house is located in a New England seaport community; erected 1858. Grade "B" or good quality construction. Building has been extremely well maintained and completely modernized with central heating, electric lighting, and plumbing added. The structure is in good physical condition in spite of its age. Building is architecturally attractive and quite desirable. The appraiser's impression is, "for a very old house of Grade "B" quality, this is an Excellent one ". From the table 90% Good is indicated.

Case Four: A twenty-four-year-old single-family residence of Grade "C" quality; one story and basement, frame construction; three bedrooms with bath. Structure has had normal maintenance and is average in physical condition. Within the past two years, an elevated six-lane expressway passing over the adjoining lot has been erected. This encroachment has seriously detracted from the attractiveness and desirability of the property. Accordingly, the appraiser has assigned a Condition Rating of "Very Poor". From the table 48% Good is indicated.

**DWELLING PERCENT GOOD**

1. Rate the dwelling in terms of its overall condition, desirability, and usefulness.
2. Select the proper percent good relative to its actual age.

**COMMERCIAL/INDUSTRIAL PERCENT GOOD  
COMMON CAUSES OF OBSOLESCENCE**

In the final analysis, an estimate of depreciation or value loss represents an opinion of the appraiser as to the degree that the present and future appeal of a property has been diminished by deterioration and obsolescence. The accuracy of the estimate will be a product of the appraiser's experience in recognizing the symptoms of deterioration and obsolescence and his ability to exercise sound judgment in equating his observations to the proper monetary allowance to be deducted from the replacement cost new. The following tables have been provided as guidelines to assist the appraiser in arriving at the resultant estimate of the diminishing value of improvements after subtracting all forms of depreciation. Following is a listing of some of the most common sources of functional and economic obsolescence which should further assist him in arriving at a reasonable estimate of obsolescence.

**Common Causes of  
Functional Obsolescence**

- Poor ratio of land to building area.
- Inadequate parking, and/or truck and railroad loading and unloading facilities.
- An appearance unattractive and inconsistent with present use and surrounding properties.
- Poor proportion of office, rental, or manufacturing, and warehouse space.
- Inadequate or unsuited utility space.
- Limited use and excessive material and product handling costs caused by irregular and inefficient floor plans, varying floor elevations, inadequate clearance, and cut up interiors with small bays and excessive number of walls, posts and columns.
- Multi-story design when single story would be more efficient and economical.

Effects of corrosion created by manufacturing, processing, or storing of chemicals.

Foundational and structural failures due to poor soil conditions, poor design, excessive loading, poor maintenance, excessive vibration of building and process equipment.

Inadequate power distribution, heating, ventilation, air condition, or lighting systems.

**Common Causes of  
Economic Obsolescence**

- Zoning laws and other governmental regulations which affect the usage and operation of the property.
- Building code requirements which set current acceptable construction standards.
- Market acceptability of the product or services for which the property was constructed or is currently used.

Excessive or deficient floor load capacity.

Insufficient and inadequate elevator service.

High maintenance costs resulting from mixed building constructions and/or the use of obsolete building materials.

Profitability of the operation of the property and the justifiable investment which the business would support.

Termination of the need for the property due to actual or probable changes in economic or social conditions.

## COMMERCIAL DEPRECIATION TABLES

Commercial Depreciation Codes are defined by three characters. All commercial depreciation codes start with character C. The second position character denotes Condition. The last character position identifies Construction Type. Codes are defined as:

<b>Condition</b>		<b>Construction Type</b>	
E	Excellent	W	Wood Frame
G	Good	R	Fire Resistant
A	Average	P	Fire Proof
F	Fair		
P	Poor		
U	Unsound		

# Schedule of Values

# Harnett County 2022

## Fire Resistant Construction

CER		CGR		CAR		CFR		CPR	
Age	Deprec.	Age	Deprec.	Age	Deprec.	Age	Deprec.	Age	Deprec.
01	0%	01	1%	01	2%	01	3%	01	4%
02-03	1%	02	2%	02	3%	02	5%	02	6%
04	2%	03	3%	03	5%	03	6%	03	8%
05-06	3%	04	5%	04	7%	04	8%	04	10%
07	4%	05	6%	05	9%	05	10%	05	12%
08-09	5%	06	7%	06	10%	06	12%	06	14%
10	6%	07	8%	07	12%	07	14%	07	16%
11-12	7%	08	10%	08	14%	08	16%	08	18%
13	8%	09	11%	09	16%	09	18%	09	20%
14-15	9%	10	12%	10	17%	10	19%	10	22%
16	10%	11	13%	11	19%	11	21%	11	24%
17-18	11%	12	14%	12	21%	12	23%	12	26%
19	12%	13	15%	13	22%	13	24%	13	27%
20-21	13%	14	16%	14	23%	14	25%	14	29%
22	14%	15	17%	15	24%	15	26%	15	30%
23-24	15%	16	18%	16	25%	16	27%	16	32%
25	16%	17	19%	17	27%	17	28%	17	34%
26-27	17%	18	20%	18	28%	18	30%	18	35%
28	18%	19	21%	19	29%	19	31%	19	37%
29-30	19%	20-21	22%	20	30%	20	32%	20	38%
31-32	20%	22	23%	21	31%	21	34%	21	40%
33	21%	23	24%	22	32%	22	35%	22	42%
34-35	22%	24	25%	23	33%	23	36%	23	43%
36-37	23%	25	26%	24	34%	24	37%	24	44%
38-39	24%	26-27	27%	25	35%	25	38%	25	45%
40-41	25%	28	28%	26	36%	26	39%	26	46%
42-44	26%	29	29%	27	37%	27	40%	27	48%
45-46	27%	30	30%	28	38%	28	42%	28	49%
47	28%	31-32	31%	29	39%	29	43%	29	51%
48-49	29%	33	32%	30	40%	30	44%	30	52%
50 Up	30%	34	33%	31	41%	31	45%	31	53%
		35	34%	32	42%	32	46%	32	54%
		36-37	35%	33	43%	33	47%	33	55%
		38	36%	34	44%	34	48%	34	57%
		39-40	37%	35	45%	35	49%	35	58%
		41-42	38%	36	46%	36	50%	36	59%
		43-44	39%	37	47%	37	51%	37	60%
		45-46	40%	38	48%	38-39	52%	38	61%
		47	41%	39-40	49%	40	53%	39	62%
		48-49	42%	41-42	50%	41	54%	40	63%
		50 Up	43%	43	51%	42	55%	41	64%
				44-45	52%	43-44	56%	42-43	65%
				46-47	53%	45	57%	44-45	66%
				48-49	54%	46-47	58%	46-47	67%
				50 Up	55%	48-49	59%	48	68%
						50 Up	60%	49	69%
								50 Up	70%
CUR									
Age	Deprec.								
01 Up	90%								

# Schedule of Values

# Harnett County 2022

## Wood Frame Construction

CEW		CGW		CAW		CFW		CPW	
Age	Deprec.	Age	Deprec.	Age	Deprec.	Age	Deprec.	Age	Deprec.
01	0%	01	2%	01	3%	01	4%	01	4%
02-03	1%	02	3%	02	5%	02	6%	02	7%
04	2%	03	4%	03	7%	03	8%	03	9%
05-06	3%	04	6%	04	9%	04	10%	04	11%
07	4%	05	7%	05	11%	05	12%	05	14%
08-09	5%	06	8%	06	13%	06	14%	06	16%
10	6%	07	10%	07	15%	07	16%	07	18%
11-12	7%	08	11%	08	17%	08	18%	08	20%
13	8%	09	12%	09	19%	09	20%	09	23%
14-15	9%	10	14%	10	21%	10	22%	10	25%
16	10%	11	15%	11	22%	11	24%	11	27%
17-18	11%	12	16%	12	24%	12	26%	12	30%
19	12%	13	17%	13	26%	13	28%	13	32%
20-21	13%	14-15	19%	14	28%	14	30%	14	34%
22	14%	16	21%	15	29%	15	31%	15	36%
23-24	15%	17	22%	16	31%	16	32%	16	38%
25	16%	18	23%	17	33%	17	35%	17	40%
26-27	17%	19	24%	18	34%	18	36%	18	42%
28	18%	20-21	25%	19	35%	19	37%	19	44%
29-30	19%	22	26%	20	36%	20	38%	20	45%
31-32	20%	23	27%	21	37%	21	39%	21	47%
33	21%	24	28%	22	38%	22	40%	22	49%
34-35	22%	25	29%	23	39%	23	42%	23	51%
36-37	23%	26	30%	24	40%	24	44%	24	52%
38-39	24%	27	31%	25	42%	25	45%	25	53%
40-41	25%	28	32%	26	43%	26	46%	26	55%
42-44	26%	29-30	33%	27	44%	27	47%	27	56%
45-46	27%	31	34%	28	45%	28	48%	28	57%
47	28%	32	35%	29	46%	29	49%	29	59%
48-49	29%	33	36%	30	47%	30	51%	30	60%
50 Up	30%	34-35	37%	31	48%	31	52%	31	61%
		36-37	38%	32	49%	32	53%	32	62%
		38-39	39%	33	50%	33	54%	33	63%
		40-41	40%	34-35	51%	34	55%	34	64%
		42-46	41%	36	52%	35	56%	35	65%
		47-49	42%	37	53%	36	57%	36	66%
		50 Up	43%	38-39	54%	37	58%	37	67%
				40 Up	55%	38-39	59%	38	68%
						40 Up	60%	39	69%
								40 Up	70%



**OTHER BUILDING AND YARD ITEM  
PERCENT GOOD GUIDELINES**

The appraisal of other buildings and yard improvements for both residential and agricultural properties is a difficult task. Other buildings and yard improvements are rarely purchased or sold separately from the balance of the property. The cost of construction of a swimming pool, which is built for the convenience and comfort of a property owner, will rarely add an equivalent amount to the market value of the property. The cost of construction of a farm outbuilding that can be justified by its contribution to the farming operation will again seldom add an equivalent amount to the market value of the property.

In effect, other buildings and yard improvements have value in direct proportion to their degree of utility or usefulness. This is an extension of the principle of contribution, which affirms that the value of any factor in production is dependent upon the amount which it contributes to the overall net return, irrespective of the cost of its construction. Any effective approach to the valuation of other buildings and yard improvements must reflect the action of investors. Informed farm owners and operators would not invest in buildings which could not pay for themselves by either maintaining or adding to the required level of productivity. Homeowners would not invest in swimming pools, detached garages, etc., which would not supply the degree of comfort and/or convenience they desire.

Five individual Percent Good Tables have been developed to assist the appraiser in valuing the various other building and yard improvements that are normally encountered. The following is a list of the five tables.



**Miscellaneous Structures Depreciation**

<b>S1</b>	
AGE	DEPR.
01	10%
02	20%
03	25%
04	30%
05	35%
06	40%
07	45%
08-UP	50%

<b>S2</b>	
AGE	DEPR.
01	5%
02	10%
03	15%
04	20%
05	25%
06	30%
07	35%
08	40%
09	45%
10	50%
11	55%
12	60%
13	65%
14	70%
15-UP	75%

<b>S3</b>	
AGE	DEPR.
00--03	5%
04--06	10%
07--09	15%
10--12	20%
13--15	25%
16--18	30%
19--21	35%
22--24	40%
25--27	45%
28--30	50%
31--35	55%
36--40	60%
41--45	65%
46--50	70%
51--UP	75%

<b>S4</b>	
AGE	DEPR.
00--04	5%
05--08	10%
09--12	15%
13--16	20%
17--20	25%
21--24	30%
25--28	35%
29--32	40%
33--36	45%
37--40	50%
41--44	55%
45--48	60%
49--52	65%
53--56	70%
57--UP	75%

<b>S5</b>	
AGE	DEPR.
00--05	5%
06--10	10%
11--15	15%
16--20	20%
21--25	25%
26--30	30%
31--35	35%
36--40	40%
41--45	45%
46--50	50%
51--55	55%
56--60	60%
61--65	65%
66--70	70%
71--UP	75%

**LAND TYPES AND DESCRIPTIONS**

<b>Land Type</b>	<b>LAND DESCRIPTIONS</b>
0100 (SFR)	Build Site – site for possible construction of building in a subdivision
0200 (Mbl Hm Sub)	Build Site – site for possible construction of mobile homes in a subdivision
0210 (MH TR Park)	Build Site – site for possible construction of mobile home trailer parks
5010 (Rural)	Build Site for all areas outside urban areas.
5113 (AGRI I)	Cleared Land
6113 (Wood I)	Forest Land
5960 (Open Space)	Allocation of value to individual properties located in townhouse or condominium developments. Value includes interest in all common areas, e.g. parking areas, pools, tennis courts, etc.
0702 (Cell Tower)	Land that has a cell tower placed on it.
9611 (Wetland)	Land which is unsuitable for any practical use. Example: land located under the waters of a river.
CB (Commercial Improved)	Commercial Building Site-includes cost of typical site preparation, landscaping and water and sewer system access.
CS (Commercial Secondary)	Commercial Building Site - includes cost of minimal site preparation, landscaping, and water and sewer service.
CR (Commercial Residual)	Commercial land which has nominal value, typically land which only has value relative to its contribution to the overall parcel value.

CU (Commercial Undeveloped)	Vacant Commercial Land which is suitable in size, zoning and location for commercial development.
IB (Industrial Improved)	Industrial Building Site - includes cost of typical site preparation, landscaping and water and sewer system access.
IS (Industrial Secondary)	Industrial Secondary Site - includes cost of minimal site preparation, landscaping, and water and sewer service.
IU (Industrial Undeveloped)	Vacant Industrial Land which is suitable in size, zoning and location for industrial development.
IR (Industrial Residual)	Industrial land which has nominal value, typically land which only has value relative to its contribution to the overall parcel value.

## **VALUATION GUIDELINES**

- 1) Rural - Remote or sparsely developed areas of the county where much of the land is being actively farmed or lying idle. Turnover is infrequent; and development is generally limited to major highway intersections and rural hamlet communities. Public water may or may not be available. The majority of homes and businesses in rural areas are served by individual wells and septic systems.
  
- 2) Suburban - Areas in the county in which development is occurring or has reached equilibrium stage. Includes concentrated communities, surrounding cities, and towns. Pockets of commercial and industrial properties are prevalent. Public water is normally available; and in some cases, sanitary sewer services exist but are not required.
  
- 3) Urban - Areas within or immediately surrounding cities or towns with a high density of housing, commercial and industrial properties. Land is almost always bought and sold with the intent to develop. Turnover is frequent; and development is rapid. Public water and sewer are readily available.
  
- 4) Subdivisions - Areas which have been divided into plots with roadways for the purpose of development for residential, commercial or industrial. Subdivisions may have extra restrictions besides governmental restrictions. Public water may or may not be available and in some cases sanitary sewer services exist.

## LAND INFLUENCE FACTORS

### GENERAL:

The technique of land pricing, as described in other sections of this manual, provides for the development of unit land rates for all classes of real property within a given area or neighborhood. These land rates are developed from verified, recent sales and are expected to reflect market value for various prevalent land types as of the effective valuation date for each given area.

Land rates will be developed for parcels in the following Categories:

- Lot
- Square Foot
- Acreage
- Unit Buildable
- Base Value
- Land Use

It is significant to point out that assigned land rates are based on typical or normal conditions for that class of property and land type within a specific neighborhood or area. It is likely that some number of specific parcels, within a neighborhood, will have unique factors affecting the value of that land parcel. These “Land Influences Factors” may affect the value of a specific parcel beneficially or detrimentally. I.E., plus or minus compared to the norm for the neighborhood.

Proper appraisal practice indicates that a land rate adjustment or “Land Influence Factor” should be applied by the review appraiser to properly reflect the unique considerations for a parcel with significant physical or economic characteristics, deviating from the normal conditions reflected by the neighborhood land rates.

The primary goal of a Reappraisal Program is equalization; it is strongly recommended that users of this manual exercise proper judgment and caution in the application of land influence factors.

**Land Influence Factor Guidelines**

**Topography**

This category allows the reviewer's judgment of the degree of difficulty due to poor topography in erecting a suitable improvement on the subject parcel.

Normally if a suitable improvement is present on the subject lot, the topography problem has been corrected. Therefore, an improved lot normally should have no allowance for topography. However, a topography influence may need to be applied in significant cases of un-improved lots or tracts where poor topography represents an actual detriment to the presumed utilization of the parcel.

Topography factors include; irregular land contour, poor drainage, potential subsidence, sub-surface rock ledge, potential erosion, and flood plain areas.

The following is presented as topography factor guide:

**TOPOGRAPHY INFLUENCE FACTOR GUIDE**

	<b>CONDITION</b>	<b>FACTOR</b>
Normal	Problem corrected or not significant.	00%
Slight	Problem is a moderate handicap to full utilization of the lot but is correctable. The lot is buildable but less desirable than typical lots in the area due to topography problem.	10% - 25%
Moderate	Problem is significant but correctable in that it prevents the development of the lot until the topography problem is corrected.	25% - 75%
Severe	The topography problem is so severe it is not economically feasible to develop the lot.	75% - 99%

**Shape or Size**

Shape or size factor is normally a negative adjustment to account for loss of value to a parcel due to highly irregular shape or insufficient size for the presumed utilization of the parcel.

Shape or size factor is a review judgment and may apply to all land types. The basis for any factor is a negative adjustment reducing the subject lot value to the amount and degree of land utility applicable for the presumed utilization.

The following is presented as a shape/size factor guide:

	Condition	Factor
Normal	Shape or size is no significant detriment to the presumed utilization of the parcel.	NONE
Minor	The lot is buildable and/or economically usable for the presumed utilization but irregular shape or insufficient size precludes the full utilization of the parcel.	10% - 25%
Moderate	Irregular shape or insufficient size represents a significant handicap to the presumed utilization and/or development of the land category is restricted to a significant under improvement or under utilization of the parcel.	25% - 75%
Un-Buildable	The shape or size problem is so severe that it renders the land category unusable and/or unbuildable for the presumed utilization. A typical example would be an undersized lot subject to minimum zoning restrictions which effectively prevents any economical utilization.	75% - 99%

**Restrictions/Undeveloped**

A negative land influence adjustment for restrictions or undeveloped is applicable for cases where the property is subject to a legal or physical restriction to its utilization. This could also be used when a property site has been prepared to build on but building has not yet commenced. Typical examples would include: utility easements, as power lines and sewer lines. Zoning or deed restrictions to the property, limiting the utilization to a less than normal use for typical lots in the neighborhood.

Physical barriers to the property as bridges, highway medians, fences or abutments.

The following is presented as a land influence factor guide for restrictions:

	CONDITION	FACTOR
Normal	No significant restriction to the property exists.	NONE
Minor	A restriction of moderate significance, legal or physical, exists which causes the property to be less desirable than similar lots in the area which are not subject to this restriction but does not prevent utilization of the property for the presumed use.	10% - 25%
Moderate	A restriction of major significance, legal or physical, exists which causes the property to be restricted to a less than full utilization compared to similar lots in the area, which are not subject to this restriction. An example would be power lines bisecting the lot which prevent the building of a dwelling but would be suitable for a garage or secondary structure.	25% - 75%
Un- Buildable	A restriction of very severe impact, legal or physical, exists which causes the property to be rendered virtually un-buildable or unusable for any significant utilization compared to similar lots in the area which are not subject to this restriction. An example would be a lot rendered non-accessible by a highway right-of-way.	75% - 99%



**Economic Mis-Improvement**

This category is reserved as a reviewer's judgment of the comparative loss of value land (either under-improvement or over-improvement). In essence, this judgment is expressing the appraiser's opinion that the existing structure represents an encumbrance to the full utilization of the land.

The application of a mis-improvement factor for Residential/Agricultural property is possible but very rare. Most instances occur in commercial or industrial situations where market evidence indicates a different economic utilization of the land than the current utilization. It is important to recognize in the application of economic mis-improvement factors that the land is presumed to be valued on the bases of typical "highest and best" utilization and the existing structure is non-contributory to this most economical utilization. Obviously, vacant tracts are not encumbered by any structure; therefore, vacant tracts are not subject to economic mis-improvement factors. Further, the appraiser should recognize that the economic mis-improvement condition is "curable": i.e., if the structure is removed, the previously applied economic mis-improvement factor is normally no longer applicable.

Typical examples include:

Dwellings in areas converting to commercial development, or gross under-improvement, as an old warehouse located in an area where market evidence indicates modern office complex development.

Following is an Economic Mis-Improvement Factor Guide:

	CONDITION	FACTOR
Normal	The property is unimproved (No major structures present) or the existing structure is consistent with the economical utilization of the land.	NONE
Minor	The land is encumbered with a structure that represents an economic mis-improvement and the structure has an assigned value of 25% to 50% of the land value at highest and best use.	25% - 50%
Major	The land is encumbered with a structure that represents an economic mis-improvement and the structure has an assigned value of 50% or more of the land value at the highest and best use.	50% - 75%

**Corner and/or Alley Influence**

This category is reserved for the recognition of the enhancement in land value attributable to the potential utilization of a corner lot, over and above the value of an otherwise comparable inside lot. The enhancement due to the presence of a rear or side alley is normally common to all lots in a given area or block. Therefore, recommended procedure for enhancement due to alley influence, if any, is to consider this factor in the land rate itself.

The amount of enhancement, if any, to a corner lot must be based on the individual merits of each corner location.

Normally, corner influence is not applicable to Residential/Agricultural property. Corner influence factors should be applied to only those cases of commercial or industrial property where the corner is an actual enhancement to the land.

Following is presented as a guide for Corner Influence Factors:

	CONDITION	FACTOR
Normal	The presence of a corner or alley has no significant enhancement effect to the property. Example: The side street has restricted access as a dead-end street.	NONE
Minor	The lot value is moderately enhanced by the presence of corner or alley exposure. Example: Intersection of two secondary streets or a major arterial street and a secondary street.	+10% - +25%
Major	The lot value is significantly enhanced by the presence of corner or alley exposure. Example: The intersection of two major arterial streets.	+25% - +250%

**View Influence**

This factor is normally a positive adjustment for lots or parcels where the land value is significantly enhanced by the presence of a scenic or waterfront view when compared to similar lots in the area where no significant view is present. This factor also applies to golf course lots.

It is highly recommended that the appraiser exercise due caution in the application of view influence. It is useful to remember that while the subject may have an appealing view, if this condition is common to most parcels in the area, then comparatively there is probably no real view enhancement. The appraiser should also consider the permanency of the view, i.e., the probability of potential obstruction.

The following is a View Influence Factor Guide:

	CONDITION	FACTOR
Normal	The view is considered common to the area, and market evidence indicates no actual value enhancement exists.	NONE
Minor	The subject property has a moderate enhancement due to an appealing view, and market evidence: Indicates value enhancement exists.	+10% - +25%
Major	The subject property has a significant enhancement due to an appealing view. Further, the view enhancement is not common to similar lots in the area and there is little or no potential for obstruction of the view by other structures.	+25% - +250%
Negative	For properties with less than normal or typical views, the appraiser should apply negative factors to the affected properties as indicated by market analysis and evidence.	-10% - -75%

## BASE RATE LAND VALUATION TECHNIQUE

The Base Rate Land Valuation Technique allows the appraiser to establish land rates using either a price per acre, price per square foot or price per lot for each parcel located within an individual neighborhood unit. This method also allows the appraiser to develop base land sizes for each land segment type within the neighborhood.

## RESIDENTIAL BASE RATE METHOD

Residential Base Land Rates are obtained from either land sales or using a portion of an improved sale price. Base Rates are applied at the neighborhood level for each individual land code. These rates are multiplied by the acreage for each code and then multiplied by the size factor charts herein.

\*\*Land Type's 5113 & 6113 are added together first before adjusting to the size chart \*\*

B1		R1		R2	
AREA	ADJUSTMENT	AREA	ADJUSTMENT	AREA	ADJUSTMENT
<= .050	300	<= 1.00	103	<= 1.00	103
.051-.075	288	1.01-5.00	102	1.01-5.00	102
.076-.100	275	5.01-10.00	101	5.01-10.00	101
.101-.125	263	10.01-17.00	100	10.01-UP	100
.126-.150	250	17.01-18.00	98		
.151-.175	238	18.01-19.00	96		
.176-.200	225	19.01-20.00	94		
.201-.225	213	20.01-25.00	92		
.226-.250	200	25.01-30.00	90		
.251-.275	195	30.01-35.00	88		
.276-.300	190	35.01-40.00	86		
.301-.325	185	40.01-50.00	84		
.326-.350	180	50.01-60.00	82		
.351-.375	175	60.01-70.00	80		
.376-.400	170	70.01-80.00	78		
.401-.425	165	80.01-90.00	76		
.426-.450	160	90.01-100.00	74		
.451-.475	155	100.01-110.00	72		
.476-.500	150	110.01-115.00	70		
.501-.550	145	115.01-120.00	68		
.551-.600	140	120.01-125.00	66		
.601-.650	135	125.01-130.00	64		
.651-.700	130	130.01-135.00	62		
.701-.730	127	135.01-140.00	60		
.731-.750	125	140.01-145.00	59		
.751-.780	122	145.01-150.00	58		
.781-.800	120	150.01-155.00	57		
.801-.830	117	155.01-160.00	56		
.831-.850	115	160.01-165.00	55		
.851-.880	112	165.01-170.00	54		
.881-.900	110	170.01-175.00	53		
.901-.930	107	175.01-180.00	52		
.931-.950	105	180.01-185.00	51		
.951-.980	102	185.01-UP	50		
.981-UP	100				

**LAND USE SCHEDULES**

**2022 REAPPRAISAL**

**HARNETT COUNTY NORTH CAROLINA**

In order to comply with the procedures of North Carolina General Statutes 105-317 (c) “1” and “2” and 105-277.6 (c), Harnett County is required to develop and adopt a land use schedule of values for agriculture, horticulture and forest lands. The purpose of this schedule is to provide a uniform method of valuation based on the present value in use for qualifying lands.

After careful consideration of the available pertinent production statistics for Harnett County, North Carolina and the Use Value Manual for Agricultural, Horticultural and Forest Land prepared by the North Carolina Use Advisory Board, the following schedule of values is recommended as the standard for present use taxation for the 2022 Harnett County, North Carolina Reappraisal.

**LAND USE VALUATION SCHEDULE**

**AGRICULTURAL SCHEDULE (Rate Per Acre)**

133A	\$1200
136	\$950
137	\$1035

**HORTICULTURAL SCHEDULE (Rate Per Acre)**

133A	\$1520
136	\$1370
137	\$1295

**FORESTRY SCHEDULE (Rate Per Acre)**

133A	\$355
136	\$400
137	\$430

Rates shown are price per acre.

In lieu of detailed soil maps, the rate per class will be applied countywide.

## **Flood Zone Documentation:**

The purpose of this is to apply flood adjustments to the parcels that are located within a FEMA designated flood zone. This will be done in mass. Parcels may need further review by experienced appraisers.

Harnett County has approximately 4,500 parcels that are affected in some way by a flood zone. For this exercise we will group the flood zones into the following groups:

- Floodway
- 100 Year
- 500 Year

# LEGEND



**SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

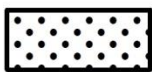
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.



**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.



**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.



**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.

**FLOOD ZONE ADJUSTMENT GUIDE**

<b>% IN FLOOD ZONE</b>	<b>0</b>	<b>1 to 10%</b>	<b>11 to 25%</b>	<b>26 to 50%</b>	<b>51 to 75%</b>	<b>76 to 100%</b>
<b>FLOOD ZONE</b>						
<b>Floodway</b>	<b>0%</b>	<b>5%</b>	<b>10%</b>	<b>25%</b>	<b>50%</b>	<b>75%</b>
<b>100 Year</b>	<b>0%</b>	<b>3%</b>	<b>5%</b>	<b>10%</b>	<b>15%</b>	<b>20%</b>
<b>500 Year</b>	<b>0%</b>	<b>1%</b>	<b>3%</b>	<b>5%</b>	<b>10%</b>	<b>15%</b>



## INCOME APPROACH TO VALUE

The Income Approach includes models for the following property groups:

- Apartments
- Hotels
- Retail Shops/Grocery Stores
- Discount Stores
- Office
- Convenience Stores
- Restaurants
- Manufacturing/Warehouse
- NNN Models
- Mobile Home Parks
- Mini Storage
- Service Shop/Service Garage
- Franchise Drug Store
- Franchise Restaurant
- Franchise Retail
- Medical Office
- Motels
- Nursing Home
- Office/Warehouse
- Shopping Center/Mall

Income and Expense Models are developed for each property group to cover the broad range of properties located within Harnett County. Income and expense models are based on typical net lease situations. For triple net and other type leases, expense ratios should be adjusted to reflect actual or typical expenses of the landlord in this type of arrangement. Triple net leases have little to no expenses.

Economic Income is developed on a gross square foot or unit basis. Potential Gross Income is adjusted for occupancy loss to produce an Effective Gross Income. Income and Occupancy factors may be adjusted outside of the stated models for exceptional properties on an individual basis.

Expenses for management and marketing, maintenance, utilities, reserve for replacement, property taxes and other operating expenses are specified as a percentage of Effective Gross Income. Expenses are deducted from Effective Gross Income to generate a Net Income, which is then capitalized using direct capitalization. Expenses may be adjusted outside of the stated models based on the individual property.

Income Models include associated capitalization parameters:

- a) Typical financing percentage rates and terms.
- b) Cash on cash requirements.

# Schedule of Values

# Harnett County 2022

These capitalization parameters may be adjusted for lower or higher risk properties through an override of the indicated model rates. Capitalization Rates are computed excluding an effective tax rate and applied to the Net Income to generate an indicated value.

At the current time, Harnett County's tax appraisal system does not allow these models to be loaded at a table level. These models are used as a guide for individual parcels.

## APARTMENTS

		MONTHLY RENTAL RATE				EXPENSE RATIOS			CAPITALIZATION		
MODEL	EFF	1BR	2BR	3BR	4BR	VACANCY	MGMT	EXPENSES	CAP RATE	GRM	MISC
AP1	900+	1000+	1500+	2000+	2500+	5 - 10%	3 - 10%	25 - 40%	.045 - .07	7-8	\$100.00+
AP2	750	900	1100	1400	1700	5 - 10%	3 - 10%	25 - 40%	.045 - .08	7-8	\$100.00
AP3	600	650	850	1000	1200	5 - 10%	3 - 10%	25 - 40%	.06 - .09	6-7	\$100.00
AP4	500	550	650	800	900	10 - 15%	3 - 10%	30 - 50%	.06 - .10	6-7	\$100.00
AP5	400	450	525	700	800	10 - 15%	3 - 10%	30 - 50%	.07 - .11	6-7	\$50.00
AP6	250-Less	300-LESS	400-LESS	500-LESS	600-LESS	15 - 20%	3 - 10%	30 - 50%	.10 - .12	5-6	\$50.00

## HOTELS

EFFECTIVE DAILY ROOM RATES		EXPENSE RATIOS			CAPITALIZATION	
MODEL	DAILY ROOM RATES	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
H01	\$200 - UP PER NIGHT	35 - 50%	5 - 10%	40 - 60%	.08 - .10	1 - 3
H02	\$150 PER NIGHT	35 - 50%	5 - 10%	40 - 65%	.08 - .10	1 - 3
H03	\$100 PER NIGHT	35 - 50%	5 - 10%	50 - 65%	.09 - .11	1 - 3
H04	\$75 PER NIGHT	35 - 50%	5 - 10%	50 - 65%	.09 - .11	1 - 2

## RETAIL SHOPS/GROCERY STORES

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
RE1	\$10 - UP PER SQ/FT	5 - 10%	5 - 10%	20 - 40%	.06 - .10	N/A
RE2	\$10 - \$20 PER SQ/FT	5 - 10%	5 - 10%	20 - 40%	.06 - .10	N/A
RE3	\$8.50 - \$15 PER SQ/FT	5 - 10%	5 - 10%	20 - 40%	.06 - .10	N/A
RE4	\$7.50 - \$12.50 PER SQ/FT	5 - 10%	5 - 10%	25 - 50%	.06 - .11	N/A
RE5	\$6 - \$10 PER SQ/FT	10 - 15%	5 - 10%	25 - 50%	.06 - .11	N/A
RE6	\$5 - \$7.50 PER SQ/FT	10 - 15%	5 - 10%	25 - 50%	.06 - .11	N/A

# Schedule of Values

# Harnett County 2022

## DEPARTMENT/DISCOUNT STORES

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
DS1	\$6 - UP PER SQ/FT	3 - 5%	5 - 10%	25 - 40%	.05 - .09	N/A
DS2	\$4 - \$6 PER SQ/FT	3 - 5%	5 - 10%	25 - 40%	.06 - .10	N/A
DS3	\$2.50 - \$4 PER SQ/FT	3 - 5%	5 - 10%	25 - 40%	.07 - .11	N/A

## OFFICE

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
OF1	\$20 - UP PER SQ/FT	3 - 5%	3 - 5%	20 - 35%	.05 - .08	N/A
OF2	\$15 - \$20 PER SQ/FT	3 - 10%	3 - 5%	20 - 35%	.05 - .09	N/A
OF3	\$10 - \$15 PER SQ/FT	5 - 10%	5 - 10%	25 - 40%	.06 - .095	N/A
OF4	\$5 - \$10 PER SQ/FT	10 - 15%	5 - 10%	25 - 45%	.07 - .11	N/A
OF5	\$7 - LESS PER SQ/FT	10 - 15%	5 - 10%	25 - 45%	.08 - .11	N/A

## CONVENIENCE STORES

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
CS1	\$35- UP PER SQ/FT	0 - 5%	5 - 10%	08 - 10%	.05 - .10	N/A
CS2	\$20- \$30 PER SQ/FT	0 - 5%	5 - 10%	10 - 15%	.06 - .11	N/A
CS3	\$12.50- \$20 PER SQ/FT	3 - 5%	5 - 10%	15 - 30%	.07 - .11	N/A
CS4	\$8-\$12.50 PER SQ/FT	5 - 10%	5 - 10%	20 - 30%	.08 - .11	N/A
CS5	\$5 - \$8 PER SQ/FT	5 - 10%	5 - 10%	25 - 40%	.09 - .12	N/A

## RESTAURANTS

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
RS1	\$25 - UP PER SQ/FT	0 - 5%	5 - 10%	20 - 35%	.05 - .09	N/A
RS2	\$15 - \$25 PER SQ/FT	5 - 10%	5 - 10%	25 - 40%	.05 - .10	N/A
RS3	\$10 - \$15 PER SQ/FT	5 - 10%	5 - 10%	25 - 40%	.06 - .10	N/A
RS4	\$6 - \$10 PER SQ/FT	5 - 10%	5 - 10%	25 - 40%	.07 - .11	N/A
RS5	\$4 - \$6 PER SQ/FT	5 - 10%	5 - 10%	25 - 40%	.08 - .12	N/A

## MANUFACTURING/WAREHOUSE

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
MW1	\$7.50 - UP PER SQ/FT	5 - 10%	5 - 10%	25 - 40%	.05 - .09	N/A
MW2	\$4 - \$7.50 PER SQ/FT	5 - 10%	5 - 10%	25 - 40%	.05 - .10	N/A
MW3	\$2.50 - \$4 PER SQ/FT	10 - 15%	5 - 10%	25 - 40%	.06 - .10	N/A
MW4	\$1 - \$2.50 PER SQ/FT	10 - 15%	5 - 10%	40 - 55%	.07 - .11	N/A

# Schedule of Values

# Harnett County 2022

## NNN MODELS

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
NN1	\$20 - UP PER SQ FT	0 - 3%	5 - 10%	10 - 15%	.05 - .08	N/A
NN2	\$25 - \$40 PER SQ/FT	0 - 3%	5 - 10%	10 - 15%	.05 - .08	N/A
NN3	\$7.50 - UP PER SQ/FT	0 - 5%	5 - 10%	05 - 10%	.05 - .09	N/A

## MOBILE HOME PARKS

ECONOMIC RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT PER SITE	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
MH1	\$125 - UP/MONTH	5 - 10%	5 - 10%	25 - 35%	.05 - .10	5 - 6

## MINI-STORAGE

ECONOMIC RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT PER UNIT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
MS1	\$75 - UP PER MONTH	10 - 25%	5 - 10%	20 - 35%	.05 - .09	5 - 6
MS2	\$50- \$125 PER MONTH	10 - 25%	5 - 10%	20 - 35%	.05 - .09	5 - 6
MS3	\$25 - \$75 PER MONTH	10 - 25%	5 - 10%	20 - 35%	.05 - .10	5 - 6

## SERVICE SHOP/SERVICE GARAGE

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
SS1	\$15 - UP PER SQ/FT	5 - 10%	5 - 10%	10 - 15%	.06 - .08	N/A
SS2	\$5 - \$10 PER SQ/FT	5 - 10%	5 - 10%	20 - 35%	.07 - .10	N/A
SS3	\$2.50 - \$4 PER SQ/FT	5 - 10%	5 - 10%	25 - 40%	.08 - .11	N/A

## FRANCHISE DRUG STORES

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
FD1	\$18 - UP PER SQ/FT	3 - 5%	5 - 10%	05 - 10-%	.045 - .08	N/A
FD2	\$15 - \$20 PER SQ/FT	3 - 5%	5 - 10%	05 - 10%	.05 - .085	N/A

## FRANCHISE RESTURANTS

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
FR1	\$25 - UP PER SQ/FT	0 - 3%	5 - 10%	10 - 15%	.045 - .08	N/A
FR2	\$15 - \$25 PER SQ/FT	0 - 3%	5 - 10%	10 - 15%	.05 - .09	N/A

# Schedule of Values

# Harnett County 2022

## FRANCHISE RETAIL

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
RF1	\$12.50 - UP PER SQ/FT	5 - 10%	5 - 10%	05 - 15%	.06 - .08	N/A
RF2	\$7- \$12 PER SQ/FT	5 - 10%	5 - 10%	05 - 15%	.07 - .09	N/A
RF3	\$7.50 -LESS PER SQ/FT	5 - 10%	5 - 10%	05 - 15%	.07 - .09	N/A

## MEDICAL OFFICES

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
MD1	\$30 - UP PER SQ/FT	5 - 10%	5 - 10%	20 - 30%	.05 - .09	N/A
MD2	\$20 - \$30 PER SQ/FT	5 - 10%	5 - 10%	25 - 35%	.06 - .09	N/A
MD3	\$10 - \$20 - PER SQ/FT	5 - 10%	5 - 10%	25 - 35%	.07 - .10	N/A

## MOTELS

EFFECTIVE DAILY ROOM RATES		EXPENSE RATIOS			CAPITALIZATION	
MODEL	DAILY ROOM RATES	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
MO1	\$125 - UP PER NIGHT	40 - 50%	5 - 10%	40 - 60%	.06 - .10	1 - 3
MO2	\$100 PER NIGHT	40 - 50%	5 - 10%	40 - 60%	.07 - .10	1 - 3
MO3	\$85 PER NIGHT	40 - 50%	5 - 10%	50 - 65%	.08 - .11	1 - 3
MO4	\$65 PER NIGHT	40 - 50%	5 - 10%	50 - 65%	.09 - .11	1 - 2
MO5	\$50 PER NIGHT	40 - 50%	5 - 10%	50 - 70%	.10 - .12	1 - 2
MO6	\$40 PER NIGHT	40 - 50%	5 - 10%	50 - 70%	.10 - .12	1 - 2

## NURSING HOMES

ECONOMIC RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
NH1	\$1100 - UP/MONTH	5 - 10%	5 - 10%	40 - 60%	.05 - .09	N/A

## OFFICE/WAREHOUSE

ECONOMIC RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
OW1	\$10 - UP PER SQ FT	05 - 10%	5 - 10%	20 - 40%	.06 - .09	N/A
OW2	\$7.50- \$12.50 PER SQ FT	05 - 10%	5 - 10%	20 - 40%	.06 - .10	N/A
OW3	\$4.50 - \$7.50 PER SQ FT	05 - 10%	5 - 10%	20 - 40%	.07 - .10	N/A

# Schedule of Values

# Harnett County 2022

## SHOPPING CENTERS/MALL

ANNUAL SQUARE FOOT RENT		EXPENSE RATIOS			CAPITALIZATION	
MODEL	ECONOMIC RENT	VACANCY	MGMT	EXPENSES	CAP RATE	GRM
SC1	\$15 - UP PER SQ/FT	5 - 10%	5 - 10%	25 - 50%	.06 - .09	N/A
SC2	\$12.50 - \$20 PER SQ/FT	5 - 10%	5 - 10%	25 - 45%	.07 - .10	N/A
SC3	\$7.50 - \$12.50 PER SQ/FT	5 - 10%	5 - 10%	25 - 45%	.08 - .10	N/A

## Neighborhood Delineation

### Purpose

Neighborhood Delineation is a study of forces from outside which could be considered to have an effect on property value; and conclusions on the typical housing, economic, social and demographic characteristics of the geographic area considered a homogeneous neighborhood. A “neighborhood” for analysis purposes is defined as the largest geographic grouping of properties where the significant economic forces of those properties are generally uniform.

The Neighborhood Data Form serves three (3) main functions:

1. To provide an opinion of the typical structure, economic factors and conditions within an area considered a neighborhood. Appraisers use this information to provide a benchmark to compare each property within the neighborhood with each other.
2. To provide a generally similar geographic area to use as a statistical base for sales comparison, both during the 2022 Reappraisal and years later to measure change and update values accordingly.
3. Provide a basis to allow development of computer assisted land price tables (CALP).

Significant Characteristics Considered:

1. Physical Boundaries
  - a. Natural - as rivers, mountains, woods, streams, etc.
  - b. Manmade - as roads, highways, railroads, streets, corporation boundaries, etc.
2. Housing Characteristics - such as type, quality, age and condition.
3. Occupancy - as % of homes owner-occupied or tenant-occupied, and % of vacant structures.
4. Predominant land use and anticipated changes.
5. Typical land size and land valuation.
6. Neighborhood life cycle.
7. Estimates of market value ranges.

## **INSTRUCTIONS FOR NEIGHBORHOOD DELINEATION FIELD ANALYSIS**

Step 1 - Produce large scale maps for the county, which ideally show all streets, roads and significant physical features as rivers, lakes, railroads, etc.

Step 2 - Establish preliminary neighborhood boundaries on base maps using known physical and governmental features as boundaries. A general rule would be to consider all physical separation points as, rivers, arterial streets, corporation lines, lakes, commercial-industrial areas, highways, etc., as a definite neighborhood boundary.

Step 3 - Assemble and analyze supplementary material for the community as available and useful.

Examples would include:

- Listing of established subdivisions
- Zoning maps and zoning restrictions
- Planning department maps - (master development plans)
- Census Tract Statistics
- School district maps
- Redevelopment planning maps and studies
- Current and planned utility maps (sewer, public water)
- Soil maps, topographic maps, etc.
- Real estate sales data from multiple listing service and internal sales verification letters.
- Industrial plant listing, employment base summaries.

Step 4 - Begin the field inspection process by conducting a thorough, street by street visual inspection throughout the county. Based on physical observation and data collected and analyzed to date, establish individual neighborhood boundaries, recognizing the specific delineation points where the properties begin to represent significant physical and economic changes from adjacent areas.

Step 5 - After establishing boundaries of each neighborhood;

A - Fill out the neighborhood data form and assign an identification number.

B - Post the established neighborhood boundaries and identification numbers to a master map.

Step 6 - Establish final boundaries and permanent neighborhood numbers and post both to the Project Master Map and Individual Field Maps used for field appraisal.



Step 7 - Determine through manual or computerized analysis the comparability of all neighborhoods. The theory here is, even though various neighborhoods may be physically separated, if the predominant value analysis characteristics such as value range, housing characteristics, neighborhood type, etc., are similar, then it is desirable to group similar neighborhoods and thereby create a larger sales data base for comparable property value analysis.

SUMMARY - Keep in mind during the neighborhood analysis process, our primary purpose is to use the neighborhoods established to develop a statistical measuring base for pooling and analyzing sales data, and subsequently using this data to determine market value for individual properties via the comparable market data approach.

**UNIFIED DEVELOPMENT ORDINANCE**

**OF**

**HARNETT COUNTY, NORTH CAROLINA**



Adopted  
October 17, 2011

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Amended June 21, 2021

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**UNIFIED DEVELOPMENT ORDINANCE  
OF  
HARNETT COUNTY, NORTH CAROLINA**

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**ARTICLE I. GENERAL PROVISIONS**

**SECTION 1.0 TITLE**

Here within, this document may be referred to as “this Ordinance”, “Ordinance”, “this document” and the like.

**SECTION 2.0 PURPOSE**

The regulations as herein set forth have been made for the purpose of promoting the health, safety, and general welfare of Harnett County residents, specifically:

- 2.1 The purpose of this Ordinance is to establish procedures and standards for the development and subdivision of land which facilitates the creation of functional neighborhoods where collective security, and community attributes enhance the quality of life for the immediate residents, adjoining neighborhoods, and the County as a whole;
- 2.2 The design goals set forth in this Ordinance aim for orderly growth and development of new neighborhoods;
- 2.3 The coordination of streets within proposed neighborhoods with existing or planned streets and with other public facilities;
- 2.4 The general distribution of population and traffic in a manner that will avoid congestion and overcrowding;
- 2.5 The dedication or reservation of farmland, forests, natural areas, parks, squares, and recreational open space areas, improved and accessible to all residents of the neighborhood to serve as community focal points;
- 2.6 Detailing of the public domain of streets, parks, and squares to promote civic awareness and responsibility;
- 2.7 Provide for pleasing visual environments to create conditions essential to public health, safety, and the general welfare;
- 2.8 The encouragement of the most appropriate use of land in the County; and
- 2.9 Protect the natural environment and other valuable resources.

**SECTION 3.0 JURISDICTION**

The provisions of this Ordinance shall apply to the unincorporated areas of Harnett County. This Ordinance shall not be applied to the extra-territorial jurisdiction or corporate limits of any municipality in the County. This Ordinance shall be permanently kept on file in the office of the Harnett

County Planning Department.

**SECTION 4.0 AUTHORITY**

The provisions of this Ordinance are adopted under authority of the General Statutes of North Carolina, with particular reference to Chapter 160D.

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

**SECTION 5.0 EXEMPTION OF BONA FIDE FARMS**

The zoning provisions of this Ordinance shall not apply to bona fide farms, as defined herein. This Ordinance does not exercise any controls over cropland, timberland, or other farmlands, nor does it exercise control over any barn or other farm buildings, including houses for persons working on said farms and their families, as long as such houses shall be in same ownership as the farm and located on the farm and shall not exceed four (4) residences. All buildings, including residences, shall meet the following setbacks:

<b>DISTANCE OF STRUCTURE FROM:</b>	<b>REQUIRED DISTANCE:</b>
Front property line or street right of way (whichever is greater)	35 ft.
Side property lines	10 ft.
Side property lines on corner lots	20 ft.
Rear Property line	25 ft.
Other Structures	10 ft.
Structures less than 600 sq. feet from property line	5 ft.

The use of any bona fide farm property for any non-farm purposes shall be subject to the regulations of this Ordinance, with the exception of those uses determined to be agritourism, as defined by this Ordinance. In no case shall structures erected for non-farm purposes be exempt from the North Carolina State Building Code or other applicable local, State, or Federal regulations.

**SECTION 6.0 EFFECTIVE DATE**

This Ordinance shall be effective from and after the date of its adoption by the Harnett County Board of Commissioners.

**SECTION 7.0 INTERPRETATION**

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

- A. Considered as minimum requirements;
- B. Deemed neither to limit nor repeal any other powers granted under the North Carolina General Statutes; and
- C. In all references to other documents, including but not limited to statutes, plans, and titled works, said references shall be assumed to mean the most current version of that document.



### **SECTION 8.0 CONFLICT WITH OTHER LAWS OR REGULATIONS**

It is not intended by this Ordinance to interfere with, abrogate, or annul any easements, covenants, or other agreements between private parties. Wherever the provisions of this Ordinance conflict with the provisions contained in any other local, State, or Federal regulation, the more restrictive provisions shall govern.

### **SECTION 9.0 REPEAL PROVISIONS**

The provisions and requirements of this Ordinance supersede all the provisions and requirements of the pre-existing Harnett County Subdivision Regulations and Zoning, Vested Rights, Flood Damage Prevention, Water Supply Watershed Management and Protection, Manufactured Home Park, Communications Tower, Airport Height Control, and Historic Preservation Ordinances.

### **SECTION 10.0 SEVERABILITY**

If for any reason one or more sections, sentences, clauses, or parts of this Ordinance are held invalid, such judgment shall not affect, impair, or invalidate the remaining provisions of this Ordinance.

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## **ARTICLE II. NONCONFORMITIES**

### **SECTION 1.0 GENERAL**

Except as specifically provided in this Article, it shall be unlawful for any person to engage in any activity that causes an increase in the extent of nonconformity of a nonconforming situation.

- A. A nonconforming use may be extended throughout any portion of a completed building that, when the use was made nonconforming by this Ordinance, or adoption of ordinances repealed by this Ordinance, was manifestly designed or arranged to accommodate such uses. However, a nonconforming use may not be extended to additional buildings or to land outside the original buildings.
- B. A nonconforming use of open land may not be extended to cover more land than was occupied by that use when it became nonconforming, except that a use that involves the removal of natural materials from the lot (e.g., a quarry) may be expanded to the boundaries of the lot where the use was established at the time it became nonconforming, if 10 percent (10%) or more of the earth products had already been removed at such time that zoning was adopted at the same location.
- C. Where a nonconforming situation exists, the equipment or processes may be changed if these or similar changes amount only to changes in degree or activity rather than changes in kind and no violations of other Articles of this Ordinance occur.
- D. Physical alteration of structures or the placement of new structures on open land are unlawful if they result in:
  1. An increase in the total amount of space devoted to a nonconforming use; and/or
  2. Greater nonconformity with respect to dimensional restrictions such as yard requirements, height limitations, or density requirements.
- E. Minor repairs to and routine maintenance of property where nonconforming situations exist are permitted and encouraged.

### **SECTION 2.0 NONCONFORMING LOT OF RECORD**

A vacant lot of record established prior to the effective date of this Ordinance, or adoption of ordinances repealed by this Ordinance, which does not conform to the minimum lot requirement of the district in which it is located may be used as a building site for a use permitted within that district provided:

- A. All construction and the location of the building(s) shall be in accordance with the applicable front, side, and rear yard requirements of the zoning district in which located.
- B. The existing or proposed water and sewage disposal system is approved by the Harnett County Health Department and Harnett County Department of Public Utilities, as appropriate; and
- C. All uses serviced by a private septic tank system shall have a minimum lot area of not less than 15,000 square feet of suitable or provisionally suitable soil, except in the case of a Manufactured Home Park.

### **SECTION 3.0 NONCONFORMING USE**

The construction or erection of any nonconforming use may be completed provided:

- A. All construction is done pursuant to a validly issued building permit; and/or
- B. If a minor subdivision has been approved and improvements completed (i.e. streets, water, and/or sewer) or a major subdivision has been approved and a multi-section manufactured home has been permitted and occupied on one (1) or more lots in the subdivision prior to adoption of zoning at the same location, then the owner of a lot in any such subdivision may place a multi-section manufactured home on any other lot in the subdivision for residential purposes, provided all requirements of the Ordinance are met regarding

front, side, and rear yard setbacks, and provided the water and sewage disposal systems have been approved by the Harnett County Health Department and the Harnett County Department of Public Utilities, as appropriate.

#### **SECTION 4.0 NONCONFORMING STRUCTURES**

Any structure used for single family residential purposes and maintained as a nonconforming use or structure may be enlarged or replaced with a similar structure of a larger size, so long as the enlargement or replacement does not create new nonconformities or increase the extent of existing nonconformities with respect to yard size and setback requirements. In particular, a manufactured home may be replaced with a larger manufactured home, and a “single-wide” manufactured home may be replaced with a “double-wide” multi-section manufactured home. This paragraph is subject to the limitations stated in Section “Continuation of Nonconforming Situations” of this Article. A structure that is nonconforming in any respect or a structure that is used in a nonconforming manner may be reconstructed or replaced if partially or totally destroyed, subject to the following restrictions:

##### **4.1 Residential Structure Nonconformities**

A residential structure that is nonconforming in any respect and is partially or totally destroyed may be reconstructed or replaced, subject to the following restrictions:

- A. The replacement residential structure is similar in construction and design to the former structure. Provided however, that a stick built, single family residence may only be replaced with another stick built, single family residence and a manufactured home may be replaced with another manufactured home or a stick built, single family residence.
- B. A letter granting approval for the replacement or reconstruction of a damaged residential structure with a similar residential structure is obtained from the Administrator within 12 months from the time the damage or destruction took place.
- C. Notwithstanding Section “General”, Item (D) (above), a larger, single family residential structure may be constructed in place of a smaller one and larger manufactured home intended for residential use may replace a smaller one. The reconstructed building may not be more nonconforming with respect to dimensional restrictions such as yard requirements, height limitations, or density requirements, and such dimensional nonconformities shall be eliminated if that can reasonably be accomplished without unduly burdening the reconstruction process or limiting the right to continue the nonconforming use of such building.

##### **4.2 Nonresidential Structure Nonconformities**

Any other structure that is nonconforming in any respect or a structure that is used in a nonconforming manner may be reconstructed or replaced if partially or totally destroyed, subject to the following restrictions:

- A. A land use and zoning permit is obtained from the Administrator within 12 months from the time the damage or destruction took place.
- B. The total amount of space devoted to a nonconforming use may not be increased.
- C. The reconstructed building may not be more nonconforming with respect to dimensional restrictions such as yard requirements, height limitations, or density requirements, and such dimensional nonconformities shall be eliminated if that can reasonably be accomplished without unduly burdening the reconstruction process or limiting the right to continue the nonconforming use of such building.

#### **SECTION 5.0 NONCONFORMING SIGNS**

All nonconforming signs existing on the effective date of adoption of zoning at the location of said

sign may remain in place subject to the following requirements:

### 5.1 Continuation of Nonconforming Signs

A. All existing nonconforming signs shall adhere to the following regulations (excluding Outdoor Advertising /Billboard signs):

1. No nonconforming sign shall have any changes made in the words or symbols used or the message displayed on the sign unless the sign is specifically designed for periodic change of message (for example, billboards). However, this Ordinance shall not prohibit the normal maintenance of signs to keep them properly maintained.
2. No nonconforming sign shall be structurally altered so as to change the shape, size, type, or design of the sign, nor shall any nonconforming sign be relocated.
3. The addition of lighting or illumination to existing nonconforming signs is specifically prohibited as reasonable maintenance; however such lighting may be permanently removed from such sign structure.
4. No nonconforming sign shall be allowed to remain after the activity, business, or use to which it was related has been discontinued.

B. Maintenance & Repair of Nonconforming signs

1. Nonconforming signs shall be allowed to perform reasonable repair and maintenance. The following activities are considered to be reasonable repair and maintenance (No Building permit shall be needed to make the following repairs with exception of Items c & e below):
  - a. Change of message or copy on the sign face;
  - b. Replacement of border and trim, stringer, or panel, with like material;
  - c. Repair and replacement of a pole(s), with like material;
  - d. Alterations of the dimensions of painted bulletins incidental to copy change; and
  - e. Any net decrease in the outside dimensions of the advertising copy portion of the sign; but if the sign face or faces are reduced they may not thereafter be increased.
2. A nonconforming sign may continue as long as it is not abandoned, destroyed, discontinued, or significantly damaged as defined by this Ordinance. When the combined damage to the face and support poles appears to be significantly damaged the sign owner shall request the Harnett County Planning Department to review the damaged sign, including salvageable sign components, prior to the repairs being made. Should the sign owner perform repairs without notification to the Planning Department, the permit may be revoked or the sign shall be removed. To determine the percent of damage to the sign structure, the only components to be used to calculate this value are the sign face and support pole(s). The percent damage shall be calculated by dividing the unsalvageable sign components by the original sign structure component quantities, using the following criteria:

a. Signs on Wooden Poles

The percentage of damage attributable to poles shall be 50 percent (50%) and the percentage of damage attributable to sign face shall be 50 percent (50%).

b. Signs on Steel Poles, Beams, or Monopoles

The percentage of damage attributable to poles shall be 80 percent (80%) and the percentage of damage attributable to sign face shall be 20 percent (20%).

C. Nonconforming Outdoor Advertising / Billboard signs

1. As per G.S. 136-133.2, existing nonconforming outdoor advertising signs shall be allowed to be repaired or reconstructed so long as the square footage of its advertising surface area is no increased. This also includes the changing of an existing multipole outdoor advertising structure to a new monopole structure.
2. All nonconforming outdoor advertising signs that are required to be permitted by the North Carolina Department of Transportation, shall maintain all required permits in good standing for the life of the nonconformity. If at any point the NCDOT revokes these permits, the nonconforming sign shall come into compliance with current regulations or be removed.

## 5.2 Removal of Nonconforming Signs

Upon failure to comply with any of the above requirements, the Administrator shall cause the removal of any nonconforming signs as hereafter provided.

- A. The Administrator or his designated agent shall give the owner of the nonconforming sign notice of the violation. Notice to the owner or the occupant of the premises on which the sign is located shall be sufficient.

## 5.3 Exception

Relocation of existing, nonconforming outdoor advertising signs located within the Highway Corridor Overlay (HCO) District shall be exempt from the regulations set forth in this Article, only as provided below:

- A. Relocation of existing, nonconforming outdoor advertising signs shall be permitted in cases where the location of the sign is preventing the location of a new business;
- B. The property on which the outdoor advertising sign is currently located and the proposed new location shall be under the same ownership;
- C. Relocated outdoor advertising signs shall meet Sub-sections “Maximum Display Area”, “Height Regulations”, “Setback Requirements”, and “Lighting” of Section “Outdoor Advertising Signs”;
- D. In regards to spacing requirements, the proposed outdoor advertising sign shall comply with the most recent version of NCDOT’s *Regulations for the Control of Outdoor Advertising in North Carolina*; and
- E. Relocation of the outdoor advertising sign shall not be permitted until the first permit is issued on the new business.

## **SECTION 6.0 NONCONFORMING MANUFACTURED HOME PARKS**

### **6.1 Existing, Unpermitted Manufactured Home Parks**

The purpose of this Section is to provide for the permitting of previously unpermitted, nonconforming manufactured home parks, existing prior to September 15, 2003.

#### *6.1.1 Eligibility*

- A. Application shall be for a minimum of four (4) manufactured homes.

- B. Previously permitted manufactured home parks that are now unpermitted shall not be eligible for permitting under this Section.
- C. Manufactured home subdivisions, unless entirely included under single ownership, are not eligible.
- D. Application shall be for either one (1) parcel of land or two (2) or more contiguous parcels. In no case shall two (2) or more noncontiguous parcels be considered eligible.

*6.1.2 Permitting Procedure*

- A. A complete application shall be submitted to the Harnett County Planning Department. The Planning Department shall establish criteria for a complete application. All requirements shall be submitted with the application.
- B. Upon receipt of a complete application, the Administrator, or his designee, shall conduct a manufactured home park inspection. All requirements included in the “Manufactured Home Park Inspection Checklist”, available at the Planning Department Office, shall be met.
- C. The Administrator shall cause to be issued a provisional certificate of zoning compliance for said application following a passing manufactured home park inspection.

*6.1.3 Initial Zoning Verification Requirements*

- A. Manufactured home parks permitted under the provisions included in this Section shall meet the requirements set forth in Subsection “Standards for New & Altered Manufactured Home Parks” of Section “Manufactured Home Park” of Article V “Use Regulations” and Subsection “Buffering & Landscaping” of Article VII “Development Design Guidelines” of this Ordinance. Parks permitted under said provisions shall be granted a probationary certificate of zoning compliance, valid for a period of 12 months.
- B. At the conclusion of a 12 month period a manufactured home park inspection shall be performed. Passing manufactured home parks shall be issued a standard certificate of zoning compliance. Failure to meet said requirements shall result in the forfeiture of the certificate of zoning compliance.

**6.2 Existing, Permitted Manufactured Home Parks**

The purpose of this Section is to regulate permitted, nonconforming manufactured home parks.

*6.2.1 Parks Existing Prior to September 15, 2003*

Manufactured Home Parks existing prior to September 15, 2003 shall, within 12 months, be required to comply with Subsections “General Provisions” and “Maintenance of Park & Facilities” of Section “Manufactured Home Park” of Article V “Use Regulations”, and Section “Manufactured Home Park Certificate of Zoning Compliance” Section of Article III “Development & Subdivision Review, Permitting, & Approval Requirements” of this Ordinance.

*6.2.2 Alteration & Expansion of Existing Parks*

Existing parks shall not be allowed to alter or expand the number of lots or acreage unless the park receives approval as required by Subsection “Manufactured Home Park Site Plan” of Article III “Development & Subdivision Review, Permitting, & Approval Requirements”, and complies with the requirements set forth in this Ordinance.

*6.2.3 Manufactured Homes*

After September 15, 2003 no manufactured home built prior to July 15, 1976 will be allowed to locate or move within a manufactured home park or within the jurisdiction of Harnett County.

## **SECTION 7.0 NONCONFORMING COMMUNICATIONS TOWERS**

Communications towers existing prior to the adoption of the Communications Tower Ordinance on December 4, 2000 or permitted prior to the adoption of this Ordinance shall be allowed to continue to operate provided they met the requirements set forth by Harnett County at the time of final inspection; not including any communications towers that are currently in violation of this Ordinance and pre-existing Communications Tower Ordinance of Harnett County.

## **SECTION 8.0 CONTINUATION OF NONCONFORMING SITUATIONS**

For purposes of determining whether a right to continue a nonconforming situation is lost pursuant to this Article, all of the buildings, activities, and operations maintained on a lot are generally to be considered as a whole. For example, the failure to rent one (1) space in a nonconforming manufactured home park for 180 days shall not result in the loss of the right to rent that space thereafter so long as the manufactured home park as a whole is continuously maintained and has a valid certificate of zoning compliance. But if a nonconforming use is maintained in conjunction with a conforming use, discontinuance of a nonconforming use for the required period shall terminate the right to maintain it thereafter. And so, if a manufactured home is used as a nonconforming use on a residential lot where a conforming residential structure also is located, removal of that manufactured home for 180 days terminates the right to replace it.

### **8.1 Change of Nonconforming Uses**

Any nonconforming use may be changed to a conforming use, or with the approval of the Board of Adjustment, to any use more in character with the uses permitted in the district. In permitting such changes, the Board of Adjustment may require appropriate conditions and safeguards in accordance with the provisions of this Ordinance.

### **8.2 Abandonment & Discontinuance of Nonconforming Situations**

- A. When a nonconforming use is discontinued for a consecutive period of 180 days, the property involved may thereafter be used only for conforming purposes.
- B. If a structure or operation is vacant or discontinued at the effective date of this Ordinance, the 180 day period, for purposes of this Article, shall begin at such date. In cases when a manufactured home is declared abandoned by the Administrator, such 180 day period shall expire upon official date of said declaration.

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## **ARTICLE III. DEVELOPMENT & SUBDIVISION REVIEW, PERMITTING, & APPROVAL REQUIREMENTS**

### **SECTION 1.0 COMMON REVIEW PROCEDURES**

#### **1.1 Fees**

The Board of Commissioners shall set a fee or fees, payable to Harnett County, North Carolina, to be paid by the applicant/owner(s) to cover the necessary processing, administrative, review, advertising, if applicable, and related costs of all permits and plan reviews. The set fee shall be posted in the County's Planning Department Office.

### **SECTION 2.0 PERMIT REQUIREMENTS**

#### **2.1 Land Use & Zoning Permit**

- A. After the adoption of this Ordinance, it shall be unlawful to establish, move, or alter any use other than a bona fide farm or obtain a permit from the Health Department unless a land use and zoning permit is applied for and issued by the Administrator. The Administrator shall maintain a record of all land use and zoning permits. Failure to obtain a land use and zoning permit shall be a violation of this Ordinance and punishable under Article "Enforcement & Penalties" of this Ordinance. In no case shall a land use and zoning permit be issued for a building, or portion thereof, which is located on a parcel of land that is currently in violation of any provisions of this Ordinance.

##### *2.1.1 Application for Land Use & Zoning Permits*

Owner(s) or owners' agent shall submit application for a land use and zoning permit and all information that is necessary for staff to determine if all requirements of this Ordinance are being met. The land use and zoning permit application shall including the following:

- A. Scale drawing showing the information listed below. A surveyed drawing is required for all lots 10 acres or less;
1. The actual dimensions and shape of the lot to be built upon
  2. The exact sizes and locations on the lot of buildings already existing, if any
  3. The location and dimensions of the proposed building or alteration
- B. Existing or proposed uses of the building and land;
- C. The number of families or rental units the building is designed to accommodate;
- D. Conditions existing on the lot, and such;
- E. Other matters and/or information as may be necessary to determine conformity with, and provide for the enforcement of this Ordinance;
- F. Other information as may be required by the Administrator; and
- G. No deed, conditional sales agreement, or instrument of transfer copy shall be required of any applicant who is making application for property which is the subject of intestate succession.

##### *2.1.2 Distribution of Application*

One (1) copy of the submittal materials shall be kept by the Administrator after he shall have marked such copy either as approved or disapproved and issued a land use and zoning



permit. The second copy of the plans, similarly marked, shall be retained by the Department of Public Health.

### *2.1.3 Construction & Use to be as Stated on Land Use & Zoning Permit*

Land use and zoning permits issued on the basis of plans and applications approved by the Administrator authorize only the use, arrangement, and construction set forth in such approved plans and applications. Use, arrangement, or construction at variance with that authorized shall be deemed a violation of this Ordinance and punishable as provided by Article “Enforcement & Penalties” of this Ordinance.

### *2.1.4 Expiration of Land Use & Zoning Permit*

If the work described in any land use and zoning permit has not begun within 365 days from the date of issuance thereof, said permit shall expire. If after commencement, the work is discontinued for any period of 365 days, the permit shall immediately expire and further work as described in the expired permit shall not proceed unless and until a new land use and zoning permit has been obtained.

### *2.1.5 Right of Appeal*

If a land use and zoning permit is denied, the applicant may appeal within 30 days of the action of the Administrator to the Board of Adjustment.

## **2.2 Temporary Land Use & Zoning Permit**

### *2.2.1 Temporary Events*

A temporary land use and zoning permit may also be issued for temporary events, such as bazaars, carnivals, religious meetings, or seasonal special events, provided that such events shall comply with the requirements for such in Article V “Use Regulations” of this Ordinance.

### *2.2.2 Temporary Recreational Vehicles*

- A. A temporary land use and zoning permit for a recreational vehicle may be issued for a period of 180 days, renewable for an additional 30 days from staff, or longer as approved by the Board of Adjustment if it is deemed reasonable to allow completion of work, when an existing or proposed primary or secondary residence or commercial facility is deemed uninhabitable due to renovation or construction. Application shall be made for a temporary land use and zoning permit before the use is initiated and not prior to application for a building permit for construction of the primary or secondary residence or commercial facility. The temporary land use and zoning permit shall expire 30 days after issuance of a Certificate of Occupancy (CO) for the primary or secondary residence or commercial facility.
- B. One (1) recreational vehicle or travel trailer may be parked on the rear or side yard of a lot where a religious assembly structure is located and said recreational vehicle or travel trailer can be used as living quarters by pastors, evangelists, missionaries, gospel singing groups, or church workers affiliated with said religious assembly structure.

## **2.3 Certificate of Occupancy (CO) & Building Permits**

- A. No new building or part thereof shall be occupied, no addition or enlargement of any existing building shall be occupied, no existing building after being altered or moved shall be occupied, and no change of occupancy shall be made in any existing building or part thereof, until the Building Inspector has

issued a certificate of occupancy. The change of occupancy provision shall not apply to rooms intended for transient rental or to re-rental of individual apartment rentals.

- B. Prior to issuance of a certificate of occupancy on all manufactured homes and nonresidential development, a zoning compliance inspection shall be completed under the direction of the Administrator of this Ordinance. In no case shall a building or part thereof be considered compliant with zoning regulations if the Administrator is aware that said structure or property is not in compliance with any applicable State or Federal regulations.
- C. A temporary certificate of occupancy may be issued for a portion or portions of a building which may safely be occupied prior to final completion and occupancy of the entire building.
- D. Application for a certificate of occupancy may be made by the owner(s) or owners' agent after all final inspections have been made for new buildings, or in the case of existing buildings, after supplying the information and data necessary to determine compliance with this Ordinance.
- E. In no case shall a certificate of occupancy be issued for a building, or portion thereof, which is located on a parcel of land that is currently in violation of any provisions of this Ordinance.
- F. In no case shall a building permit be issued for a parcel, or portion thereof, which has been illegally subdivided, pursuant to NCGS 160D-334.

## **2.4 Sign Permit**

The Administrator shall issue a permit for the erection, repair, replacement, or construction of outdoor advertising or business sign which meets the requirements of this Ordinance.

### *2.4.1 Filing Procedure*

Applications for permits to erect, hang, place, paint, replace, repair, or alter the structure of an outdoor advertising or business sign shall be submitted on forms obtainable from the Administrator. Each application shall be accompanied by a plan showing the following:

#### A. Outdoor Advertising Signs

In order for an application to be considered complete the applicant shall submit five (5) copies of a Site Plan drawn to scale and certified by a Professional North Carolina Land Surveyor or Engineer. The site plan for new signs or the repair of existing signs shall contain, at a minimum, those items indicated in the sign site plan requirements of this Ordinance.

#### B. Business Signs

In order for an application to be considered complete the applicant shall submit five (5) copies of a sign site plan drawn to scale. The site plan for all new, damaged, conforming, and nonconforming signs shall contain, at a minimum, those items indicated in the sign site plan requirements of this Ordinance.

#### C. Expiration of an Approved Sign Site Plan

1. Any sign permit that has received final approval shall be valid for a period of 365 days from the date the plan received approval from the Administrator. During this time the sign shall be constructed as approved. Once this period has passed the site plan shall be considered null and void. In the situation where the sign is considered to be conforming the permit may be renewed after the Planning Department has determined that the sign is still a conforming site. Each application for renewal shall constitute a new review of the application and all pertinent fees shall apply.
2. A nonconforming sign shall not be allowed to be renewed, therefore once a nonconforming site plan or permit has expired then the site plan or permit shall be considered to be null and void and the applicant shall repeat the filing process and comply with all regulations

for the placement of a conforming sign.

## **2.5 Watersupply Watershed Development Permit**

Except for a single family residence constructed on a lot deeded prior January 1, 1994, no permit required under the North Carolina State Building Code shall be issued for any activity for which a Watershed Protection Permit is required until that permit has been issued.

### *2.5.1 Watershed Protection Permit*

For purposes of this Ordinance, the land use and zoning permit shall serve as the Watershed Protection Permit.

- A. Except where a single family residence is constructed on a lot deeded prior to the effective date of this Ordinance, no building or built-upon area shall be erected, moved, enlarged, or structurally altered, nor shall any building permit be issued nor shall any change in the use of any building or land be made until a Watershed Protection Permit has been issued by the Administrator. No Watershed Protection Permit shall be issued except in conformity with the provisions of this Ordinance.
- B. Watershed Protection Permit applications shall be filed with the Administrator. The application shall include a completed application form and any supporting documentation deemed necessary by the Administrator.
- C. Prior to issuance of a Watershed Protection Permit, the Administrator may consult with qualified personnel for assistance to determine if the application meets the requirements of this Ordinance.
- D. A Watershed Protection Permit shall expire if a building permit or Watershed Occupancy Permit for such use is not obtained by the applicant within 12 months from the date of issuance.

### *2.5.2 Watershed Protection Occupancy Permit*

For purposes of this Ordinance, the required zoning inspection, performed under the direction of the Administrator, and certificate of occupancy shall serve as the Watershed Protection Occupancy Permit.

- A. The Administrator shall issue a Watershed Protection Occupancy Permit certifying that all requirements of this Ordinance have been met prior to the occupancy or use of a building hereafter erected, altered, or moved and/or prior to the change of use of any building or land.
- B. A Watershed Protection Occupancy Permit, either for the whole or part of a building, shall be applied for coincident with the application for a Watershed Protection Permit and shall be issued or denied within 10 days after the erection or structural alterations of the building.
- C. When only a change in use of land or existing building occurs, the Administrator shall issue a Watershed Protection Occupancy Permit certifying that all requirements of this Ordinance have been met coincident with the Watershed Protection Permit.
- D. If the Watershed Protection Occupancy Permit is denied, the Administrator shall notify the applicant in writing stating the reasons for denial.
- E. No building or structure which has been erected, moved, or structurally altered may be occupied until the Administrator has approved and issued a Watershed Protection Occupancy Permit.

### 2.5.3 *Special Nonresidential Intensity Allocation*

A Special Nonresidential Intensity Allocation (SNIA) may be permitted for nonresidential uses. The Harnett County Watershed Review Board is authorized to approve SNIA's as consistent with the provisions of this Ordinance.

## 2.6 Floodplain Permit

A Floodplain Development Permit shall be required in conformance with the provisions of this ordinance prior to the commencement of any development activities within Special Flood Hazard Areas as determined in Subsection "Basis for Establishing the Areas of Special Flood Hazard" of Section "Flood Damage Prevention" of Article X "Natural Resources."

### 2.6.1 *Application for Floodplain Development Permit*

Application for a floodplain development permit shall be made to the Administrator prior to any development activities located within Special Flood Hazard Areas. The following items shall be presented to the Administrator to apply for a floodplain development permit:

- A. A plot plan drawn to scale which shall include, but shall not be limited to, the following specific details of the proposed floodplain development:
  1. The nature, location, dimensions, and elevations of the area of development/disturbance; existing and proposed structures, utility systems, grading/pavement areas, fill materials, storage areas, drainage facilities, and other development;
  2. The boundary of the Special Flood Hazard Area as delineated on the FIRM or other flood map as determined in Subsection "Basis for Establishing the Areas of Special Flood Hazard" of Section "Flood Damage Prevention" of Article X "Natural Resources", or a statement that the entire lot is within the Special Flood Hazard Area;
  3. Flood zone(s) designation of the proposed development area as determined on the FIRM or other flood map as determined in Subsection "Basis for Establishing the Areas of Special Flood Hazard" of Section "Flood Damage Prevention" of Article X "Natural Resources";
  4. The boundary of the floodway(s) or non-encroachment area(s) as determined in Subsection "Basis for Establishing the Areas of Special Flood Hazard" of Section "Flood Damage Prevention" of Article X "Natural Resources";
  5. The Base Flood Elevation (BFE) where provided as set forth in:
    - a. Subsection "Basis for Establishing the Areas of Special Flood Hazard" of Section "Flood Damage Prevention" of Article X "Natural Resources"; or
    - b. Items "K" and "L" of Subsection "Duties & Responsibilities of the Local Administrator" of Section "Flood Damage Prevention" of Article X "Natural Resources"; or
    - c. Subsection "Standards for Floodplains without Established Base Flood Elevation" of Section "Flood Damage Prevention" of Article X "Natural Resources";
  6. The old and new location of any watercourse that will be altered or relocated as a result of proposed development; and
  7. Certification of the plot plan by a Professional North Carolina Land Surveyor or Engineer.
- B. Proposed elevation, and method thereof, of all development within a Special Flood Hazard Area including but not limited to:
  1. Elevation in relation to mean sea level of the proposed reference level (including basement) of all structures;

2. Elevation in relation to mean sea level to which any nonresidential structure in Zone AE, A, or AO will be flood-proofed; and
  3. Elevation in relation to mean sea level to which any proposed utility systems will be elevated or floodproofed.
- C. If floodproofing, a Floodproofing Certificate (*FEMA Form 81-65*) along with detailed back-up computations and operational plans that specify the location on a FIRM panel of flood proofing measures, the entity responsible for transportation and installation according to the design within the warning time available, and maintenance of floodproofing measures assuring their effectiveness when installed. Floodproofing certificate and back-up computations and operational plans shall be certified by a Professional North Carolina Engineer or Architect to ensure that the nonresidential floodproofed development will meet the floodproofing criteria in Item B “Nonresidential Construction” of Subsection “Specific Standards” of Section “Flood Damage Prevention.”
- D. A Foundation Plan drawn to scale which shall include details of the proposed foundation system to ensure all provisions of this Ordinance are met. These details include but are not limited to:
1. 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
  2. Openings to facilitate equalization of hydrostatic flood forces on walls in accordance with Item D “Elevated Buildings” of Subsection “Specific Standards” of Section “Flood Damage Prevention,” when solid foundation perimeter walls are used in Zones A, AO, AE, and A1-30.
- E. Usage details of any enclosed areas below the regulatory flood protection elevation.
- F. 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.
- G. Copies of all other Local, State and Federal permits required prior to floodplain development permit issuance (wetlands, endangered species, erosion and sedimentation control, stream and riparian buffers, mining, etc.).
- H. Documentation for placement of recreational vehicles and/or temporary structures, when applicable, to ensure Items F “Recreational Vehicles” and G “Temporary Nonresidential Structures” of Subsection “Specific Standards” of Section “Flood Damage Prevention” of this Ordinance are met.
- I. 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.

#### 2.6.2 Permit Requirements

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

- A. A description of the development to be permitted under the floodplain development permit;
- B. The Special Flood Hazard Area determination for the proposed development per available data specified in Subsection “Basis for Establishing the Areas of Special Flood Hazard” of Section “Flood Damage Prevention” of Article X “Natural Resources”;
- C. The regulatory flood protection elevation required for the reference level and all attendant utilities;

- D. The regulatory flood protection elevation required for the protection of all public utilities;
- E. All certification submittal requirements with timelines;
- F. A statement that no fill material shall encroach into the floodway or non-encroachment area of any watercourse, as applicable; and
- G. The flood openings requirements, if in Zones A, AO, AE, or A1-30.

**2.7 Communications Tower Permit**

*2.7.1 Permit (Level I)*

The permit issued by the Administrator as designated by this Ordinance, to an individual, corporation, partnership, or other entity to engage in the creation of amateur radio tower.

*2.7.2 Permit (Level II)*

The permit issued by the Administrator as designated by this Ordinance to an individual, corporation, partnership, or other entity to engage in co-location, attached antennas, antenna element replacements, tower mitigation, or new concealed towers, excluding amateur radio towers.

*2.7.3 Permit (Level III)*

The Special Use permit issued by the Administrator (after evidentiary hearing and approval by the Board of Adjustment) as designated by this Ordinance, to an individual, corporation, partnership, or other entity to engage in the creation of new towers, excluding amateur radio towers.

*2.7.4 Permit (Level IV)*

The Special Use permit issued by the Administrator (after evidentiary hearing and approval by the Board of Adjustment) as designated by this Ordinance, to an individual, corporation, partnership, or other entity to engage in the creation of new towers, specifically broadcast facilities.

*2.7.5 Permit Level Requirements Table*

PERMIT LEVEL	ISSUED BY	PERMIT TYPE	USE
I	Administrator	P	Amateur radio no greater than 50 feet in height
II	Administrator	P	Co-location, attached antennas, replacement and mitigation, and new concealed towers
III	BOA	C	New non-concealed towers
IV	BOA	C	Broadcast facilities

Note: P- Permitted by Right      C- Permitted Conditionally      BOA- Board of Adjustment

*2.7.6 Supplemental Review*

The County reserves the right to require a supplemental review for any Permit (Level I, II, III, or IV) subject to the following:

- A. Where due to the complexity of the methodology or analysis required to review an application for a Permit (Level I, II, III or IV) facility, the County may require the applicant to pay for a technical review by a third party expert, the costs of which shall be borne by the applicant and be in addition to other applicable fees. Schedules of current fees are listed in the Harnett County Fee Schedule.
- B. Based on the results of the expert review, the approving authority may require changes to the

applicant's application or submittals.

- C. The supplemental review may address any or all of the following:
  - 1. The accuracy and completeness of the application and any accompanying documentation.
  - 2. The applicability of analysis techniques and methodologies.
  - 3. The validity of conclusions reached.
  - 4. Whether the proposed communications facility complies with the applicable approval criteria set forth in these codes.
  - 5. Other items deemed by the County to be relevant to determining whether a proposed communications facility complies with the provisions of these codes.

## **2.8 Special Use Permit**

The development and execution of this Ordinance is based on the division of the County into districts, within which the use of land and buildings and the bulk and location of buildings and structures in relation to the land are substantially uniform. It is recognized, however, that there are some land uses which are basically in keeping with the intent and purposes of the district, but which may have an impact on the area around them which can only be determined by review of the specific proposal. These uses may be established, under certain conditions and with proper controls, in such a manner as to minimize any adverse effects. In order to insure that these uses, in their proposed locations, would be compatible with surrounding development and in keeping with the purposes of the district in which they are located, their establishment shall not be as a matter of right, but only after review and approval of a Special Use permit as hereinafter provided.

### *2.8.1 Initiation of Special Use Permit*

Any person having freehold interest in land, or a possessory interest entitled to exclusive possession, or a contractual interest which may become a freehold interest or an exclusive possessory interest, and which is specifically enforceable, may file an application to use such land for one (1) or more of the Special Uses provided for in this Ordinance in the zoning district in which the land is located.

### *2.8.2 Application for Special Use Permit*

Application for Special Use permits, signed by the applicant and property owner, shall be presented to the Administrator. Each application shall contain or be accompanied by such legal descriptions, maps, plans, and other information so as to completely describe the proposed use and existing conditions. Special Use permit applications shall include information as to sign type and placement, if applicable. The application shall be forwarded to the Harnett County Board of Adjustment for review at their next available meeting, as determined by the application submittal schedule.

### *2.8.3 Compliance with Other Codes*

- A. Granting of a Special Use permit does not exempt the applicant from complying with all of the requirements of building codes and other ordinances.
- B. In cases where a Special Use permit is applied for as a means to resolve a violation of this Ordinance, the use shall be ceased at notice of violation and until full compliance with this Ordinance is obtained. That is, approval of the Special Use permit application shall not constitute

a granting to proceed with the use, only that the use approval has been granted and the applicant/owner may begin the permitting process to legally conduct said use.

#### *2.8.4 Revocation*

In any case where the conditions of a Special Use permit have not been or are not being complied with, the Zoning Administrator shall give the permittee notice of intention to revoke such permit at least 10 days prior to a Board of Adjustment review thereof. After conclusion of the review, the Board of Adjustment may revoke such permit.

#### *2.8.5 Expiration*

- A. In any case where a Special Use permit has not been exercised within the time limit set by the Board of Adjustment, or within two (2) years if no specific time limit has been set, then without further action, the permit shall be null and void. "Exercised" as set forth in this section shall mean that binding contracts for the construction of the main building have been let; or in the absence of contracts that the main building is under construction to a substantial degree; or that prerequisite conditions involving substantial investment are contracted for, in substantial development, or completed.
- B. When construction is not a part of the use, "exercised" shall mean that the use is in operation in compliance with the condition set forth in the permit.

### **2.9 Manufactured Home Park Certificate of Zoning Compliance**

All manufactured home parks shall maintain a valid certificate of zoning compliance. A certificate of zoning compliance issued to the owner of Manufactured Home Park shall constitute the authority to utilize the property as a manufactured home park in accordance with this Ordinance. The certificate of zoning compliance shall expire after a two (2) year period or at the sale of the park to a new owner(s), whichever comes first, and shall be renewed to remain valid. The Planning Department shall withhold all permits to parks without a valid certificate of zoning compliance. Failure to obtain a certificate of zoning compliance within six (6) months of September 15, 2003 shall be subject to Article "Enforcement & Penalties" of this Ordinance.

#### *2.9.1 Issuance of Certificate of Zoning Compliance*

Upon completion of construction of the manufactured home park or each phase, the developer shall then apply for a certificate of zoning compliance.

#### *2.9.2 Amended Certificate of Zoning Compliance*

Any reduction of the total number of lots, shall require the issuance of an amended certificate of zoning compliance. The transfer of a manufactured home space or spaces either by sale or by any other means within the manufactured home park is prohibited.

#### *2.9.3 Department of Public Health*

##### A. Biannual Inspection

All manufactured home parks in Harnett County shall be inspected by the Harnett County Department of Public Health at least once every two (2) years. The certificate of zoning compliance of parks with sewage problems based on current 15A NCAC 18A.1900 may be revoked upon request of the Harnett County Department of Public Health.



B. Validation of Sanitary Sewage System

Upon determination that an existing sanitary sewage system has a valid operation permit or a valid certificate of completion and is operating properly in a manufactured home park, the Harnett County Department of Public Health shall issue authorization in writing for a manufactured home to be connected to the existing system and to be occupied following the requirements set forth in this Ordinance and by the Harnett County Department of Public Health.

*2.9.4 Registration of Occupants*

Every manufactured home park owner shall maintain an accurate register containing a record of all occupants, owner(s) of manufactured homes, and a description of each home in the park. The register shall be available for inspection at all times by authorized County representatives. In accordance with NC General Statute 105-316(a)(1), park owner(s) shall furnish to the County Tax Supervisor a copy of the register before January 1<sup>st</sup> of each calendar year.

**2.10 Other Governmental Permits**

All permits required by local, State, and Federal agencies shall be obtained as appropriate. Refusal or inability to receive permits required by other governmental agencies may result in non-issuance of a Certificate of Occupancy. Failure to obtain proper permits may result in pursuit of a violation, as provided herein.

**2.11 Permit Expiration**

Unless otherwise specified herein, all permits shall be valid for a period of 365 days. This statement shall not apply to building permits.

**SECTION 3.0 GENERAL DEVELOPMENT REVIEW REQUIREMENTS**

**3.1 Foundation & Setback Verification Survey**

- A. A foundation and setback verification survey shall be performed and certified by a Professional North Carolina Land Surveyor.
- B. A setback verification survey shall be required on all residential lots equal to or less than 15,000 square feet or when the proposed structure is within 10 percent (10%) of any required setback.
- C. The Administrator may require a foundation or setback verification survey in cases where it cannot be determined that required building setbacks are being met on nonresidential lots or on residential lots greater than 15,000 square feet.

**3.2 General Plat & Vicinity Map Criteria**

*3.2.1 Plat Review*

- A. The Harnett County E-911 Addressing Department shall review all plats to ensure that all roads are legible and correctly identified as set forth in this Ordinance.
- B. Any road drawn on a map/plat shall be identified with the approved E-911 Addressing road name.
- C. Any State maintained road drawn on a map/plat shall be identified with the North Carolina Department of Transportation State road number and the approved E-911 Addressing road name.

- D. Major highways such as US, NC, and Interstates shall be identified only with the approved E-911 Addressing road name (example: US 421 N, US 421 S, NC 27 E, NC 27 W, I-95 etc.)
- E. New or existing easements shall be reviewed to determine if a new street name is required. This shall be determined by the number of lots, the placement of the lots, existing homes, and addresses located on the easement.

### 3.2.2 *Vicinity Map*

- A. Any State maintained road drawn on the vicinity map shall be identified with the NCDOT state road number.
- B. Major highways such as US, NC, and Interstate shall be identified as US 421, US 401, etc, NC 27, NC 210, etc, and I-95.
- C. Roads that are not State maintained shall be identified with the approved E-911 Addressing road name.

## 3.3 Traffic Impact Analysis

A traffic impact analysis shall be submitted to the Planning Department as part of the site plan submittal for all developments and subdivisions if required by NCDOT and/or with all regional site plans, as defined by this Ordinance.

## **SECTION 4.0 SITE PLAN REVIEW REQUIREMENTS**

### 4.1 General Site Plan Requirements

#### 4.1.1 *Site Plan Review Exemptions*

The following activities or uses shall be exempt from a site plan review, unless such site plan is required elsewhere within this Ordinance:

#### A. Public Projects

The construction of any public street or utility service line, whether publicly or privately owned, as part of a public project.

#### B. Maintenance

Maintenance of any structure is exempt from site plan review.

#### C. Bona Fide Farm

The use or intended use of land, with or without accessory structures, for purposes of agriculture, raising of crops or animals, forestry, mariculture, and the like.

#### D. Home Occupations

As defined in the “Definitions” Article of this Ordinance.

#### E. Accessory Structures Integral to Permitted Development

Any accessory structure or use, whether temporary or permanent, integral to an approved development permitted in accordance with the provisions of this title. Such accessory structure or use shall comply with the design standards and all other sections of this title. In situations where the size or use of the accessory structure can be considered detrimental to public safety the Administrator may require the applicant to submit a site plan.

#### F. Temporary Uses, Nonmaterial

Those activities of short or temporary duration that do not materially affect the area’s natural environment, parking requirements, transportation patterns, public health, or economic values

shall be reviewed for approval by the Administrator.

#### 4.1.2 Site Plan Expiration

Any site plan that has received approval shall be valid for a period of 365 days from the date the plan received approval from the Administrator or Development Review Board. Any conditional approval or hold decision for a site plan made by the DRB or Administrator shall be valid for a period of 90 days from the date on which the decision was made. It shall be the applicant's responsibility to obtain full approval during said period. Once this period has passed the site plan shall be considered null and void unless vested rights have been established in accordance with this Ordinance. In these instances, a new review shall be obtained.

#### 4.1.3 Right of Appeal

If any site plan has been denied by the Administrator or Development Review Board the applicant has 30 days to appeal the action of the Administrator or Development Review Board to the Board of Adjustment. Beyond the decision of the Board of Adjustment, recourse shall be to the courts as provided by law.

#### 4.1.4 Site Plan Requirements

In order for a site plan to be considered complete, the applicant shall submit a site plan according to the table below. A professional survey drawn site plan shall be required for all multifamily residential, and neighborhood, community, and regional site plans. A survey drawn site plan shall be required for minor site plans if located in the Highway Corridor or Military Overlay Zoning District, or within the Airport Height Control, Water Supply Watershed, or Flood Plain regulations, or if the development is located on a nonconforming lot of record or structural nonconformity.

	SINGLE-FAMILY RESIDENTIAL	MULTI-FAMILY RESIDENTIAL	MINOR SITE PLAN	NEIGHBORHOOD SITE PLAN	COMMUNITY SITE PLAN	REGIONAL SITE PLAN
<b>TITLE BLOCK INFORMATION</b>						
Name of Project & Date (Including all Revision Dates)	X	X	X	X	X	X
Applicant/Owner(s) Contact Information (Name, Address, & Phone)	X	X	X	X	X	X
Surveyor/Engineer Contact Information (Name, Address, & Phone)	X*	X		X	X	X
Parcel ID Number/Tax ID of Tract(s)		X	X	X	X	X
Deed Reference of Tract(s)	X	X	X	X	X	X
Zoning Classification of Tract(s)	X	X	X	X	X	X
Overlay Zoning Classification & Required Notation (If Applicable)		X		X	X	X
Airport Zone Notification (If Applicable)		X	X	X	X	X
Location (Including Township, County, & State)		X	X	X	X	X
Flood Plain Depicted & Noted (Zone, Map Number, & Effective Date)	X	X	X	X	X	X
Watershed District Noted & Extent of Coverage Depicted	X	X	X	X	X	X
Land Use Classification of Tract(s)				X	X	X
<b>GENERAL REQUIREMENTS</b>						
Map Size 18" X 24" & Scale 1"=200' or Larger		X		X	X	X

	SINGLE-FAMILY RESIDENTIAL	MULTI-FAMILY RESIDENTIAL	MINOR SITE PLAN	NEIGHBORHOOD SITE PLAN	COMMUNITY SITE PLAN	REGIONAL SITE PLAN
Scale 1" = 40' or Larger	X		X			
North Point, Graphic Scale, & Vicinity Map		X	X	X	X	X
Name(s) & Location(s) of Adjacent Property Owner(s) & Use(s)		X	X	X	X	X
Existing Boundaries of Tract(s) Showing Bearings & Distances	X	X	X	X	X	X
Gross Acreage of Development	X	X	X	X	X	X
Building Envelope & Required Setbacks	X	X	X	X	X	X
Name(s) & Right(s)-of-way of Streets & State Road Number(s), Including Notation of Public or Private	X	X	X	X	X	X
Name, Location, Width, & Acreage of All Additional Easement(s) & Right(s)-of-way Within or Adjacent to Site With Explanation of Purpose & Maintenance Responsibility	X	X	X	X	X	X
Right-of-Way Notation in compliance with CTP		X		X	X	X
Existing Structure(s) Located on Site	X	X	X	X	X	X
Existing & Proposed Utilities		X		X	X	X
Signage Location, Easement, Type, & Size		X	X	X	X	X
Conceptual Plan		X		X	X	X
Driveways, Sidewalks, & Other Permanent Ground Cover	X					
Water Features Depicted, as Found on USGS Quadrangles & Harnett County Soil Survey		X		X	X	X
Required Stream Buffers/Setbacks Around Each Water Feature		X		X	X	X
Predevelopment Meeting		X		X	X	X
Additional Information Required by the Administrator	X	X	X	X	X	X
<b>BUFFERING REQUIREMENTS</b>						
Buffering Regulations		X	X	X	X	X
Streetscape Buffer (Width, Landscaping Type, & Maintenance Responsibility)		X		X	X	X
<b>STORMWATER MANAGEMENT</b>						
Drainage Easement(s) & Maintenance Responsibility		X		X	X	X
Stormwater Management Permit and Plan Submitted		X		X	X	X
Permanent Stormwater BMP Measures Shown		X		X	X	X
Stormwater Management Plan Calculations Noted		X		X	X	X
Erosion Control Plan Submitted		X		X	X	X
Stormwater Management Statement		X		X	X	X
Copy of Erosion Control Plan, if Required		X		X	X	X
Copy of Approved DENR & Stormwater Plan (If Applicable)		X		X	X	X
<b>NATURAL &amp; ENVIRONMENTAL</b>						
Topography (Max Contour Levels of 5')		X		X	X	X
Impervious Surface (% Coverage of Lot) if Applicable		X		X	X	X
Name(s) & Location(s) of Property or Buildings on the National Register of Historic Places or Locally Designated Historic Property		X		X	X	X

	SINGLE-FAMILY RESIDENTIAL	MULTI-FAMILY RESIDENTIAL	MINOR SITE PLAN	NEIGHBORHOOD SITE PLAN	COMMUNITY SITE PLAN	REGIONAL SITE PLAN
Wetlands Delineated		X		X	X	X
Natural Feature(s) Located on Site		X		X	X	X
Soils Report Provided		X		X	X	X
Open Space Calculations & Totals Noted		X				
<b>DEVELOPMENT REQUIREMENTS</b>						
Parking Lot Material & Space Typical		X		X	X	X
Curb & Gutter Shown & Noted		X		X	X	X
Parking Plan						X
Cul-De-Sac Diameter		X		X	X	X
All Parking Areas on Site (Based on Type of Business and/or Sq. Ft.)		X		X	X	X
Existing & Proposed Fencing, Screening, Gate(s) and/or Dock(s)		X		X	X	X
Existing & Proposed Mechanical Areas		X		X	X	X
Existing & Proposed Utility Areas		X		X	X	X
Existing & Proposed Trash Containment Areas		X		X	X	X
Fire Hydrant(s) & Light(s) Noted & Depicted		X		X	X	X
Hours & Days of Operation			X	X	X	X
Hazardous Materials to be Stored on Site (If Applicable)			X	X	X	X
Spillage & Pollution Prevention & Response Methods (If Applicable)			X	X	X	X
Traffic Impact Analysis						X
Detailed Description of Recreational Facilities if Provided		X				
All Required Amenities Shown, Including Typical		X		X	X	X
HOA Documents Reference All Improvements to be Maintained		X				
Homeowners Association Bylaws & Covenants to be Imposed		X				
Foundation & Setback Verification Survey Requirement Noted (If Applicable)	X					
Structure Type Noted			X	X	X	X
Building Elevations (If Applicable)			X	X	X	X
<b>CERTIFICATIONS</b>						
Ownership, Dedication, & Jurisdiction	X	X	X	X	X	X
Professional North Carolina Land Surveyor or Engineer		X		X	X	X
NCDOT (Driveway Permit Approval)		X		X	X	X
Harnett County Development Review Board (If Applicable)		X		X	X	X
<b>FEES</b>						
All Review Fees Paid	X	X	X	X	X	X
Verification of Street Sign Purchase (If Applicable)		X		X	X	X
<b>REQUIRED INSPECTION</b>						
Streets Installed in Accordance with DOT Standards		X		X	X	X
Parking Area and Drive Isle Installed as Required		X	X	X	X	X
Amenities Installed as Required (EX-Street Trees, Sidewalks, Etc.)		X	X	X	X	X
Drainage Easements are Stabilized Without Possible Erosion		X		X	X	X

	SINGLE-FAMILY RESIDENTIAL	MULTI-FAMILY RESIDENTIAL	MINOR SITE PLAN	NEIGHBORHOOD SITE PLAN	COMMUNITY SITE PLAN	REGIONAL SITE PLAN
Lighting Installed as Required		X	X	X	X	X
Fire Hydrants Installed where 6" Public Water Lines Exist		X		X	X	X
Necessary Buffering &/or Landscaping in Place or Security Guaranteed		X	X	X	X	X

## 4.2 Single Family Residential Site Plans

Single family residential site plans shall be approved by the Administrator and may be required to provide professionally drawn site plans, in accordance with this Section or as determined by the Administrator.

### 4.2.1 Required Site Plan

The Administrator shall assume no responsibility for any errors or absent information on the required site plan.

A. A professionally drawn site plan shall be required in cases if any of the following conditions apply:

1. The proposed lot is less than 15,000 square feet; or
2. The proposed lot is located within an identified watershed with impervious surface limitations; or
3. The Floodplain Administrator is unable to determine whether or not the proposed structure is located within a floodplain; and/or
4. The proposed structure is within 10 percent (10%) of the required setback.

All features for the lot to be developed that are identified on the recorded plat for such lot shall be identified on the required site plan, including but not limited to easements, wetlands, and building setbacks.

B. In no case shall the Administrator assume responsibility for drawing or assisting in creating a site plan, drawn to engineer's scale, if any of the following conditions apply:

1. The applicant is a licensed, general contractor; or
2. The proposed lot contains a recorded easement, other than for ingress/egress.

C. Accessory Structures & Additions

A site plan, meeting the requirements of this Section, shall be required for all accessory structures and additions and shall meet the regulations listed above.

### 4.2.2 Required Submittal Materials

A deed or offer to purchase on the site of the proposed development shall be submitted with the required site plan.

## 4.3 Multifamily Residential Site Plans

All proposed multifamily developments, unless expressly exempted herein, shall be subject to site plan review by the Development Review Board. No building permits shall be issued until site plan approval has been granted.

## 4.4 Nonresidential Site Plans

All proposed nonresidential developments, unless expressly exempted herein, shall be subject to site plan review by the Administrator or Development Review Board. No building permits shall be issued until site plan approval has been granted. Construction plan/drawing review for nonresidential site plans shall take place at the building plan review, unless otherwise required.

#### *4.4.1 Minor Site Plan*

Minor site plans shall be reviewed by the Administrator.

#### *4.4.2 Neighborhood Site Plan*

Neighborhood site plans shall be reviewed by the Development Review Board.

#### *4.4.3 Community Site Plan*

Community site plans shall be reviewed by the Development Review Board.

#### *4.4.4 Regional Site Plan*

Regional site plans shall be reviewed by the Development Review Board.

### **SECTION 5.0 MANUFACTURED HOME PARK SITE PLAN REVIEW REQUIREMENTS**

Prior to submitting an application to the Harnett County Board of Adjustment and Development Review Board, the developer(s) shall submit an application for a land use & zoning permit, accompanied by a preliminary site plan, and other requirements and fees as applicable, to the Administrator for review. The Administrator shall perform said review as a courtesy to advise the owner(s) of any changes or additions that may be necessary to bring the proposal into compliance with this Ordinance. Following, or in conjunction with, the Administrator review, the owner(s) may request an onsite consult with the Administrator.

#### **5.1 Approval & Denial of Manufactured Home Park Site Plan & Application**

##### *5.1.1 Approved Plan*

After receiving approval of the manufactured home park plan, from the Harnett County Board of Adjustment, Development Review Board, and other relevant agencies, the Planning Department shall issue the land use & zoning permit.

##### *5.1.2 Denied Plan*

If the park plan fails to receive approval, the reasons for such action and the recommended changes shall be provided in writing to the developer(s) or his agent.

#### **5.2 Extension & Expiration of Approval**

At a minimum, 10 percent (10%) of the total cost of construction of the manufactured home park shall have begun within one (1) year of issuance of the land use & zoning permit. If less than 10 percent (10%) of the total cost of construction has not begun within 12 months from the issued date of the land use & zoning permit, the Board of Adjustment may grant an extension of the permit if it concludes that the permit has not yet expired, and if the applicant shows reasonable cause for delay, or that conditions have not changed so substantially as to warrant a new application, not to exceed two (2) years. However, the Board of Adjustment has the authority to require the proposed park to resubmit their plan.

If, after some physical alteration to land or structures begin to take place, such work is discontinued for a period of 12 months, then the permit shall immediately expire.

### 5.3 Manufactured Home Park Site Plan Requirements

In order for a site plan to be considered complete, the applicant shall submit a site plan according to the table below. A professional survey drawn site plan shall be required for all manufactured home park site plans.

	BOARD OF ADJUSTMENT SITE PLAN	DEVELOPMENT REVIEW BOARD SITE PLAN	PARK ALTERATION SITE PLAN	EXISTING, UNPERMITTED PARK SITE PLAN
<b>TITLE BLOCK INFORMATION</b>				
Name & Address of Manufactured Home Park & Date (Including All Revision Dates)	X	X	X	X
Applicant/Owner(s) Contact Information (Name, Address, & Phone)	X	X	X	X
Professional Surveyor/Engineer Contact Information (Name, Address, & Phone)	X	X	X	
Parcel ID Number/Tax ID of Tract(s)	X	X	X	X
Deed Reference of Tract(s)	X	X	X	X
Zoning Classification of Tract(s)	X	X	X	X
Overlay Zoning Classification & Required Notation (If Applicable)	X	X	X	
Airport Zone Notification (If Applicable)	X	X	X	X
Location (Including Township, County, & State)	X	X	X	X
Flood Plain Depicted & Noted (Zone, Map Number, & Effective Date)	X	X	X	X
Watershed District Noted & Extent of Coverage Depicted	X	X	X	X
Stormwater Calculations Noted		X		
<b>GENERAL REQUIREMENTS</b>				
Map Size 18" X 24" & Scale 1"=200' or Larger	X	X	X	
North Point, Graphic Scale, & Vicinity Map	X	X	X	
Name(s) & Location(s) of Adjacent Property Owner(s) & Use(s)	X	X	X	X
Existing Boundaries of Tract(s) Showing Bearings & Distances	X	X	X	X
Gross Acreage of Development	X	X	X	X
Name(s) & Right(s)-of-way of Adjacent Streets & State Road Number(s), Including Notation of Public or Private	X	X	X	X
Name, Location, Width, & Acreage of Additional Easement(s) & Right(s)-of-way Within or Adjacent to Site	X	X	X	X
Right-of-Way Notation in compliance with CTP	X	X	X	
Building Envelope & Required Setbacks	X	X	X	
Existing & Proposed Utilities (Including Water Supply & Sewage Disposal Facilities)		X	X	X
Signage Location, Easement, Type, & Size		X	X	X
Existing Structure(s) Located on Site	X	X	X	X
All Structures to be Located on the Park Site	X	X	X	X
Easements, Open Space, & Areas Other Than for Residential Use with Explanation of Purpose & Maintenance Responsibility	X	X	X	X
Predevelopment Meeting	X		X	
Additional Information Required by the Administrator	X	X	X	X
<b>BUFFERING REQUIREMENTS</b>				



	<b>BOARD OF ADJUSTMENT SITE PLAN</b>	<b>DEVELOPMENT REVIEW BOARD SITE PLAN</b>	<b>PARK ALTERATION SITE PLAN</b>	<b>EXISTING, UNPERMITTED PARK SITE PLAN</b>
Buffer (Location, Width, and Type of Screening Option Utilized)	X	X	X	X
Street Trees	IF APPLICABLE	IF APPLICABLE	IF APPLICABLE	IF APPLICABLE
<b>STORMWATER MANAGEMENT</b>				
Drainage Easement(s) & Maintenance Responsibility		X	X	
Permanent Storm Water BMP Measures Shown		X	X	
Storm Water Management Plan Calculations Noted		X	X	
<b>DEVELOPMENT REQUIREMENTS</b>				
Total Number of Lots Proposed	X	X	X	X
Individual Lot Dimensions		X	X	
Net Acreage for Each Lot	X	X		
Address and/or Lot Number for Each Lot (As Approved by Harnett County E-911 Addressing)	X	X	X	X
Lot & Block Numbers in Consecutive Order	X	X	X	X
Phase Plan (If Applicable)		X	X	
Fire Hydrant(s) & Light(s) Noted & Depicted		X		
Topography (Max Contour Levels of Ten Feet (10'))		X		
Impervious Surface (% Coverage of Lot)		X	X	
Street(s) (Including Name, Location, Width, Linear Feet, and Note Either Public or Private)	X	X	X	X
Cul-De-Sac Diameter	X	X	X	
Traffic Circulation (Including Arrows Indicating Any One (1) Way Streets)	X	X	X	
Sidewalks (Including Location, Width, Thickness, & Slope)		X	X	
Detailed Description of Recreational Facilities if Provided	X	X	X	
Natural Feature(s) Located on Site (Including Wooded Areas, Wetlands, and Bodies of Water)	X	X	X	X
Traffic Impact Analysis, If Completed	X	X		
Off Street Parking Pads (Including Material & Typical)	X	X	X	
Existing & Proposed Trash Containment Areas (If Applicable)	X	X	X	X
<b>CERTIFICATIONS</b>				
Harnett County Development Review Board (If Applicable)		X	X	X
Ownership, Dedication, & Jurisdiction		X	X	X
Professional North Carolina Land Surveyor or Engineer		X	X	

#### 5.4 New Manufactured Home Park Site Plan

In addition to the requirements listed in “Manufactured Home Park Site Plan Requirements”, above, and applicable fees, the following items shall be submitted with all new manufactured home park requests:

##### 5.4.1 Board of Adjustment Submittal Requirements

All materials required for a Special Use permit shall be submitted, along with the following:

- A. Solid waste disposal plan
- B. Street name approval letter, provided to owner(s) by Harnett County E-911 Addressing
- C. Preliminary soils report

*5.4.2 Development Review Board Submittal Requirements*

- A. Approved driveway permit required by the North Carolina Department of Transportation (NCDOT)
- B. Engineered Storm Water Drainage Plan
- C. Certification of approval of water supply system and sewage collection systems by local, State, and Federal agencies as appropriate.
- D. Final soils report
- E. Any conditions that the Board of Adjustment attached to the project shall be indicated as appropriate.

**5.5 Manufactured Home Park Alteration Site Plan**

The Administrator may waive one (1) or more of the site plan requirements listed for manufactured home park alterations in cases of manufactured home park reductions or conversions from manufactured home lots to recreational vehicle (RV) lots.

- A. Reduction shall be via the most appropriate method available, according to the size and type of the same, and shall be as follows:

- 1. Administrative Review

Park owner(s) may reduce the number of lots within the manufactured home park via administrative approval. Said reduction shall not result in a decrease in the total acreage of the park.

- 2. Development Review Board Review

Owner(s) may apply for Development Review Board approval of a reduction in the total acreage, in addition to the reduction of the number of lots, of a manufactured home park. Such application shall be made in accordance with established application requirements and deadline and shall, at a minimum, meet the following requirements:

- a. Revised site plan shall be submitted for review and approval by Development Review Board, indicating lots and acreage to be terminated from use in said park.
- b. Every effort shall be made for uniform reduction in size of the manufactured home park. If such effort is not made, the recommendation made by the Development Review Board regarding the application may be to forward the request to the Board of Adjustment for a final decision.

- 3. Approval of Reduction

All lots to be removed from said park shall be vacated prior to issuance of an amended certificate of zoning compliance.

**SECTION 6.0 SIGN SITE PLAN REVIEW REQUIREMENTS**

A sign site plan shall be required, as outlined in Section “Sign Requirements” of Article VII “Development Design Guidelines” or elsewhere in this Ordinance. The sign site plan shall be submitted in accordance with the procedures listed herein and shall meet the requirements of this

Section.

### 6.1 Sign Site Plan Requirements

In order for a site plan to be considered complete, the applicant shall submit a site plan according to the table below:

	BUSINESS SIGN SITE PLAN	BILLBOARD REPAIR SITE PLAN	NEW BILLBOARD SITE PLAN
<b>TITLE BLOCK INFORMATION</b>			
Name of Project & Date (Including all Revision Dates)	X	X	X
Applicant/Owner(s) Contact Information (Name, Address, & Phone)	X	X	X
Surveyor/Engineer Contact Information (Name, Address, & Phone)	X	X	X
Parcel ID Number/Tax ID of Tract(s)	X	X	X
Deed Reference of Tract(s)	X	X	X
Zoning Classification of Tract(s)	X	X	X
Location (Including Township, County, & State)	X	X	X
Flood Plain Depicted & Noted (Zone, Map Number, & Effective Date)	X	X	X
Watershed District Noted & Extent of Coverage Depicted	X	X	X
Land Use Classification of Tract(s)			
<b>GENERAL REQUIREMENTS</b>			
Map Size 18" X 24" & Scale 1"=200' or Larger		X	X
North Point, Graphic Scale, & Vicinity Map		X	X
Name(s) & Location(s) of Adjacent Property Owner(s) & Use(s)	X	X	X
Existing Boundaries of Tract(s) Showing Bearings & Distances		X	X
Gross Acreage of Development	X	X	X
Name(s) & Right(s)-of-way of Streets & State Road Number(s), Including Notation of Public or Private	X	X	X
Name, Location, Width, & Acreage of Additional Easement(s) & Right(s)-of-way Within or Adjacent to Site	X	X	X
Building Envelope & Required Setbacks	X	X	X
Existing & Proposed Utilities			
Signage Location, Easement, Type, & Size	X	X	X
Existing Structure(s) Located on Site	X	X	X
Wetlands Delineated			
Easements, Open Space, & Areas Other Than for Residential Use with Explanation of Purpose & Maintenance Responsibility	X	X	X
Additional Information Required by the Zoning Administrator	X	X	X
<b>DEVELOPMENT REQUIREMENTS</b>			
Minimum Lot Size & Width			
Lot Lines & Building Lines Showing Bearings & Distances			
Topography (Max Contour Levels of 5')			

	BUSINESS SIGN SITE PLAN	BILLBOARD REPAIR SITE PLAN	NEW BILLBOARD SITE PLAN
Name(s) & Location(s) of Property or Buildings on the National Register of Historic Places or Locally Designated Historic Property			
Natural Feature(s) Located on Site			
All Required Amenities Shown; Including Typical			
<b>CERTIFICATIONS</b>			
Ownership, Dedication, & Jurisdiction	X	X	X
Professional North Carolina Land Surveyor or Engineer	X	X	X
<b>FEES</b>			
All Review Fees Paid	X	X	X
<b>REQUIRED INSPECTION</b>			
Lighting Installed as Required			
Amenities Installed as Required			
<b>SITE PLAN ONLY</b>			
Conformity status noted	X	X	
Explanation of Need for Repair (Which, if Any, Components are Salvageable) and % of Damage to Total Area		X	
Structural drawings of proposed repairs noting existing and proposed material (Chief Building Inspector may require Professional Engineer Stamp)		X	
Illumination Method, if any	X	X	X
Size, Character, General Layout, and Design for Proposed Displays	X	X	X
Structural Drawings of Proposed Sign, Certified by a Professional Engineer	X	X	X
Type/Material of Proposed Sign (EX-Mono, Wood, Steel, Etc.)	X	X	X

**SECTION 7.0 PLANNED UNIT DEVELOPMENT & OFFICE & INSTITUTIONAL DEVELOPMENT PLAN REVIEW REQUIREMENTS**

**7.1 Development Plan Requirements**

In order for a site plan to be considered complete, the applicant shall submit a development plan according to the table below. The criteria listed below may be provided in either narrative or illustrative form, or both as applicable.

	PUD DEVELOPMENT PLAN	O&I DEVELOPMENT PLAN
<b>TITLE BLOCK INFORMATION</b>		
Name of Project & Date (Including all Revision Dates)	X	X
Applicant/Owner(s) Contact Information (Name, Address, & Phone)	X	X
Surveyor/Engineer Contact Information (Name, Address, & Phone)	X	X
Parcel ID Number/Tax ID of Tract(s)	X	X
Deed Reference of Tract(s)	X	X
Zoning Classification of Tract(s)	X	X
Overlay Zoning Classification & Required Notation (If Applicable)		X

	<b>PUD DEVELOPMENT PLAN</b>	<b>O&amp;I DEVELOPMENT PLAN</b>
Airport Zone Notification (If Applicable)	X	X
Location (Including Township, County, & State)	X	X
Flood Plain Depicted & Noted (Zone, Map Number, & Effective Date)	X	X
Watershed District Noted & Extent of Coverage Depicted	X	X
Land Use Classification of Tract(s)	X	X
<b>GENERAL REQUIREMENTS</b>		
Name(s) & Location(s) of Adjacent Property Owner(s) & Use(s)	X	X
Gross Acreage of Development	X	X
Name(s) & Right(s)-of-way of Existing Streets & State Road Number(s), Including Notation of Public or Private	X	X
Right-of-Way Notation in compliance with CTP	X	X
Existing & Proposed Utilities & Impact on Such, Including Capacity Availability	X	X
Existing Structure(s) Located on Site	X	X
Wetlands Delineated	X	X
Predevelopment Meeting	X	X
Additional Information Required by the Administrator	X	X
<b>BUFFERING REQUIREMENTS</b>		
Buffering Regulations	X	X
<b>STORMWATER MANAGEMENT</b>		
Permanent Storm Water BMP Measures Shown		X
<b>DEVELOPMENT REQUIREMENTS</b>		
Total Number of Lots Proposed	X	X
Minimum Lot Size & Width		X
Typical Lot Size & Width		X
Proposed Land Uses	X	X
Total Acreage per Land Use	X	X
Phase Plan (If Applicable)		X
Total Square Footage per Nonresidential Building, if Applicable		X
Topography (Max Contour Levels of 5')		X
Impervious Surface (% Coverage of Lot)		X
Name(s) & Location(s) of Property or Buildings on the National Register of Historic Places or Locally Designated Historic Property	X	X
Natural Feature(s) Located on Site	X	X
Proposed Lighting & Analysis		X
Traffic Circulation & Patterns, Including Vehicular Travel, Parking, Bicycle, & Pedestrian Access Management	X	X
Proposed Ownership of Street Right(s)-of-Way & Responsibility for Maintenance Thereof	X	X
Traffic Impact Analysis, If Completed	X	X
Open Space Calculations & Totals Noted	X	X

	<b>PUD DEVELOPMENT PLAN</b>	<b>O&amp;I DEVELOPMENT PLAN</b>
Means of Dedication & Organization Arrangement for Ownership & Maintenance of Open Space		X
<b>CERTIFICATIONS</b>		
Professional North Carolina Land Surveyor or Engineer	X	X
<b>FEES</b>		
All Review Fees Paid	X	X

## 7.2 Planned Unit Development

The following submittal and review procedures shall be followed for proposed planned unit developments. Additional application submittal requirements, design standards, and review and approval criteria for planned unit developments can be found in Subsection “Planned Unit Development” of Article V “Use Regulations” of this Ordinance.

### 7.2.1 Submittal Procedure

The procedure for approval of a planned unit development shall combine the Special Use permit review process and the subdivision plat and site plan review processes, as outlined by this Ordinance. All applications for Special Use permits for PUDs shall be submitted a minimum of 60 days prior to the Board of Adjustment meeting. An outline development plan for the entire development, described below, shall be prepared and submitted along with a Special Use permit application and all other required documentation.

### 7.2.2 Staff Review

Upon receipt of a complete application, Planning Staff will conduct a review of the outline development plan and other required materials. The outline development plan and required documents may also be review and commented on by other County Departments, as applicable.

### 7.2.3 Final PUD Document Submittal

Following approval of a planned unit development application, revised and final documentation shall be submitted to the Planning Department. Said submittal shall be made within 30 business days of approval by the Board of Adjustment and shall include the documents listed below, including all revisions required as part of the review and approval process.

- A. Cover Letter
- B. Outline Development Plan
- C. Site Plan

## 7.3 Office & Institutional Development Plan

### 7.3.1 Application Submittal Requirements

- A. Specific descriptions of proposed development with building locations, building sizes, parking arrangements, and description of building heights with consideration of impact on adjacent areas. See “Development Plan Requirements” below.
- B. Analysis of impacts resulting from proposed development, along with options to mitigate impacts relating to:
  1. Transportation management (traffic, parking, bikes, pedestrians)
  2. Stormwater management analysis (quantity and quality)

3. Watershed requirements (impervious surface)
  4. Lighting analysis
  5. Perimeter buffering and landscaping
  6. Water and sewer impacts
- C. Preliminary timetable and sequencing schedule for building construction and for related mitigation measures.

### 7.3.2 *Design Standards*

#### A. District Dimensional Requirements

##### 1. Minimum Area

Shall have a minimum of five (5) acres in a single lot or multiple contiguous lots that total acreage equals or exceeds five (5) acres.

##### 2. Minimum Required Setbacks

All structures shall be setback a minimum of 35 feet from all State maintained right(s)-of-way and all property lines that adjoin the perimeter transition area.

#### B. Parking & Off-Street Loading Requirements

1. The number of parking spaces required for Office & Institutional developments shall be tied to the development's documentation of adequate parking availability that is approved by the Planning Board.

2. All parking and off-street loading areas shall meet the applicable development standards of "Parking & Off-Street Loading Requirements" Section of this Ordinance.

#### C. Environment

Development proposed in the development plan shall minimize impacts on natural site features, and be accompanied by measures to mitigate those impacts.

#### D. Transportation

Development proposed in the development plan shall be accompanied by measures to mitigate transportation impacts that are caused by the development.

#### E. Stormwater Management

Development proposed in the development plan shall be accompanied by measures to mitigate stormwater impacts (quantity and quality) that are caused by the development and shall comply with all regulations related to stormwater management of this Ordinance.

#### F. Public Utilities

There shall be a general demonstration that water, sewer, and other needed utilities can be made available to accommodate development proposed in the development plan. A certification letter from the Harnett County Public Utilities shall be submitted along with the development plan.

#### G. Perimeter Buffering & Landscaping

Areas located within the perimeter transition areas shall provide a detailed analysis of all proposed screening techniques according to the standards set forth below.

#### H. Sidewalks & Pedestrian Ways

Shall be required from building to building and along the development perimeter to insure that pedestrian traffic moves safely and orderly from point to point. Such routes shall be submitted and approved by the Planning Board as part of the development plan.

I. Watershed Requirements

Where applicable all proposed developments shall take into consideration watershed requirements. Therefore a detailed analysis of the current and proposed impact on the watershed along with certification that the proposed development will meet all watershed regulations especially in regards to impervious surface calculations shall be approved with the development plan.

J. Perimeter Transition Areas & Design Standards

A development plan shall designate a 35 foot wide area at the boundaries of the O&I District. This area shall be referred to as the perimeter transition area which will establish appropriate standards at the borders of the development plan, necessary to minimize impacts of development proposed in the development plan on adjacent property, to be approved by the Planning Board as part of the development plan. Standards shall address:

1. Screening of Mechanical Equipment & Trash Containment Areas

All screening mechanical equipment and trash containment areas located within the perimeter transition area or visible from the public right(s)-of-way shall be screened from view using one (1) of the techniques listed in Subsection "Utility & Mechanical Screening", Section "Buffers & Landscaping" of Article VII "Development Design Guidelines" of this Ordinance.

2. Exterior lighting shall be installed as to protect the streets and neighboring properties from direct glare or hazardous interference of any kind.

3. Buffering

Structures built within the perimeter transition area that adjoin residentially zoned or used property or adjoin a public right-of-way shall be buffered using one (1) of the techniques given for a "Type A Buffer" as defined in the "Buffers & Landscaping" Section of this Ordinance; however the buffering shall only apply to the property line(s) that adjoin the residentially zoned or residentially used property. Further this buffering shall adequately cover enough area to ensure the maximum amount of buffer is given to the adjacent residential use or zoning.

4. Parking

Parking lots located within the perimeter transition area that adjoin public street right(s)-of-way or are adjacent to residentially zoned or used property shall be landscaped or otherwise screened using one of the techniques given in the "Parking & Off-Street Loading Requirements" Section of this Ordinance to minimize views of parking from the street and adjoining properties. Further these parking areas shall be set back a minimum of 10 feet from the right(s)-of-way or property line(s).

*7.3.3 Application Submittal Procedures*

A. Applications for a development plan shall be filed with the Administrator. Subsequent required site specific development plans and permits shall be submitted in accordance with the requirements of this Ordinance.

B. The Administrator shall prescribe the form(s) of applications as well as any other material he/she may reasonably require to determine compliance with this Section. Applications shall include information detailing compliances with regulations described in all subsections of this Part.

*7.3.4 Review Procedures*

A. Applications for development plan approval shall be reviewed by the Planning Department and forwarded to the Planning Board for consideration at a public meeting.



- B. The applicant shall bear the burden of presenting evidence sufficient to establish persuasively that the proposed development will comply with the established regulations of the Office and Institutional District.
- C. A record of the proceedings of the meeting shall be made and shall include all documentary evidence presented at the hearing. Planning Board action on an application for development plan approval shall occur within 90 days of the date of submittal of a complete application.

### *7.3.5 Actions after Decision of Planning Board*

- A. The development plan, including all conditions attached thereto, shall run with the land and shall be binding on the original applicant as well as all successors, assigns, and heirs.
- B. Individual Site Development Permits

If the development plan is approved, or approved with conditions, the Administrator may then accept applications for individual site development permits for specific buildings that are described in the development plan. No work on a building identified on the development plan may begin until a site development permit has been issued. The Administrator shall prescribe the form(s) of applications as well as any other material he/she may reasonably require to determine compliance with the development plan. If the Administrator finds that the application is consistent with the development plan, he/she shall approve the application and issue the site development permit within 30 calendar days of the submittal of a complete application. If the Administrator finds that the application is not consistent with the development plan he/she shall deny the application within 30 calendar days of the acceptance of the application and refer the applicant to the Special Use process described in this Ordinance. Alternatively, the applicant may apply for an amendment to the development plan.

### *7.3.6 Expiration, Abandonment, or Revocation of Development Plan*

If an application for a site development permit pursuant to an approved development plan has not been submitted to the Administrator within two (2) years of the date of approval of the development plan, the approval shall automatically expire. On request by the holder of an approved development plan, the Planning Board shall approve the abandonment of the plan if it determines that no subsequent development approvals have been granted and no construction activity has taken place pursuant to the development plan. If material conditions of a development plan are violated, and remain in violation after giving the property owner a reasonable amount of time to correct such violation, the Planning Board may revoke the plan after notification to the property owner and opportunity for property owner response at a public meeting of the Planning Board.

### *7.3.7 Development Plan Amendment Procedures*

- A. Before making a determination as to whether a proposed action is a minor change or a modification, the Administrator shall review the record of the proceedings on the original application for the development plan and any subsequent applications for modifications of the development plan, and shall use the following criteria in making a determination:
  1. A change in the boundaries of the development plan approved by the Planning Board shall constitute a modification;
  2. A substantial change in the lot size or number of parking spaces approved by the Planning Board shall constitute a modification. (General rule: more than a 5% increase in overall net new lot area or parking in a development plan approved by the Planning Board would be considered substantial.);
  3. Substantial changes in pedestrian or vehicular access or circulation approved by the Planning Board shall constitute a modification. (General rule: changes that would affect access or

circulation beyond the boundaries of a development plan would be considered substantial.); and

4. Substantial change in the amount or location of open areas approved by the Planning Board shall constitute a modification.
- B. The Administrator is authorized to approve minor changes and changes in the ordering of phases in an approved development plan, as long as such changes continue to be in compliance with the approving action of the Planning Board and all other applicable requirements, and result in a configuration of buildings that is generally consistent with the approved development plan. The Administrator shall not have the authority to approve changes that constitute a modification of the development plan.
- C. If the proposed action is determined to be a modification, the Administrator shall require the filing of an application for approval of the modification, following procedures outlined in this section for initial approval of a development plan.

## **SECTION 8.0 SUBDIVISION REVIEW PROCEDURES**

### **8.1 Purpose**

- A. Pursuant to GS 160D-803 a final plat shall be prepared, approved, and recorded pursuant to the provisions of this Ordinance whenever any subdivision of land takes place.
- B. Pursuant to GS 160D-804, no final plat of a subdivision within the jurisdiction of Harnett County shall be recorded by the Register of Deeds of Harnett County until it has been approved as provided herein. To secure such approval of a final plat, the subdivider shall follow the procedures established in this article.
- C. To further the purpose of this Ordinance, the County encourages all divisions of land to meet the minimum subdivision and development standards contained herein. Divisions of land exempt from the requirements of this Ordinance that do not meet the minimum requirements contained herein shall be identified as such.

### **8.2 General Procedures**

#### *8.2.1 Review & Approval*

- A. All divisions of a tract or parcel of land into two (2) or more lots, building sites, or other divisions for the purpose of immediate sale or building development and includes all division of land involving the dedication of a new street or a change in existing streets shall be required to meet the subdivision requirements of this Ordinance, unless otherwise stated.
- B. Court-ordered divisions shall include language specifically identifying how the parcel(s) are to be divided, including the acreage to be divided and exact parameters for how the division should occur.
- C. All subdivisions shall be considered major subdivisions except those defined as minor subdivisions by this Ordinance. Major subdivisions shall be reviewed in accordance with the procedures in “Major Subdivision Procedures” Section of this Ordinance. Minor subdivisions shall be reviewed in accordance with the provisions in “Minor Subdivision Procedures” Section of this Ordinance.
- D. If the applicant owns, leases, holds an option on, or holds any legal or equitable interest in any property adjacent to or located directly across a street, easement, or right-of-way from the property to be subdivided, the subdivision shall not qualify under the minor subdivision procedure. The minor subdivision procedure may not be used a second time within three (3) years on any property less than 1,500 feet from the original property boundaries by anyone who

owned, had an option on, or held any legal interest in the original subdivision at the time the subdivision received preliminary or final plat approval or by any subsequent owner, individual having an option on, or individual having any legal interest in the original subdivision at the time the subdivision received preliminary or final plat approval.

1. However, the Planning Director or Designee may at any time refer the application to the Harnett County Planning Board for consideration to allow a second minor subdivision to occur within the allotted three (3) years if deemed necessary and appropriate. Subsequent to Planning Board approval, the application shall then be reviewed in accordance with the major subdivision review and approval process by the Development Review Board.
  2. In no case shall utilization of this process allow for the number of new lots created, combined with the number of lots created by the initial minor subdivision exceed the maximum number of lots permitted by the minor subdivision process. No other requirements set forth by the minor subdivision process shall be circumvented.
  3. The minor subdivision process may be utilized for the division of lots located within a nonresidential zoning district when no easement or right(s)-of-way dedication is required.
- E. Any change in a map of an approved preliminary subdivision or recorded minor or major subdivision plat/plan or any map or plat/plan legally recorded prior to the adoptions of any regulations controlling subdivisions that materially affects any of the following shall obtain a new subdivision approval in compliance and following the procedures of this Ordinance.
1. Right(s)-of-way layout; or
  2. Any area reserved thereon for public use; and/or
  3. Any lot line (including the addition of lot lines).

In cases where a subdivision is considered a minor subdivision, that is the review process that shall be utilized. In cases where a subdivision is considered a major subdivision, or the proposed change would necessitate a major subdivision review process, that is the process that shall be utilized.

- F. A preliminary subdivision plat for a commercial or residential subdivision shall include a stormwater management statement, for the purpose of assisting the developer in assessing stormwater management needs and downstream impacts. Where a preliminary plat is not required (i.e. minor subdivision) the stormwater management statement shall be submitted with the minor subdivision plat. The stormwater management statement shall be submitted as part of the conceptual plan, if required by this Ordinance.

### *8.2.2 Expiration of Plat Approval*

- A. Any preliminary major subdivision plat consisting of a single phase which has failed to receive final plat approval from the Development Review Board (DRB) within two (2) years from the date of preliminary plat approval by the DRB shall be null and void.
- B. Major subdivisions consisting of multiple phases shall have received final plat approval from the Development Review Board for at least one (1) phase within two (2) years from the date of preliminary plat approval or the approval shall be null and void. Each subsequent phase shall be recorded within a period of three (3) years, or as approved by this Ordinance; otherwise the preliminary plat approval shall be null and void.
- C. Any conditional approval or hold decision for a major subdivision made by the DRB shall be valid for a period of 90 days from the date on which the decision was made. It shall be the applicant's responsibility to obtain full approval during said period. After such date, the review shall be null and void. In no case shall a conditional approval or hold decision be considered a vested right until a full approval has been granted.

- D. Any review completed by the Planning Department of a minor subdivision or exempt plat shall be valid for 30 days from the date such review comments are provided by the Planning Department Staff. After such date, the review shall be null and void.

### 8.2.3 Subdivision Plat/Plan Requirements

In order for a subdivision plat/plan, exempt map, or master sketch plan to be considered complete, the applicant shall submit a site plan according to the table below:

	EXEMPT PLAT	MINOR SUBDIVISION	PRELIMINARY SUBDIVISION	FINAL SUBDIVISION	MASTER SKETCH PLAN
<b>TITLE BLOCK INFORMATION</b>					
Name of Project & Date (Including all Revision Dates)	X	X	X	X	X
Applicant/Owner(s) Contact Information (Name, Address, & Phone)	X	X	X	X	X
Surveyor/Engineer Contact Information (Name, Address, & Phone)	X	X	X	X	X
Parcel ID Number/Tax ID of Tract(s)	X	X	X	X	X
Deed Reference of Tract(s)	X	X	X	X	X
Zoning Classification of Tract(s)	X	X	X	X	X
Overlay Zoning Classification & Required Notation (If Applicable)		X	X	X	
Airport Zone Notification (If Applicable)		X	X	X	
Location (Including Township, County, & State)	X	X	X	X	X
Flood Plain Depicted & Noted (Zone, Map Number, & Effective Date)	X	X	X	X	X
Watershed District Noted & Extent of Coverage Depicted	X	X	X	X	X
Land Use Classification of Tract(s)		X	X	X	X
<b>GENERAL REQUIREMENTS</b>					
Map Size 18" X 24" & Scale 1"=200' or Larger	X	X	X	X	X
North Point, Graphic Scale, & Vicinity Map	X	X	X	X	X
Name(s) & Location(s) of Adjacent Property Owner(s) & Use(s)	X	X	X	X	
Existing Boundaries of Tract(s) Showing Bearings & Distances	X	X	X	X	
Gross Acreage of Development	X	X	X	X	X
Name(s) & Right(s)-of-way of Streets & State Road Number(s), Including Notation of Public or Private	X	X	X	X	X
Linear Feet Per Street			X	X	X
Name, Location, Width, & Acreage of Additional Easement(s) & Right(s)-of-way Within or Adjacent to Site	X	X	X	X	
Right-of-Way Notation in compliance with CTP		X	X	X	X
Building Envelope & Required Setbacks	X	X	X	X	
Existing & Proposed Utilities		X	X	X	X
Signage Location, Easement, Type, & Size			X	X	
Conceptual Plan			X		
Existing Structure(s) Located on Site	X	X	X	X	
Water Features Depicted, as Found on USGS Quadrangles & Harnett County Soil Survey		X	X	X	X
Required Stream Buffers/Setbacks Around Each Water Feature		X	X	X	X

	EXEMPT PLAT	MINOR SUBDIVISION	PRELIMINARY SUBDIVISION	FINAL SUBDIVISION	MASTER SKETCH PLAN
Wetlands Delineated			X	X	
Easements, Open Space, & Areas Other Than for Residential Use with Explanation of Purpose & Maintenance Responsibility		X	X	X	
Existing Streets & Right(s)-of-Way on Adjacent Properties			X	X	X
Predevelopment Meeting			X		X
Additional Information Required by the Administrator	X	X	X	X	X
<b>BUFFERING REQUIREMENTS</b>					
Buffering Regulations (Per Harnett County Ordinance)			X	X	X
Prime Views and Vistas Buffer (Width, Landscaping Type, and Maintenance Responsibility)			X	X	
Streetscape Buffer (Width, Landscaping Type, and Maintenance Responsibility)			X	X	
<b>STORMWATER MANAGEMENT</b>					
Drainage Easement(s) & Maintenance Responsibility			X	X	
Stormwater Management Permit and Plan Submitted				X	
Permanent Stormwater BMP Measures Shown & Temporary Measures Noted				X	
Stormwater Management Plan Calculations Noted				X	
Stormwater Management Statement, if Required		X	X	X	X
Copy of Erosion Control Plan, if Required		X	X	X	X
Copy of Stormwater Plan, if Required		X	X	X	X
<b>DEVELOPMENT REQUIREMENTS</b>					
Total Number of Lots Proposed		X	X	X	X
Individual Lot Dimensions	X	X	X	X	
Net Acreage for Each Lot	X	X	X	X	
Proposed Block Numbers, Approx. Dimensions, & Phase Lines (If applicable)			X	X	X
Lot & Block Numbers in Consecutive Order		X	X	X	
Minimum Lot Size & Width	X	X	X	X	X
Lot Lines & Building Lines Showing Bearings & Distances	X	X	X	X	
Fire Hydrant(s) & Light(s) Depicted & Noted			X	X	
Topography (Max Contour Levels of 5')		X	X		X
Impervious Surface (% Coverage of Lot)		X	X	X	
Proposed Streets, Including Right(s)-of-Way, Location, Dimensions, & Pavement Width			X	X	
Cul-De-Sac Diameter		X	X	X	
Typical Street Cross Section(s) (If Applicable)			X	X	
Detailed Description of Recreational Facilities if Provided			X	X	
Linear Feet per Street (Note Either Public or Private)		X	X	X	
Name(s) & Location(s) of Property or Buildings on the National Register of Historic Places or Locally Designated Historic Property	X	X	X	X	X

	EXEMPT PLAT	MINOR SUBDIVISION	PRELIMINARY SUBDIVISION	FINAL SUBDIVISION	MASTER SKETCH PLAN
Natural Feature(s) Located on Site		X	X	X	X
Preliminary Soils Report Provided, If Applicable	X		X		X
Final Soils Report Provided				X	
Traffic Impact Analysis, if Completed			X		
Open Space Calculations & Totals Noted			X	X	X
All Required Amenities Shown; Including Typicals			X	X	
Foundation & Setback Verification Survey Requirement Noted		X	X	X	
HOA Documents Reference All Improvements to be Maintained				X	
Homeowners Association Bylaws & Covenants to be Imposed				X	
Voluntary Agricultural District (VAD) Notification (If Applicable)	X	X	X	X	
<b>CERTIFICATIONS</b>					
Harnett County Development Review Board, (if Applicable)			X	X	X
Harnett County Subdivision Administrator	X	X			
Harnett County Register of Deeds	X	X	X	X	
Harnett County Review Officer	X	X	X	X	
Ownership, Dedication, & Jurisdiction	X	X	X	X	
Professional North Carolina Land Surveyor or Engineer	X	X	X	X	X
NCDOT (Driveway Permit Approval)		X	X	X	
<b>REQUIRED INSPECTION</b>					
Drainage Easements are Stabilized Without Possible Erosion		X		X	
Fire Hydrants Installed where 6" Public Water Lines Exist		X		X	
Improvements Installed in Accordance with Final Plat & Stormwater Management Plan		X		X	
Necessary Buffering &/or Landscaping is in Place or Security has Been Guaranteed				X	
Lighting Installed as Required				X	
Streets Installed in Accordance with Minor Subdivision Standards		X			
Streets Installed in Accordance with DOT Standards				X	
Stop Signs Installed in Compliance with NCDOT Standards				X	
Amenities Installed as Required (EX-Street Trees, Sidewalks, Etc.)				X	
<b>FEES</b>					
All Review Fees Paid	X	X	X	X	
Verification of Purchase of Street Signs (If Applicable)	X	X		X	

### 8.3 Subdivision Exemptions & Procedures

#### 8.3.1 Subdivision Exemptions

The following is not included within the definition of a subdivision and is not subject to the subdivision regulations enacted pursuant to the Ordinance. All other requirements of this Ordinance shall be met, including but not limited to submittal and review of plat/plan for those items listed herein to verify compliance with other regulations.

- A. The combination or recombination of portions of previously subdivided and recorded lots if the total number of lots is not increased and the resultant lots are equal to or exceed the standards of Harnett County as shown in these subdivision regulations;
- B. The division of land into parcels greater than 10 acres if no street right-of-way dedication is involved;
- C. The public acquisition by purchase of strips of land for widening or opening streets; and/or
- D. The division of a tract in single ownership, the entire area of which is no greater than two (2) acres into not more than three (3) lots, if no street right-of-way dedication is involved and if the resultant lots are equal to or exceed the standards of the county as shown by its subdivision regulations.
- E. The division of a tract into parcels in accordance with the terms of a probated will or in accordance with intestate succession under Chapter 29 of the General Statutes.

### 8.3.2 *Exempt Plat/Plan Procedures*

Exempt plats/plans, although exempt from the subdivision regulations of this Ordinance, shall meet all other requirements of this Ordinance, as well as other local, State, and Federal regulations, as applicable.

#### A. Combination & Recombination Plat/Plans

Combination and/or recombination of previously subdivision and recorded lots shall conform to the following regulations:

- 1. A soils evaluation shall be submitted, performed by a professional licensed to do such work, on all lots meeting the above criteria with existing septic systems to verify that the entire system and repair area are contained within the proposed new lot lines. Such evaluation shall include statements regarding the functionality of the existing system, conformity to setback requirements of the Harnett County Department of Public Health, adequate repair area, and all other items necessary for staff to evaluate whether conformity to 15A NCAC 18A.900 is met. Permits for existing septic systems may be used as verification for this purpose.

#### B. All Other Exempt Plat/Plans

- 1. In cases where a soils evaluation is not required by this Ordinance, the plat/plan shall note that an evaluation has not been done.

## 8.4 Minor Subdivision Procedures

### 8.4.1 *Review for Minor Subdivisions*

- A. The Planning Department shall establish standard regulations for plan submittal and review including but not limited to the number of copies requested and the information to be included on the plan. The Administrator shall advise the subdivider or his authorized agent of the regulations pertaining to the proposed subdivision and the procedures to be followed in the preparation and submittal of the final plat.
- B. The Administrator shall submit copies of the plan and any accompanying material to other officials and agencies concerned with new development including, but not limited to:
  - 1. Harnett County Public Health Department
  - 2. Harnett County Public Utilities Department
  - 3. Harnett County Fire Code Official
  - 4. Harnett County E-911 Addressing Operations Administrator

5. NCDOT District Highway Engineer
  6. North Carolina Department of Environment and Natural Resources,
- C. The Administrator shall review the plan for general compliance with the requirements of this Ordinance.
  - D. One (1) copy of the plan shall be returned to the subdivider or his authorized agent.

#### *8.4.2 Plat Submittal for Minor Subdivisions*

- A. Upon review of the plan by the Administrator, the subdivider may proceed with the preparation of the plat in accordance with the requirements of this Ordinance. For the purposes of this Section, the “plan” and “plat” are referenced separately; the plan for reviewing and the plat for recordation.
- B. The subdivider shall submit the plat so marked, to the Administrator.
- C. The plat shall be prepared by a Professional North Carolina Land Surveyor or Engineer currently licensed and registered in the state of North Carolina by the North Carolina Board of Examiners for Engineers and Surveyors. The plat shall conform to the provisions for plats, subdivisions, and mapping requirements set forth in the North Carolina General Statutes, as applicable.
- D. Three (3) copies of the plat shall be submitted, one (1) of these shall be on reproducible material. Material and drawing medium for the original shall be in accordance with the North Carolina General Statutes, where applicable, and the requirements of the Harnett County Register of Deeds.
- E. The plat shall be of a size suitable for recording with the Harnett County Register of Deeds and shall be at a scale of not less than one (1) inch equals 200 feet. Maps may be placed on more than one (1) sheet with appropriate match lines.
- F. Submittal of the plat shall be accompanied by a filing fee and if applicable, a street sign fee as adopted and periodically revised by the Harnett County Board of Commissioners.
- G. The plat shall contain the same information as required in Subsection “Subdivision Plat/Plan Requirements” and a copy of a recorded ingress and egress easement maintenance agreement or reference number on the map as required in Subsection “Subdivision Street Disclosure Statement” of this Ordinance.
- H. The certificates, as applicable, listed in Article “Definitions & Certifications” of this Ordinance shall appear on all required copies of the plat.

#### *8.4.3 Actions Subsequent to Review*

- A. If the plat is disapproved by the Administrator, the reasons for such disapproval shall be stated in writing, specifying the provisions of this Ordinance with which the plat does not comply. One (1) copy of such reasons and one (1) print of the plat shall be retained by the Administrator as part of the records; one (1) copy of the reasons and one (1) print of the plat shall be transmitted to the subdivider. If the plat is disapproved, the subdivider may make such changes as will bring the plat into compliance and resubmit same for reconsideration by the Administrator.
- B. If the plat is approved by the Administrator, the original tracing and one (1) print of the plat shall be retained by the subdivider. One (1) print shall be retained by the Administrator for the records.
- C. The subdivider shall file the approved plat with the Register of Deeds of Harnett County within 30 days of the approval; otherwise, such approval shall be null and void.



## 8.5 Major Subdivision Procedures

### 8.5.1 *Pre-Development Review for Major Subdivisions*

- A. Prior to the preliminary plat submittal, the subdivider may meet with Staff regarding and/or submit to the Administrator, a sketch plan of the proposed subdivision for review and comment.
- B. The Administrator shall review, in a reasonable time frame, the sketch plan for general compliance with the requirements of this Ordinance; the Administrator shall advise the subdivider or his authorized agent of the regulations pertaining to the proposed subdivision and the procedures to be followed in the preparation and submittal of the preliminary and final plats. Review of the sketch plan shall in no way constitute a full review, approval, or vested rights of a proposed plan.

### 8.5.2 *Public Outreach*

A minimum extent of public outreach shall be done by the developer(s) prior to, or in conjunction with, application of the proposed plan in compliance with this Section for all developments of 500 or more units in order to facilitate an informed development process. The same public outreach is encouraged for developments of less than 500 units. Such notification shall include a map of the development area, a description of the proposed development, and contact information for the developer(s) and/or a representative(s). Owner(s) of properties located within the proposed development area and all adjacent parcels of the proposed development area shall be notified by the developer(s) of the intent for development of the site. It shall be the responsibility of the developer(s) to furnish the cost of postage and all required documentation to the Planning Department for distribution.

In such cases where a public outreach meeting is held, notification shall be mailed so that notice is given a minimum of 10 business days prior to the meeting. The results of the public outreach meeting shall be summarized and submitted to Planning Staff within five (5) business days following the meeting. The summary shall include: the date, time, and location of the meeting; number of participants, including a copy of the sign-in sheet; a list of issues that arose during the meeting; and a plan to resolve those issues, if possible.

### 8.5.3 *Preliminary, Construction, & Final Plat Submittal Procedure*

#### A. General Procedures

1. For every subdivision within the territorial jurisdiction of this Ordinance, which does not qualify for the minor subdivision procedure, the subdivider shall submit a preliminary major subdivision plat which shall be approved by the Development Review Board before any construction or installation of improvements may begin. Submittal of construction plan/drawing and final plat shall be submitted and approved following the same procedures. Submittal of the subdivision plat shall be accompanied by a filing fee as adopted and periodically revised by the Harnett County Board of Commissioners.
2. A complete application shall be submitted to the Planning Department by the established deadline. Incomplete applications will not be reviewed and will not be placed on the Development Review Board agenda. The Harnett County Planning Department shall establish criteria for a complete application. Any change in submittal requirements shall be posted in the Planning Department office no less than 30 days prior to enforcement. This information shall be made available to the public and shall be posted in the Planning Department Office.
3. Subdivision plats shall meet the specifications in Subsection “Subdivision Plat/Plan Requirements”. A master sketch plan may be substituted for a preliminary plat in cases

where the information included within the master sketch plan meets the requirements for a preliminary subdivision in the Subsection referenced herein.

B. Construction Plan/Drawing Review

Following approval of the preliminary major subdivision plat and prior to construction and improvements to the development, construction plan/drawing shall be submitted to the Planning Department by the established deadline, and approved by the County. Construction plans/drawings may also be required elsewhere by this Ordinance. In such cases, such materials shall be submitted in accordance with this section, unless otherwise stated. Review of such materials shall be via administrative review and will not follow the typical DRB review process. The following shall apply to all construction plan/drawing submittals:

1. All required submittal materials shall be sealed.
2. Such drawings shall meet the requirements of Article X “Natural Resources,” Section “Stormwater Management,” Subsection “Construction Plan/Drawing”.
3. All requirements of Harnett County Department of Public Utilities, Fire Code Official, and County Engineer shall be met.
4. A copy of materials approved by NCDENR shall be included as part of the construction plan submittal.
5. A flow acceptance letter for sewer capacity from Harnett County Department of Public Utilities shall be submitted with the DRB application.

C. Phased Developments

1. Developments to be constructed in phases shall submit a master sketch plan. In such cases, the master sketch plan shall be included with the preliminary plat at the time of such submittal. In no case shall approval of the master sketch plan as part of the approval of the first phase of development constitute vested rights for additional phases of development of the site, unless each subsequent phase depicted in the master plan meets the provisions of this Ordinance for a major subdivision preliminary plat.
2. Phased developments shall be submitted in compliance with Subsection “Expiration of Plat Review” of this Section.

*8.5.4 Development Review Board Review Procedures*

The following shall apply to major subdivision preliminary and final plat review procedures. Major subdivision construction plan/drawing submittals shall be reviewed by a subcommittee of the Development Review Board (DRB). Said subcommittee shall consist of the Harnett County Department of Public Utilities, Fire Code Official, and County Engineer.

- A. The petitioner shall be prepared to make a very brief presentation to the Development Review Board (DRB) membership and answer any questions when the application is reviewed. Each Development Review Board general member shall have completed review of the application prior to the regularly scheduled meeting in which the application is being reviewed. Comments on the application shall be provided, in brief, to the petitioner at the regularly scheduled meeting. If the nature of the comments is too complicated for a brief presentation, it shall be the responsibility of the petitioner to contact the member’s agency with comments for a full explanation.
- B. The Development Review Board shall, in writing, recommend approval; conditional approval (with a list of the conditions to bring the plat into compliance); hold (with a list of the conditions to bring the plat into compliance and prepare for further DRB review); or disapproval (with reasons) only after all concerns or comments of the Board general membership have been

received. The applicant will receive a copy of the draft DRB decision at the meeting and will receive a final DRB decision within 10 business days.

- C. Once the Development Review Board approves the subdivision plat, such approval shall be noted on two (2) copies of the plat. One (1) copy of the plat shall be retained by the Administrator and one (1) copy shall be returned to the subdivider.
- D. If the subdivision plat is disapproved, the subdivider may make the recommended changes and submit a revised plat to the Administrator following the procedure for submission of a plat placed on hold.
- E. For final plat approval, the subdivider shall file the approved final plat with the Register of Deeds of Harnett County within 30 days of approval; otherwise such approval shall be null and void.

#### *8.5.5 Preparation of Final Plat & Installation of Improvements*

- A. Upon approval of the preliminary plat by the Development Review Board, the petitioner may proceed with the preparation of the final plat, and the installation of or arrangement for required improvements in accordance with the approved preliminary plat and the requirements of this Ordinance.
- B. Prior to approval of a final plat, the petitioner shall have installed the improvements provided herein. No final plat, which contains private streets will be accepted for review by the Administrator unless accompanied by written notice prepared by a Professional North Carolina Engineer acknowledging installation of such streets meet the applicable NCDOT standards for the same type of streets and compliance with the Section “Improvement Guarantees” of this Ordinance.
- C. The final plat shall constitute only that portion of the preliminary plat which the petitioner proposes to record and develop at that time; such portion shall conform to all requirements of this Ordinance.

### **SECTION 9.0 STREET, ALLEY, & WALKWAY CLOSINGS**

All petitions for closing of Department of Transportation maintained streets, alleys, or walkways shall be made to the appropriate DOT District Engineer. The Harnett County Planning Department shall be copied on all communications for such.

### **SECTION 10.0 VESTED RIGHTS**

#### **10.1 Purpose**

The purpose of this Section is to implement the provisions of GS 160D-344.1 pursuant to which a statutory zoning vested right is established upon the approval of a site specific development plan or a phased development plan. Nothing in this section shall be construed to require the County to adopt an ordinance providing for vesting of rights upon approval of a phased development plan. **Establishment of a Zoning Vested Right**

- A. A zoning vested right shall be deemed established upon the valid approval, or conditional approval, by the appropriate approving body, as applicable, of a site specific development plan or phased development plan, following notice and public hearing, if applicable. Such vested right shall confer upon the landowner the right to undertake and complete the development and use of said property under the terms and conditions of the site specific development plan or phased development plan including any amendments thereto.
- B. The approving authority may approve a site specific development plan or phased development plan upon such terms and conditions as may reasonably be necessary to protect the public health, safety, and welfare.

- C. Notwithstanding subsections (A) and (B), approval of a site specific development plan or phased development plan with the condition that a variance be obtained shall not confer a zoning vested right unless and until the necessary variance is obtained.
- D. A site specific development plan or phased development plan shall be deemed approved upon the effective date of the approval authority's action or ordinance relating thereto.
- E. The establishment of a zoning vested right shall not preclude the application of overlay zoning that imposes additional requirements but does not affect the allowable type or intensity of use, or ordinances or regulations that are general in nature and are applicable to all property subject to land use regulation by the County, including, but not limited to, building, fire, plumbing, electrical, and mechanical codes. Otherwise applicable new or amended regulations shall become effective with respect to property that is subject to a site specific development plan or phased development plan upon the expiration or terminations of the vested right in accordance with this Ordinance.
- F. A zoning vested right is not a personal right, but shall attach to and run with the applicable property. After approval of a site specific development plan or phased development plan, all successors to the original landowner(s) shall be entitled to exercise such right while applicable.

## **10.2 Approval Procedures & Authority**

- A. Except as otherwise provided in this Section, an application for site specific development plan or phased development plan approval shall be processed in accordance with the procedures established by this Ordinance and shall be considered by the designated approval authority for the specific type of zoning or land use permit or approval for which application is made.
- B. Notwithstanding the provisions of subsection (A), if the authority to issue a particular zoning or land use permit or approval has been delegated by this Ordinance to a board, committee, or administrative official other than the Board of County Commissioners, Board of Adjustment, or other planning agency, in order to obtain a zoning vested right, the landowner or applicant shall request in writing at the time of application that the application be considered and acted on by the Board of County Commissioners, as applicable, following notice and public hearing as provided in GS 160D-323.
- C. In order for a zoning vested right to be established upon approval of a site specific development plan or phased development plan, the applicant shall indicate at the time of application, on a form to be provided by the County, that a zoning vested right is being sought.
- D. Each map, plat, site plan, or other document evidencing a site specific development plan or phased development plan shall contain the following notation: "Approval of this plan establishes a zoning vested right under GS 160D-344.1".
- E. Following approval or conditional approval of a site specific development plan or phased development plan, nothing in this ordinance shall exempt such a plan from subsequent reviews and approvals to ensure compliance with the terms and conditions of the original approval, provided that such reviews and approvals are not inconsistent with the original approval.
- F. Nothing in this ordinance shall prohibit the revocation of the original approval or other remedies for failure to comply with applicable terms and conditions of the approval or this Ordinance.
- G. Nothing in this Section shall preclude judicial determination, based on common-law principals or other statutory provisions, that a vested right exists in a particular case or that a compensable taking has occurred. Except as expressly provided by the North Carolina General Statutes and this Section, nothing in this Section shall be construed to alter the existing common-law.

## **10.3 Duration**

- A. A zoning right that has been vested as provided in this Ordinance shall remain vested for a period of two (2) years unless specifically and unambiguously provided otherwise pursuant to subsection (B). This vesting shall not be extended by any amendments or modifications to a site specific

development plan or phased development plan unless expressly provided by the approval authority at the time the amendment or modification is approved.

- B. Notwithstanding the provisions of subsection (A), the Board of Commissioners may provide that rights shall be vested for a period exceeding two (2) years but not exceeding five (5) years where warranted in light of all relevant circumstances, including, but not limited to, the size of the development, the level of investment, the need for or desirability of the development, economic cycles, and market conditions. These determinations shall be in the sound discretion of the Board of Commissioners at the time the site specific development plan or phased development plan is approved.
- C. Upon issuance of a building permit, the expiration provisions of GS 160D-358 and the revocation provisions of GS 160D-362 shall apply, except that a building permit shall not expire or be revoked because of the running of time while a zoning vested right under this Section is outstanding.

#### **10.4 Termination**

A zoning right that has been vested as provided in this Ordinance shall terminate:

- A. At the end of the applicable vesting period with respect to buildings and uses for which no valid building permit applications have been filed;
- B. With the written consent of the affected owner(s);
- C. Upon findings by the Board of County Commissioners, by ordinance after notice and a public hearing, that natural or man-made hazards on or in the immediate vicinity of the property, if uncorrected, would pose a serious threat to the public health, safety, and welfare if the project were to proceed as contemplated in the site specific development plan;
- D. Upon payment to the affected owner(s) of compensation for all costs, expenses, and other losses incurred by the owner(s), including, but not limited to, all fees paid in consideration of financing, and all architectural, planning, marketing, legal, and other consultant's fees incurred after approval by the County, together with interest thereon at the legal rate until paid. Compensation shall not include any diminution in the value of the property which is caused by such action;
- E. Upon findings by the Board of County Commissioners, by ordinance after notice and a hearing, that the owner(s) or his representative intentionally supplied inaccurate information or made material misrepresentations which made a difference in the approval by the approval authority of the size specific development plan or phased development plan; or
- F. Upon the enactment or promulgation of a State or Federal law or regulation that precludes development as contemplated in the site specific development plan or phased development plan, in which case the approval authority may modify the affected provisions, upon a finding that the change in State or Federal law has a fundamental effect on the plan, by ordinance after notice and a hearing.

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## **ARTICLE IV. ZONING & OVERLAY DISTRICTS**

### **SECTION 1.0 ESTABLISHMENT OF DISTRICTS**

In order to implement the intent of this Ordinance, there are hereby created 11 classes of districts with the designations of general purposes and regulations as stated below:

IND -	Industrial District
LI -	Light Industrial District
COMM -	Commercial/Business District
O&I -	Office and Institutional District
RA-20M -	Residential/Agricultural District
RA-20R -	Residential/Agricultural District
RA-30 -	Residential/Agricultural District
RA-40 -	Residential/Agricultural District
CONS -	Conservation District
HCO -	Highway Corridor Overlay District
MCO -	Military Corridor Overlay District

The boundaries of these districts are hereby established as shown on the "Official Zoning Map".

### **SECTION 2.0 ZONING MAP**

The map herein referred to, which is identified by the title, Official Zoning Map of Harnett County, North Carolina, shall be known as the zoning map. The map shall bear the adoption date of this Ordinance and the date of any subsequent map amendments. It shall be kept filed at the County Department of GIS & Land Records and shall bear the adoption date of this Ordinance and the date of any subsequent map amendments.

#### **2.1 Interpretation of District Boundaries**

When uncertainty exists with respect to the boundaries of any district as shown on the Official Zoning Map, the following rules shall apply:

- A. Boundaries along street, highway, or alley center lines or right-of-way lines shall be construed as following such lines.
- B. Boundaries along railroad tracks shall be construed as being midway between the main railroad tracks.
- C. Boundaries along plotted property lines and municipal boundary lines shall be construed as following such lines.
- D. Boundaries indicated as following shorelines shall be construed to follow such shorelines and in event of change in the shoreline, shall be construed as moving with the actual shoreline.
- E. In the absence of established features, or lines, or specified distances on the zoning map, district Boundary locations shall be determined by scaling the distance on the map.
- F. Where physical conditions existing on the ground are at variance with those shown on the zoning map, or in other circumstances not covered herein, the Board of Adjustment shall interpret district boundary locations.

- G. Where a district zoning boundary divides a lot, the Board of Adjustment may, as a special exception, permit the extension of either district into portions of the lot not to exceed 50 feet beyond the district boundary line.

### **SECTION 3.0 INDUSTRIAL DISTRICT – IND**

The purpose of this district, Industrial (IND), is to promote and protect both existing industrial activities and potential sites which are considered suitable for industrial use, to prohibit uses of land which would substantially interfere with the continuation of uses permitted in the district, and to promote the operation of well-planned and maintained industrial facilities.

### **SECTION 4.0 LIGHT INDUSTRIAL – LI**

The purpose of the Light Industrial District (LI) is to function as a transitional use between the more intense general manufacturing and industrial uses and other less intense uses.

### **SECTION 5.0 COMMERCIAL – COMM**

It is the purpose of the Commercial/Business District (COMM) to accommodate the widest variety of commercial, wholesale, and retail businesses in areas that are best located and suited for such uses.

### **SECTION 6.0 OFFICE & INSTITUTIONAL – O&I**

#### **6.1 Purpose**

The purpose and intent of the Office/Institutional District (O&I) is to establish procedural and substantive standards for the Planning Board's review and approval of development on large tracts of land where the predominant use is to be college, university, hospital, clinics, public cultural facilities, offices for business and professional use, light manufacturing, and related functions.

The objective of this Section and the O&I District is to allow for growth and development while protecting the larger community, nearby neighborhoods, and the environment from impacts accompanying major new development. A key feature of this district is the preparation of a development plan that would allow the property owner, immediate neighbors, and the larger community to understand specifically what levels of development are being proposed, and what impacts would likely accompany the development, so that mitigation measures can be designed and implemented.

#### **6.2 Overview of Development Review Procedures**

- A. Procedures in this zoning district are designed to facilitate:
  - 1. Articulation of development plans that involve multiple buildings in multiple locations over an extended time period on a given tract of land, as defined in a development plan; and
  - 2. Identification of total infrastructure needs for such proposed development as specified in a development plan and cumulative impacts resulting from full development as specified in a development plan.
- B. To this end, owners of property zoned O&I are required to prepare a development plan, as described in Section “Development Review Requirements” of Article III “Development & Subdivision Review, Permitting, & Approval Requirements”, for review and approval by the Planning Board. For buildings that are included in an approved development plan, site development permits for individual buildings are to be issued by the Administrator, following a determination by the Administrator that such individual building plans are generally consistent with the Planning Board approved development plan.

- C. For development proposed within an O&I Zoning District that is not included in a Planning Board approved development plan, but is a minor change according to the provisions of this Section, the Administrator may approve a change to the development plan and issue a site development permit.
- D. For development proposed within an O&I Zoning District that is not included in a Planning Board approved development plan and that cannot be considered a minor change to the plan according to the provisions of this “O&I” Section, in such development situations the applicant shall apply to the Planning Board for an amendment to the development plan.

**SECTION 7.0 RESIDENTIAL/AGRICULTURAL DISTRICT – RA-20M**

The RA-20M Residential/Agricultural District (RA-20M) is established primarily to support agricultural and residential development. Inclusive in such higher density residential developments may consist of single family dwellings, multifamily dwellings, duplexes, and manufactured home parks.

**SECTION 8.0 RESIDENTIAL/AGRICULTURAL DISTRICT – RA-20R**

The RA-20R Residential/Agricultural District (RA-20R) is established primarily to support agricultural and residential development. Inclusive in such higher density residential developments may consist of single family dwellings, multifamily dwellings, and duplexes.

**SECTION 9.0 RESIDENTIAL/AGRICULTURAL DISTRICT – RA-30**

The RA-30 Residential/Agricultural District (RA-30) is established as primarily a single family residential and agricultural district, but includes occasional two-family and multifamily structures.

**SECTION 10.0 RESIDENTIAL/AGRICULTURAL DISTRICT – RA-40**

The RA-40 Residential/Agricultural District (RA-40) is established exclusively as a single-family residential and agricultural district.

**SECTION 11.0 CONSERVATION – CONS**

**11.1 Purpose**

The purpose of the Conservation District is to encourage the preservation of and continued use of the land for conservation purposes in its natural state, and to prohibit intrusive development of the land in areas with alluvial soils, perennial streams, or that are subject to flooding or considered wetlands.

**11.2 District Dimensions**

<b>WATER BODY:</b>	<b>DISTRICT SHALL BE MEASURED ON EACH SIDE FROM:</b>
Cape Fear River	500 ft. from water’s edge at normal flow
Black River	300 ft. from center of river, north of intersection with SR 1552
Black River	200 ft. from center of river, south of intersection with SR 1552
Other Major Creeks	200 ft. from each side of main channel

Lots in subdivisions established prior to the date of adoption of zoning at the same location (July 18, 1988, June 5, 2000, June 18, 2007, or June 15, 2009) will be exempt from the no building requirements of the Conservation District, but shall adhere to the use and setback requirements of the RA-30 Zoning District, and all provisions of this Zoning Ordinance applicable to said District.



## **SECTION 12.0 HIGHWAY CORRIDOR OVERLAY DISTRICT – HCO**

### **12.1 Purpose**

It is the intent of the Highway Corridor Overlay District (HCO) to protect natural resources, provide landscape improvements, and enhance the overall appearance of the corridors identified. This district has development standards established to regulate development within a corridor. The Highway Corridor Overlay District standards, which apply to the entire length of a corridor becomes effective once a corridor has been studied, a plan adopted, and the area subsequently identified on the official zoning map. Development standards from the Highway Corridor Overlay District apply to all parcels within 600 feet of the right-of-way on both sides of the street as shown on the official zoning map, except in such instances in which the corridor width has been modified by the Board of Commissioners. In cases where a portion of a tract of land lies within the Highway Corridor Overlay District, the entire tract shall fall into the same regulation.

### **12.2 Permitted & Special Uses**

The permitted uses shall be the same as those in the underlying zoning districts. The Special Uses shall be the same as those in the underlying zoning districts.

### **12.3 Architectural Standards**

#### *12.3.1 Applicability*

- A. The following regulations shall apply to all new nonresidential structures and development site plan submittals located within the Highway Corridor Overlay Zoning District.
- B. Expansions
  1. Expansions shall comply with these regulations at such time that the expansion totals 50 percent (50%) or more of the existing building size. The total percentage of building expansions shall be combined over a five (5) year period. At such time that the percentage of building expansions reaches 50 percent (50%) or more of the original building size, these regulations shall be met, for that part of the structure included in the expansion.
  2. In cases where an expansion is equal to or greater than the total square footage of the existing building, both the expansion and the existing building shall also be brought into compliance with these regulations. The total shall be combined over a five (5) year period.
- C. Conversions of structures formerly used for residential purposes and changes of uses shall comply with the regulations included herein.

#### *12.3.2 Building Materials & Colors*

- A. Front facades and exterior walls visible from the public right(s)-of-way shall be composed of at least 50 percent (50%) approved primary materials, listed below. Secondary materials may be used on building walls not visible from a public right(s)-of-way.
  1. Primary Building Materials

The following materials shall be permitted as primary building materials.

    - a. Brick
    - b. Stone
    - c. Fiber Cement Siding

d. Architectural Concrete

Said material shall be permitted if the surface is constructed to simulate brick or stone and only as approved by the Administrator.

2. Secondary Building Materials

The following materials shall be prohibited as primary building materials but shall be allowed as secondary material along with the approved primary building materials or as primary elements on walls not required to meet these requirements. Secondary materials are not required. When used, no more than 30 percent (30%) of front façades and exterior walls visible from the public right(s)-of-way shall be composed of the materials listed herein.

a. Stucco

b. Exterior Insulation Finishing System (EIFS)

c. Painted or Stained Concrete

d. Metal

e. Split-Face Block

3. Supplemental Building Materials

The following materials shall be allowed as supplemental materials along with primary and secondary materials. Supplementary building materials are not required. When used, no more than 10 percent (10%) of exterior walls shall be composed of the materials listed herein.

a. Vinyl Siding

b. Cast Concrete

c. Smooth-Faced Concrete

4. Accessory Structures

Building materials and colors on accessory structures shall be compatible with that approved for the primary structure. For example, canopies permitted as part of a gas station may use a combination of brick columns and a metal canopy that is similar in color to the primary structure.

B. For purposes of this Ordinance, the term “visible from the public right(s)-of-way” shall mean visible from any existing public right(s)-of-way or any right(s)-of-way intended for future dedication for public use. Additionally, for purposes of this Section, only those public right(s)-of-way located within the Highway Corridor Overlay Zoning District shall be considered for compliance with these regulations.

C. Two (2) or more materials shall be combined on one (1) façade; with the heavier material(s) being installed nearer to the ground or below other materials.

D. Building Color

The number of colors used shall be limited to no more than three (3) discernable colors or ranges of complementary hues. The dominate color shall constitute a minimum of 60 percent (60%) of the façade, excluding windows, doors, and the like. Façade colors shall be of low reflectance earth tone, muted, subtle, and/or neutral colors. Building trim may feature brighter colors, but neon tubing is not allowed as an accent material. The use of high intensity, metallic, fluorescent, or neon colors shall be prohibited. Variations in color schemes are encouraged in order to articulate entryways, architectural features, and public amenities so as to give greater recognition to these features.

### 12.3.3 *Building Design, Façades, & Massing*

- A. Façades shall include changes in wall plane, incorporating at least one (1) change in wall plane, such as recesses and projections, along at least 20 percent (20%) of the length of the façade at a depth of at least three percent (3%) of the entire length of the building.
  - 1. Buildings of 10,000 square feet or less shall include a change in wall plane for every 50 feet of length.
  - 2. Buildings greater than 10,000 square feet shall include a change in wall plane for every 100 feet of length.
- B. Rooflines shall vary in height, material, treatment, direction, etc. and shall not extend in a continuous plane for more than 50 feet to reduce the scale of structures and to increase visual interest. Roof shape, such as flat, hip, mansard, or gable, and material shall be architecturally compatible with the façade elements of the rest of the building.
- C. Buildings with flat roofs or with roof pitches of 3:12 or less shall maintain a parapet wall along all walls visible from the public right(s)-of-way. Parapet walls shall have decorative cornices or caps.
- D. If roof cornices or caps have been removed or damaged on an existing building, renovations of such building shall include retaining, repairing, and replacing the roof cornices or caps, unless justification can be made to the Administrator as to why that is not feasible.

### 12.3.4 *Architectural Standard Design Alternatives*

Alternative design plans, building materials, landscaping, and/or construction techniques may be used when unreasonable or impractical situations would result from the strict application of architectural standards of this Section. Such situations may result from unique site conditions, innovative design applications, and/or unified development design. The review and approval of Architectural Standard Design Alternatives shall be reviewed and decided by the Planning Board. The following criteria shall be used in determining whether an architectural standard design alternative can be accepted by the Planning Board in lieu of meeting the requirements of this Section.

- A. The proposal includes a clear and concise explanation of the specific standards that cannot be met and how the alternative methods proposed will achieve the intent of this Section;
- B. The proposal represents the use of alternative methods and/or materials (including but not limited to: building materials, massing, materials, and scale; orientation in relation to the public right(s)-of-way; façade treatment; landscaping; lighting; and open space) which will result in a development pattern which is equivalent to or greater than that required by this Ordinance;
- C. The proposed use and design alternative is compatible with adjacent land uses;
- D. The proposal is compatible with and will enhance the use or value of adjacent and area properties;
- E. The proposal is consistent with the intent of adopted County plans; and
- F. The proposed development standards are, in all other aspects, consistent with the intent and purpose of this Ordinance.

All findings specified above for the granting of such a request with the Architectural Standard Design Alternatives shall be provided in writing and signed by the Administrator. One (1) copy shall be provided to the applicant and another shall be retained as a part of the permanent record of the determination of the Planning Board.

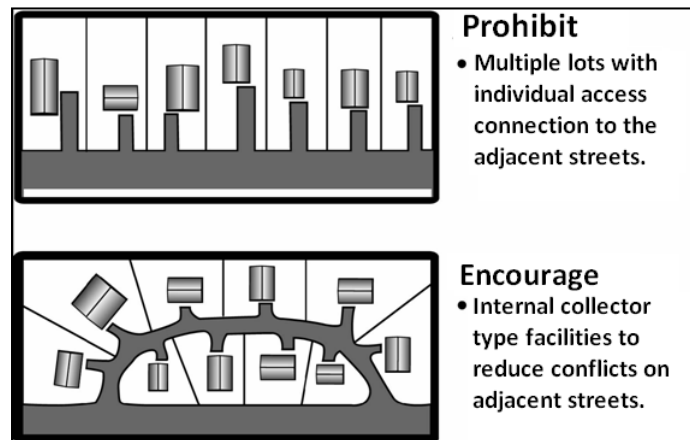
## 12.4 Parking Lot (Off-Street Parking) Landscaping

- A. Parking lots, loading areas, and other vehicle use areas shall be planted with one (1) tree and two (2) shrubs for every 10 parking spaces required.
- B. At least 65 percent (65%) of the required parking lot trees shall be large shade trees.
- C. Trees and shrubs shall be planted within 15 feet of the vehicle use areas.
- D. Developments containing 30 or more parking spaces, 50 percent (50%) of the trees and shrubs required shall be planted in islands or medians located within the parking lot.
- E. A consecutive strip of parking spaces shall include landscape islands every 20 spaces apart and at the ends of all parking rows.
- F. Landscape islands shall be grassed and mowed, covered with organic material (for example, pine mulch), or a combination of the two (2).
- G. In calculating the number of trees and shrubs, standard rounding procedures shall be followed. (For example, one and a half (1.5) or greater will become two (2))

## 12.5 Additional Development Standards

### 12.5.1 Driveways

Driveways serving a new development parcel shall be permitted in accordance with the standards of the NCDOT; however, the Harnett County Planning Board and Board of Commissioners may require more strict standards as conditions of approval during the site plan review, if it is determined that the additional conditions may improve traffic movement and safety. Developers of nonresidential uses are required to share parking areas and driveways with adjoining developments. Also, no landscaping or structures shall be allowed near the intersections of driveways and streets that would impede safe vision of traffic. Subdivision of land with multiple smaller parcels having frontage on the roadway along the corridor will not be allowed. NCDOT and the County prohibit this type of development within the corridor. Development will be required to have shared access to the roadway as approved by the NCDOT and the County.



### 12.5.2 Outdoor Storage

Outdoor storage, when permitted, shall be screened from view so that it is not visible from a right(s)-of-way or adjacent property(s). Any accessory outdoor storage area shall comply with the requirements set forth in Subsection “Outdoor Storage Area Screening”, Section “Buffers & Landscaping” of Article VII “Development Design

Guidelines.”

### 12.5.3 Signs

#### A. Business & Other Signs

##### 1. General Sign Regulations

All business and other signs located within the Highway Corridor Overlay Zoning District shall comply with the regulations of this Section, as well as with all other sign requirements of this Ordinance.

##### 2. Sign Landscaping

A minimum of one (1) large and two (2) small trees per detached sign on the property shall be planted, if not existing, within the perimeter planting strip.

#### B. Outdoor Advertising Signs

No outdoor advertising signs shall be allowed within the Highway Corridor Overlay District or on any property(s) that are partially located within the Highway Corridor Overlay District, except in compliance with Section “Nonconforming Signs” of Article II “Nonconformities”.

## **SECTION 13.0 MILITARY CORRIDOR OVERLAY DISTRICT – MCO**

### **13.1 Purpose**

The main purpose of this district is to ensure the compatibility between air and exercise operations associated with local military installations occurring at varying hours and land uses on properties nearby, in terms of potential interference with safe aircraft operations, potential threats from falling aircraft, potential impacts of noise, and potential adverse impacts of other military operations and practices, such as small arms and artillery training and exercises, and prescribed or controlled burning of forested land.

Compatibility of land uses is encouraged within the five (5) mile area surrounding the local military installation to further the purpose of the installation, as well as to preserve the quality of life of surrounding property owners. Compatibility of surrounding land uses may encourage wildlife preservation and reduce potential interference of light pollution.

Prescribed or controlled burning typically takes place on managed lands as a method of reducing the risk of catastrophic fires on those and adjacent lands. Potential adverse effects of controlled burning includes risk to smoke-sensitive individuals as well as reduced visibility on public right(s)-of-way.

### **13.2 District Dimensions**

The Military Corridor Overlay Zone shall be identified as including those properties located either fully or partially within five (5) miles of the jurisdictional boundary of a military base.

### **13.3 Permitted & Special Uses**

The permitted uses shall be the same as those in the underlying zoning districts. The Special Uses shall be the same as those in the underlying zoning districts.

### **13.4 Required Review**

To ensure compliance with GS 160D-323, notification to the military installation shall be made on any adoptions or modifications to this Ordinance that may change or affect the permitted uses of land located within five (5) miles of a military installation. In addition, notification shall

be made to the military installation on any development projects, including but not limited to subdivisions, site plans, telecommunications towers, and windmills located within the same distance. The military installation shall be afforded the opportunity to provide comment or analysis on such adoptions, modifications, or developments regarding compatibility. Any comments provided prior to the public hearing or other applicable final review shall be considered by the Board of Commissioners or approving body in rendering a final determination.

### **13.5 Notification Procedures**

All plats for site plans and both residential and nonresidential subdivisions located within the Military Corridor Overlay Zoning District, including those for minor subdivisions and preliminary and final major subdivisions, shall include a statement indicating that such lots are located in the district. Further, the required statement shall indicate that homes within the overlay district may, from time to time, be subject to potential adverse effects of operations on the military installation.

## **SECTION 14.0 DIMENSIONAL REQUIREMENTS**

### **14.1 General Requirements**

#### *14.1.1 Exemptions from Minimum Dimensional Requirements*

Lots for public utilities and private utilities for public purposes other than distribution lines, including but not limited to electric substations, telephone exchange buildings, and water towers, shall not be required to meet “Lot Requirements”, below, and Subsections “Nonresidential Zoning Minimum Dimensional Requirements” and “Residential Zoning Minimum Dimensional Requirements” of this Section. Applications for such shall include an accurate site specific plan using exempted requirements as development guidelines and shall note the purpose for which the lot is to be utilized.

#### *14.1.2 Lot Requirements*

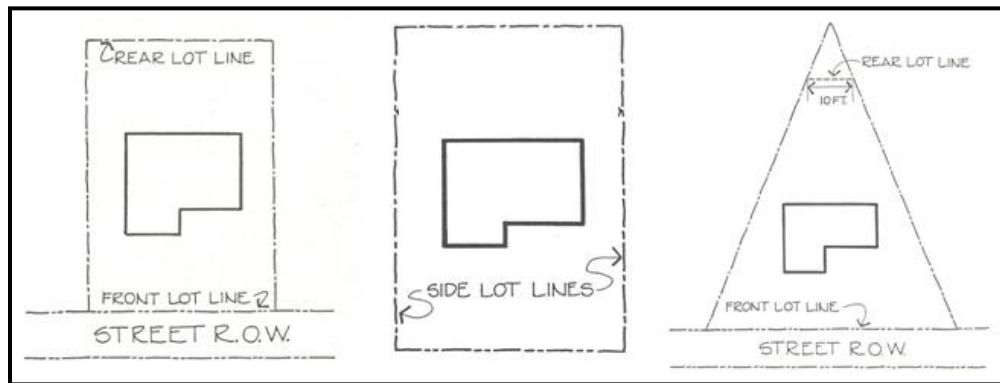
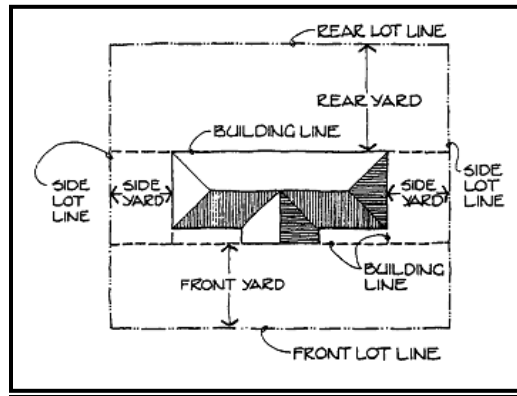
- A. Lot sizes, shapes, and locations shall be made with due regard to topographic conditions, contemplated use, and the surrounding area. Every lot shall front or abut a street for a distance of at least 80 feet except on the bulb of a cul-de-sac where 40 feet will be acceptable, unless specified otherwise in this Ordinance.
- B. Extending from the front property line to the rear property line, both side lot lines shall be substantially perpendicular to the street line.
- C. Double frontage or reverse frontage lots shall be avoided except where necessary to separate residential development from through traffic or nonresidential uses.

#### *14.1.3 Reduction of Lot & Yard Areas Prohibited*

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 meet at least the minimum requirements established by this Ordinance.

#### *14.1.4 Lot Width & Yards*

Lot width shall be the length as measured at the front property line or right-of-way line except on the bulb of a cul-de-sac as specified herein. The diagrams below are provided to assist in interpreting definitions and regulations of lot width and lot yards.



#### 14.1.5 Front Yard Setback

Length measured from the public right-of-way line to the structure (excluding steps). In cases where no public right-of-way exists, the measurement shall be from the access easement line; or, if no public right-of-way or access easement exists, the measurement shall be made from the property line.

Front yards shall be devoted for sidewalks, grass, landscaping, and driveways.

#### 14.1.6 Rear Yard Setback

Length measured from the rear property line (excluding steps).

#### 14.1.7 Side Yard Setback

Length measured from the side property lines.

#### 14.1.8 Side Yard Setback, Corner Lot

Length measured from the public right-of-way located along the side yard. In cases where no public right-of-way exists, the measurement shall be from the easement line.

Accessory buildings on the side of the lot abutting the side street shall not be closer to the lot line abutting that side street than the distance specified for front yards of lots fronting on such side street.

#### 14.1.9 Measuring Setbacks

Required setback distances are generally based on rectangular lots. Nonrectangular lots, lots with three (3) sides or more than four (4) sides, and other irregularly shaped lots require special measurement techniques to ensure proper separation between structures and property lines. The following is provided to aid in determining the appropriate location for measuring building setbacks on irregular lots. The Administrator is authorized to establish the front, rear, and/or

side setback and property lines in cases of uncertainty. See Article VII “Development Design Guidelines”, Section “Street & Transportation Guidelines”, Subsection “Comprehensive Transportation Plan” for additional information regarding measurement of setbacks on properties located along public right(s)-of-way identified on the Harnett County Comprehensive Transportation Plan.

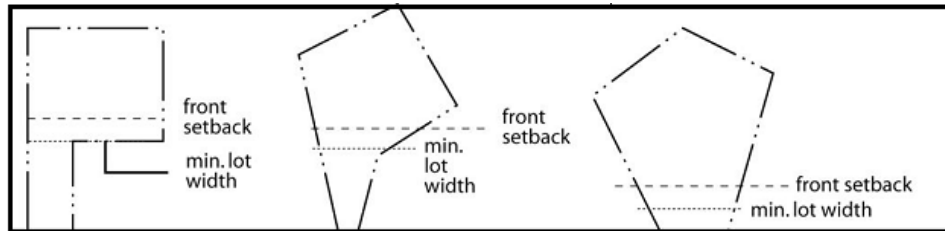
A. Front Setback

1. New Lots

New lots shall be developed so that the minimum required front setback shall be maintained for the same distance back into the property and perpendicular to the front line.

2. Existing Lots

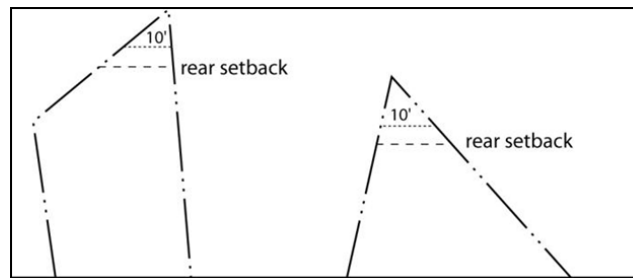
Front setbacks on existing lots shall be measured from the right-of-way, easement, or front property line (as required by this Ordinance) unless said line does not meet the minimum lot width requirement. In such cases, the front setback shall be measured from a point on the lot, nearest the front line, that complies with the minimum lot width requirements of the zoning district in which it is located.



B. Rear Setback

On irregularly shaped lots, the rear setback is measured from an imaginary line that:

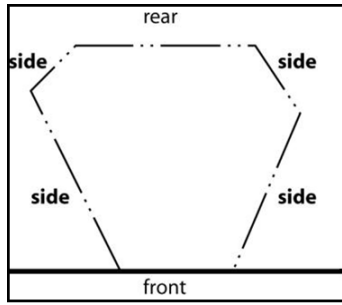
1. Is within the lot;
2. Is drawn at a point most distant from the front property line where the lot is 10 feet in width;
3. Is parallel to the front property line; and
4. Extends across the entire width of the lot.



C. Side Setback

All property lines that are not front or rear property lines shall be considered side property lines for purposes of measuring setbacks.





**14.1.10 Building Height, Required**

The maximum height of any structure shall be the same as required by the underlying zoning district unless otherwise stated herein. Buildings located within the Rural Center, Employment Mixed Use, or Compact Mixed Use Land Use Classifications are exempt from the district height requirement if they conform to the following:

- A. Highest point of the building shall not exceed 85 feet.
- B. Fire Code Official shall certify that the building is designed and equipped to provide adequate fire protection. All buildings that exceed maximum building height of 35 feet shall provide automatic sprinkler system in accordance with the North Carolina State Building Code.

**14.2 Residential Zoning Minimum Dimensional Requirements**

ZONING DISTRICT	RA-40	RA-30	RA-20M	RA-20R
Minimum Lot Area (square feet)	40,000	30,000	20,000	20,000
Connection to public water and/or sewer including any NCDOT right-of-way (square feet)	35,000	25,000	15,000	15,000
Minimum Lot Width	150 ft	100 ft	80 ft	80 ft
Minimum Front Yard Setback	35 ft	35 ft	35 ft	35 ft
Minimum Rear Yard Setback	25 ft	25 ft	25 ft	25 ft
Minimum Side Yard Setback	10 ft	10 ft	10 ft	10 ft
Maximum Building Height, Required	35 ft	35 ft	35 ft	35 ft
Minimum Side Yard Setback, Corner Lot	20 ft	20 ft	20 ft	20 ft
Minimum Side Yard Setback, Corner Lot on Major Thoroughfare	35 ft	35 ft	35 ft	35 ft

**14.3 Residential Minimum Dimensional & Amenity Requirements for Major Subdivisions**

**14.3.1 Compatibility Design Concept**

The Compatibility Design Concept has been established for the following purposes:

- A. To protect rural character and agricultural lands
- B. To encourage compatibility between existing land uses and new development
- C. To provide for growth near infrastructure
- D. To improve the quality of development through amenities

Compatibility Development requirements are made up of four (4) key components: zoning district, land use class, minimum lot size, and open space. The table below contains the regulations for this type of development. The subject property(s) for this use shall be compatible

with the zoning district and land use class. The minimum lot size stated is only permitted if the required improvements indicated are met.

#### 14.3.2 *Land Use Class*

The Land Use Classifications listed herein shall coincide with the Harnett County Land Use Plan. Definitions of said classifications and further information shall be found in the Harnett County Land Use Plan.

- A. PA: Protected Area
- B. ESA: Environmentally Sensitive Areas
- C. CDTA: Compatibility Development Target Areas
- D. MCB: Military Corridor Buffer
- E. ARR: Agricultural and Rural Residential
- F. LDR: Low Density Residential
- G. MDR: Medium Density Residential
- H. RC: Rural Centers
- I. CMU: Compact Mixed Use
- J. EMU: Employment Mixed Use

#### 14.3.3 *Minimum Lot Size*

While all lots shall not all be of equal size, lots within the development shall be equal to or larger than the indicated minimum lot size.

#### 14.3.4 *Amenities & Design Standards*

All of the criteria listed herein are subject to the regulations stated in the “Development Design Guidelines” Section of the Harnett County Unified Development Ordinance.

- A. Amenities that shall be provided are indicated as such with a checkmark (✓) and amenities that should be provided, but are not required, are indicated as such with a dash (-).
- B. Sidewalks  
A checkmark and an asterisk (✓\*) indicates that sidewalks shall be constructed on both sides of the street.
- C. Public Utilities  
Connection shall be provided to at least one (1) public utility (either public water or public sewer) when indicated as such with a number one (1) and connection shall be provided to both public utilities (public water and sewer) when indicated as such with a number two (2).
- D. Street Pavement Width  
A minimum 50 foot right-of-way width shall be required, but it is recommended that a 60 foot right-of-way width be provided for all residential streets with curb & gutter and sidewalks.
- E. Streetscape Buffers shall be required in all major subdivisions. Prime Views & Vistas shall be required for all subdivisions in which open space is provided. These requirements can be found in Article “Development Design Guidelines” Section “Buffers & Landscaping” of this Ordinance.

F. Perimeter Buffer

A perimeter buffer shall be required on all subdivisions with lots of 7,500 square feet or less, and shall be maintained as open space. In no case shall this required buffer area be counted toward the minimum square footage requirement for individual lots. Retaining existing vegetation is encouraged. A minimum of a “Type A Buffer”, as defined by this Ordinance, shall be required.

14.3.5 Compatibility Design Concept Table

	LOT WIDTH	FRONT YARD	REAR YARD	SIDE YARD	CORNER SIDE YARD	OPEN SPACE	STREET TREES	SIDEWALKS & CURB & GUTTER	PUBLIC UTILITIES	STREET PAVEMENT WIDTH	REQUIRED PERIMETER BUFFER
<b>RA-40 Zoning</b>											
<b>LAND USE CLASS: LD, MDR, RC, CMU, EMU, ARR, ESA, PA</b>											
≥40,000 sq. ft. minimum lots	150'	35'	25'	10'	20'	0%	-	-	-	-	-
≥35,000 sq. ft. minimum lots	150'	35'	25'	10'	20'	0%	-	-	1	-	-
≥28,000 sq. ft. minimum lots	100'	35'	25'	10'	20'	10%	✓	✓	1	-	-
<b>LAND USE CLASS: MDR, RC, CMU, EMU</b>											
≥21,000 sq. ft. minimum lots	100'	35'	25'	10'	20'	20%	✓	✓	1	-	-
≥17,500 sq. ft. minimum lots	80'	35'	20'	10'	10'	30%	✓	✓	2	29'	✓
<b>RA-30 Zoning</b>											
<b>LAND USE CLASS: LD, MDR, RC, CMU, EMU, ARR, ESA, PA</b>											
≥30,000 sq. ft. minimum lots	100'	35'	25'	10'	20'	0%	-	-	-	-	-
≥25,000 sq. ft. minimum lots	100'	35'	25'	10'	20'	0%	-	-	1	-	-
≥20,000 sq. ft. minimum lots	80'	35'	20'	10'	20'	10%	✓	✓	1	-	-
<b>LAND USE CLASS: MDR, RC, CMU, EMU</b>											
≥15,000 sq. ft. minimum lots	80'	30'	20'	10'	20'	20%	✓	✓	1	-	-
≥12,500 sq. ft. minimum lots	70'	25'	20'	10'	20'	30%	✓	✓	2	29'	✓
<b>RA-20R(M) Zoning</b>											
<b>LAND USE CLASS: LD, MDR, RC, CMU, EMU, ARR, ESA, PA</b>											
≥20,000 sq. ft. minimum lots	80'	35'	25'	10'	20'	0%	-	-	-	-	-
≥15,000 sq. ft. minimum lots	80'	30'	20'	10'	20'	0%	✓	✓	1	-	-
≥12,000 sq. ft. minimum lots	70'	25'	20'	10'	20'	20%	✓	✓	2	29'	-
<b>LAND USE CLASS: MDR, RC, CMU, EMU</b>											
≥10,000 sq. ft. minimum lots	70'	20'	15'	5'	15'	20%	✓	✓	2	29'	✓

- OPTIONAL                      ✓ REQUIRED                      1 PUBLIC WATER OR SEWER                      2 PUBLIC WATER AND SEWER

14.4 Nonresidential Zoning Minimum Dimensional Requirements

ZONING DISTRICT	IND	LI	COMM	O&I	CONS	HCO
Minimum Lot Area (square feet)	43,560	43,560	30,000	5 acres	30,000	UD
Minimum Lot Width	150 ft	150 ft	100 ft	DP	100 ft	UD
Minimum Front Yard Setback	50 ft	50 ft	35 ft	DP	35 ft <sup>3*</sup>	50 ft
Minimum Rear Yard Setback	25 ft <sup>1*</sup>	25 ft <sup>1*</sup>	25 ft	DP	25 ft <sup>3*</sup>	UD
Minimum Side Yard Setback	0 ft <sup>1*</sup>	0 ft <sup>1*</sup>	0 ft <sup>2*</sup>	DP	10 ft <sup>3*</sup>	UD
Maximum Building Height, Unless Otherwise Permitted	35 ft	35 ft	35 ft	35 ft	35 ft	UD
Minimum Side Yard Setback, Corner Lot	25 ft <sup>1*4*</sup>	25 ft <sup>1*4*</sup>	20 ft <sup>4*</sup>	DP	20 ft	UD

- A. 1\* shall mean the listed requirement stands unless adjacent property is zoned residential; then the setback shall be 50 feet.
- B. 2\* shall mean the listed requirement stands unless adjacent property is zoned residential; then the setback shall be 20 feet.

- C. 3\* shall mean that the listed requirement stands and applies to single family dwellings with exception that when the single family dwelling yard is located adjacent to said rivers or creeks (listed below) the yard requirement shall be as follows:
  - 1. Minimum Yard for Cape Fear: 250 ft.
  - 2. Minimum Yard for Black River: 150 ft.
  - 3. Minimum Yard for other creeks: 100 ft.
- D. 4\* shall mean the listed requirement stands unless the lot is adjacent to an access easement and / or private street; then the setback shall be 15 feet.
- E. UD shall stand for “Underlying Zoning District” meaning that, where indicated, the regulations of the underlying zoning district shall prevail.
- F. DP shall stand for “Development Plan” meaning that, where indicated, the regulations for the specified item shall be stated in the required Development Plan.

**14.5 Nonresidential Minimum Dimensional & Amenity Requirements for Major Subdivisions**

Nonresidential major subdivision shall meet the requirements of this Ordinance for residential major subdivisions, except in the following cases:

- A. All lots shall meet the standard minimum lot size of the zoning district in which they are located.
- B. Concrete curb & gutter shall be required.
- C. Sidewalks

Sidewalks shall be required on all lots. The final subdivision plat shall include a notation regarding maintenance of sidewalks.

- D. At least one (1) public utility, either water or sewer, shall be available.
- E. Perimeter Buffer

When located adjacent to a residential zoning district, a perimeter buffer shall be required, as required by this Ordinance. Said buffer shall be installed prior to approval of the final subdivision plat. Specific uses may require additional buffering or screening at the time of site plan review.

# ARTICLE V. USE REGULATIONS

## SECTION 1.0 USE TYPES & REGULATIONS

### 1.1 General Applicability

- A. Any use not specifically designated as either a permitted or Special Use in a zoning district is prohibited. Uses not listed may be included by following the amendment process described elsewhere in this Ordinance. The following uses shall be expressly prohibited:
1. Abandoned Manufactured Homes
    - a. Unless otherwise provided, manufactured homes that are considered to be abandoned according to the definition for abandoned manufactured homes shall be prohibited in all zoning districts within Harnett County. Once a determination has been made by the Administrator or his authorized agent that a manufactured home is abandoned then the Administrator shall take action to abate the violation using any of the enforcement procedures in Article “Enforcement & Penalties” of this Ordinance.
    - b. Harnett County may require the removal of junked or abandoned manufactured homes from public grounds, including but not limited to public or private street right(s)-of-way or private property upon finding that such removal is necessary and desirable to promote or enhance community, neighborhood, or area appearance or to abate public health or safety nuisances.
- B. Existing nonresidential development applying for permits to expand shall follow the requirements indicated in the “Table of Use Types & Regulations”.

### 1.2 Table of Use Types & Regulations

	IND	LI	COMM	O&I	CONS	RA-40	RA-30	RA-20R	RA-20M	PARKING	USE GROUP LEVEL	BUILDING CODE CLASS
<b>RESIDENTIAL USES</b>												
<b>Traditional Household Residential</b>												
Single Family Dwellings (including modular homes)					P*	P	P	P	P	2 per dwelling unit	1	R-3
Manufactured Homes (on individual parcel)							C*	P*	P*	2 per dwelling unit	1	R-3
Multi-Section Manufactured Homes (on individual parcel)							P*	P*	P*	2 per dwelling unit	1	R-3
<b>Multifamily Residential</b>												
Duplex Development							C*	C*	P* C*	1.5 per bdrm + 1 per bdrm over 2	2	R-3
Condominium Development				P*			C*	C*	P* C*	1.5 per bedroom	2	R-2
Live/Work Development			C*	C*						As required by proposed uses	3	
Multifamily Dwelling (three (3) or more dwelling units on individual parcel)				P*			C*	C*	P* C*	1.5 per bdrm + 1 per bdrm over 2	2	R-2
Townhome Development				P*			C*	C*	P* C*	1.5 per bdrm + 1 per bdrm over 2	2	R-3
Two-Family Dwelling (duplex on individual parcel)							P	P	P	1.5 per bdrm + 1 per bdrm over 2	1	R-3
<b>Group Residential</b>												
Family Care Facility							P*	P*	P*	1 per 5 beds	2	R-3
Group Care Facility			C*				C*	C*	C*	1 per 5 beds	2	
<b>ACCESSORY USES &amp; STRUCTURES</b>												
Customary Home Occupations							P*	P*	P*		1	

	IND	LI	COMM	O&I	CONS	RA-40	RA-30	RA-20R	RA-20M	PARKING	USE GROUP LEVEL	BUILDING CODE CLASS
Education: Typically Related Accessory Uses (ie- dormitories, modular units, stadiums, auditoriums, museums etc...)	P	P		P		P	P	P	P	see O&I District Regulations		
Junk Motor Vehicles (on private property)						P*	P*	P*	P*			
Kennel, Private Accessory						P*	P*	P*	P*		1	
Religious Structures Related Accessory Uses (ie- Rectories, Parsonages, Manses, Parish Houses, Cemeteries, Mausoleums)	C	C	P	P		P	P	P	P		2	
Solar Energy System	P*	P*	P*	P*		P*	P*	P*	P*			
Swimming Pools	P*	P*	P*	P*		P*	P*	P*	P*		1	
Wind Energy System	P*	P*	P*	P*		P*	P*	P*	P*			
<b>AGRICULTURE &amp; FORESTRY USES</b>												
Bona Fide Farm & Agritourism	P	P	P		P	P	P	P	P		1	
Nursery					P*	P*	P*	P*	P*	1 per 500 sq. ft.	2	M
Preserves (Nature, Wildlife, or Forest)	P	P	P	P	P	P	P	P	P		1	
<b>EDUCATIONAL &amp; INSTITUTIONAL USES</b>												
Continuing Care Retirement Community /Nursing Home	P	P	P	P		C	C	C	C	1 per employee (largest shift) + ½ per resident	2	
Crematorium	P	C	C			C	C	C	C	1 per employee		U
Cemetery or Mausoleum, Commercial Use			C*			C*	C*	C*	C*		2	
Cemetery or Mausoleum, Private Use						P	P	P	P		2	
Funeral Home or Mortuary			P			C	C	C	C	1 per 4 seats OR 1 per 200 sq. ft.	2	A-3
Religious Structures	C*	P*	P*	P*		P*	P*	P*	P*	1 per 4 sanctuary seats	2	A-3
<b>Daycare Facilities</b>												
Adult Daycare	C*	P*	P*	C*		C*	C*	C*	C*	1 per employee + 1 per 8 clients	2	
Childcare Facility	C*	P*	P*	C*		C*	C*	C*	C*	1 per employee + 1 per 8 clients	2	
In-Home Childcare						P*	P*	P*	P*	As required by underlying use	1	R-3
<b>Educational Services</b>												
Colleges & Universities	P	P	C	P		P	P	P	P	5 per classroom + 1 per office	2	B
Learning Center		C	P	P						1 per employee + 1 per 8 clients	2	B
Research Laboratory	P	P	C	P						1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	3	
School, Private: Elementary, Middle, & High	C	C	C			P	P	P	P	2 per classroom	2	E
School, Public: Elementary, Middle, & High	P	C	C			P	P	P	P	5 per classroom	2	E
Trade School	P	P	P			C	C	C	C	5 per classroom + 1 per office	2	B
Truck Driving School	P	C	C							5 per classroom + 1 per office	4	B
<b>Financial Services</b>												
Automated Teller Machine (ATM)	P*	P*	P*	P*		P*	P*	P*	P*	2 per machine	2	
Financial Institutions (Banks, Credit Agencies, Investment Companies, etc)	C	P	P	P						1 per 200 sq. ft.	3	B
<b>Health Services</b>												
Emergency Services (ie- Police, Fire, Rescue, Ambulance Service)	P	P	P	P		P	P	P	P	1 per 350 sq. ft.	2	
Health Care Services (ie- Medical & Dental Clinic & Lab, Blood Bank, etc)	C	P	P	P		C	C	C	C	1 per 300 sq. ft.	3	B
Hospitals	P	P	P	P		P	P	P	P	2 per bed	3	I-2
<b>Public Services</b>												
Parks		P	P	P	P	P	P	P	P		1	
Public Library	P	P	P	P		P	P	P	P	1 per 300 sq. ft.	2	A-3
<b>Social Institutions</b>												
Community & Civic Centers		P	P			P	P	P	P	1 per 200 sq. ft.	2	A-3
Social Halls, Lodges, Fraternal Organizations, Clubs, & Similar Activities		P	P			C	C	C	C	1 per 200 sq. ft.	2	A-3

	IND	LI	COMM	O&I	CONS	RA-40	RA-30	RA-20R	RA-20M	PARKING	USE GROUP LEVEL	BUILDING CODE CLASS
<b>COMMERCIAL USES</b>												
Existing Commercial Uses Applying for Permits to Expand				P			C	C	C	As required by underlying use	3	
<b>Animal Services</b>												
Kennels, Boarding Stables, & Other Similar Regulated Land Uses	C	C	C			C	C	C	C	1 per employee + 1 per kennel or pen	3	B
Veterinarian Service, Indoor	C*	P*	P*	P*		C*	C*	C*	C*	1 per 300 sq. ft.	3	B
Veterinarian Service, with outdoor facilities	C*	P*	C*	C*		C*	C*	C*	C*	1 per 300 sq ft	3	B
Zoo & Petting Zoo			C*				C*	C*	C*	1 per 4 persons (at max capacity)	4	
<b>Eating &amp; Drinking Services</b>												
Bar, Tavern, & Entertainment Venue	P*	C*	P*							1 per 2 seats	3	A
Restaurant	P*	P*	P*	P*		C*	C*	C*	C*	1 per 4 seats + 1 per 2 employees	3	A
<b>Lodging Services</b>												
Bed & Breakfast						C*	C*	C*	C*	1 per room + 1 per employee	3	R
Boarding House			C*					C*	C*	1 per room + 1 per employee	3	R
Hotel or Motel	C	P	P	P						1 per room + 1 per 2 employees	3	R
Homeless Shelter	C*		C*				C*	C*	C*	1 per 400 sq. ft.	3	R
Recreational Campground			C*		C*	C*	C*	C*	C*	1 per site	3	
<b>Offices, General</b>												
Business Service Establishment	P	P	P	P						1 per 300 sq. ft.	3	B
Offices (Business or Professional)	P	P	P	P		C	C	C	C	1 per 200 sq. ft.	3	B
Offices (Governmental)	P	P	P	P		C	C	C	C	1 per 200 sq. ft.	3	B
<b>Personal Services</b>												
Laundry Mat	P	P	P	P		C	C	C	C	1 per 150 sq. ft.	3	
Massage & Bodywork Spa, or Therapy Practice, Licensed			P*	P*			C*	C*	C*	3 per licensed therapist	3	B
Massage & Bodywork Therapy Practice, Unlicensed	C*									1 per 300 sq. ft.	4	B
Personal Service Establishment	P	P	P			C	C	C	C	1 per 300 sq. ft.		B
<b>Recreational Facilities</b>												
Recreational Facility	C*	C*	C*	C*		C*	C*	C*	C*	1 per 4 persons (at max capacity)	3	A
Athletic Fields, Private			P*	P*		C*	P*	P*	P*	25 per field + 1 per 200 sq. ft.	3	A
Health & Training Center, Indoor	C	P	P	P						1 per 200 sq. ft.	2	A
Health & Training Center, Outdoor		C*	C*	C*						1 per 200 sq. ft.	2	A
Race Track	C*	C*	C*	C*		C*	C*	C*	C*	1 per participant + 1 per 3 seats	3	A
Recreation & Amusement Services		C	C							1 per 4 persons (at max capacity)	3	A
Recreational Day Camp		C*	C*			C*	C*	C*	C*	1 per employee + 1 per 8 clients	2	
Recreational Facility, Indoor		P	P	P		C	C	C	C	1 per 200 sq. ft.	2	A
Firing Range, Indoor	P*	P*	P*	C*		C*	C*	C*	C*	1 per firing point	4	
Firing Range, Outdoor	C*	C*	C*	C*		C*	C*	C*	C*	1 per firing point	4	
<b>Retail Services</b>												
Convenience Stores & Convenience Type Business Establishments	P*	P*	P*	P*		C*	C*	C*	C*	1 per 150 sq. ft.	3	M
Grocery Store		C	P	P		C	C	C	C	1 per 200 sq. ft.	3	M
Flea Markets, Rummage, Second Hand Sales & Activities, Indoor			P*				C*	C*	C*	1 per 300 sq. ft.	3	M
Flea Markets, Rummage, Second Hand Sales & Activities, Outdoor			P*							1 per 300 sq. ft.	3	M
Nursery, Retail		P	P			C	C	C	C	1 per 500 sq. ft.	3	M
Retail Sales (entirely within an enclosed building)	P*	P*	P*							1 per 300 sq. ft.	3	M

	IND	LI	COMM	O&I	CONS	RA-40	RA-30	RA-20R	RA-20M	PARKING	USE GROUP LEVEL	BUILDING CODE CLASS
Retail Sales, Outdoor (primarily outside of an enclosed building)	P*	P*	P*							1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	3	M
Shopping Center		P*	P*							1 per 200 sq. ft.	3	
Sexually-Oriented Business (bookstore, motion picture, nightclub)	C*									1 per 300 sq. ft.	4	
<b>Vehicle Services</b>												
Automobile Repair Facility	P*	P*	P*	C*		C*	C*	C*	C*	3 per bay + 1 per employee	3	S
Car Wash	P*	P*	P*	C*		C*	C*	C*	C*	1 per employee + 1 per 200 sq. ft.	3	
Parking Lot	P	P	P	P					C		3	
Repossession Storage Facility (repot lot)	P*	C*	C*							1 per 200 sq. ft.	4	
Vehicle Sales, Leasing, & Rental	C*	C*	P*							1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	3	B
<b>INDUSTRIAL USES</b>												
Existing Industrial Uses Applying for Permits to Expand			C				C	C	C	As required by underlying use	4	
<b>Alternative Energy</b>												
Ethanol Diesel & Biofuel Production	C*	C*								1 per 2 employees (largest shift)	4	H
Solar Energy Facility	P*	P*				C*	C*	C*	C*	1 per 2 employees (largest shift)	4	
Wind Energy Facility	P*	P*				C*	C*	C*	C*	1 per 2 employees (largest shift)	4	
<b>Manufacturing</b>												
Manufacturing, Fertilizer	C*									1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	4	H
Manufacturing, General	P*	C*								1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	4	
Manufacturing, Light	P*	P* C*	P*	P*						1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	4	
Research Laboratory & Development	P	P	P	P						1 per 2 employees (largest shift) OR 1 per 500 sq ft		
<b>Warehousing &amp; Freight Handling</b>												
Assembling, Processing Industries, Wholesale, & Warehouse	P*	P*	C*	P*						1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	4	
Distribution Center	P*	C*	C*							1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	4	S
Storage, Personal Recreational Vehicle & Travel Trailer (private, individual use)						P*	P*	P*	P*	see Office, if applicable	3	
Storage, Self Mini-Warehouse/ Outdoor	P*	P*	P*				C*	C*	C*	see Office, if applicable	3	S
<b>Wholesale Trade</b>												
Wholesale Storage of Gasoline or Bulk Terminal Plants	C*									1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	4	H-3
<b>Waste Related</b>												
Recycling Collection Centers (unmanned)	P*	P*	P*	P*		P*	P*	P*	P*	1 per unit	1	
Recycling Collection Centers & Solid Waste Container Sites (manned)	P	P		C		C	C	C	C	1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	4	
Recycling Plant	P	C	C							1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	4	
Solid Waste Disposal	C*	C*	C*			C*	C*	C*	C*	1 per 2 employees (largest shift)	4	
<b>UTILITY USES</b>												
Privately Owned Public Utility Structures & Facilities	P* C*	P* C*	P* C*	P* C*	P* C*	C* C*	C* C*	C* C*	C* C*	1 per 2 employees, if applicable	3	U
Publicly Owned Utility Structures & Facilities	P*	P*	P*	P*	P*	P*	P*	P*	P*	1 per 2 employees, if applicable	3	U
<b>TEMPORARY USES</b>												
Modular Classroom	P*	P*	P*	P*		P*	P*	P*	P*			E
Nonresidential Building, Temporary	P*	P*	P*	P*	P*	P*	P*	P*	P*			
Portable Food Sales		P*	P*	P*								
Residence, Temporary						P*	P*	P*	P*	2 per dwelling unit	1	
Roadside Stands						P*	P*	P*	P*		1	



	IND	LI	COMM	O&I	CONS	RA-40	RA-30	RA-20R	RA-20M	PARKING	USE GROUP LEVEL	BUILDING CODE CLASS
Season Sales			P*			P*	P*	P*	P*		1	
Temporary Events	P*	P*	P*	P*		P*	P*	P*	P*		1	
Turkey Shoot, Temporary/Seasonal	C*	C*	C*	C*		C*	C*	C*	C*	1 per firing point	1	
Yard Sale						P*	P*	P*	P*		1	
<b>OTHER USES</b>												
Airports & Related Uses	P* C*	C*	C*	C*						1 per 300 sq. ft.	4	U
Comm. Towers: Microwave, TV, Telephone, Radio, & Cellular	C*	C*	C*	C*		C*	C*	C*	C*		4	U
Firearm Certification Facilities	C*	C*	C*	C*		C*	C*	C*	C*	1 per participant & 1 per instructor	4	
Governmental Training Facilities	P	P	P	P		P	P	P	P	1 per 2 participants allowed by classroom occupancy	3	
Gunsmithing	C*	C*	C*	C*		C*	C*	C*	C*		1	
Junkyards	C*									1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	4	
Manufactured Home Parks								C*		2 per dwelling unit	3	
Mining Activities	C*	C*	C*			C*	C*	C*	C*	1 per 2 employees (largest shift) OR 1 per 500 sq. ft.	4	
Outdoor advertising signs			P									
Planned Unit Development	C*	C*	C*			C*	C*	C*	C*	As required by underlying use	3	

For purposes of this Section, the column identified as “Building Code Class” is intended for reference purposes only and is subject to change without notice. “Building Code Class” is intended to provide the “Use & Occupancy Classification” as identified in the North Carolina State Building Code, which should be utilized for verification of the information included herein. Listings not specified shall follow the regulations of the applicable “Use & Occupancy Classification” once verified by the Building Code Administrator.

## **SECTION 2.0 USE REGULATIONS**

Use regulations shall apply to those uses marked with an asterisk (\*) in the Table of Use Types & Regulations, above, and are applicable to each use, as listed. Compliance with use regulations is mandatory and required prior to issuance of a Certificate of Occupancy. Use regulations listed herein shall be listed in the same order as in the “Table of Use Types & Regulations.”

## **SECTION 3.0 RESIDENTIAL USES**

### **3.1 Traditional Household Residential**

#### ***3.1.1 Single Family Dwelling***

All single family dwellings located within the Conservation Zoning District shall be connected to public water and public sewer unless specified elsewhere within this Ordinance.

### **3.1.2 *Manufactured Homes***

#### *RA-20M & RA-20R Zoning Districts*

All requirements or conditions shall be met before a final Certificate of Occupancy (CO) will be issued for the home.

- A. The structure shall be built to the HUD code for manufactured homes.
- B. The structure shall have an a-pitched roof that is covered with material commonly used in standard residential roofing construction. Said material shall be installed properly and be consistent in appearance.
- C. The structure shall have underpinning consisting of a brick curtain wall or have galvanized metal sheeting, ABS, or PVC plastic color skirting with interlocking edges, installed around the perimeter of the home. Skirting shall be consistent in appearance, in good condition, continuous, permanent, and unpierced except for ventilation and access.
- D. The tongue or towing device shall be removed or landscaped.

#### *RA-30 Zoning District*

All requirements or conditions shall be met prior to issuance of a Certificate of Occupancy (CO) for the home.

- A. The structure shall be built to the HUD code for manufactured homes.
- B. The structure shall have an a-pitched roof that is covered with material commonly used in standard residential roofing construction. Said material shall be installed properly and be consistent in appearance.
- C. The structure shall have underpinning consisting of a brick curtain wall or have galvanized metal sheeting, ABS, or PVC plastic color skirting with interlocking edges, installed around the perimeter of the home. Skirting shall be consistent in appearance, in good condition, continuous, permanent, and unpierced except for ventilation and access.
  - 1. In cases where the proposed home is located in Flood Zone AE, the home shall be located on a masonry foundation only, with approved flood vents or breakaway skirting. See “Flood Damage Prevention” Section of this Ordinance for more information.
- D. The exterior siding shall consist predominantly of vinyl, aluminum, wood or hardboard; and shall be comparable in composition, appearance, and durability to the exterior siding commonly used in standard residential construction. Said exterior siding shall be in good condition, complete, and not damaged or loose.
- E. The tongue or towing device shall be removed or landscaped.

### **3.1.3 *Multi-Section Manufactured Homes***

#### *RA-20M & RA-20R Zoning Districts*

All requirements or conditions shall be met before a final Certificate of Occupancy (CO) will be issued for the home.

- A. The structure shall be built to the HUD code for manufactured homes.
- B. The structure shall have an a-pitched roof that is covered with material commonly used in standard residential roofing construction. Said material shall be installed properly and be consistent in appearance.
- C. The structure shall have underpinning consisting of a brick curtain wall or have galvanized metal sheeting, ABS, or PVC plastic color skirting with interlocking edges, installed around the

perimeter of the home. Skirting shall be consistent in appearance, in good condition, continuous, permanent, and unpierced except for ventilation and access.

- D. The tongue or towing device shall be removed or landscaped.

#### *RA-30 Zoning District*

All requirements or conditions shall be met prior to issuance of a Certificate of Occupancy (CO) for the home. In cases where the requirements listed herein cannot be met, the applicant(s) may apply for a Special Use permit.

- A. The structure shall be built to the HUD code for manufactured homes.
- B. When located on the site, the longest axis of the unit shall be parallel to the lot frontage.
- C. The structure shall have an a-pitched roof that is covered with material commonly used in standard residential roofing construction. Said material shall be installed properly and be consistent in appearance.
- D. The structure shall have masonry underpinning that is continuous, permanent, and unpierced except for ventilation and access.
- E. The exterior siding shall consist predominantly of vinyl, aluminum, wood or hardboard; and shall be comparable in composition, appearance, and durability to the exterior siding commonly used in standard residential construction. Said exterior siding shall be in good condition, complete, and not damaged or loose.
- F. The minimum lot size shall be one (1) acre excluding any street right-of-way and the minimum lot frontage shall be 150 feet as measured at the right-of-way line or along an easement whichever applies, except on the bulb of a cul-de-sac where a minimum of 40 feet is acceptable.
- G. The tongue or towing device shall be removed.

### **3.2 Multifamily Residential**

#### ***3.2.1 Multifamily Residential Development: General Regulations***

The following regulations shall apply to all Apartment Development, Condominium Development, Duplex Development, Multifamily Development (other), and Townhome Development.

- A. Multifamily residential development shall be permitted in Rural Center, Employment Mixed Use and Compact Mixed Use Land Use Classifications, and shall require a Special Use permit in all other Land Use Classifications.
- B. Residential density shall not exceed nine (9) dwelling units per acre unless otherwise allowed by this Ordinance.
- C. A minimum of 15 percent (15%) of the tract shall be set aside for recreational open space unless otherwise allowed by this Ordinance. Of the total set aside five percent (5%) of the area shall be developed for improved recreational open space. This area shall be installed and maintained by the developer until ownership of the recreational open space area is transferred to the Homeowners' Association, if applicable. In cases where no Homeowners' Association is created, the developer shall be responsible for continued maintenance of recreational open space areas.
  - 1. Improved recreational open space areas, such as golf courses, basketball courts, swings, etc., shall be clearly defined. Any equipment used for improved recreational open space areas shall be permanently affixed to the ground.
  - 2. All recreational open space areas shall be equipped and maintained by the appropriate body.
- D. A network of sidewalks and pedestrian trails, where applicable, shall be provided to connect all

parking areas, driveways, residential structures, and amenities. Approval of such shall be based on connectivity.

1. Sidewalks shall be constructed along all streets, driveways, parking areas, and residential structures. Said construction shall be in accordance with the construction standards set forth in this Ordinance.
  2. Pedestrian trails may be provided in place of sidewalks between all separate accessory structures and amenities, including open space and recreational open space areas. Said pedestrian trails shall be a minimum of four (4) feet wide and three (3) inches thick.
- E. Developments larger than five (5) acres in size shall install street trees along both sides of all newly created public or private street(s). Said improvements shall be in accordance with the applicable requirements set forth in this Ordinance.
- F. Recordation of the declaration, if applicable, and plan shall be completed by the developer or his agent prior to issuance of the first Certificate of Occupancy (CO) on the project following approval by the Development Review Board (DRB) or such approval shall be null and void.
- G. In any multifamily development in which lots and/or units are individually sold, a Homeowners' Association (HOA) shall be required.
1. The required organizational documents and by-laws shall include, but are not limited to, the following:
    - a. The Homeowners' Association shall be established before any lots are sold.
    - b. Membership shall be mandatory for each buyer and any successive buyer.
    - c. The developer shall be responsible for all maintenance and other responsibilities of the Homeowners' Association until 60 percent (60%) of all units to be sold are sold. After 60 percent (60%) of all units are sold, the Homeowners' Association shall levy assessments and assume its responsibilities.
    - d. The Homeowners' Association shall be responsible for liability insurance, taxes and maintenance of all recreational open space facilities, grounds and common areas. Any sums levied by the Homeowners' Association that remain unpaid shall become a lien on the individual property.
    - e. The declaration shall contain a statement addressing street maintenance and ownership, if applicable.
- H. Entrances
- A minimum of two (2) entrances shall be required on all multifamily developments of 100 or more units.
- I. Streets, driveways, and parking areas shall meet the following requirements:
1. All driveways, streets, and parking areas whether private or public, shall be paved and constructed to NCDOT standards. Once ownership of the private streets has been transferred to the Homeowners' Association, if applicable, the association shall assume maintenance of said streets.
  2. When parking lots are located within the required front yard, the minimum front setback for each unit or the development as a whole, whichever is applicable, shall be increased by an additional 20 feet.
  3. Curb & gutter shall be installed in accordance with Subsection "Curb & Gutter", Section "Street & Transportation Systems" of Article VII "Development Design Guidelines."
- J. Individual lots shall meet the following minimum dimensional requirements as applicable.

Minimum side yard requirements shall apply to perimeter boundaries only, except in cases of a duplex development, where the minimum side yard on one (1) side shall meet the requirements below.

<b>MINIMUM REQUIREMENT:</b>	<b>WIDTH:</b>
Lot Width	20 ft
Front Yard	35 ft
Front Yard (Parking within Front Yard)	55 ft
Rear Yard	25 ft
Side Yard	10 ft
Side Yard, Corner Lot	20 ft

### ***3.2.2 Multifamily Residential Development: Specific Regulations***

#### *Condominium Development*

A declaration establishing a condominium development shall be prepared which satisfies the requirements of the NC Unit Ownership Act (GS 47A). This declaration shall be filed with the plans for the development. The plans and declaration shall be submitted with the Special Use permit application, if applicable.

#### *Duplex Development*

The requirements set forth herein for a single duplex unit shall not be applicable to the duplex development.

#### *Live/Work Development*

- A. A declaration establishing a condominium development shall be prepared which satisfies the requirements of the NC Unit Ownership Act (GS 47A-1 et. Seq.). This declaration shall be submitted with the Special Use application and filed with the plans for the development, if more than one (1) residential unit is proposed.
- B. Permissible nonresidential uses shall include the following as listed in “Table of Use Types & Regulations” and shall be conducted wholly within the structure:
  1. Financial Services
  2. Offices, General
  3. Retail Services
- C. Live/work developments shall follow the setback regulations of the underlying zoning district; however the perimeter side yard setback shall be a minimum of five (5) feet.
- D. The use shall have direct access to a collector or higher classified road.
- E. No outside storage or display of items associated with the use shall be permitted.

#### *Multifamily Development (other)*

All site plans shall be accompanied by a certification of sewage disposal, which states that the sewage system can handle its current load as well as the additional load from the apartments. The certification for private sewer systems shall come from the State of North Carolina, via the Harnett County Department of Public Health. The certification for public sewage disposal shall come from the Harnett County Department of Public Utilities.

### *Townhome Development*

- A. In a townhome development in which any facilities such as but not limited to streets, parking areas, recreational open space facilities and common open space are to be held and maintained in common ownership a Homeowners' Association shall be organized. Documents showing the association's organizational structure and by-laws for the property shall be filed with the Planning Department. For townhome developments, the aforementioned documents shall become part of the application for a Special Use permit.
- B. All townhome units shall be subject to the conveyance of a fee-simple lot.

## **3.3 Group Residential**

### ***3.3.1 Family Care Facility***

No Family Care Facility shall be located within a one-half (1/2) mile radius of an existing Family Care Facility. It shall be the responsibility of the applicant to supply such information.

### ***3.3.2 Group Care Facility***

No Group Care Facility shall be located within a one (1) mile radius of an existing Group Care Facility. It shall be the responsibility of the applicant to supply such information.

## **SECTION 4.0 ACCESSORY USES & STRUCTURES**

### **4.1 Customary Home Occupation**

- A. No more than one (1) assistant may be employed by home occupations.
- B. No mechanical equipment shall be installed or used except such that is used for domestic or professional purposes.
- C. Not over 50 percent (50%) of the total floor space of any structure is used for home occupations. In no case shall any accessory structure be used in conjunction with a Customary Home Occupation.
- D. Any modifications necessitated due to a customary home occupation shall meet the requirements of the North Carolina State Building Code. Twenty percent (20%) of all monies spent on improvements shall be dedicated toward ANSI compliance. Any manufactured home utilized for a customary home occupation shall include modifications, designed by a structural engineer licensed in the State.

### **4.2 Junk Motor Vehicles (on private property)**

Unless otherwise provided, junked motor vehicles in the RA-40, RA-30, RA-20R, and RA-20M Zoning Districts on private property not associated with a business, shall conform to the following requirements effective November 15, 2004.

- A. General Requirements
  1. The junked motor vehicles shall not be stored or located within 30 feet of any adjoining property line or side street or right-of-way and shall be situated so that no motor vehicle or parts are visible from the adjoining properties. In no case shall junked motor vehicles be located in the front yard of the primary building of the lot.
  2. The junked motor vehicles shall not be a health or safety nuisance, nor shall the area constitute a health or safety nuisance according to the Harnett County Department of Public Health.
  3. The junked motor vehicles shall be entirely concealed during all seasons of the year from public view from the public right-of-way and from the adjoining properties. The vehicles may be concealed by an automobile cover or tarpaulin, with the cover adequately secured to prevent

removal by wind. The automobile cover or tarpaulin shall remain in good repair and not allowed to deteriorate.

4. In no case shall there be more than three (3) junked motor vehicles located outside any enclosed building unless otherwise specified by this Ordinance. In situations where a person owns multiple tracts of land that are located within 500 feet of each other, the owner of such land shall be limited to three (3) junked motor vehicles located outside any enclosed building unless otherwise specified by this Ordinance for all lots located within the distance requirement.

B. Exceptions for Junked Motor Vehicles

The repair of no more than one (1) motor vehicle per household for personal use is exempt from the screening, concealment, and setback requirements of this Ordinance. However the vehicle shall be owned by a member of the household and all repairs shall take place within an enclosed building or in the rear yard of the dwelling and shall not constitute a health or safety nuisance and all repairs shall take no longer than 180 days to complete.

### 4.3 Kennel, Private Accessory

- A. All kennel structures and related areas shall be located in the rear yard.
- B. All kennel structures and related areas shall be a minimum of 10 feet from all property lines.
- C. A building permit shall be required for all kennel structures.

### 4.4 Solar Energy System, Accessory

- A. Roof-mounted solar energy systems shall not extend beyond the exterior perimeter of the building on which the system is mounted or built.
  1. Pitched roof-mounted systems shall include with the application proof of the highest finished slope of the solar collector and the slope of the finished roof surface on which it is mounted.
  2. Flat roof-mounted systems shall include with the application a drawing showing the distance from the system components to the roof edge and any parapet walls on the building.
- B. Ground-mounted solar energy systems shall meet the minimum setback for the zoning district in which it is located or 25 feet, whichever is greater. The maximum height of the structure shall be 25 feet.
- C. Solar components of the system shall have a Underwriters Laboratories (UL) listing.
- D. Applications for all solar energy systems shall include a site plan and elevation drawings showing the location(s) of the system(s) on the building or property, including distance to property lines.
- E. All photovoltaic systems shall comply with the most current edition of the National Electrical Code.
- F. No grid-intertie photovoltaic system shall be installed until evidence has been provided to the Planning Department that the owner(s) has been approved by the appropriate utility company to install an interconnected customer-owned generator. Off-grid systems are exempt from this requirement.
- G. All solar structures shall be inspected by a Harnett County Building Inspector.

### 4.5 Swimming Pools

- A. Swimming pools shall comply with the latest and applicable version of the North Carolina State Building Code for residential or commercial swimming pools, whichever is applicable.
- B. Swimming pools as permitted uses shall be located only in side or rear yards at residences, and in recreations areas at apartment complexes and manufactured home parks.
- C. All swimming pools and surrounding deck areas shall be at least ten (10) feet from any property line, right-of-way, or easement, whichever is closest to the proposed swimming pool location.

- D. All buildings containing mechanical or chemical feeding equipment associated with the operation of a pool shall be at least five (5) feet from any side or rear property line and shall comply with any other setback requirements.
- E. Any lighting associated with a swimming pool shall be shielded or located in a manner which will not adversely affect adjoining property or impair visibility on adjacent streets, roads or highways.
- F. A water discharge plan for the swimming pool shall be submitted with the permit application showing property dimensions and other pertinent data; the water discharge plan shall show that the waste water shall be discharged in one (1) of the following ways:
  - 1. Waste water shall drain directly into the street storm drainage system, other public storm drainage system, or roadway ditch; or
  - 2. Waste water may be disposed of on the property without threat of discharge onto adjacent lots so long as such does not constitute a threat of discharge onto adjacent property streets or roadways.

#### **4.6 Wind Energy System, Accessory**

- A. Wind energy systems shall be setback from all property lines a distance equal to one (1) linear foot for every foot of height of the highest structure that is part of the facility or the minimum setback for the zoning district in which it is located, whichever is greater.
- B. Wind turbines shall only be located in the rear yard and shall not be located on a corner lot.
- C. Wind energy systems shall not be permitted in any residential major subdivision.
- D. The maximum height of wind turbines is 80 feet.
- E. Attachment to a building of any kind shall be prohibited.
- F. The visual appearance of a wind energy system shall, at a minimum, meet the following:
  - 1. Wind energy systems shall be constructed of a corrosion resistant material that will not fade, show rust spots, or otherwise change in appearance as a result of exposure to the elements and shall be a non-obtrusive color such as white, off-white, or gray.
  - 2. No artificial light, except to the extent required by the FAA shall be permitted.
  - 3. No display advertising (including flags, streamers, or decorative items), except for identification of the turbine manufacturer, facility owner(s), and operator.
- G. Installation and design of a wind energy system shall conform to applicable industry standards, including those of the American National Standards Institute.
- H. Any on-site transmission or power lines shall, to the maximum extent possible, be installed underground.
- I. Applications for wind energy systems shall include:
  - 1. The approximate generating capacity of the system;
  - 2. The representative type and height of the wind turbine(s) to be constructed, including its dimensions, manufacturer, and a description of any ancillary facilities;
  - 3. A site plan showing the location of wind turbine(s), property lines, setback lines, access easements or right(s)-of-way, and the location of all structures on the property; and
  - 4. Evidence of compliance with applicable FAA regulations.
- J. No wind energy system shall be installed until evidence has been provided to the Planning Department that the owner(s) has been approved by the appropriate utility company to install an interconnected customer-owned generator. Such evidence shall be in the form of a written verification that the plans have been reviewed and, if built to plans, the system will be accepted by the utility company and shall



be furnished along with the application.

- K. The noise emitted from such facility shall be in compliance with the applicable regulations of the Harnett County Sheriff's Department. Evidence of such shall be furnished with the application for a wind energy system.
- L. Any wind energy system that is not functional shall be repaired by the owner(s) within 90 days or be removed, including in cases where the system is decommissioned. In the event that the County becomes aware of a system that is not operated for a continuous period of 90 days, the County will notify the property owner(s) according to the regulations set forth in this Ordinance. Any written response from the owner(s) shall set forth reasons for the operational difficulty and provide a reasonable timetable for corrective action. If the County deems the timetable for corrective action as unreasonable, the County shall notify the owner and shall give an additional 120 days to remove the system from the date the notice is received. Any disturbed area shall be graded and re-seeded once removal has taken place.

## **SECTION 5.0 AGRICULTURAL & FORESTRY USES**

### **5.1 Nursery**

- A. Nurseries shall not be required to install asphalt and/or concrete parking areas, except required handicapped parking. Graded and surfaced crushed stone, gravel, or other suitable material may be utilized provided a minimum of six (6) inches of said product is installed and that it is maintained in a dust free manner.
- B. Any units utilized for storage of materials shall be located in the required side or rear yard and shall be screened with evergreen landscaping material.

## **SECTION 6.0 EDUCATIONAL & INSTITUTIONAL USES**

### **6.1 Cemetery or Mausoleum, Commercial Use (as Primary Use)**

- A. All applicable requirements of the North Carolina General Statutes and Harnett County concerning interment of the dead shall be met.
- B. No interment shall take place within 100 feet of any property line(s) or public right(s)-of-way.
- C. Buildings for the maintenance, management, and/or sales of cemetery lots shall be located at least 100 feet from any lot line that adjoins a residential zoning district. Otherwise, said building(s) shall conform to the requirements of the principal use for the district in which it is located.
- D. Cemeteries existing prior to adoption of this Ordinance may be exempt from Subsections "Lot Requirements," "Nonresidential Zoning Minimum Dimensional Requirements," and "Residential Zoning Minimum Dimensional Requirements" of Section "Dimensional Requirements", Article IV "Zoning Districts" of this Ordinance.

### **6.2 Religious Structures**

- A. A minimum of 50 percent (50%) of the required parking for religious structures shall be surfaced with asphalt and/or concrete. All required handicapped amenities shall be located in permanently surfaced parking areas. The remaining parking may be grass, maintained in a dust free manner, except in cases where a daycare facility is provided onsite. In cases of existing religious structures where daycare facilities are added at a later date, any parking required for the daycare facility shall be surfaced with asphalt and/or concrete.

### **6.3 Daycare Facilities**

#### ***6.3.1 Daycare Facilities: General Regulations***

- A. Daycare facilities, including Adult Daycare, Childcare Facility, and In-Home Childcare, shall comply with all State and federal laws that pertain to the health, safety, and welfare of facility clients.

### **6.3.2 Daycare Facilities: Specific Regulations**

#### *A. Childcare Facility*

Outdoor activity area(s) shall be enclosed by a security fence shall be located outside of the front building setback as established by this Ordinance.

1. The fence or wall shall be made of any suitable and durable material that is intended for a fence.
2. The fence or wall shall be designed so that a four inch (4") diameter sphere cannot pass through any opening.
3. All gates and doors opening through such fence or wall shall have self-closing and self-latching devices which keeps the gate or door closed at all times; however, the door of any dwelling which furnishes part of the enclosure need not be so equipped.
4. Parking areas shall not abut fenced play areas without provisions for ballasts or curbing.

#### *B. Commercial Childcare Facility*

Outdoor activity area(s) shall be enclosed by a security fence at least five (5) in height and shall be located outside of the front building setback as established by this Ordinance.

#### *C. In-Home Childcare Facility*

1. In no case shall any in-home childcare facility have more than that maximum number of children allowable. Of that number, the following requirements must be met:
  - a) No more than five (5) pre-school-age children shall be cared for.
  - b) No more than eight (8) school-age children shall be cared for.
2. Childcare provider must live in the residence full-time.
3. Required outdoor activity area(s):
  - a) Shall be enclosed by a security fence at least four (4) feet in height;
  - b) Shall be located outside of the front building setback as established by this Ordinance; and
  - c) Shall be the product of 75 square feet times 50% of the approved enrollment.

- D. In cases where manufactured homes are used for in-home childcare facilities, the structure shall have underpinning consisting of a brick curtain wall or have galvanized metal sheeting, ABS, or PVC plastic color skirting with interlocking edges, installed around the perimeter of the home. Skirting shall be consistent in appearance, in good condition, continuous, permanent, and unpierced except for ventilation and access.

## **6.4 Financial Services**

### **6.4.1 Automated Teller Machine (ATM)**

- A. Shall be located so as not to interfere or conflict with sidewalks, pedestrian ways, parking areas, loading areas, driveways, interior access drives, perimeter landscaping, or plantings, if applicable.
- B. Side and rear setback requirement shall be five (5) feet. All other setbacks shall comply with underlying zoning district.

## **SECTION 7.0 COMMERCIAL USES**

### **7.1 Animal Services**

#### ***7.1.1 Veterinarian Services***

- A. Any outdoor yard areas shall be enclosed by a solid, opaque fence or masonry wall at least eight (8) feet in height.
- B. The animal hospital structure shall be soundproofed in order to minimize all loud and disturbing noises that might disturb those persons in adjoining structures or in the nearby vicinity. Further, the noise emitted from such facility shall be in compliance with the applicable regulations of the Harnett County Sheriff's Department.

#### ***7.1.2 Zoo & Petting Zoo***

- A. The owner(s) of the facility shall provide written evidence of application to the United States Department of Agriculture (USDA) for such a facility at the time of application for a Special Use permit. Further, the owner(s) shall provide written evidence of USDA Certification prior to issuance of a Certificate of Occupancy for the facility.
- B. In addition to those items required on the site plan elsewhere by this Ordinance, all areas to be used for purposes of a zoo or petting zoo, whether or not located within a structure, shall be identified.
- C. Any animals or areas deemed dangerous, or potentially dangerous, to the public shall be easily identified through signage and other necessary measures.
- D. The owner(s) shall ensure that the facility remains in compliance with local, State, and Federal regulations regarding permitting and containment of exotic animals. If at any time the facility is not in compliance, the facility shall not allow entrance by the public.
- E. The facility shall be subject to random inspections by the Harnett County Departments of Planning Services and Animal Control to ensure compliance with applicable local ordinances.

### **7.2 Eating & Drinking Services**

#### ***7.2.1 Bar, Tavern, & Entertainment Venues***

- A. Bars, taverns, and entertainment venues shall not be located within 500 feet of a residential structure or park, unless permitted as part of a live/work development.
- B. No such facility shall be located within 1,000 feet of an educational institution, school, or religious structure.
- C. Building(s) shall be located a minimum of 100 feet from any property line(s) that adjoins a residential zoning district. Otherwise, said building(s) shall conform to the requirements of the principal use for the district in which it is located.
- D. Additional temporary overflow parking of one (1) space per 200 square feet of building area shall be required for bars or taverns providing dancing and/or live entertainment.
- E. The noise emitted from such facility shall be in compliance with the applicable regulations of the Harnett County Sheriff's Department.
- F. Any outdoor seating or area used as part of the establishment shall not obstruct the sidewalk and shall meet building setback requirements.

#### ***7.2.2 Restaurant***

- A. Restaurants with drive-through service shall have a minimum cueing lane length to accommodate eight (8) vehicles. Said cueing lane shall not interfere with any required drive aisles

or parking access.

- B. Any outdoor seating or area used as part of the establishment shall not obstruct the sidewalk and shall meet building setback requirements.
- C. No amplified noise shall be permitted outdoors when located within 500 feet of a residential use. Further, the noise emitted from such facility shall be in compliance with the applicable regulations of the Harnett County Sheriff's Department.

### **7.3 Lodging Services**

#### ***7.3.1 Bed & Breakfast***

- A. The operator of the bed and breakfast residence may be the owner of the dwelling or a resident manager, but shall occupy the dwelling as a principal residence.
- B. Guest stays shall be limited to 14 consecutive days.
- C. Meals may be provided to overnight guests only, and no cooking facilities may be provided in guest rooms.
- D. Shall comply with all local and State regulations.

#### ***7.3.2 Boarding House***

- A. The operator of the boarding house shall occupy the dwelling as a primary residence.
- B. Meals may be provided only for boarders and/or occupants of the premises, and no cooking facilities may be provided in guest rooms.
- C. The quarters utilized by boarders and/or occupants of the premises shall be in the principal residential structure.

#### ***7.3.3 Homeless Shelter***

- A. No such facility shall be located within 2,000 feet of another homeless shelter.
- B. Staff shall be provided on-site 24 hours a day during periods of operation and/or occupancy.
- C. The use shall be owned and managed by a charitable or benevolent operation qualifying for tax exemption under Section 501 of the Internal Revenue Code or by a government entity.
- D. There shall be no compensation required for occupancy in the facility.
- E. There shall be a minimum of 50 square feet of sleeping space per person.

#### ***7.3.4 Recreational Campground***

##### **General Requirements**

In districts which permit such activities the following shall apply:

- A. There shall be no permanent structures erected within any area deemed "Flood Zone", "Wetland", or "Conservation Zone".
- B. Adequate restroom facilities must be provided for campers to maintain sanitary conditions in line with the requirements of the Harnett County Health Department.
- C. An emergency plan must be submitted and approved by the Harnett County Development Review Board along with the Commercial Site Plan.
- D. A campground shall not be utilized as permanent residence.
- E. The park owner shall keep all par owned facilities, spaces, improvements, equipment, open space, recreational open space, and all common areas in good repair and maintained in such a

manner as to prevent the accumulation or storage of material which would constitute a fire hazard or would cause insect or rodent breeding and harborage.

- F. Staff shall be on-site or available 24 hours a day to all campers. This contact information shall be posted on site.

**Recreational Vehicle Campground**

- A. Size of Recreational Vehicle Park

All parks shall have a gross land area of at least three (3) acres.

- B. Size of Individual Recreational Vehicle Space

Minimum Space Size	1,000 sq ft
Minimum Space Width	20 feet

- C. Separation of Recreational Vehicle Spaces

Recreational Vehicles shall be separated from each other and from other structures by at least 10 feet. No more than one (1) recreational vehicle may be parked on any one (1) space and shall not be permitted on lots other than those approved through these regulations.

- D. Recreational Open Space Area

A recreational open space area will be developed and maintained that shall be located for safe and convenient access to all campers and shall meet the following size requirements:

Gross Land Area (Acres)	Percentage of Recreational Open Space
3.00-6.00	7%
6.01-9.00	6%
> 9.01	5%

- E. Public Street Access

No recreational vehicle space within a park shall directly access a public right-of-way and such access shall be approved by the North Carolina Department of Transportation (NCDOT). Access to all campers and accessory structures within the campground shall be made using internal streets.

- F. Minimum Standards for Internal Streets

Internal streets shall have a minimum width of 15 feet and shall be compacted and layered with four (4) inches of aggregate base course. Cul-de-sacs in a recreational vehicle park shall be limited to a maximum length of 500 feet and shall be provided with a permanent turnaround not less than 60 feet in diameter. All entrances in a recreational vehicle park shall be paved a minimum of 20 feet or to NCDOT Standards, whichever is greater. Maintenance of all internal streets and drainage facilities shall be the responsibility of the owner of the campground.

- G. Parking

Each recreational vehicle space shall have off-street parking for one (1) trailer and parking space for at least one (1) car. Each space shall be sited so that the parking, loading, or maneuvering of a recreational vehicle shall not necessitate the use of any public right-of-way, sidewalk, or any private grounds not part of the park.

- H. Utilities

Installation and provision for water and sewage disposal shall be according to the standards of the Harnett County Department of Public Utilities and the Harnett County Health Department.

- I. Prohibited Uses within a Recreational Vehicle Park

1. Junk Motor Vehicles
2. Storage of recreational vehicles, cars, boats, lumber, or other construction materials.
3. No recreational vehicle site shall be used as a permanent residence, unless otherwise approved.

### **Primitive Campground**

- A. Travel trailers, RV's or any other form of mobile shelters shall not be allowed in areas intended for primitive camping.
- B. An adequate all weather access road must be provided in line with the Harnett County Unified Development Ordinance.
- C. Receptacles for the disposal of trash must be provided and maintained in a manner that negates the attraction of vermin.
- D. No provision of utilities or "hookups" shall be constructed on site.

## **7.4 Personal Services**

### ***7.4.1 Massage & Bodywork Therapy Practice, Licensed***

A copy of a license to perform massage and bodywork therapy, issued by the State, shall be submitted with the required site plan.

### ***7.4.2 Massage & Bodywork Therapy Practice, Unlicensed***

This use shall be located not less than 2,000 feet from any religious structure, educational institution, daycare facility, or sexually oriented business permitted by this Ordinance of Harnett County, dwelling unit, or any area zoned for residential use. The measurement is to be taken from the exterior walls of the building containing the so regulated use and shall meet the measurement requirements in the north, south, east, and west directions.

## **7.5 Recreational Facilities & Uses**

### ***7.5.1 Recreational Facility***

- A. Adequate, handicap accessible restroom and parking facilities shall be provided.
- B. When outdoor fields are proposed with a Recreational Facility, the use regulations for "Athletic Fields" shall be applicable, unless otherwise approved by the Board of Adjustment.

### ***7.5.2 Athletic Fields, Private***

In cases where the requirements listed herein cannot be met, the applicant(s) may apply for a Special Use permit.

- A. Total project acreage shall not exceed 12 acres.
- B. Hours of operation are permitted as follows:
  1. Monday through Friday hours are limited to 3:00PM to dusk.
  2. Saturday hours are limited to 9:00AM to dusk.
  3. Facility shall not be in operation on Sunday.
- C. No intercom, loudspeaker, or other similar items shall be permitted.
- D. No lighting shall be permitted.

- E. Adequate parking shall be provided so as not to interfere with the surrounding properties.
  - 1. This shall hereby prohibit the use of public right(s)-of-way for overflow parking.
  - 2. Parking areas shall be graded and surfaced with crushed stone, gravel, or other suitable material with a minimum depth of six inches (6”).
  - 3. All handicapped accessible parking shall be paved.
  - 4. No parking signs shall be posted along property line(s) adjacent to the public right(s)-of-way in accordance with NCDOT standards and shall be shown on the required site plan.
  - 5. Parking spaces shall be a minimum of 50 feet from all residential structures.
- F. All unpaved areas shall be maintained in a manner that prevents dust from adversely impacting adjoining properties and right(s)-of-way.
- G. No outdoor recreational facilities, including fields, shall be permitted in required setback.
- H. Adequate, handicap accessible restroom facilities shall be provided.

**7.5.3 Health & Training Center, Outdoor**

The requirements listed in this Section for “Athletic Fields, Private” shall be met, as applicable.

**7.5.4 Race Track**

- A. The noise emitted from such facility shall be in compliance with the applicable regulations of the Harnett County Sheriff’s Department.
- B. Adequate parking shall be provided so as not to interfere with the surrounding properties.
  - 1. This shall hereby prohibit the use of public right(s)-of-way for overflow parking.
  - 2. No parking signs shall be posted along property line(s) adjacent to the public right(s)-of-way in accordance with NCDOT standards and shall be shown on the required site plan.
  - 3. Parking spaces shall be a minimum of 50 feet from all residential structures.
- C. All unpaved areas shall be maintained in a manner that prevents dust from adversely impacting adjoining properties and right(s)-of-way.
- D. Adequate measures shall be taken, and demonstrated on required site plan, to ensure spectator safety, including but not limited to safety fencing.
- E. Structures or facilities for use by the general public and/or participants shall be constructed to the North Carolina State Building Code.
- F. Structures or facilities shall be constructed a minimum of 50 feet from any residentially zoned or used lot.
- G. Adequate, handicap accessible restroom facilities shall be provided.

**7.5.5 Recreational Day Camp**

- A. Swimming facilities shall be protected by a fence in accordance with the County’s regulations for Swimming Pools.
  - 1. Facilities adjacent to a residential zoning or use shall be screened form view using techniques in the “Buffers & Landscaping” Section of this Ordinance.
  - 2. Indoor facilities shall be separated and secured from the rest of the facility.
- B. All unpaved areas shall be maintained in a manner that prevents dust from adversely impacting adjoining properties and right(s)-of-way.

- C. Structures or facilities shall be constructed a minimum of 50 feet from any residentially zoned or used lot.
- D. Adequate, handicap accessible restroom facilities shall be provided.

### **7.5.6 Firing Range (Indoor & Outdoor)**

All land use defined as a Firing Range in Article XIV, Section 2.0 of this Ordinance shall adhere to the requirements and regulations set forth in this section and any other applicable section of the Harnett County Unified Development Ordinance. These requirements and regulations are not mandated for the occasional target practice by an individual on property owned or leased by the individual or the individual's immediate family, nor is it mandated for private ranges utilized by public or private high schools, colleges or universities and government owned and operated training or practice facilities.

#### **A. Special Use / Compliance Requirements**

1. In no case shall a firing range, whether a primary or ancillary use, be exempted from obtaining the required Special Use permit.
2. When a firing range facility or use is changed, modified or expanded to include additional or new types of ranges, operations or activities not permitted or included in the most current Special Use approval or legal pre-existing status. The submittal of a site plan indicating the addition, modification or change in operation of the firing range facility is required to be reviewed and receive Board of Adjustment approval prior to commencement of the change, modification or expansion.
3. Facilities currently operating under the Sport Shooting Range Protection Act of 1997 shall comply with the current regulations and requirements of this Ordinance when the facility undergoes a change of use.
4. In addition to the County's typical notification process of Special Use permits for outdoor firing ranges, the applicant(s) shall make notification to all property owners within one (1) mile of the proposed facility. Such notification shall include the same information in the notification provided by the County. Proof of such notification shall be provided by the applicant(s), either by certified mail receipt, sworn statement, or evidence of publication of a one-half (1/2) page ad in a newspaper of local distribution. Request for Special Use approval of an indoor firing range shall follow the standard notification process conducted by the Harnett County Planning Department.

#### **B. Special Use Permit / Site Plan Requirements**

A completed Special Use application accompanied by a detailed site development plan must be submitted to the Harnett County Planning Department a minimum of thirty (30) days prior to the scheduled hearing date. All site plans are required to be submitted and sealed by a certified engineer with range design experience or an accredited individual certified in range design. A verifiable history of engineering or range design experience and performance in this area must be supplied and accompany the site plan at time of submittal. Applications may be subject to a third party review process and review fee as referenced in the Harnett County Fee Schedule. In order for the application and site plan to be considered complete, the site plan shall include all components necessary to comply with the Range Development Standards for firing ranges as well as following information:



1. Information regarding the type, action and the highest caliber of firearms, explosive ordinance and/or device proposed to be utilized at the facility.
2. Details regarding how the facility will be designed to facilitate the use of the highest caliber firearm proposed, including details regarding how the public will be protected from projectiles from such firearms, in accordance with recommendations from the current edition of the NRA Range Source Book or other accredited Range Design Publication.
3. Information detailing the style or type of targets that will be utilized at the facility. Information shall include target composition, stationary or mobile design, distance from firing line and range location. All targets shall be used in conjunction with the manufacturers' specifications for use.
4. Information regarding firing line type and construction design, firearm discharge positions and firing techniques that will be utilized at the facility.
5. Details regarding how the facility will provide containment of projectiles and debris caused by the type of ammunition, targets and activities to be utilized or occur on the site, entirely within the boundaries of such facility. The containment methods shall be in conjunction with recommendations for containment as referenced in the current edition of an accredited Range Design Publication.
6. A firing range safety plan, including at a minimum, the following information, written in accordance with an accredited Range Design and Operation Publication. This plan shall be utilized during the planning, construction and operation of the facility.
  - A) Firearm or other weapon(s) handling rules
  - B) General and specific firing range rules and regulations
  - C) Administrative rules and regulations
7. Proposed hours and days of operation, which may be amended by the Board of Adjustment in the special interest of community safety, compatibility and welfare.
8. Information regarding noise abatement design techniques that will ensure compliance with permissible noise level limitations specified in the Harnett County Noise Ordinance. The burden of proof that the proposed range facility meets and will not exceed the permissible noise level limitations of the Harnett County Noise Ordinance, shall rest with the applicant and/or property owner. All noise studies shall be performed by a professional engineer registered in the State of North Carolina or by a person with a degree in a discipline related to acoustics.
9. Outdoor ranges that will discharge projectiles that contain lead, shall supply an Environmental Stewardship Plan prepared by a North Carolina Registered Engineer. The plan shall include semi-annual soil and water sampling, regular liming of the soil to prevent lead migration, reclamation and recycling of the lead and is compliant with the Best Management Practices, specifically relating to lead management, as specified by the Environmental Protection Agency's (EPA) most current edition of Best Management Practices for Lead at Outdoor Shooting Ranges. Indoor ranges shall submit a similar plan

that addresses the recovery and recycling of lead projectiles and the ventilation and other techniques utilized for hazardous material and contaminate removal.

10. Outdoor range site plans shall illustrate the location of all property lines, structures and facilities located on the proposed site as well as adjoining properties. Site plans shall also illustrate the location of all streams, ponds, lakes or other watercourses or wetlands located on the proposed site and adjoining properties. Noted illustrations shall include distances from the proposed firing lines as well as target lines and backstops.
11. Site plans may include information and illustrations regarding shot fall zones, safety zones, buffers, baffles and any other information or mitigation techniques that may address concerns over compatibility, property values or the general welfare of the adjoining properties and the community at large.

### C. Range Development General Standards

All firing ranges shall meet the following performance and developmental standards:

1. Shot Containment  
All firing range facilities shall be designed and operated in a manner to contain all bullets, shot, arrows or other projectiles or any other debris on the range facility.
2. Exploding Targets  
The discharge of an explosive device shall only be utilized for the purpose of shot confirmation. This type of target system shall only be allowed when used in conjunction with manufacturers' specifications for use. Any misuse of this type of target system which results in the creation and /or propulsion of shrapnel is strictly prohibited.
3. Noise Mitigation  
Noise generated from firing range facilities shall not escape the facility property or boundary lines at levels greater than sixty (60) dBA when located adjacent to properties zoned or utilized for residential / agricultural use and seventy-five (75) dBA when adjacent to properties zoned or utilized for commercial or industrial use as specified by the Harnett County Noise Ordinance. It shall be the responsibility of the firing range owner to mitigate and verify escaping noise levels.
4. Range Orientation  
Ranges shall be designed so that the direction of fire shall be parallel to or perpendicular to and away from the public right(s)-of-way or dedicated access easements. All outdoor ranges shall be developed in a manner to ensure that streams, ponds, lakes, or other watercourses or wetlands are not located between any firing line and target line with exception granted to skeet ranges utilizing steel shot ammunition.
5. Drainage and Erosion Control  
The range and associated facilities shall be designed to keep storm runoff from the range site at a volume and velocity no greater than what existed prior to range development. Appropriate erosion control measures shall be designed and installed to maintain water quality and prevent contamination from storm water runoff.
6. Warning Signs  
Warning signs meeting the National Rifle Association (NRA) guidelines for firing ranges shall be posted spaced not more than one hundred (100) feet apart along the property boundary lines of all outdoor ranges in which the facility is located. Signage shall

announce the potential dangers and presence of an active range utilizing highly visible colors.

7. Parking

All required parking facilities shall be located to the rear of the firing line and shall adhere to the Parking & Off-Street Loading Requirements of this Ordinance.

8. Structures

All structures and facilities shall adhere to all Federal, State and Local regulations and code requirements.

9. Public Access

All range facilities shall have access to an approved private or public street. Internal access to the facility shall be secured and controlled with ingress and egress permitted only during the approved operating hours of the facility.

10. Safety Officer

All range facilities open to the general public that allow the discharge of firearms shall provide an NRA Certified Range Safety Officer or individual that possess the knowledge, skills, and attitude essential to organizing, conducting, and supervising safe shooting activities and range operations. This safety official shall be located at the firing line to aide in the proper discharge and safe handling of all weapons anytime live fire is being conducted.

11. Safety Plans / Range Rules

Safety plans for the operation of the range shall be kept in the area of the firing line and made available upon request by the public or an inspecting agency. Rules and regulations regarding the operation of the range shall be posted in a manner to be visible to all participants of the facility.

12. Setbacks

All structures, facilities and components of the firing range located on the range site, shall conform to a minimum fifty (50) feet setback from all property lines. This setback is intended as a developmental setback to assist in compatibility of adjacent land uses and not a designated safety boundary.

D. Final Site Plan Submittal

1. Upon Special Use approval from the Harnett County Board of Adjustment, the property owner shall provide a certified site plan to the Harnett County Planning Department for compliance review. The site plan shall include a notation of all conditions that may have been placed on the development as approved by the Board of Adjustment as well as any other requirements found within this Ordinance.

2. Upon completion of the range facility, a certified final-as-built plan shall be submitted to the Harnett County Planning Department prior to the final zoning compliance inspection.

E. Annual Zoning Inspection

In order to ensure Special Use approval requirements and development standards are adhered to, the Harnett County Planning Department shall perform an annual zoning compliance inspection on all approved firing range facilities. Zoning compliance inspections shall be performed and verified utilizing the certified final-as-built plans for County approved firing

range facilities. All approved facilities failing to comply with Special Use requirements or range development general standards, shall be held in violation of the Harnett County Unified Development Ordinance. All facilities found to be in violation shall be subject to enforcement actions specified within this Ordinance.

F. Existing and Nonconforming Firing Range Facilities

All existing and nonconforming firing range facilities shall be required to adhere to the following performance standards.

1. The facility shall be maintained in a manner that will contain all projectiles within the property boundary lines.
2. The facility shall not engage in any activity that causes an increase in the nonconformity of the nonconforming firing range.
3. The facility shall not increase the total amount of space devoted to the firing range facility.
4. Facilities shall not perform physical alteration of structures or placement of new structures that results in the increase of total area used in conjunction with the firing range facility and/or operations.
5. Minor repairs to and routine property maintenance shall be permitted for all existing structures, berms and safety devices.
6. Existing and/or nonconforming firing ranges shall not be allowed to detonate any explosive device with the exception of exploding targets utilized for target confirmation. The utilization of exploding targets shall adhere to the manufacturers' specification for use and shall not be placed or contained in an object which will result in the release of shrapnel.

## 7.6 Retail Services

### ***7.6.1 Convenience Stores & Convenience Type Business Establishments***

- A. A maximum of 5,000 square feet of gross floor area shall be permitted
- B. Area dedicated to the preparation and distribution of food for on-site consumption shall be limited to 25 percent (25%) of the total floor space.
- C. Any canopy, including those provided for fuel servicing, shall be a minimum of 20 feet from adjacent right(s)-of-way.

### ***7.6.2 Flea Markets, Rummage, Second Hand Sales, & Activities, Indoor***

Indoor facilities shall be subject to the following requirements:

- A. Preparation and sale of perishable foods shall be regulated by NCGS 130A-247 and 130A-248, and T15A NCAC 18A.2600.
- B. Sale or trade of exotic, domestic, or farm animals shall be prohibited.
- C. Any outdoor display area shall comply with the regulations of Section "Display Area" of Article VII "Development Design Guidelines" of this Ordinance, as applicable, and in no case shall any items be left outdoors when the facility is not open for business.

- D. Any buildings or structures shall meet the current North Carolina State Building Code for indoor use.

### **7.6.3 Flea Markets, Rummage, Second Hand Sales, & Activities, Outdoor**

Outdoor facilities shall be subject to the following requirements:

- A. All outdoor articles display tables and/or racks, tents, tarps, shelters, coverings of any type, or vehicles used shall be removed from dusk to dawn.
- B. Preparation and sale of perishable foods shall be regulated by NCGS 130A-247 and 130A-248, and T15A NCAC 18A.2600.
- C. Sale or trade of exotic, domestic, or farm animals shall be prohibited.
- D. Any buildings or structures shall meet the current North Carolina State Building Code for indoor use.

### **7.6.4 Retail Sales**

Any accessory display area shall comply with the requirements set forth in Section “Display Area” of Article VII “Development Design Guidelines” as applicable.

### **7.6.5 Retail Sales, Outdoor**

- A. Any accessory display area shall comply with the requirements set forth in Section “Display Area” of Article VII “Development Design Guidelines” as applicable.
- B. Any accessory outdoor storage area shall comply with the requirements set forth in Subsection “Outdoor Storage Area Screening”, Section “Buffers & Landscaping” of Article VII “Development Design Guidelines.”

### **7.6.6 Shopping Center**

- A. All outparcels developed as part of a shopping center shall be accessed internally, via the permitted entrances for the shopping center itself.
- B. Provisions for delivery of goods shall be made so as not to interfere with customer access or parking.
- C. Sidewalks shall be a minimum of eight (8) feet in width and shall be provided in a continuous internal manner, connecting all stores entrances included as part of the primary building and shall be distinguished from driveways or other elements used for vehicular access.
- D. Any accessory display area shall comply with the requirements set forth in Section “Display Area” of Article VII “Development Design Guidelines” as applicable.
- E. Any accessory outdoor storage area shall comply with the requirements set forth in Subsection “Outdoor Storage Area Screening”, Section “Buffers & Landscaping” of Article VII “Development Design Guidelines.”

### **7.6.7 Sexually-Oriented Business (Adult Bookstore, Motion Picture Theater, Nightclub)**

This use shall be located not less than 2,000 feet from any religious structure, educational institution, school, or any other sexually oriented business permitted by this Ordinance of Harnett County, dwelling unit, or any area zoned for residential use. The measurement is to be taken from the exterior walls of the building containing the so regulated use and shall meet the measurement requirements in the north, south, east, and west directions.

## 7.7 Vehicle Services

### 7.7.1 *Automobile Repair Facility*

Wherever the provisions of other Sections of this Ordinance require a greater requirement (such as buffers, maintenance, setbacks, etc.) the provisions of such statute shall govern. The following standards shall be adhered to no later than November 15, 2005 by all property owners.

- A. Junked and inoperable motor vehicles and/or parts storage areas shall be screened from view from adjacent property and/or public or private right(s)-of-way. Said screening shall be a minimum of six (6) feet and height and shall consist of an opaque fence or continuous row of evergreen shrubs.
- B. Required fencing shall be designed to reasonably secure the area from unauthorized entry.
- C. All operations, equipment, inoperable motor vehicles, and/or junk shall be kept within required secure area at all times, unless in motion by transportation to and from the site.
- D. Maximum two (2) inoperable or junked vehicles outside of secured area or enclosed building, unless otherwise specified, shall be permitted.
- E. Vehicles shall be stored in such a manner that all fire apparatuses and equipment can access all areas of the site at all times and shall be in accordance with all local, State, and Federal regulations.
- F. Equipment, inoperable motor vehicles, parts, and/or junk shall not be located within the required front yard or buffer area.
- G. A minimum of 50 percent (50%) of the required parking for automobile repair facilities shall be surfaced with asphalt or concrete. All handicapped accessible parking and any parking located in the front yard shall be paved. Remaining parking areas, if not paved, shall be graded and surfaced with crushed stone, gravel, or other suitable material with a minimum depth of six inches (6"). Said areas shall be maintained in a manner that prevents dust from adversely impacting adjoining properties and right(s)-of-way. Measures shall be taken to prevent damage to the environment.
- H. The operational area of existing facilities shall not be expanded, except in compliance with the provisions of this Ordinance.
- I. The sale of vehicles on premises shall be limited to four (4) vehicles within any one (1) year period.

### 7.7.2 *Car Wash*

- A. Accessory uses, including but not limited to vacuum stations, shall be permitted within the required side and rear yards only.
- B. Manned Car Wash Facilities  
Parking requirements for manned car wash facilities shall be calculated using the minimum criteria included in the "Table of Use Types & Regulations" of this Ordinance and shall not include bays in determining the minimum required parking spaces.
- C. Unmanned Car Wash Facilities
  - 1. Parking requirements for unmanned car was facilities shall be calculated using the minimum criteria included in the "Table of Use Types & Regulations" of this Ordinance and shall include one (1) parking space per bay.
  - 2. A minimum 20 foot (20') paved drive aisle shall be installed for all drive aisles required or necessitated by such use.

### **7.7.3 Repossession Storage Facility**

- A. No sales, repair, or servicing of repossessed merchandise shall be permitted on site.
- B. Loading and unloading of repossessed merchandise shall take place within required fencing or designated area on site.
- C. Lighting shall be oriented so as not to project onto adjoining property or right(s)-of-way.
- D. Unusual sound emissions including but not limited to alarms, bells, buzzers, or the like shall be limited to daytime hours only. All alarms shall be silent during nighttime hours.
- E. Repossessed merchandise shall not be a health or safety nuisance, nor shall the area constitute a health or safety nuisance according to the Harnett County Department of Public Health.
- F. Repossessed merchandise shall be entirely concealed during all seasons of the year from public view from the right(s)-of-way and from adjoining property.

### **7.7.4 Vehicle Sales, Leasing, & Rental**

- A. In no case shall the display area be located within public or private right(s)-of-way or in required landscaping or buffer yards.
- B. A permanent sales office shall be located on the site of the sales lot.
- C. No vehicle shall be parked or stored as a source of parts.

## **SECTION 8.0 INDUSTRIAL USES**

### **8.1 Alternative Energy**

#### **8.1.1 Ethanol Diesel & Biofuel Production**

- A. Storage tanks shall be located inside an above-ground containment area made of concrete that can hold 100 percent (100%) of the tank size located within it. The containment area may be constructed of other materials upon approval by the Harnett County Fire Code Official.
- B. Acceptable storage tank materials include aluminum, steel, fluorinated polyethylene, fluorinated polypropylene, Teflon, and other similar durable, noncorrosive materials. Copper, brass, lead, tin, and zinc are prohibited.
- C. Fuel shall be dispensed from either a gravity flow or vacuum flow pump.
- D. Facility and all accessory structures (storage tanks, buildings, etc.) shall be setback a minimum of 500 feet from the public right(s)-of-way and all property lines.

#### **8.1.2 Solar Energy Facility**

- A. Solar power electric generation structures shall not exceed 25 feet in height.
- B. Active solar structures shall meet the minimum setback for the zoning district in which it is located or be setback a minimum of 25 feet from all property lines or right(s)-of-way, whichever is greater.
- C. Applications for all solar energy facilities shall include a site plan with those items required elsewhere by this Ordinance, as well as the following:
  - 1. Elevation drawings of all solar energy structures;
  - 2. Location of all solar energy structures on the property; and
  - 3. Distance of all solar energy structures to property lines.
- D. Applications for grid-intertie photovoltaic systems or facilities shall include evidence that the

owner(s) or operator(s) has been approved by the appropriate utility company to install an interconnected customer-owned generator. Installation of systems or facilities shall not occur until this evidence has been supplied. Off-grid systems are exempt from this requirement.

- E. Electric components of solar structures shall have an Underwriters Laboratories (UL) listing.
- F. All photovoltaic systems shall comply with the most recent edition of the National Electrical Code.
- G. All solar structures shall be inspected by a Harnett County Building Inspector.

### ***8.1.3 Wind Energy Facility***

- A. Wind energy facility structures shall be setback from all property lines and public right(s)-of-way a distance equal to one (1) linear foot for every foot of height of the highest structure that is part of the facility or the minimum setback for the zoning district in which it is located, whichever is greater.
- B. Shadow flicker at any occupied building on a nonparticipating property caused by a wind energy facility located within 2,500 feet of the occupied building shall not exceed 30 hours per year.
- C. The maximum height of wind turbines is 80 feet unless evidence is submitted otherwise showing approval for additional height from the Harnett County Fire Code Official.
- D. Attachment of structures for the collection of wind energy to a building of any kind shall be prohibited.
- E. Applications and/or site plans for wind energy facilities shall include the following items, in addition to those items required elsewhere by this Ordinance.
  - 1. The approximate generating capacity of the facility;
  - 2. The representative type and height of the wind turbines to be constructed, including dimensions, manufacturer, generator capacity per turbine, and a description of any ancillary facilities or structures;
  - 3. An Environmental Assessment for wind energy facilities shall be provided for review by the County and the State Clearinghouse for distribution. Certification of distribution of the Environmental Assessment shall also be provided; and
  - 4. Evidence of compliance with applicable FAA regulations.
  - 5. Location of all wind turbines and wind energy collection related structures;
  - 6. Access easement necessary for the use and maintenance of the facility and related structures; and
  - 7. The distance of wind turbines and wind energy collection related structures to the nearest property lines.
  - 8. Evidence that the owner(s) or operator(s) has been approved by the appropriate utility company to install an interconnected customer-owned generator. Such evidence shall be in the form of written verification that the plans have been reviewed, and if built to plans, the facility will be accepted by the utility company. Installation of systems or facilities shall not occur until this evidence has been supplied.
- F. All applications for wind energy facilities located within 10 miles of a military base shall be forward for review to the applicable military department or consultant.
- G. The visual appearance of wind energy facilities shall, at a minimum:
  - 1. Be a non-obtrusive color such as white, off-white, or gray;
  - 2. Not be artificially lighted, except to the extent required by the FAA; and



- 3. Not display advertising (including flags, streamers, or decorative items), except for identification of the turbine manufacturer, facility owner(s), and operator.
- H. Installation and design of a wind energy facility shall conform to the applicable industry standards, including those of the American National Standards Institute.
- I. Any onsite collector system shall, to the maximum extent possible, be placed underground.
- J. The noise emitted from such facility shall be in compliance with the applicable regulations of the Harnett County Sheriff's Department. Evidence of such shall be furnished with the application for a wind energy system.
- K. Decommissioning plans that describe the anticipated life of the facility, estimated decommissioning costs in current dollars, the method for ensuring that funds will be available for decommissioning and restoration, and the anticipated manner in which the facility will be decommissioned and the site restored to predevelopment conditions shall be required.

**8.2 Manufacturing**

***8.2.1 Manufacturing, Fertilizer***

- A. Any accessory outdoor storage area shall comply with the requirements set forth in Subsection "Outdoor Storage Area Screening", Section "Buffers & Landscaping" of Article VII "Development Design Guidelines."

***8.2.2 Manufacturing, General***

- A. Any accessory display area shall comply with the requirements set forth in Section "Display Area" of Article VII "Development Design Guidelines" as applicable.
- B. Any accessory outdoor storage area shall comply with the requirements set forth in Subsection "Outdoor Storage Area Screening", Section "Buffers & Landscaping" of Article VII "Development Design Guidelines."

***8.2.3 Manufacturing, Light***

Subject to the following requirements:

<b>LAND USE</b>	<b>MAXIMUM LOT AREA</b>
Agricultural & Rural Residential	No Greater Than 15 Acres
Low Density Residential	No Greater Than 15 Acres
Medium Density Residential	No Greater Than 15 Acres
Employment Mixed Use	N/A
Protected Areas, Environmentally Sensitive Areas, Compact Mixed Use, Rural Center	N/A

- A. All permitted uses, their constituent operations, and associated activities (except parking, loading, and domestic solid waste containment) shall be conducted totally within a building or buildings such that all yard spaces and grounds shall be kept clear and open.
- B. All manufacturing shall be of a nature and conducted in such a manner that there is no discharge of smoke or particle matter into the outside air.
- C. All manufacturing shall be of a nature and conducted in such a manner that there is no offensive odor or noise emitted and discernable at an adjacent property. Further, the noise emitted from such facility shall be in compliance with the applicable regulations of the Harnett County Sheriff's Department.

- D. Any accessory display area shall comply with the requirements set forth in Section “Display Area” of Article VII “Development Design Guidelines” as applicable.
- E. Any accessory outdoor storage area shall comply with the requirements set forth in “Outdoor Storage Area Screening”, Section “Buffers & Landscaping” of Article VII “Development Design Guidelines.”

### **8.3 Warehousing & Freight Handling**

#### ***8.3.1 Assembly, Processing Industries, Wholesale, & Warehouses***

- A. Any accessory display area shall comply with the requirements set forth in Section “Display Area” of Article VII “Development Design Guidelines” as applicable.
- B. Any accessory outdoor storage area shall comply with the requirements set forth in “Outdoor Storage Area Screening”, Section “Buffers & Landscaping” of Article VII “Development Design Guidelines.”

#### ***8.3.2 Distribution Center***

Distribution centers shall meet the use regulations set forth in this Section for “Assembly, Processing Industries, Wholesale, & Warehouses”, as applicable.

#### ***8.3.3 Storage, Personal Recreational Vehicle & Travel Trailer***

Personal travel trailers or recreational vehicles may be parked or stored in the rear or side yard of the owner’s residential lot; provided that no living quarters shall be maintained, nor any business conducted therein while such recreational vehicle or travel trailer is so parked or stored (not subject to lot size requirements) unless otherwise specified within this Ordinance. This is intended as private, personal storage only and not for business purposes.

#### ***8.3.4 Storage, Self Mini-Warehouse***

Subject to the following requirements:

- A. Maximum building height of 20 feet.
- B. A secured fence of at least six (6) feet in height shall surround the perimeter of the storage facility.
- C. Adequate lighting shall be provided to illuminate the storage facility. The minimum size streetlight shall be a 175 watt Mercury-vapor (approximately 7,000 lumen class) or its equivalent, spaced at intervals of not more than 300 feet.
- D. No outside storage shall be permitted except as provided below.
- E. Outdoor storage of boats, vehicles (including motorcycles), recreational vehicles, campers, equipment, materials, etc in designated spaces shall meet the following requirements:
  1. If outdoor storage space is proposed the area shall be designated as outdoor storage on the required site plan.
    - a. Existing facilities expanding to include outdoor storage shall submit a revised site plan showing such, in accordance with the provisions of this Ordinance.
  2. Area designated for outdoor storage shall not be visible from adjacent right(s)-of-way and shall install a Type D Buffer along the exterior of the perimeter fencing.
  3. If associated with a mini-storage facility that will have enclosed storage buildings, outdoor storage space(s) shall be located at the rear or side of the site.

- 4. No inoperable vehicles, or other items as listed above, shall be stored on-site unless on a towable trailer with the intent to transport in a timely manner.
- F. The storage of hazardous, toxic, or explosive substances shall be prohibited.
- G. No business activity sales, service, or repair activities, other than rental of the storage units or spaces, shall be conducted within the storage facilities.

## **8.4 Wholesale Trade**

### ***8.4.1 Wholesale Storage of Gasoline or Bulk Terminal Plants***

- A. No above ground storage tank shall be closer than 50 feet to any property line.
- B. Uses shall be in conformity with the federal, State, and local regulations governing the storage of combustible fuels.

## **8.5 Waste Related**

### ***8.5.1 Recycling Collection Centers***

All facilities shall be located in a side or rear yard.

### ***8.5.2 Solid Waste Disposal***

- A. Required buffer shall meet the requirements of this Ordinance; however the buffer shall be continuous and shall not be permitted to follow the spacing requirements.
- B. Any structure shall be located at least 300 feet from any residentially zoned property line or 50 feet from all other property lines.
- E. The main travel way and all active travel ways shall be surfaced in asphalt or concrete from, at a minimum, the right(s)-of-way to all structures located on site. All unpaved areas shall be maintained in a manner that prevents dust from adversely impacting adjoining properties and right(s)-of-way.
- C. Transfer Stations

There shall be no outdoor storage of waste products, unless entirely enclosed in containers and storage bins that are durable, waterproof, rustproof, covered, and secure from unauthorized entry.

## **SECTION 9.0 UTILITY USES**

### **9.1 Privately Owned Public Utility Structures**

Structures and facilities that are installed by privately owned public utility systems, including, but not limited to electric, telephone, gas, and cable distributing companies, for the purpose of supplying, extending, or enhancing service shall be a permitted use in all zoning districts, provided that any above ground structures or facilities does not create any enclosed area that can be wholly or partially occupied by an individual for any appreciable period of time, other than for the normal and customary construction, repair, and maintenance of such structure or facility.

- A. The above ground structure or facility, and any associated concrete slab, shall be required to meet the front, side, and rear yard setback requirements of the respective zoning districts.
- B. Towers, where permitted, shall meet the requirements of the respective zoning districts.
- C. A Special Use permit shall be required for such use if the structure is 600 square feet or larger or if it is located within the Conservation Zoning District, regardless of the size of the structure.

## **9.2 Public Utility Structures**

- A. The above ground structure or facility, and any associated concrete slab, shall be required to meet the front, side, and rear yard setback requirements of the respective zoning districts.
- B. Towers, where permitted, shall meet the requirements of the respective zoning districts.
- C. Structures above ground, installed as part of a public utility system, less than one (1) acre of area shall be exempt from the requirements listed in Section “Buffers & Landscaping” of this Ordinance.

## **SECTION 10.0 TEMPORARY USES**

All temporary uses shall obtain a temporary land use & zoning permit, except modular classrooms. Modular classrooms shall obtain a land use & zoning permit as required for other uses regulated by the Ordinance.

### **10.1 Modular Classrooms**

Modular classrooms shall have underpinning consisting of a brick curtain wall or have galvanized metal sheeting, or ABS, or PVC plastic color skirting within interlocking edges, installed around the perimeter of the structure. Skirting shall be consistent in appearance, in good condition, continuous, permanent, and unpierced except for ventilation and access.

### **10.2 Nonresidential Building, Temporary**

Temporary buildings used for nonresidential purposes may be located in any zoning district, but only if they are temporary uses such as construction field offices, construction supplies, and equipment storage or temporary offices. Temporary land use & zoning permits and building permits for such uses shall be obtained from the appropriate administrative officials and shall be renewed every 180 days for a period not to exceed one (1) year. Manufactured homes shall not be converted into storage buildings.

### **10.3 Portable Food Sales**

- A. Portable food sales establishments shall be permitted on a temporary basis of 120 days per any 12 month period, unless otherwise permitted by the Department of Public Health. In cases where the Department of Public Health issues a permit for a shorter period of time, said period shall apply for purposes of this Ordinance. A temporary land use & zoning permit shall be required.
- B. Applications for portable food sales shall include a copy of the required permit from the Harnett County Health Department.
- C. In addition to the minor site plan requirements elsewhere in this Ordinance, facilities located on improved sites shall provide evidence that the existing parking is adequate to serve the existing facility, minus those spaces used for location of the facility, as well as serve the proposed facility itself.
- D. Tables shall be allowed on existing, improved sites only where evidence has been shown that there is adequate parking to serve such, in addition to the parking already required for the facility, and shall be permanently or semi-permanently anchored to the ground.
- E. All food or beverages sold from such a facility shall be ready for consumption.
- F. No consumption of food or beverages shall take place within the food preparation facility.

### **10.4 Residence, Temporary**

- A. Where applicable, a temporary residence shall be permitted for a period of 180 days, renewable for

an additional 30 days from staff, or longer as approved by the Board of Adjustment, when an existing or proposed primary or secondary residence, located on the same lot, is deemed uninhabitable due to renovation or construction. Recreational vehicles (RVs) shall be allowed as a temporary residence.

- B. Said temporary residence shall receive a temporary land use & zoning permit.
- C. Temporary residences shall be located in the required side or rear yard.

### **10.5 Roadside Stands**

- A. Sales shall be limited to that of agricultural products grown or produced on the same premises.
- B. Such sales shall operate for a maximum of 45 days per season in which products are grown or produced.

### **10.6 Seasonal Sales**

- A. Seasonal sales facilities shall be located on a minor collector road or greater, as identified by NCDOT.
- B. In no case shall the construction of a building or permanent structure be permitted as part of said use.
- C. In no case shall a recreational vehicle be used as part of this facility.
- D. Such sales shall operate for a maximum of 90 days per calendar year.

### **10.7 Temporary Events**

- A. Temporary events shall be permitted on a temporary basis of 15 days per any 12 month period. A temporary land use & zoning permit shall be required.
- B. Applications shall include a copy of the required permit from the Harnett County Department of Public Health.
- C. In addition to the minor site plan requirements elsewhere in this Ordinance, facilities located on improved sites shall provide evidence that the existing parking is adequate to serve the existing facility, minus those spaces used for location of the facility, as well as serve the proposed facility itself.
- D. The use of public right(s)-of-way for overflow parking or any other purpose shall be prohibited.
- E. All required building inspections shall be completed in accordance with State Building Code.

### **10.8 Turkey Shoot, Temporary/Seasonal**

- A. Applicant shall obtain a temporary land use & zoning permit and provide a minor site plan at the time of application. Said temporary land use & zoning permit shall be made available and easily accessible throughout the duration of the period for which the turkey shoot is permitted.
- B. All turkey shoots shall be established with the line of fire perpendicular to and away from the right(s)-of-way.
- C. No turkey shoot shall be permitted within the required setback.
- D. Structures or facilities shall be constructed a minimum of 100 feet from any residential structure, except for the residential structure used by the owner(s)/operator(s).
- E. All backstops shall be constructed of a material that will allow the shot to penetrate and not pass through. It shall be a minimum thickness of two (2) feet and maintained at a height of four (4) feet above the target.
- F. Adequate, handicap accessible restroom and parking facilities shall be provided.

- G. Adequate parking shall be provided so as not to interfere with the surrounding properties. All unpaved areas shall be maintained in a manner that prevents dust from adversely impacting adjoining properties and right(s)-of-way.
  - 1. This shall hereby prohibit the use of public right(s)-of-way for overflow parking.
  - 2. Parking spaces shall be a minimum of 50 feet from all residential structures.
- H. A safety zone shall be designated from the firing line to and including the edge of the installed backstop at a 10 degree angle. Said safety zone shall be easily identified in order to be recognized by participants and to prohibit entry during the event.
- I. The greatest allowable caliber fire arm used shall be a 12 gauge and the greatest allowable shot size shall be seven and a half (7.5).
- J. Structures or facilities for use by the general public and/or participants shall be constructed to the North Carolina State Building Code.
- K. Turkey shoots shall be permitted for a period of time not to exceed 180 days in a given year.
- L. The amount of noise generated shall not disrupt the activities of the adjacent land uses. The noise emitted from such facility shall be in compliance with the applicable regulations of the Harnett County Sheriff's Department.

## **10.9 Yard Sale**

- A. There shall be a maximum of two (2) sales, not to exceed two (2) days per sale, per calendar year on any one (1) lot.
- B. All yard sales shall take place on an improved lot.
- C. Any signs advertising such yard sale shall be removed at the conclusion of the sale.

## **SECTION 11.0 OTHER USES**

### **11.1 Airports & Related Uses**

- A. Within the Industrial Zoning District, publicly owned airports shall be a permitted use and privately owned airports, whether for public or private use, shall require a Special Use permit.
- B. A development plan shall be submitted with the initial application for an airport or at any time that proposed development varies significantly from the existing development plan. The development plan shall follow the requirements set forth for "Office & Institutional Plan", Subsection "Development Plan Requirements", Section "Planned Unit Development & Office & Institutional Development Plan" of Article III "Development & Subdivision Review, Permitting, & Approval Requirements."
- C. The minimum setback for airport related structures shall be 15 feet from all perimeter property lines.

### **11.2 Communications Tower (Microwave, TV, Telephone, Radio, & Cellular)**

#### *11.2.1 Exempt Facilities*

The following items are exempt from the provisions of this Section; notwithstanding any other provisions of this Ordinance:

- A. Any tower less than 50 feet in height or communications towers existing or permitted prior to the adoption of this Ordinance.
- B. Satellite earth stations that are one (1) meter (39.37 inches) or less in diameter in all

residential zoning districts and two (2) meters or less in all other zoning districts.

- C. A government-owned communications facility, upon the declaration of a state of emergency by Federal, State, or local government, and a written determination of public necessity by the County designee; except that such facility shall comply with all Federal and State requirements. No communications facility shall be exempt from the provisions of this division beyond the duration of the state of emergency.
- D. A government-owned communications facility erected for the purposes of installing antenna(s) and ancillary equipment necessary to provide communications for public health and safety.
- E. A temporary, commercial communications facility, upon the declaration of a state of emergency by Federal, State, or local government, or determination of public necessity by the County and approved by the County; except that such facility shall comply with all Federal and State requirements. The communications facility may be exempt from the provisions of this division up to three (3) months after the duration of the state of emergency.
- F. A temporary, commercial communications facility, for the purposes of providing coverage of a special event such as news coverage or sporting event, subject to approval by the County, except that such facility shall comply with all Federal and State requirements. Said communications facility may be exempt from the provisions of this division up to one (1) week after the duration of the special event.

#### 11.2.2 *General Provisions*

##### A. Application of this Section

This Section shall apply to the development activities including installation, construction, or modification of all antenna and tower facilities including but not limited to:

1. Non-commercial, amateur radio station antennas
2. Existing towers
3. Proposed towers
4. Public towers
5. Mitigation of towers
6. Co-location on existing towers
7. Attached wireless communications facilities
8. Concealed wireless communications facilities
9. Non-concealed towers
10. Broadcast facilities

##### B. Abandonment (Discontinued Use)

1. Towers, antennas, and the equipment compound shall be removed, at the owner's expense, within 180 days of cessation of use, unless the abandonment is associated with mitigation as provided in Subsections "Minimum Mitigation Accomplishments" and "Mitigation Requirements" of this Section, in which case the removal shall occur within 90 days of cessation of use.
2. An owner wishing to extend the time for removal or reactivation shall submit an application stating the reason for such extension. The County may extend the time for removal or reactivation up to 60 additional days upon a showing of good cause. If the

tower or antenna is not removed within this time, the County may give notice that it will contract for removal within 30 days following written notice to the owner. Thereafter, the County may cause removal of the tower with costs being borne by the owner.

3. Upon removal of the tower, antenna, and equipment compound, the development area shall be returned to its natural state and topography and vegetated consistent with the natural surroundings or consistent with the current uses of the surrounding or adjacent land at the time of removal, excluding the foundation, which does not have to be removed.

C. Interference with Public Safety Communications

In order to facilitate the regulation, placement, and construction of antenna, and to ensure that all parties are complying to the fullest extent possible with the rules, regulations, and/or guidelines of the FCC, each owner of an antenna, antenna array or applicant for a co-location shall agree in a written statement to the following:

1. Compliance with *Good Engineering Practices*, as defined by the FCC in its rules and regulations.
2. Compliance with FCC regulations regarding susceptibility to radio frequency interference, frequency coordination requirements, general technical standards for power, antenna, bandwidth limitations, frequency stability, transmitter measurements, operating requirements, and any and all other federal statutory and regulatory requirements relating to radio frequency interference (RFI).
3. In the case of an application for co-located telecommunications facilities, the applicant, together with the owner of the subject site, shall use their best efforts to provide a composite analysis of all users of the site to determine that the applicant's proposed facilities will not cause radio frequency interference with the County's public safety communications equipment and will implement appropriate technical measures, as described in antenna element replacements, to attempt to prevent such interference.
4. Whenever the County has encountered radio frequency interference with its public safety communications equipment, and it believes that such interference has been or is being caused by one or more antenna arrays, the following steps shall be taken:
  - a. The County shall provide notification to all wireless service providers operating in the County of possible interference with the public safety communications equipment, and upon such notifications, the owners shall use their best efforts to cooperate and coordinate with the County and among themselves to investigate and mitigate the interference, if any, utilizing the procedures set forth in the joint wireless industry-public safety *Best Practices Guide*, released by the FCC, including the *Good Engineering Practices*, as may be amended or revised by the FCC from time to time.
  - b. If any equipment owner fails to cooperate with the County in complying with the owner's obligations under this section or if the FCC makes a determination of radio frequency interference with the County public safety communications equipment, the owner who failed to cooperate and/or the owner of the equipment which caused the interference shall be responsible, upon FCC determination of radio frequency interference, for reimbursing the County for all costs associated with ascertaining and resolving the interference, including but not limited to any engineering studies obtained by the County to determine the source of the interference. For the purposes of this subsection, failure to cooperate shall include failure to initiate any response or action as described in *Best Practices Guide* within 24 hours of County's notification.



11.2.3 *Antennas, Towers, & Associated Equipment*

A. Building Code Requirements

Towers shall be constructed and maintained in conformance with all applicable building code requirements.

B. Locating Alternatives Order

1. Locating Alternatives Order of New Antenna Array & New Towers

Locating of a new antenna array and new tower shall be in accordance with the following preferred locating alternatives order. Location on publicly-owned property shall be preferred over location on non publicly-owned property for each locating alternative.

- a. Concealed attached antenna
- b. Co-located or combined antenna on existing tower
- c. Non-concealed attached antenna
- d. Mitigation of existing tower
- e. Concealed freestanding tower
- f. Non-concealed freestanding tower

2. Locating Alternatives Order of Attached, Co-located, & Combined Antenna

For attached, co-located, or combined antenna, the order of ranking preference, highest to lowest, shall follow the same ranking as provided in items “a.” through “d.” of “Locating Alternatives Order of New Antenna & New Towers” Section above. Where a lower ranked alternative is proposed, the applicant shall file relevant information as required including, but not limited to, an affidavit by a radio frequency engineer demonstrating that despite diligent efforts to adhere to the established hierarchy within the geographic search area, higher ranked options are not technically feasible, practical or justified given the location of the proposed communications facility.

3. Locating Alternatives Order of Mitigation & Freestanding Towers

Where a mitigated or freestanding tower is permitted the order of ranking preference from highest to lowest shall follow the same ranking as provided in items “d.” through “f.” “Locating Alternatives Order of New Antenna Array & New Towers” Section above. Where a lower ranked alternative is proposed, the applicant shall file relevant information as required and demonstrate higher ranked options are not technically feasible, practical, or justified given the location of the proposed communications facility, and the existing land uses of the subject and surrounding properties within 300 feet of the subject property.

C. Facility Use Regulations & Required Permits

New antennas and towers shall be permitted in Harnett County according to the table below.

Zoning District	Concealed Attached Antenna	Co-located or Combining on Existing Tower	Non-concealed Attached Antenna*	Mitigation of Existing Tower	Concealed Freestanding Tower	Non-Concealed Freestanding Tower	Antenna Element Replacement
RA-40	Level II	Level II	Level II	Level II & III	Level II		Level II
RA-30	Level II	Level II	Level II	Level II & III	Level II		Level II
RA-20M	Level II	Level II	Level II	Level II & III	Level II		Level II

<b>RA-20R</b>	Level II	Level II	Level II	Level II & III	Level II		Level II
<b>IND</b>	Level II	Level II	Level II	Level II & III	Level II	Level III & IV	Level II
<b>LI</b>	Level II	Level II	Level II	Level II & III	Level II	Level III & IV	Level II
<b>COMM</b>	Level II	Level II	Level II	Level II & III	Level II	Level III & IV	Level II
<b>CONS</b>	Level II	Level II	Level II	Level II & III	Level II	Level III	Level II
<b>O&amp;I</b>	Level II	Level II	Level II	Level II & III	Level II		Level II
<b>HCO/MCO</b>	Level II	Level II	Level II	Level II & III	Level II		Level II
<b>HEIGHT CONTROL ORDINANCE</b>	Level II	Level II	Level II	Level II & III	Level II		Level II

**Note: Level I towers are permitted in all zoning districts.**

\*Non-concealed attached antennas are only allowed on transmission towers and light stanchions.

*11.2.4 Permit (Level I) Amateur Radio Towers*

A. Application Requirements

All Permit (Level I) applications shall contain the following:

1. Completion of the “Communications Tower Permit Application”
2. Application Fee
3. Site Plan
4. Valid FCC amateur operator’s license

B. Tower Height

Tower height and location shall comply with Federal and State law. Towers shall not exceed 199 feet unless FCC approval is demonstrated.

C. Setbacks

A distance equal to the height of the tower shall separate new amateur radio towers from all structures not located on the same parcel as the tower, property lines, right-of-way lines and/or easements. Any relocation of amateur radio towers shall remain on same parcel and shall comply with stated setback requirements, or, if compliance is not possible, the relocation shall not increase the amount by which setbacks are nonconforming, other than increases necessitated solely by changes in size of the base to support the new tower.

*11.2.5 Permit (Level II) Co-location, Combination, Attachment, Antenna Element Replacement, Replacement Towers, & Concealed Towers*

A. Application Requirements

All Permit (Level II) applications shall contain the following:

1. Completion of the “Communications Tower Permit Application”
2. Application Fee
3. Site Plan

B. Co-location & Combination

Harnett County requires co-location and combining of antennas on existing communications towers as a first priority where co-location is possible. Any person, corporation, partnership, or other entity which intends to co-locate on an existing communications tower within the jurisdiction of this Ordinance shall obtain a Permit (Level II). Co-locations are subject to the following:

1. A co-located or combined antenna or antenna array shall not exceed the maximum height prescribed in the Special Use permit (if applicable) or increase the height of an existing tower by more than 20 feet and shall not affect any tower lighting.
2. New antenna mounts shall be flush-mounted onto existing structures, unless it is demonstrated through radio frequency (RF) propagation analysis that flush-mounted antennas will not meet the network objectives of the desired coverage area.
3. The equipment cabinet shall be subject to the setback requirements of the underlying zoning district.
4. When a co-located or combined antenna is to be located on a nonconforming building or structure, then the existing permitted nonconforming setback shall prevail.
5. Applications entitled to the streamlined processes described in Section 160D-349.53, North Carolina General Statutes, shall meet all the following requirements:
  - a. The additional antenna array, transmission lines, and related ancillary equipment including the base station do not exceed the number of same items previously approved for such tower when originally approved, and the collocated facility is in complete conformance with the original conditions imposed on the tower upon which it is being attached.
  - b. The proposed co-location shall not increase the existing vertical height of the tower by the greater of (i) more than ten percent (10%) or (ii) the height of one additional antenna array with separation from the nearest existing antenna not to exceed 20 feet.
  - c. The co-location shall not increase the ground space area approved in the communications tower site plan for equipment enclosures and ancillary facilities by more than 2,500 square feet.
  - d. The existing tower on which the co-location will attach shall comply with applicable regulations, restrictions, and/or conditions, if any, applied to the initial wireless facilities placed on the tower.
  - e. The proposed additional co-location and tower shall comply with all federal, state, and local safety requirements.
  - f. The proposed co-location and ancillary equipment shall not exceed the applicable weight limits for the tower.
  - g. Except where necessary to shelter the antenna from inclement weather or to connect the antenna to the tower via cable, the proposed co-location shall not add an appurtenance to the body of a tower or wireless support structure that protrudes horizontally from the edge of all wireless support structure the greater of (i) more than 20 feet or (ii) more than the width of the wireless support structure at the level of the appurtenance.

C. Concealed & Non-concealed Attachment

Antennas may be mounted onto a structure which is not primarily constructed for the purpose of holding attachment antennas but on which one (1) or more antennas may be mounted. Any person, corporation, partnership, or other entity which intends to place an antenna on an alternative structure within the jurisdiction of this Ordinance shall obtain a Permit (Level II). Attached antenna shall be subject to the following:

1. The top of the attached antenna shall not be more than 20 feet above the existing or proposed building or structure

2. Non-concealed attachments shall only be allowed on electrical transmission towers and existing light stanchions subject to approval by the Planning Department and utility company.
3. When an attached antenna is to be located on a nonconforming building or structure, the existing permitted nonconforming setback shall prevail.
4. Except for non-concealed attached antennas, feed lines and antennas shall be designed to architecturally match the façade, roof, wall, and/or structure on which they are affixed so that they blend with the existing structural design, color, and texture.

D. Antenna Element Replacement

For any replacement of an existing antenna element on an antenna, the applicant shall, prior to making such modifications, submit the following:

1. A written statement setting forth the reasons for the modification.
2. A description of the proposed modifications to the antenna, including modifications to antenna element design, type and number, as well as changes in the number and/or size of any feed lines, from the base of the equipment cabinet to such antenna elements.
3. A signed statement from a qualified person, together with their qualifications, shall be included representing the tower's owner or owner's agent that the radio frequency emissions comply with FCC standards for such emissions. The statement shall also certify that both individually and cumulatively, and with any other facilities located on or immediately adjacent to the proposed facility, the replacement antenna complies with FCC standards.
4. A stamped or sealed structural analysis of the existing structure prepared by a Professional North Carolina Land Surveyor or Engineer indicating that the existing tower as well as all existing and proposed appurtenances meet the North Carolina State Building Code requirements, including wind loading, for the tower.

E. Minimum Mitigation Accomplishments

Mitigation shall accomplish a minimum of one (1) of the following:

1. Reduce the number of towers
2. Reduce the number of nonconforming towers
3. Replace an existing tower with a new tower to improve network functionality resulting in compliance with this Ordinance.

F. Mitigation Requirements

Mitigation is subject to the following:

1. No tower shall be mitigated more than one (1) time.
2. Height: Level II and Level III

a. Level II

The height of a tower approved for mitigation shall not exceed 115 percent (115%) of the height of the tallest tower that is being mitigated. (For example, a 250 foot existing tower could be rebuilt at 287.5 feet)

b. Level III

The height of a tower may exceed 115 percent (115%) of the height of the tallest tower that is being mitigated approved for mitigation with undisputable evidence that the new tower will eliminate the need for an additional antenna array within a

distance of two (2) miles. Under no circumstance shall any mitigated tower exceed a height of 300 feet.

3. Setbacks

A new tower approved for mitigation of an existing tower shall not be required to meet new setback standards so long as the new tower and its equipment compound are no closer to any property lines or dwelling units as the tower and equipment compound being mitigated. The intent is to encourage the mitigation process, not penalize the tower owner for the change out of the old facility. (For example, if a new tower is replacing an old tower, the new tower is permitted to have the same setbacks as the tower being removed, even if the old tower had nonconforming setbacks.)

4. Breakpoint Technology

A newly mitigated monopole or lattice tower shall use breakpoint technology in the design of the replacement facility.

5. Buffers

At the time of mitigation, the tower equipment compound shall be brought into compliance with any applicable buffer requirements.

6. Visibility

Mitigated antenna-supporting structures shall be configured and located in a manner that minimizes adverse effects on the landscape and adjacent properties, with specific design considerations as to height, scale, color, texture, and architectural design of the buildings on the same and adjacent zoned lots.

G. Concealed Towers

1. Application Requirements

All new communications towers intended to replace an existing tower where the new tower meets the following requirements:

- a. Completion of the “Communications Tower Permit Application”
- b. Application Fee
- c. Site Plan

2. Determination of Need

No new or mitigated freestanding tower shall be permitted unless the applicant demonstrates that no existing tower can accommodate the applicant’s proposed use; or that use of such existing facilities would prohibit personal wireless services in the geographic search area to be served by the proposed tower.

3. Height

New concealed towers shall be limited to 199 feet or less in height. In HCO zones the maximum height shall be 125 feet. Height calculations shall include above ground foundations, but exclude lightning rods or lights required by the FAA that do not provide any support for antennas.

4. Setbacks

New freestanding towers and equipment compounds shall be subject to the setbacks described below for breakpoint technology:

- a. If the tower has been constructed using breakpoint design technology (see Article “Definitions & Certifications” Section “Communications Tower Definitions &

Acronyms”), the minimum setback distance shall be equal to 110 percent (110%) of the distance from the top of the structure to the breakpoint level of the structure, or the minimum side and rear yard requirements, whichever is greater. Certification by a Professional North Carolina Land Surveyor or Engineer of the breakpoint design and the design’s fall radius shall be provided together with the other information required herein from an applicant. (For example, on a 100-foot tall monopole with a breakpoint at 80 feet, the minimum setback distance would be 22 feet (110 percent of 20 feet, the distance from the top of the monopole to the breakpoint) plus the minimum side or rear yard setback requirements for that zoning district.)

- b. If the tower is not constructed using breakpoint design technology, the minimum setback distance shall be equal to the height of the proposed tower.

5. Equipment Cabinets

Cabinets shall not be visible from pedestrian and right-of-way views. Cabinets may be provided within the principal building, behind a screen on a rooftop, or on the ground within the fenced-in and screened equipment compound.

6. Fencing

All equipment compounds shall be enclosed with an opaque fence or masonry wall in residential zoning districts, and in any zoning district when the equipment compound adjoins a public right-of-way. Alternative equivalent screening may be approved through the site plan approval process described in “Buffers” Section below.

7. Signage

Commercial messages shall not be displayed on any tower. Required noncommercial signage shall be subject to the following:

- a. The only signage that is permitted upon a tower, equipment cabinets, or fence shall be informational, and for the purpose of identifying the tower (such as ASR registration number), as well as the party responsible for the operation and maintenance of the facility, and any additional security and/or safety signs as applicable.
- b. If more than 220 voltage is necessary for the operation of the facility and is present in a ground grid or in the tower, signs located every 20 feet and attached to the fence or wall shall display in large, bold, high contrast letters, minimum height of each letter four (4) inches, the following: “HIGH VOLTAGE - DANGER.”
- c. Name plate signage shall be provided, in an easily visible location, including the address and telephone number of the contact to reach in the event of an emergency or equipment malfunction, including property manager signs as applicable.

8. Lighting

Lighting on towers shall not exceed the Federal Aviation Administration (FAA) minimum standards. All other lighting shall be subject to the following.

- a. Any lighting required by the FAA shall be of the minimum intensity and number of flashes per minute (i.e., the longest duration between flashes) allowable by the FAA. Dual lighting standards are required and strobe light standards are prohibited unless required by the FAA.
- b. Lights shall be oriented so as not to project directly onto surrounding property or rights-of-way, consistent with FAA requirements.

9. Equipment Compound

The fenced-in compounds shall not be used for the storage of any excess equipment or hazardous materials. No outdoor storage yards shall be allowed in a tower equipment compound. The compound shall not be used as habitable space.

10. Visibility

- a. New towers shall be configured and located in a manner that shall minimize adverse effects including visual impacts on the landscape and adjacent properties.
- b. New freestanding towers shall be designed to match adjacent structures and landscapes with specific design considerations such as architectural designs, height, scale, color, and texture.
- c. A balloon test shall be required subsequent to the receipt of the photo simulations in order to demonstrate the proposed height of the tower. The applicant shall arrange to raise a colored balloon no less than three (3) feet in diameter at the maximum height of the proposed tower, and within 50 horizontal feet of the center of the proposed tower.
- d. The applicant shall meet the following for the required balloon test:
  - i. Applicant shall inform the Planning Department and abutting property owners in writing of the date and times, including alternative date and times, of the test at least 14 days in advance.
  - ii. The date, time, and location, including alternative date, time and location, of the balloon test shall be advertised in a locally distributed paper by the applicant at least seven (7) but no more than 14 days in advance of the test date.
  - iii. The balloon shall be flown for at least four (4) consecutive hours during daylight hours on the date chosen. The applicant shall record the weather during the balloon test.
  - iv. Re-advertisement will not be required if inclement weather occurs.
- e. New antenna mounts shall be flush-mounted, unless it is demonstrated through RF propagation analysis that flush-mounted antennas will not meet the network objectives of the desired coverage area.
- f. In residential zoning districts, new towers shall only be permitted on lots whose principal use is not single-family residential, including schools, churches, synagogues, fire stations, parks, and other public property.
- g. Towers shall be constructed to accommodate antenna arrays as follows:
  - i. All freestanding towers up to 120 feet in height shall be engineered and constructed to accommodate no less than four (4) antenna arrays.
  - ii. All towers between 121 feet and 150 feet shall be engineered and constructed to accommodate no less than five (5) antenna arrays.
  - iii. All towers between 151 feet and taller shall be engineered and constructed to accommodate no less than six (6) antenna arrays.
- h. Grading shall be minimized and limited only to the area necessary for the new tower and equipment.

*11.2.6 Permit (Level III) New Non-concealed Towers*

A. Application Requirements

All Permit (Level III) applications shall contain the following:

1. Completion of the “Communications Tower Permit Application”
2. Application Fee
3. Site Plan

B. Determination of Need

No new or mitigated freestanding tower shall be permitted unless the applicant demonstrates that no existing tower can accommodate the applicant’s proposed use; or that use of such existing facilities would prohibit personal wireless services in the geographic search area to be served by the proposed tower.

C. Height

Height calculations shall include above ground foundations, but exclude lightning rods or lights required by the FAA that do not provide any support for antennas. It is intended that all new non-broadcasting towers be 199 feet or less in height. However, should a tower be required in excess of 200 feet, under no circumstance shall any tower exceed 300 feet. All new towers in excess of 199 feet shall be subject to the following additional requirements:

1. Undisputable evidence that the antenna service area will be so substantially compromised that there would be a requirement of additional antenna array within a distance of two (2) miles.
2. The tower shall be designed to allow for a future reduction of elevation to no more than 199 feet, or the replacement of the tower with a monopole type structure at such time as the wireless network had developed to the point that such heights can be justified.
3. In HCO and MCO Zoning Districts the maximum height shall be 125 feet.

D. Setbacks

New freestanding towers and equipment compounds shall be subject to the setbacks described below for breakpoint technology:

1. If the tower is constructed using breakpoint design technology (see Article “Definitions & Certifications” Section “Communications Tower Definitions & Acronyms”), the minimum setback distance shall be equal to 110 percent (110%) of the distance from the top of the structure to the breakpoint level of the structure, or the minimum side and rear yard requirements, whichever is greater. Certification by a registered Professional North Carolina Engineer of the breakpoint design and the design’s fall radius shall be provided together with the other information required herein from an applicant. (For example, on a 100 foot tall monopole with a breakpoint at 80 feet, the minimum setback distance would be 22 feet (110 percent of 20 feet, the distance from the top of the monopole to the breakpoint) plus the minimum side or rear yard setback requirements for that zoning district.)
2. If the tower is not constructed using breakpoint design technology, the minimum setback distance shall be equal to the height of the proposed tower.

E. Equipment Cabinets

Cabinets shall not be visible from pedestrian and right-of-way views. Cabinets may be provided within the principal building, behind a screen on a rooftop, or on the ground within the fenced-in and screened equipment compound.

F. Fencing

All equipment compounds shall be enclosed with an opaque fence or masonry wall in



residential zoning districts, and in any zoning district when the equipment compound adjoins a public right(s)-of-way.

G. Signage

Commercial messages shall not be displayed on any tower. Required noncommercial signage shall be subject to the following:

1. The only signage that is permitted upon a tower, equipment cabinets, or fence shall be informational, and for the purpose of identifying the tower (such as ASR registration number), as well as the party responsible for the operation and maintenance of the facility, and any additional security and/or safety signs as applicable.
2. If more than 220 voltage is necessary for the operation of the facility and is present in a ground grid or in the tower, signs located every 20 feet and attached to the fence or wall shall display in large, bold, high contrast letters, minimum height of each letter four (4) inches, the following: "HIGH VOLTAGE - DANGER."
3. Name plate signage shall be provided, in an easily visible location, including the address and telephone number of the contact to reach in the event of an emergency or equipment malfunction, including property manager signs as applicable.

H. Lighting

Lighting on towers shall not exceed the Federal Aviation Administration (FAA) minimum standards. All other lighting shall be subject to the following.

1. Any lighting required by the FAA shall be of the minimum intensity and number of flashes per minute (i.e., the longest duration between flashes) allowable by the FAA. Dual lighting standards are required and strobe light standards are prohibited unless required by the FAA.
2. Lights shall be oriented so as not to project directly onto surrounding property or rights-of-way consistent with FAA requirements.

I. Equipment Compound

The fenced-in compounds shall not be used for the storage of any excess equipment or hazardous materials. No outdoor storage yards shall be allowed in a tower equipment compound. The compound shall not be used as habitable space.

J. Visibility

1. New towers shall be configured and located in a manner that shall minimize adverse effects including visual impacts on the landscape and adjacent properties.
2. New freestanding towers shall be designed to match adjacent structures and landscapes with specific design considerations such as architectural designs, height, scale, color, and texture.
3. A balloon test shall be required subsequent to the receipt of the photo simulations in order to demonstrate the proposed height of the tower. The applicant shall arrange to raise a colored balloon no less than three (3) feet in diameter at the maximum height of the proposed tower, and within 50 horizontal feet of the center of the proposed tower.
4. The applicant shall meet the following for the required balloon test:
  - a. Applicant shall inform the Planning Department and abutting property owners in writing of the date and times, including alternative date and times, of the test at least 14 days in advance.
  - b. The date, time, and location, including alternative date, time and location, of the

- balloon test shall be advertised in a locally distributed paper by the applicant at least seven (7) but no more than 14 days in advance of the test date.
- c. The balloon shall be flown for at least four (4) consecutive hours during daylight hours on the date chosen. The applicant shall record the weather during the balloon test.
  - d. Re-advertisement will not be required if inclement weather occurs.
5. New antenna mounts shall be flush-mounted, unless it is demonstrated through RF propagation analysis that flush-mounted antennas will not meet the network objectives of the desired coverage area.
  6. Towers shall be constructed to accommodate antenna arrays as follows:
    - a. All freestanding towers up to 120 feet in height shall be engineered and constructed to accommodate no less than four (4) antenna arrays.
    - b. All towers between 121 feet and 150 feet shall be engineered and constructed to accommodate no less than five (5) antenna arrays.
    - c. All towers between 151 feet and taller shall be engineered and constructed to accommodate no less than six (6) antenna arrays.
  7. Grading shall be minimized and limited only to the area necessary for the new tower and equipment.
  8. Freestanding non-concealed tower shall be limited to monopole type towers, unless the applicant demonstrates that such design is not feasible to accommodate the intended uses.

#### *11.2.7 Permit (Level IV) Broadcast Facilities*

##### A. Application

All new broadcast towers shall meet the following requirements:

1. Completion of the “Communications Tower Permit Application”
2. Application Fee
3. Site Plan

##### B. Determination of Need

No new broadcast facilities shall be permitted unless the applicant demonstrates that no existing broadcast tower can accommodate the applicant’s proposed use.

##### C. Height

Height for broadcast facilities shall be evaluated on a case by case basis. The determination of height contained in the applicant's FCC Form 351/352 Construction Permit or application for Construction Permit and an FAA Determination of No Hazard (FAA Form 7460/2) shall be considered prima facie evidence of the tower height required for such broadcast facilities.

##### D. Setbacks

New broadcast facilities and anchors shall be subject to the setbacks described below:

1. Minimum of 500 feet from any single-family dwelling unit on same lot
2. Minimum of one (1) foot for every one (1) feet of tower height from all adjacent lots of record.

E. Equipment Cabinets

Except for AM broadcast facilities, cabinets shall not be visible from pedestrian and right-of-way views.

F. Fencing

All broadcast facility towers, AM antenna(s) towers, and guy anchors shall each be surrounded with an anti-climbing fence compliant with applicable FCC regulations.

G. Buffer

AM broadcast facilities shall be exempt from the buffer requirements of this Ordinance.

H. Signage

Commercial messages shall not be displayed on any tower. Required noncommercial signage shall be subject to the following:

1. The only signage that is permitted upon a tower, equipment cabinets, or fence shall be informational, and for the purpose of identifying the tower (such as ASR registration number), as well as the party responsible for the operation and maintenance of the facility, and any additional security and/or safety signs as applicable.
2. If more than 220 voltage is necessary for the operation of the facility and is present in a ground grid or in the tower, signs located every 20 feet and attached to the fence or wall shall display in large, bold, high contrast letters, minimum height of each letter four (4) inches, the following: "HIGH VOLTAGE - DANGER."
3. Name plate signage shall be provided, in an easily visible location, including the address and telephone number of the contact to reach in the event of an emergency or equipment malfunction, including property manager signs as applicable.

I. Lighting

Lighting on towers shall not exceed the Federal Aviation Administration (FAA) minimum standards. All other lighting shall be subject to the following.

1. Any lighting required by the FAA shall be of the minimum intensity and number of flashes per minute (i.e., the longest duration between flashes) allowable by the FAA. Dual lighting standards are required and strobe light standards are prohibited unless required by the FAA.
2. Lights shall be oriented so as not to project directly onto surrounding property, consistent with FAA requirements.
3. Any security lighting for on-ground facilities and equipment shall be in compliance with dark sky lighting standards as approved by the County.

J. Equipment Compound

The fenced in compounds shall not be used for the storage of any excess equipment or hazardous materials. No outdoor storage yards shall be allowed in a tower equipment compound. The compound shall not be used as habitable space.

K. Visibility

Grading shall be minimized and limited only to the area necessary for the new tower and equipment.

*11.2.8 Application Requirements*

A. Requirements for Co-location & Attachment

1. A signed statement from the tower owner or owner's agent agreeing to allow the co-location of other wireless equipment on the proposed tower, if the structure is designed or capable of additional wireless equipment.
  2. Compliance with American National Standards Institute (ANSI) standards for electromagnetic radiation: In order to protect the public from excessive exposure to electromagnetic radiation, the facility applicant shall certify through a written statement that the facility meets or exceeds current ANSI standards as adopted by the FCC.
  3. Certification furnished by a registered Professional North Carolina Engineer that the structure has sufficient structural integrity to support the proposed antenna and feed lines in addition to all other equipment located or mounted on the structure.
  4. One (1) original and two (2) copies of a survey of the property completed by a Professional North Carolina Engineer showing all existing uses, structures, and improvements.
  5. Any applicant for facilities under this section shall certify that such proposed facility shall comply with all applicable federal regulations regarding interference protection, including but not limited to federal regulations regarding adjacent channel receiver (blanket) overload and intermodulation distortion.
  6. Streamlined process for co-location approvals are subject to the following:
    - a. A co-location application entitled to streamlined processing shall be reviewed by the County within 45 days of submission, (or within some other mutually agreed upon timeframe). Approval or denial of the application shall be in writing and shall be postmarked to the applicant by the 45 day from the date of receipt. Denials shall identify the deficiencies in the application which, if cured, would take the application complete.
    - b. Upon resubmitting of the revised site plan and paperwork the County shall follow the process identified in this section, above, until all deficiencies identified are deemed cured.
    - c. If the County does not respond in writing to the applicant within the specified timeframe detailed above, then the application shall be deemed approved.
    - d. Application entitled to the streamlined review process shall not be subject to design or placement requirement, or evidentiary hearing review.
- B. Requirements for Mitigation & New Level II & III Towers
1. A report and supporting technical data shall be submitted, demonstrating the following:
    - a. All antenna attachments and co-locations, including all potentially useable cross country utility distribution towers and other elevated structures within the proposed service area and alternative antenna configurations have been examined, and found unacceptable.
    - b. Reasoning as to why existing facilities such as cross country utility distribution and other elevated structures are not acceptable alternatives to a new freestanding tower.
    - c. Reasoning as to why the adequacy of alternative existing facilities or the mitigation of existing facilities are not acceptable in meeting the applicant's need or the needs of service providers, indicating that no existing communications facility could accommodate the applicant's proposed facility shall consist of any of the following:
      - i. No existing towers located within the geographic area meet the applicant's engineering requirements, and why.

- ii. Existing towers are not of sufficient height to meet the applicant's engineering requirements, and cannot be mitigated to increase in height.
  - iii. Existing towers do not have sufficient structural integrity to support the applicant's proposed wireless communications facilities and related equipment, and the existing facility cannot be sufficiently improved.
  - iv. Other limiting factors that render existing wireless communications facilities unsuitable.
- 2. Technical data included in the report shall include certification by a Professional North Carolina Engineer or other qualified professional, which qualifications shall be included, regarding service gaps or service expansions that are addressed by the proposed tower, and accompanying maps and calculations demonstrating the need for the proposed tower.
- 3. Proof that a property and/or tower owner's agent has appropriate authorization to act upon the owner's behalf (if applicable).
- 4. Signed statement from a qualified person, together with their qualifications, shall be included that warrants radio frequency emissions from the antenna array(s) comply with FCC standards. The statement shall also certify that both individually and cumulatively, and with any other facilities located on or immediately adjacent to the proposed facility, the replacement antenna complies with FCC standards.
- 5. A stamped or sealed structural analysis of the proposed tower prepared by a Professional North Carolina Engineer indicating the proposed and future loading capacity of the tower is compliant with EIA/TIA-222-G (as amended).
- 6. An affidavit by a radio frequency engineer demonstrating compliance with Subsection "Locating Alternatives Order" of this Section. If a lower ranking alternative is proposed the affidavit shall address why higher ranked options are not technically feasible, practical, and/or justified given the location of the proposed communications facility.
- 7. Statement as to the potential visual and aesthetic impacts of the proposed tower and equipment on all adjacent residential zoning districts.
- 8. Written statement by a Professional North Carolina Land Surveyor or Engineer specifying the design structural failure modes of the proposed facility.
- 9. Statement certifying that no unusual sound emissions such as alarms, bells, buzzers, or the like are permitted. Emergency Generators are permitted. Sound levels shall not exceed seventy decibels (70 db).
- 10. A map showing the designated search ring.
- 11. Materials detailing the locations of existing antenna and tower facilities to which the proposed antenna will be a handoff candidate; including latitude, longitude, and power levels of the proposed and existing antenna is required.
- 12. A radio frequency propagation plot indicating the coverage of existing antenna sites, coverage prediction, and design radius, together with a certification from the applicant's radio frequency (RF) engineer that the proposed facility's coverage or capacity potential cannot be achieved by any higher ranked alternative such as a concealed facility, attached facility, replacement facility, co-location, or new tower.
- 13. These documents are needed to justify a facility and to determine if the proposed location is the best suitable land use in the designated geographic area of the proposed facility.
- 14. One (1) original and two (2) copies of a survey of the property completed by a

Professional North Carolina Land Surveyor or Engineer showing all existing uses, structures, and improvements.

15. Six (6) sets (24"×36") of signed and sealed site plans shall include the following:
  - a. Name of project and date
  - b. Deed Book, and Page and Map Book and Page Reference
  - c. Scale, north arrow, and vicinity map
  - d. Subject property information including zoning, watershed classification, percent coverage of lot to be impervious surface (if located in a designated watershed area)
  - e. Adjacent property information, including land owners, land uses, height of principal building, size of lots, zoning, and land use designation.
  - f. Tower elevations
  - g. Landscape buffering plans
  - h. Maximum height of the proposed tower and proposed and future mounting elevations of future antenna, including individual measurement of the base, the tower, and lightning rod
  - i. One (1) parking space is required for each tower development area. The space shall be provided within the leased area, or equipment compound, or the development area as defined on the site plan.
  - j. Location, classification, and size of all major public or private streets and rights-of-way
  - k. Identify adjacent features within 500 feet of property boundary including driveways, public parking areas, pedestrian ways, trails, and any other pertinent features
  - l. Two (2) reduced copies (8½"×11"), of the foregoing preliminary grading plans may be included on site plans or separately submitted in equal quantities.
16. Title report or American Land Title Association (A.L.T.A.) survey showing all easements on the subject property, together with a full legal description of the property.
17. List of adjacent property owners and keyed to the map. The list shall be from the most current ownership information supplied by the Harnett County Tax Department, together with two (2) sets of mailing labels for such property owners. Applicant will also provide a notarized Certification Letter stating the ownership list referenced herein is accurate to the best of the applicant's ability.
18. Simulated photographic evidence of the proposed tower and antenna appearance from any and all residential areas within 1,500 feet and vantage points approved by the Planning Department including the facility types the applicant has considered and the impact on adjacent properties including:
  - a. Overall height
  - b. Configuration
  - c. Physical location
  - d. Mass and scale
  - e. Materials and color
  - f. Illumination
  - g. Architectural design

19. All other documentation, evidence, or materials necessary to demonstrate compliance with the applicable approval criteria set forth in this Ordinance.
20. A pre-application conference will be required for any new tower. The applicant shall demonstrate that the following notice was mailed (via certified mail) to all other wireless service providers licensed to provide service within the County as indicated on the list of wireless service providers provided by the County:

“Pursuant to the requirements of this Ordinance, applicant is hereby providing you with notice of our intent to meet with the County Staff in a pre-application conference to discuss the location of a free-standing wireless communications facility that would be located at \_\_\_\_\_ (physical address, latitude and longitude (NAD-83)). In general, we plan to construct a tower of \_\_\_\_\_ feet in height for the purpose of providing \_\_\_\_\_ (type of wireless service)\_\_\_\_\_. Please inform the County Staff if you have any desire for placing additional wireless facilities or equipment within 2 miles of our proposed tower. Please provide us with this information within twenty business days after the date of this letter. Your cooperation is sincerely appreciated.

Sincerely, (pre-application applicant, wireless provider)”

21. Prior to issuance of a building permit, proof of FAA compliance with Subpart C of the Federal Aviation Regulations, Part 77, and “Objects Affecting Navigable Airspace,” if applicable.

C. Requirements for New Level IV Towers

1. Technical data included in the report shall include the purpose of the proposed facility as described in the FCC Construction Permit Application.
2. Proof that a property and/or tower owner’s agent has appropriate authorization to act upon the owner’s behalf, if applicable.
3. Signed statement from a qualified person, together with their qualifications, shall be included that warrants radio frequency emissions from the antenna array(s) comply with FCC standards regarding interference to other radio services. The statement shall also certify that both individually and cumulatively, and with any other facilities located on or immediately adjacent to the proposed facility, the replacement antenna complies with FCC standards regarding human exposure to RF energy.
4. A stamped or sealed structural analysis of the proposed tower prepared by a Professional North Carolina Land Surveyor or Engineer indicating the proposed and future loading capacity of the tower is compliant with EIA/TIA-222-G (as amended).
5. A written statement by a Professional North Carolina Land Surveyor or Engineer specifying the design structural failure modes of the proposed facility.
6. Statement certifying that no unusual sound emissions such as alarms, bells, buzzers, or the like are permitted. Emergency Generators are permitted. Sound levels shall not exceed seventy decibels (70 db).
7. One (1) original and two (2) copies of a survey of the property completed by a Professional North Carolina Land Surveyor or Engineer showing all existing uses, structures, and improvements.
8. Six (6) sets (24"×36") of signed and sealed site plans shall include the following:
  - a. Name of project and date
  - b. Deed Book, and Page and Map Book and Page Reference

- c. Scale, north arrow, and vicinity map
  - d. Subject property information including zoning, watershed classification, percent coverage of lot to be impervious surface (if located in a designated watershed area)
  - e. Adjacent property information including land owners, land uses, height of principal building, size of lots, and existing zoning and land use
  - f. Landscape buffering plans
  - g. Maximum height of the proposed tower and/or antenna, including individual measurements of the base, tower, and lightning rod
  - h. One (1) parking space is required for each tower development area. The space shall be provided within the leased area, or equipment compound, or the development area as defined on the site plan.
  - i. Location, classification, and size of all major public or private streets and rights-of-way
  - j. Identify adjacent features within 500 feet of property boundary including driveways, public parking areas, pedestrian ways, trails, and any other pertinent features
  - k. Two (2) reduced copies (8½"×11"), of the foregoing preliminary grading plans may be included on site plans or separately submitted in equal quantities. The site plans shall
  - l. Structure elevations
9. Title report or American Land Title Association (A.L.T.A.) survey showing all easements on the subject property, together with a full legal description of the property.
  10. List of property owners within 1,000 feet in residential zoning districts and 500 feet in all other zoning districts and keyed to the map. The list shall be from the most current ownership information supplied by the Harnett County Tax Department, together with two (2) sets of mailing labels for such property owners. Applicant will also provide a notarized Certification Letter stating the ownership list referenced herein is accurate to the best of the applicant's ability.
  11. A pre-application conference will be required for any new broadcast facility.
  12. Prior to issuance of a building permit, proof of FAA compliance with Subpart C of the Federal Aviation Regulations, Part 77, and "Objects Affecting Navigable Airspace," if applicable.

### **11.3 Firearm Certification Facilities**

All firearms certification facilities not operating or located on an approved firing range are required to obtain Special Use approval from the Harnett County Board of Adjustment. All certification facilities that contain a firing range shall adhere to the following standards:

- A. The firearm certification facility's firing range shall only be utilized for the purpose of displaying the practical skills necessary to obtain certification in this area of instruction. The display of practical skills involving firearms must be conducted in the presence of a certified firearms instructor.
- B. The firing range shall only be occupied by a maximum number of two students and one certified firearms instructor during the qualifying session of the certification process.
- C. The firing range utilized for qualification purposes shall be constructed to be in compliance with the following requirements:



1. The range backstop shall be constructed in a manner to contain projectiles without risk of ricochet or escape.
  2. The range backstop or berm shall be constructed to a minimum height of ten (10) feet.
- D. The firing range shall be located to the rear of any structure approved for occupancy that is located on the same parcel of property.
  - E. The length of the range measured from the firing line to the backstop shall be no greater than thirty (30) feet.
  - F. The range shall be designed to establish the direction of fire to be parallel or perpendicular to and away from all public right(s)-of-way.
  - G. Facilities and structures shall adhere to all Federal, State and Local regulations and code requirements.
  - H. The firing range shall be limited to the discharge of handguns only.

#### **11.4 Gunsmithing**

Gunsmithing facilities operating in conjunction with and are located on an approved firing facility shall be deemed as a permitted accessory use and shall not be required to obtain a Special Use permit. All other gunsmithing activities and facilities shall be required to obtain a Special Use permit. All non-exempt gunsmithing facilities shall adhere to the following requirements:

- A. Gunsmithing facilities located within a residential structure shall not engage in the onsite display or sale of firearms.
- B. Facilities that will utilize a test fire vault or berm shall disclose this information on the Board of Adjustment application, site plan and be approved as part of the Special Use approval.
- C. Gunsmithing facilities shall only utilize a test fire berm for the purpose of verifying proper working order of an assembled or repaired firearm. Recreational or any other form of shooting is prohibited on a test fire berm.
- D. Facilities located within a residential subdivision shall only discharge a firearm within an approved test fire vault. Outdoor test fire berms are prohibited when gunsmithing facilities are located within a residential subdivision.
- E. Outdoor test fire berms shall only be fired upon from a distance not greater than twenty-five (25) feet. The direction of fire into the berm shall be away from all right(s)-of-way and inhabitable structures.

#### **11.5 Junkyard**

The following provisions shall apply to existing and new junkyards. Wherever the provisions of other Sections of this Ordinance require a greater requirement (such as buffers, maintenance, setbacks, etc...) the provisions of such statute shall govern. (The following standards shall be adhered to no later than November 15, 2005 by all property owners.)

The following minimum standards shall be adhered to:	New & Expanding Junkyards	Nonconforming Junkyards
Buffer shall be adjusted in height to meet the required height requirement and to ensure maximum screening where the street grade is significantly higher than the required buffer and during all seasons of the year.	X	X
Junked motor vehicles shall not be stacked higher than the screening.	X	X
Vehicles shall be stored in such a manner that all fire apparatuses and equipment can ingress and egress all areas of the site at all times and be in accordance with all State and Federal regulations.	X	X
Maximum of ten (10) junked vehicles outside of automobile salvage yard or enclosed building, unless otherwise specified.		
Junked motor vehicles and parts storage areas shall be screened from view from adjacent property and rights-of-way by the following (all requirements shall be met at time of installation and shall be a minimum six (6) feet in height).	“Buffers & Landscaping” Section of this Ordinance	Opaque fence or row of continuous evergreen shrubs
New automotive repair facilities that have junked motor vehicles and motor vehicles parts storage areas shall be screened from view from adjacent property and rights-of-way.		
Junked motor vehicles or parts shall not be stored in the front yard or in the required front yard setback.	X	X
Board of Adjustment conditions as set at time of approval.	X	
Setback from a school, residence, church, or place of public assembly existing at application approval (measured from the closest point of the operational area of the automobile salvage yard) (owner of the junkyard or automobile graveyard shall be exempt).	1,000 ft.	
Buffering plan shall be submitted in accordance with “Buffers & Landscaping” Section of this Ordinance.	X	
All operations, equipment, junk, and/or inoperable motor vehicles shall be kept within said buffer at all times unless in motion by transportation to and from the site.	X	
Setback for equipment, junk, and/or inoperable motor vehicles from any adjoining property lot line.	50 ft.	10 ft.
Fences shall be designed to reasonably secure the area from unauthorized entry.	X	
Setback from rights-of-way of any public or private street existing at application approval (property line shall be used if no right-of-way).	100 ft.	10 ft.
The operational area existing at the effective date of the ordinance shall not be expanded, except in conformance with the provisions of this ordinance.	X	X
Motor vehicles, parts, or other junked materials storage prohibited in setback.	X	X

## 11.6 Manufactured Home Park

### 11.6.1 General Provisions

#### A. Standard Requirements

##### 1. Locating Manufactured Homes

- a. Only one (1) manufactured home shall be located on any manufactured home space at any one (1) time.
- b. No manufactured home shall be located or moved within the jurisdiction of Harnett County without obtaining the proper permits required by local and/or State regulations.

##### 2. Address/Lot Number

Each lot shall clearly display the approved number with a minimum of four (4) inches in size and shall be composed of reflective materials of contrasting colors.

3. Mailboxes

The owner(s) shall install and maintain mailboxes in good condition to allow for postal delivery service for each resident, in accordance with local, State, and Federal regulations.

4. Solid Waste Disposal

The park owner(s) will operate or provide for the operation of a solid waste disposal system, including providing park tenants with appropriate containers. Individual containers shall be waterproof and rodent proof. The method of garbage disposal shall be noted on the plan and approved by the Board of Adjustment.

B. Manufactured Homes

All manufactured homes shall be properly anchored in accordance with the State of North Carolina regulations for manufactured homes.

1. Skirting

All manufactured homes shall have the entire perimeter skirted at all times so as to enclose the space from the bottom of the manufactured home to grade.

C. Improvements

1. Street(s)

Maintenance of all internal streets and corresponding drainage facilities shall be the responsibility of the owner(s) of the park. Such streets shall be maintained in a manner to remain free of pot holes, breaks in pavement, rough surfaces, standing water, and associated problems which would impede or cause hazards to motor vehicles.

2. Ground Cover

In order to control erosion, all land areas shall be protected by landscape material and vegetative ground cover.

3. Fence or Wall

Fences or walls shall not be permitted unless approved as part of the park plan. This excludes one (1) temporary pet containment area per manufactured home space. Pet containment areas shall not exceed 120 square feet and shall be made of suitable and durable materials intended for such use that are installed in good workman-ship manner.

D. Additions & Accessory Structures

1. Additions

No living compartment or structure other than that of a prefabricated structure specifically designed for manufactured home use or extension shall be added to any manufactured home parked within the jurisdiction of this Ordinance. This excludes front and rear uncovered porches and decks not exceeding 100 square feet.

2. Accessory Building

One (1) Accessory Building is permitted per manufactured home lot. Such building shall not exceed 120 square feet in size, shall be located in the rear yard and shall be compatible to the principal dwelling in terms of exterior building material and color. Existing structures authorized by permit and structurally sound, prior to September 15, 2003 shall be allowed to remain. Refer to Item 4 "Setbacks" of Subsection "Standards for New & Altered Manufactured Home Parks" of this Section for additional requirements.

### 3. Carports

Prefabricated structures without any foundation or footings and designed so as when the use for which the temporary structure was erected has ceased the structure shall be removed shall be permitted in accordance with this Ordinance. Refer to Subsection “Standards for New & Altered Manufactured Home Parks” of this Section for additional requirements. Carports shall be properly anchored and shall be constructed of rigid materials that are compatible to the principal dwelling in terms of exterior building material and color.

## E. Recreational Vehicles

### 1. Park Model Recreational Vehicles

- a. Parks with less than 20 spaces will be allowed one (1) park model lot and parks with 20 or more spaces will be allowed two (2) park model lots.
- b. These lots are to be used for temporary living quarters for recreation, camping, travel, and seasonal use. The permit will be valid for one (1) year and renewable by the Administrator or designee for one (1) year periods not to exceed three (3) additional years.

### 2. Recreational Vehicles (RV’s)

The following provisions shall apply to RV’s, except as defined elsewhere in this Ordinance.

- a. Park owner(s) shall be responsible for notifying Planning Department of intention to use park lots for recreational vehicles (RVs).
  - i. Revised site plan shall be submitted for review and approval by Development Review Board, as required elsewhere in this Ordinance, prior to establishment of use.
  - ii. In addition to site plan requirements in Subsection “New Manufactured Home Park Site Plan” of Article III “Development & Subdivision Review, Permitting, & Approval Requirements” of this Ordinance, site plan shall indicate park lots to be designated for said use.
- b. Parks shall be permitted use of lots for RVs as follows:
  - i. Parks with less than 20 lots shall not have more than one (1) RV lot.
  - ii. Parks with 20 or more lots shall not have more than two (2) RV lots.
- c. RV lots shall not be established adjacent to right(s)-of-way.
- d. No more than one (1) recreational vehicle shall be permitted per park lot.
- e. Address and lot number of park lots to be used for RVs shall be provided in a clearly visible location.
- f. No additions, porches, decks, or the like shall be permitted on RV lots.
- g. No permanent hardwiring, plumbing, skirting, or other installations of the same nature shall be permitted.
- h. Nonconforming parks shall comply with Subsection “Standards for New & Altered Manufactured Home Parks” below, to the greatest extent possible, and shall meet applicable buffer requirements of this Ordinance prior to establishment of said use.
- i. Manufactured Home Park inspection shall be performed prior to establishment of said use.

- j. Park owner(s) shall be responsible for supplying utilities to park lots used for RVs, including water, electricity, waste collection, and solid waste removal.
  - i. Installation and provision for water and sewage disposal shall be according to the standards of the Harnett County Department of Public Utilities and the Harnett County Health Department.
  - ii. Each lot designated for RV use shall have an electric service pole in compliance with the most recently published version of the National Electrical Code.
- k. Subsection “Existing, Permitted Manufactured Home Parks” of Section “Alteration & Expansion of Existing Parks” of Article II “Nonconformities” is not applicable.

F. Prohibited Uses & Structures

No part of the park shall be used for nonresidential purposes, excluding facilities related to the maintenance of the park. The following uses and structures shall be prohibited within manufactured home parks:

- 1. The transfer of a manufactured home space or spaces either by sale or by any other means within a manufactured home park
- 2. The storage of abandoned or junk vehicles
- 3. The storage of uninhabitable manufactured homes
- 4. Recreational Vehicles (RVs) as a permanent residence
- 5. Storage of possessions and equipment under the manufactured home

*11.6.2 Standards for New & Altered Manufactured Home Parks*

A. Development Standards

1. Minimum Park Size

Every manufactured home park shall have a minimum area of five (5) contiguous acres.

2. Minimum Manufactured Home Lot Size

- a. 6,000 square feet with both public water and sewer
- b. 10,000 square feet with public water or sewer
- c. 20,000 square feet no public water or sewer

3. Maximum Density

- a. Six (6) units per acre
- b. Refer to Article “Natural Resources”, Section “Water Supply Watershed” of this Ordinance for impervious surface requirements

4. Setbacks

- a. The manufactured home and accessory structures shall be located not less than 25 feet from the park boundary and at least 10 feet from planting or landscape areas.
- b. Each manufactured home shall be located not less than 30 feet from any other manufactured home.
- c. Accessory structures shall be located not less than 10 feet from a manufactured home.

## B. Improvement Standards

### 1. Streets & Access

- a. All streets shall be paved with a minimum pavement width of 18 feet and shall be located within a cleared right-of-way having a minimum width of 30 feet, except as otherwise required herein.
- b. Streets connecting two (2) public right(s)-of-way or extending to adjacent properties shall be built to the minimum construction standards required by the North Carolina Department of Transportation (NCDOT), including storm drainage facilities as required by the latter.
- c. Cul-de-sac streets shall not exceed 1,000 feet in length.
- d. All dead-end streets shall be developed as cul-de-sacs.
- e. All street names shall be approved by the Harnett County E-911 Addressing Department.
- f. Each manufactured home space shall abut upon an improved street which shall have unobstructed access to a public street.
- g. No manufactured home space shall have direct vehicular access to any public right-of-way other than those located within the manufactured home park.
- h. A letter of Certification by a Professional North Carolina Engineer that the street meets NCDOT standards for the type of facilities installed and proper storm drainage facilities shall be required.

### 2. Off-Street Parking Pad

Each manufactured home lot shall have two (2) paved parking spaces with a minimum length of 22 feet and a minimum width of nine (9) feet per space.

### 3. Sidewalks shall be required along one (1) side of all streets in accordance with Section "Sidewalk Standards" of Article VII "Development Design Guidelines."

### 4. Lighting

Adequate lighting shall be provided to illuminate streets, common driveways, walkways, and dead-end streets for the safe movement of vehicles and pedestrians at night. The minimum size street light shall be a 175 watt Mercury-vapor (approximately 7,000 lumen class) or its equivalent, spaced at intervals of not more than 300 feet.

### 5. Open Space & Recreational Facilities

- a. Minimum of eight percent (8%) of the gross area of the manufactured home park shall be dedicated open space and/or recreational open space facilities.
- b. One percent (1%) of the gross area shall be used for improved recreational open space facilities.
- c. No more than one-half ( $\frac{1}{2}$ ) of the open space area may be covered by water.
- d. Dedicated open space and recreational open space facilities shall be reasonably accessible from all parts of the park, as determined by the Planning Board.

### 6. Utilities & Storm Drainage

Adequate water supply and distribution system, sewage disposal system, fire protection, and storm drainage shall be provided for all new and expanded manufactured home parks, in compliance with the provisions of this Ordinance.

C. Additional Standards

1. Development in Flood Hazard Areas

Manufactured home parks shall not be located in areas that are susceptible to regular flooding as depicted on the most recently published Federal Emergency Management Agency (FEMA) Maps. Existing manufactured home parks located in designated Flood Hazard areas shall not be allowed to add additional spaces or manufactured homes. Manufactured home parks shall be graded so as to prevent water from ponding or accumulating on the premises.

2. Storage Areas

Fenced and screened communal storage areas provided by the park owner(s) for boats, campers, and other accessory vehicles belonging to park residents only shall be permitted.

*11.6.3 Maintenance of Park & Facilities*

The park owner(s) and occupants shall keep all park owned facilities, manufactured homes, manufactured home spaces, improvements, equipment, open space, recreational open space, and all common areas in good repair and maintained in such a manner as to prevent the accumulation or storage of material which would constitute a fire hazard or would cause insect or rodent breeding and harborage.

*11.6.4 Termination & Reduction in Size of Manufactured Home Parks*

A. Termination

Termination of a manufactured home park shall be in accordance with the parameters set forth in this Section. All expenses incurred shall be the responsibility of the park owner(s). The manufactured home park termination process shall be as follows:

1. Manufactured home park owner(s) shall remove, or cause to be removed, all manufactured homes and other structures from said park.
2. Park owner(s) shall submit a complete application to the Harnett County Planning Department.
3. Upon receipt of a complete application the Administrator, or his designee, shall perform an inspection of said manufactured home park. All other required inspections or reviews of other County, local, and State departments shall be the responsibility of the owner(s) to coordinate.
4. Following approvals of all required inspections, the manufactured home park shall be terminated and all required documentation shall be filed with the Planning Department.

B. Reduction

Reduction in the size of a manufactured home park shall meet the requirements of this Section. All expenses incurred shall be the responsibility of the park owner(s).

**11.7 Mining Activities**

- A. No mining shall be commenced in Harnett County's zoning jurisdictions until a Special Use permit has been approved by the Board of Adjustment.
- B. Special Use approval granted by the Board of Adjustment shall not become effective until a mining permit is issued by the North Carolina Department of Environment and Natural Resources, Division of Land Resources (DENR), Land Quality Section, or successor agency.
- C. Mining may occur in any Harnett County zoning district for which mining is listed as a Special Use

subject to the terms and conditions of this Section and Article III “Development & Subdivision Review, Permitting, & Approval Requirements”, Subsection “Special Use Permit” of this Ordinance. In keeping with Article III “Development & Subdivision Review, Permitting, & Approval Requirements”, Subsection “Special Use Permit” of this Ordinance, the following guidelines shall be used:

1. The operation will not constitute a substantial physical hazard to a neighboring dwelling house, school, religious structure, hospital, commercial, or industrial building, public street, or public property.
  2. The operation will not have a significantly adverse effect on the purposes of a publicly-owned park, forest, or recreational open space area.
- D. A Special Use permit shall automatically expire if at any time after its issuance the State Mining Permit is revoked or terminated.

E. Definitions

Definitions as listed in the NCGS and *The Mining Act of 1971*, both of North Carolina and as amended, shall apply to this Subsection.

F. Permit Application

1. Applicants for a Special Use permit shall submit to the Harnett County Planning Department two (2) copies of all documents required by the State of North Carolina for a Mining Permit Application, the Reclamation Plan, and any maps and charts accompanying these documents. These documents shall be reviewed by the Harnett County Board of Adjustment.

G. Buffer & Screening Standards

1. A visual screen shall be established and maintained around that portion of the mining site that is being excavated or being used for the storage of minerals. Such screening is required only when such areas are visible at eye-level at ground elevation, at the time of permit issuance, from state-maintained right(s)-of-way, publicly-owned areas which have been maintained essentially in their natural state of vegetation, adjacent residences and other buildings, but not including accessory buildings or properties. Said screening shall meet the requirements of the “Type B; Option 2” buffer of the “Buffers” Section of this Ordinance. Only evergreen plantings shall be utilized to meet the requirements of this Section. When excavated areas have been reclaimed in accordance with the following: *The Mining Act of 1971*, of North Carolina and as amended, and Chapter 5 of the North Carolina Administrative Code, Title 15 “Environment & Natural Resources”, required artificial screening may be removed.
2. The visual screening requirements of the previous Section may be exempted when:
  - a. The Planning Department determines that existing vegetative cover will fulfill these requirements. Such natural screening may consist of existing vegetative cover including, but not limited to, trees and shrubs, not less than 50 percent (50%) of which shall be evergreen. Screening may also consist of earthen berms or other artificial screens used individually or in combination with each other and existing vegetation to achieve a screening effect required by this Section. Screening materials and vegetation may be located in required buffer areas. All berms and other artificial screens requiring extensive land disturbance shall comply with the North Carolina General Statutes.
  - b. It is determined that due to topographic, or other circumstances where, through no fault of the permittee, that the requirements of this Section cannot be provided. In such case, an alternative plan shall be submitted to the Planning Department.

H. Vibration Standards

All mining activities in Harnett County shall conform to the vibration policy adopted by the Land



Quality Section of the North Carolina Department of Environment and Natural Resources (DENR).

I. Nonconforming Mining Operations

Mining operations begun prior to the adoption of zoning at the location in which the mine is operating shall be allowed to continue as nonconforming uses after that date. Mining operations for purposes of this Section are defined as those in operation or for which an application for a mining permit has been made to the North Carolina Department of Environment and Natural Resources.

## 11.8 Planned Unit Development

### 11.8.1 Purpose

It is recognized that only through ingenuity, imagination, and high quality design can planned unit developments be produced which are in keeping with the intent of this Ordinance while departing from the strict application of conventional use and dimensional requirements. This is done by allowing design flexibility and a mix of residential and nonresidential uses, and/or varying types of both residential and nonresidential uses. Coordination of such development with adequacy of public facilities while maintaining the rural and small town character of Harnett County is a necessity in this type of development.

The constructed and natural landmarks, and social and economic surroundings, are what cause someone to identify with a particular place or community. Characteristics of a location that make it readily recognizable as being unique and different from its surroundings, and providing a feeling of belonging to or being identified with that particular place warrant consideration when developing a planned unit development.

The characteristics of different uses, activities, and/or designs allow them to both be located in proximity to and in harmony with one (1) another through compatibility. Elements affecting compatibility include: height, scale, mass, and bulk of structures; pedestrian and vehicular traffic; vehicular circulation and access; landscaping; lighting; and mitigation of noise, odor, and air pollution. Compatibility is not intended to mean identical; rather, compatibility refers to the sensitivity of development proposals in maintaining the character of existing development and harmony of the different uses within the proposal with one (1) another.

The intent of the planned unit development regulations of Harnett County is to provide for minimum, conventional development regulations, while allowing a developer the flexibility to determine how to attain superior development through the criteria listed herein.

### 11.8.2 Development Criteria

Unless otherwise stated or outlined herein, all requirements of this Ordinance shall be met.

A. Minimum Development Size

No PUD shall be approved for a site of less than 10 contiguous acres under unified ownership or control.

B. Minimum Building Setbacks

Unless specified and approved as part of the outline development plan, the minimum setback requirements of this Ordinance shall be met. The minimum building setback for all single family development shall be five (5) feet.

C. Public Utilities

Both public water and public sewer services shall be available to serve the proposed planned unit development. Capacity of both services shall be available at the time of approval. The applicant shall provide proposed water and sewer demands to the Harnett County Department of Public Utilities prior to submission of the Special Use permit application, and in compliance with the applicable provisions of Article VII “Development Design Guidelines”, Section “Connection to Utility Services”, Subsection “General Provisions for Water & Sewer”.

D. Permissible Uses

1. Residential Uses Allowed within a PUD

Proposed planned unit developments primarily residential in use shall be allowed as a Special Use in the underlying residential zoning district(s) only. Permissible residential uses within a PUD include single-family detached dwellings, two-family duplexes, townhome dwellings, multifamily dwellings, and customary residential accessory uses and structures.

Commercial and other nonresidential uses allowed within a residential PUD shall be limited to those uses specified in the O&I and Commercial Zoning Districts.

2. Nonresidential Uses Allowed within a PUD

Proposed planned unit developments primarily nonresidential in use shall be allowed as a Special Use in the underlying nonresidential zoning district(s) only.

Residential uses allowed within a nonresidential PUD shall be limited to those uses specified in the RA-20M Zoning District.

3. Development Located within Conservation Zoning District

Any portion of a planned unit development located within a conservation zoning district shall be developed to the standards of this Ordinance and shall not be allowed the flexibility of this Section.

4. Nonresidential Development within a PUD

Nonresidential development within a PUD shall be arranged to:

- a. Separate pedestrian and vehicular traffic such that pedestrians can safely walk between businesses within the planned unit development and from parking areas to businesses; and
- b. Provide access from adjacent residential development into nonresidential development areas, whether or not said residential development is existing or is included as part of the nonresidential PUD.

*11.8.3 Design Guidelines*

A. Minimum Dimensional & Amenity Requirements

This Section describes additional regulations that shall be met for single family, multifamily, and nonresidential uses within planned unit developments. The regulations shall be applied individually by the desired type of use and density per pod. The developer shall outline which method is intended as part of the application and shall provide a clear intent to seamlessly integrate differing requirements.

1. Single Family Uses

	OPEN SPACE	STREET PAVEMENT WIDTH	CUL-DE-SAC PAVEMENT RADIUS	STREET TREES	CURB & GUTTER	SIDEWALKS
≥20,000 sq. ft. minimum lots	10%	-	-	-	-	-
≥18,000 sq. ft. minimum lots	15%	-	-	-	-	-
≥15,000 sq. ft. minimum lots	20%	-	-	✓	✓	✓
≥12,000 sq. ft. minimum lots	25%	29'	50'	✓	✓	✓
≥9,000 sq. ft. minimum lots	30%	29'	50'	✓	✓	✓

*\*As required by this Ordinance.*

## 2. Multifamily Uses

	OPEN SPACE	STREET PAVEMENT WIDTH	CUL-DE-SAC PAVEMENT RADIUS	STREET TREES	CURB & GUTTER	SIDEWALKS	REAR LOT PARKING	ACCESS TO PUBLIC TRANSPORTATION	LOCATION WITHIN RC OR CMU
≥9 units per acre	10%	-	-	-	✓	✓	-	-	-
≥12 units per acre	20%	-	-	-	✓	✓	-	-	-
≥15 units per acre	30%	29'	50'	✓	✓	✓	-	-	-
≥18 units per acre	40%	29'	50'	✓	✓	✓	✓	✓	✓
≥21 units per acre	40%	29'	50'	✓	✓	✓	✓	✓	✓

## 3. Nonresidential Uses

Nonresidential uses, shall be incorporated within a residential Planned Unit Development when located within the Land Use Plan classifications of Medium Density Residential, Compact Mixed Use, Employment Mixed Use, or Rural Center development nodes. Whether developed as a portion of a residential PUD or development of a nonresidential PUD, nonresidential uses shall meet the following criteria.

In order to facilitate innovative design of nonresidential areas, there shall be no minimum building setback when located adjacent to other nonresidential uses. However, the outline development plan shall outline the all proposed setbacks.

### B. Streets & Access

The transportation network of all planned unit developments shall, at a minimum, meet the standard requirements of this Ordinance. Further, all streets within a planned unit development shall be located and designed in accordance with the requirements of the North Carolina Department of Transportation (NCDOT) for the type of street proposed.

#### 1. Access to Nonresidential Uses within Primarily Residential Planned Unit Developments

Primary vehicular access to commercial development shall not be through intervening local streets.

#### 2. Entrances

At least one (1) point of ingress/egress for a planned unit development shall be located

on a minor collector road, at a minimum, as identified by NCDOT. The number of ingress and egress points needed to safely move vehicular traffic from the PUD to the adjoining street(s) shall meet the minimum requirements of this Ordinance; however the Board of Adjustment, via review of the outline development plan, may allow additional entrances, under the direction of NCDOT. It shall be the applicant's responsibility to consult with NCDOT prior to requesting additional entrances.

C. Parking

Parking requirements shall meet the standards of this Ordinance. An alternative parking plan may be submitted as part of the outline development plan. Shared parking is encouraged for uses that typically do not generate traffic at the same time.

D. Signs

A generalized sign plan shall be submitted as part of the outline development plan. Said plan shall include the design, type, and illumination source of signs to ensure uniform style throughout the development. All signs shall conform to the applicable requirements of this Ordinance unless otherwise approved.

E. Buffering

1. Perimeter Buffering

Planned unit developments shall be required to provide perimeter buffering in accordance with Section "Buffers & Landscaping" of this Ordinance. However, when a use within a PUD is located adjacent to an existing, compatible use, the Administrator may reduce both the buffer area and number of plantings required by up to 50 percent (50%). If the applicant wishes to reduce the buffer by greater than 50 percent (50%), the Board of Adjustment shall make that determination.

2. Internal Buffering

Individual uses within the PUD shall be required to meet the buffer requirements for the specific use unless an alternative internal buffering plan is submitted and approved by the Board of Adjustment as part of outline development plan.

F. Open Space

All planned unit developments shall include open space to optimize use and community interaction within the proposed development, as well as to maintain and preserve significant natural features. Each PUD shall include a minimum amount of open space, as required by this Section. Stormwater management measures and other required undeveloped land, such as BMPs, may be included within this required open space area.

1. Required Open Space

a. Wetlands

Proposals that include any identified wetlands shall include those areas within the required open space. It is encouraged that, in cases where more than one (1) area of wetlands exists, connections between the wetlands are also included within the open space.

b. Flood Areas

Proposals that include any identified flood hazard areas are encouraged to include those areas within the required open space.

c. Water Features

Other water features that are not identified as wetlands or flood hazard areas are

often overlooked during site development. However, these features may be just as important to the continued success of the natural environment and should therefore be considered for inclusion in required open space.

2. Unimproved Open Space

Unimproved open space includes any type of open space that is not defined as improved open space by this Ordinance. All of the required unimproved open space within a PUD shall be recorded at the time of recordation of the first phase of development.

3. Improved Open Space

A minimum of 10 percent (10%) of the total open space provided shall include improved open space area(s) in primarily residential planned unit developments. Specific improved open space uses shall be proposed by the developer in the outline development plan. Proportionate to its size, each pod of the PUD shall include an area of improved open space. In no case shall open space include less area than the smallest lot of the pod in which the open space is located.

4. Access to Open Space

In cases where improved open space is located along a right-of-way where improved pedestrian access is not required, such access shall be provided to connect the open space to the nearest required pedestrian access.

*11.8.4 Superior Design Criteria*

A PUD may modify the requirements set forth in the UDO, if the applicant demonstrates how the proposed development is superior to that accomplished through conventional ordinance application. Superior design criteria exceed the standard development requirements of the Harnett County Unified Development Ordinance. While there are numerous techniques that may be utilized for each of the criteria below, it is up to the applicant to determine what is most appropriate for the proposed PUD.

Each of the criteria below shall be met, included, and explained as part of the required outline development plan. It is the duty of the applicant to provide that each of these criteria is met. Each criterion shall be met in order for the Board of Adjustment to consider approval of the development proposal. The Board of Adjustment shall make a determination that the outline development plan adequately meets and explains these criteria to the extent necessary to meet the purpose of this Section. Greater detail in explanation of the superior design provided as part of a proposal shall afford a more thorough and informed review process by County Staff and the Board of Adjustment.

A. Overall Development Design

Innovative design of the overall development, which may include access, circulation, privacy, and other factors to create a unique development that compliments or enhances the surrounding community.

B. Architectural Design

In planned unit developments, architectural design shall take into consideration the intended character of development as a whole, including seamless transitions between uses. More specifically, architectural design may include building design, location, scale, and/or character, provided to avoid abrupt differences between structures and uses. To determine if superior design has been attained to meet the requirements of this Section, the architectural standard regulations of the Highway Corridor Overlay Zoning District shall be used as a benchmark.

C. Sustainability

The intention of sustainability in development is to eliminate negative environmental impacts through sensitive and skillful design. Further, sustainable development is intended to meet existing human needs while preserving the environment so that the needs of future generations can be met without an undue economic burden. Maintaining or enhancing opportunities and community well being, while protecting and restoring the natural environment upon which people and the natural environment depend, are primary features of sustainable development. Ways of living more sustainably can take many forms from reorganizing living conditions and sustainable architecture, including but not limited to gray water systems for irrigation, pervious parking, and alternative energy.

D. Preservation of Natural & Historic Features

Community use of natural resources shall do so in a way that does not jeopardize the ability of future generations or the natural environment to live and prosper. For example, preservation of all areas located within the conservation zoning district as open space or utilizing naturally low lying areas for utility easements & walking trails.

E. Transportation System

On-site circulation and off-site traffic consequences shall be addressed as a whole in overall development design. Circulation for vehicle and pedestrian movement should be provided to minimize impacts to existing transportation systems. Transportation systems included as part of a PUD may include traffic calming devices, innovative intersection design, and other techniques to maintain safe traffic movement throughout the development.

F. Public Safety & Service Availability

Availability of public services is a major factor in locating developments. For purposes of this item, public services may include, but not limited to, the proximity to fire and emergency medical services, hospitals, law enforcement services, libraries, and educational facilities.

*11.8.5 Review & Approval Procedures*

In addition to the procedures listed herein, applications for planned unit developments shall meet the requirements of Article III “Development & Subdivision Review, Permitting, & Approval Requirements,” Section “Planned Unit Development & Office & Institutional Development Plan Review Requirements.”

A. Predevelopment Meeting

A predevelopment meeting shall be scheduled with the Planning Department, and other County Departments as applicable, to review the proposed development plan. Said predevelopment meeting will allow both the developer(s) and County Staff to air out potential issues prior to submittal to the Board of Adjustment. This meeting shall be held before staff will accept a Special Use application for the proposed development.

B. Public Outreach

A minimum extent of public outreach shall be done by the developer(s) prior to, or in conjunction with, application of the proposed plan in compliance with “Public Outreach” of Section “Subdivision Review Requirements,” Article III “Development & Subdivision Review, Permitting, & Approval Requirements.”

C. Outline Development Plan

Each proposed planned unit development shall include an outline development plan. The purpose of the plan is to describe, in detail, all elements of design and regulation of the site as a whole. Following the inclusion of a succinct development summary, the outline

development plan shall include how each of the required conventional regulations are met, including individual phase descriptions of these regulations where necessary. Finally, the plan shall outline how superior design guidelines and individual criteria are met through innovative design, proposed by the developer.

The outline development plan shall specify development standards applicable to each use within the planned unit development. If standards have not been specified for a proposed use in the outline development plan, any applicable development standards found elsewhere in this Ordinance shall be followed. In no case shall proposed development standards fail to meet the intent of this Ordinance.

D. Modification(s) of the Approved Planned Unit Development (PUD)

Modification(s) of the Outline Development Plan, or any preliminary plat/plan and associated requirements, may be made by the Planning Board when requested by the owner(s) and developer(s) after initial approval has been granted by the Board of Adjustment. Such modifications shall not constitute a substantial change to the approved Special Use Permit, as determined by the Administrator. The Board of Adjustment shall review substantial changes to the approved Special Use Permit, such as an increase in density or introduction of a more intensive land use than was originally approved, in accordance with this Ordinance.

E. Conflicts

Where conflicts occur after approval by the Board of Adjustment between the approved plan and the requirements of this Ordinance, or other local, State, or Federal regulations, such conflict shall be resolved by the Administrator.

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## **ARTICLE VI. GENERAL DEVELOPMENT STANDARDS**

### **SECTION 1.0 GENERAL**

#### **1.1 Application of this Ordinance**

The regulations set forth in this Ordinance affect all land, every building, and every use of land and/or building, and shall apply as follows:

A. New Uses or Construction

All new construction or use of land shall conform to the use and dimensional requirements for the district in which it is to be located.

B. Existing Conforming Situations

Land or structures, or the use of land or structures, which then conform to the regulations for the district in which it is located may be continued, provided that any structural alterations or change in use shall conform with the regulations herein specified.

C. Existing Nonconforming Situations

After the date of adoption of zoning at the location of the nonconformity, pre-existing lots, structures, or uses which would be prohibited under the regulations for the district in which it is located shall be considered as nonconforming. Nonconforming situations may be continued, provided they conform to the provisions in the following section.

### **SECTION 2.0 PRINCIPLE BUILDINGS PER LOT**

#### **2.1 Principal Buildings per Lot**

Every building hereafter erected, moved or structurally altered shall be located on a lot. And in no case shall there be more than one (1) principal building and its customary accessory buildings on a lot except in the following cases:

- A. Multifamily residential developments, including condominiums, townhomes, planned unit developments, and shopping centers as approved and permitted in accordance with this Ordinance.
- B. One (1) secondary residence when placed in such a way that both the secondary and primary residences meet all of the dimensional lot requirements of the applicable zoning district.
- C. As expressly allowed as part of an approved Special Use permit for uses provided in the “Table of Use Types & Regulations”, issued by the Harnett County Board of Adjustment, more than one (1) principal building may be located on a lot.

#### **2.2 Required Yards Not to be Used by Another Building**

The minimum yards or other open spaces required by this Ordinance for each and every building hereafter erected, moved, or structurally altered shall not be encroached upon by or considered as meeting the yard or open space requirements of any other building.

### **SECTION 3.0 ACCESSORY STRUCTURES**

The following regulations shall apply to accessory buildings and/or structures.

- A. All accessory buildings shall be located in the rear or side yard and meet the setbacks of the underlying zoning district. An accessory building may be located within the front yard if all of the following requirements are met.



1. The lot is two (2) acres or greater, or five (5) acres or greater if located within a named, major subdivision.
  2. The accessory building must be setback at least a minimum of double the front setback requirement and adhere to the minimum side & rear setback for the zoning district.
  3. Accessory building square footage shall not be greater than fifty percent (50%) of that of the principal building, unless located on a lot that is equal to or greater than 10 acres.
  4. A maximum of one (1) accessory building may be located in the front yard.
  5. The accessory building shall be oriented as to not obscure view of principal building from public right-of-way or private access easement.
  6. The accessory structure shall be exempt from the above requirements if located on a Bona Fide farm.
- B. Accessory buildings not exceeding 600 square feet may be permitted in the required side and rear yards provided such accessory buildings are at least five (5) feet from any property line and do not encroach into any required easements.
- C. Accessory buildings not exceeding 50 square feet and used exclusively to house well and pump equipment may be permitted in the required front, side, and rear yards, provided such accessory buildings are at least five (5) feet from any property lines and do not encroach into any required easements or sight angles.
- D. An accessory building may be located on another contiguous or non-contiguous lot from the principal use with which it is associated, only to the extent that the principal use itself would also be permitted on such lot.
- E. In no case shall a manufactured home, or cargo or trailer portion of a motor vehicle be used as an accessory structure for storage.
- F. Portable Storage Units for Residential Purposes
1. Temporary portable storage units may be located within the required front yard for no more than 60 days.
  2. Portable storage units shall be permitted in rear or side yards only. Additional portable storage units shall be permitted in the rear or side yard(s) only and shall not be visible from the public right(s)-of-way.
  3. No more than two (2) accessory structures shall be located on lots of 10,000 square feet or less, and the total square footage of accessory structure(s) shall not exceed the total square footage of the principle structure.

## **SECTION 4.0 ACCESS**

### **4.1 Public Access to Property**

- No building, structure, or use of land other than for agricultural purposes shall be established on a lot which does not abut a street, road, or other public way having a right-of-way meeting standards of the North Carolina State Department of Transportation or having access via a minimum 30 feet easement or private street meeting the standards of Article “Development Design Guidelines”, Section “Street Standards” of this Ordinance.

### **4.2 Curb Cuts Giving Access to Public Right-of-Ways**

Construction of curb cuts for purposes of ingress or egress to property abutting a public right-of-way shall be approved by the North Carolina Department of Transportation, where said curbs affect access to State right(s)-of-way. Provisions for all access work done on State right(s)-of-way are subject to approval by NCDOT.

#### **4.3 Corner Visibility**

In all zoning districts there shall be no obstruction to visibility on any corner lot two (2) feet above the level of the center line of the street in a triangular area bounded by the street right-of-way line on such corner lots and a base line joining points along right-of-way lines 25 feet from the intersection right-of-way corner.

#### **SECTION 5.0 HEIGHT LIMITATION EXCEPTIONS**

The height limitations of this Ordinance shall not apply to belfries, spires, monuments, chimneys, smokestacks, water towers, flagpoles, television and radio masts, aerials, and similar structures.

#### **SECTION 6.0 ADDRESSING & NAMING**

##### **6.1 Authority**

- A. Street address numbers assigned by the Harnett County E-911 Addressing Department are recognized by the United States Postal Service as mailing addresses.
- B. Street address numbers, subdivision names, and road names on file with E-911 Addressing shall be the official street address numbers.

##### **6.2 Jurisdiction**

E-911 Addressing shall assign street address numbers in all areas of Harnett County not within the jurisdiction of a municipality, unless otherwise requested. The municipalities of Angier, Coats, Erwin and Lillington have requested that E-911 Addressing assign all street address numbers within said jurisdictions.

##### **6.3 General**

- A. Street address numbers will be assigned every 5.28 feet from the beginning point of each street. The only exception will be existing municipal streets.
- B. The center point of Harnett County shall be the intersection of NC 27, NC 210, US 401, and US 421 in the Town of Lillington City Limits. The center point shall be the beginning point for major roads such as NC 27, NC 210, US 401, and US 421. The roads that cross the center point shall be addressed with respect to direction (east, west, north, and south). For example, NC 27 shall be NC 27 W in areas west of Lillington and NC 27 E in areas east of Lillington, and US 421 shall be US 421 N in areas north of Lillington and US 421 S in areas south of Lillington.
- C. For numbering purposes, each road within the County's jurisdiction has a standard beginning point which shall be zero (0). Exception to this regulation shall be made in cases of municipal streets and/or conflicts with other counties or postal boundaries.
- D. Even street address numbers will be assigned to right side of the road and odd street address numbers will be assigned to the left side of the road, as one would stand with their back toward the beginning point.

##### **6.4 Assignment of Address**

###### *6.4.1 General Address Assignments*

- A. All structures shall be addressed relative to their position on a named road. Structures which are facing a named road shall be addressed with the number which falls closest to the front door of that structure or unit.
- B. Structures that are more than 100 feet from a named road shall be addressed where the driveway intersects the named road.
- C. Structures not visible from the named road shall be addressed where the driveway intersects the named road.

#### *6.4.2 Corner Lot Address Assignment*

Structures on corner lots shall be assigned multiple street address numbers. A street number shall be assigned for each named road that abuts the lot. The permanent street address number will be determined before the Certificate of Occupancy is issued using the method outlined above. Street address numbers that are not used shall be purged from the system.

#### *6.4.3 Multifamily Address Assignment*

- A. One (1) street address number shall be assigned to each multifamily structure. Each unit within the structure shall be assigned a unit designator, which shall be a number and shall not include alphabetic characters.
- B. Unit designators shall be as follows:
  - 1. Lowest floor level unit numbers shall be as follows: 101, 102, 103, etc.
  - 2. Next floor level unit numbers shall be as follows: 201, 202, 203, etc.
  - 3. Unit designators on all floor levels shall be assigned in the same manner.

### **6.5 Display of Address**

#### *6.5.1 Display Provisions*

- A. The owner(s) of any addressable structure shall post the approved street address number on the structure for the purpose of health, safety, and general welfare of the citizens of Harnett County. It shall be the responsibility of the property owner(s) to ensure that the display of the street address numbers is properly maintained.
- B. The height of the street address number displayed on a single family dwelling or detached residential structure shall be a minimum of three inches (3”).
- C. The height of the street address number displayed on a multifamily dwelling or nonresidential structure shall be a minimum of five inches (5”).
- D. Street address numbers shall be of a contrasting color to the background so that they are clearly visible.
- E. The street address number shall be displayed on the structure in a location clearly visible from the public or private right(s)-of-way or dedicated access easement day and night.
- F. When the structure is not clearly visible or is more than 100 feet from the named road, the street address number shall be displayed at the driveway that serves the structure. The display shall be perpendicular to the roadway and shall be clearly visible from both directions of the public or private right(s)-of-way or dedicated access easement day and night.
- G. The street address number shall be displayed on both sides of the mailbox and on the mailbox door when mail is delivered to the structure by the United States Postal Service.
- H. E-911 Addressing shall have the right to authorize and approve alternate methods of displaying street address numbers which meet the intent of this Ordinance when strict adherence to these standards cannot reasonably be met.

### *6.5.2 Display Enforcement*

- A. No structure shall receive a Certificate of Occupancy until a street address number has been issued by the E-911 Addressing Department and that street address number is properly displayed as described herein.
- B. Property owner(s) or residents of a structure already constructed shall properly display the street address number as described in compliance with this Ordinance.
- C. Property that does not comply with the requirements set forth herein shall be considered a violation of this Ordinance.

## **6.6 Subdivision Naming**

In no case shall the proposed name for subdivision duplicate or be phonetically similar to existing subdivisions within the jurisdiction of Harnett County. Additionally, the use of initials, acronyms, letters, numbers, and Roman numerals in subdivision names is prohibited.

- A. E-911 Addressing shall approve and maintain subdivision names in all areas of Harnett County not within the jurisdiction of a municipality. As part of the request to provide street address numbers from the municipalities of Angier, Coats, Erwin, and Lillington, the Harnett County E-911 Addressing Department shall approve and maintain subdivision names within those jurisdictions.
- B. A subdivision name change fee shall be determined by the Harnett County Board of Commissioners. This is an administration fee for changing the name in all County systems.

## **6.7 Street Naming & Signs**

### *6.7.1 Street Names*

- A. E-911 Addressing shall approve and maintain road names in all areas of Harnett County not within the jurisdiction of a municipality, unless otherwise requested. As part of the request to provide street address numbers from the municipalities of Angier, Coats, Erwin and Lillington, the Harnett County E-911 Addressing Department shall approve and maintain road names within said jurisdictions.
- B. Road names shall be named, renamed, and/or approved in accordance with the road naming guidelines and NCGS 160D-239.1.
- C. Any access, easement, driveway, or pathway, whether public or private, with three (3) or more addressable structures shall be named.
- D. All streets not on an approved, recorded subdivision plat shall be approved in accordance with this Section.
  - 1. Streets within the unincorporated areas of Harnett County shall be presented in a public hearing to the Harnett County Board of Commissioners for approval.
  - 2. Streets within the municipal areas of the Town of Angier shall be presented in a public hearing to the Town of Angier Board of Commissioners for approval.
  - 3. Streets within the municipal areas of the Town of Coats shall be presented in a public hearing to the Town of Coats Board of Commissioners for approval.
  - 4. Streets within the municipal areas of the Town of Erwin shall be presented in a public hearing to the Town of Erwin Board of Commissioners for approval.
  - 5. Streets within the municipal areas of the Town of Lillington shall be presented in a public hearing to the Town of Lillington Board of Commissioners for approval.

### *6.7.2 Street Name Petition*

- A. Street name petition fee shall be determined by the Harnett County Board of Commissioners. This

- is an administration fee for researching and processing the petition and advertisement of a public hearing, and is therefore nonrefundable. This fee shall be paid when the subdivision/street name application is submitted.
- B. New street names created shall adhere to the street naming guidelines and shall be subject to the street name petition fee, unless the street is being created through the subdivision process.
  - C. New street names created due to E-911 Addressing mandates shall be exempt from the street name petition fee.
  - D. Property owners, developers, or petitioners changing the name of existing streets shall adhere to the street naming guidelines and shall be responsible for the street name petition fee.
  - E. Proposed street name changes shall be agreed to by a minimum of 75 percent (75%) of the property owners directly affected by said change. Each tax parcel shall have one (1) vote regardless of the number of property owners for that tax parcel.
  - F. Harnett County shall not be responsible for any expenses associated with the street naming or street renaming. Any cost for address changes shall be the responsibility of the property owner(s) or resident(s).
  - G. Once a street has been named or renamed there shall be a five (5) year waiting period before a subdivision/street name application can be filed. If the street name was approved through the subdivision process the five (5) year period will begin from the subdivision approval date for that phase, if applicable. If the street name was approved by the Harnett County Board of Commissioners, the five (5) year period will begin from the Harnett County Board of Commissioners approval date.

### *6.7.3 Street Signs*

- A. All named roads in Harnett County shall be identified by a sign showing the official name of that road. Signs should be installed according to the Manual of Uniform Traffic Control Devices (MUTCD) and any other applicable local, State, and Federal regulations.
- B. Street name sign fees shall be determined by the Harnett County Board of Commissioners. This fee shall cover the material and labor cost to create and install the sign.
- C. Street name signs shall be a standard color, size, and design, as approved by E-911 Addressing. The sign background color shall be green and the characters and borders shall be white. A yellow tab indicating "Private Road" may only be used on streets that are not State maintained and are not part of any recorded subdivision plat, unless otherwise approved by this Ordinance.
- D. Property owners, developers, or petitioners creating new streets or changing the name of existing streets shall be responsible for the street name sign fee. Street name sign fees shall be paid before a subdivision plat can be recorded and before any street address numbers are issued.
- E. All street name signs in the unincorporated areas of Harnett County shall be approved, installed, and maintained by E-911 Addressing.

## **SECTION 7.0 DEVELOPMENT PHASING & NUMBERING**

### **7.1 Subdivision Phasing**

#### *7.1.1 General*

Subdivisions may be developed by sections or phases. Each section shall be submitted as a final plat to be recorded in the Office of the Register of Deeds. However, the initial preliminary plat shall show all sections or phases of the subdivision.

#### *7.1.2 Phase Size*

Each phase or section of development within a major subdivision shall contain a minimum number of seven (7) lots.

#### *7.1.3 Alteration to Phasing*

Whenever a change is proposed in phase ordering, the preliminary plat shall be revised and submitted in accordance with the procedures of this Ordinance.

### **7.2 Phase Numbering**

Phases shall be identified in consecutive numerical titles and shall easily recognizable order, as identified on approved preliminary and/or master plan(s). If further divisions are necessary, phase numbering shall generally follow standard outline format.

### **7.3 Lot Numbering**

Lots shall be numbered in consecutive order, beginning in the first phase of a subdivision and continuing through each additional phase. That is, the lot number of a consecutive phase shall follow the final lot number of the previous phase of a subdivision.

## **SECTION 8.0 DEVELOPMENT AGREEMENTS**

### **8.1 Public Hearing**

Before entering into a development agreement, a local government shall conduct a public hearing on the proposed agreement following the procedures set forth in GS 160D-323 regarding ordinance adoption or amendment. The notice for the public hearing shall specify the location of the property subject to the development agreement, the development uses proposed on the property, and shall specify a place where a copy of the proposed development agreement can be obtained. In the event that the development agreement provides that Harnett County shall provide certain public facilities, the development agreement shall provide that the delivery date of such public facilities will be tied to successful performance by the developer in implementing the proposed development (such as meeting defined completion percentages or other performance standards).

### **8.2 Contents of Development Agreement**

- A. A development agreement shall at a minimum include all of the following:
1. A legal description of the property subject to the agreement and the names of its legal and equitable property owners.
  2. The duration of the agreement. However, the parties are not precluded from entering into subsequent development agreements that may extend the original duration period.
  3. The development uses permitted on the property, including population densities and building types, intensities, placement on the site, and design.
  4. A description of public facilities that will service the development, including who provides the facilities, the date any new public facilities, if needed, will be constructed, and a schedule to assure public facilities are available concurrent with the impacts of the development.
  5. A description, where appropriate, of any reservation or dedication of land for public purposes and any provisions to protect environmentally sensitive property.
  6. A description of all local development permits approved or needed to be approved for the development of the property together with a statement indicating that the failure of the agreement to address a particular permit, condition, term, or restriction does not relieve the developer of the necessity of complying with the law governing their permitting requirements, conditions, terms, or

restrictions.

7. A description of any conditions, terms, restrictions, or other requirements determined to be necessary by Harnett County for the public health, safety, or welfare of its citizens.
  8. A description, where appropriate, of any provisions for the preservation and restoration of historic structures.
- B. A development agreement may provide that the entire development or any phase of it be commenced or completed within a specified period of time. The development agreement shall provide a development schedule, including commencement dates and interim completion dates at no greater than five (5) year intervals; provided, however, the failure to meet a commencement or completion date shall not, in and of itself, constitute a material breach of the development agreement pursuant to GS 160D-349.8 but shall be judged based upon the totality of the circumstances. The development agreement may include other defined performance standards to be met by the developer. The developer may request a modification in the dates as set forth in the agreement. Consideration of a proposed major modification of the agreement shall follow the same procedures as required for initial approval of a development agreement.
- C. If more than one (1) local government is made party to an agreement, the agreement shall specify which local government is responsible for the overall administration of the development agreement.
- D. The development agreement also may cover any other matter not inconsistent with this Part.

### **8.3 Recordation of Agreement**

Within 14 days after a local government enters into a development agreement, the developer shall record the agreement with the Harnett County Register of Deeds. The burdens of the development agreement are binding upon, and the benefits of the agreement shall inure to, all successors in interest to the parties to the agreement.

### **8.4 Periodic Review**

Period review is required to assess compliance with agreement, material breach by developer, notice of breach, cure of breach, and/or modification or termination of agreement.

- A. Procedures established pursuant to GS 160D-349.3 shall include a provision for requiring periodic review by the Administrator or other appropriate officer of Harnett County at least every 12 months, at which time the developer shall be required to demonstrate good faith compliance with the terms of the development agreement.
- B. If, as a result of a periodic review, Harnett County finds and determines that the developer has committed a material breach of the terms or conditions of the agreement, Harnett County shall serve notice in writing, within a reasonable time after the periodic review, upon the developer setting forth with reasonable particularity the nature of the breach and the evidence supporting the finding and determination, and providing the developer a reasonable time in which to cure the material breach.
- C. If the developer fails to cure the material breach within the time given, then Harnett County unilaterally may terminate or modify the development agreement; provided, the notice of termination or modification may be appealed to the Board of Adjustment in the manner provided by GS 160D-345(b).

### **8.5 Validity & Duration of Development Agreement**

A development agreement entered into prior to change of jurisdiction, or subsequent modification or suspension of regulation shall remain valid.

- A. Except as otherwise provided by this Part, any development agreement entered into by a local government before the effective date of a change of jurisdiction shall be valid for the duration of the agreement, or eight (8) years from the effective date of the change in jurisdiction, whichever is earlier. The parties to the development agreement and Harnett County assuming jurisdiction have the same

rights and obligations with respect to each other regarding matters addressed in the development agreement as if the property had remained in the previous jurisdiction.

- B. A local government assuming jurisdiction may modify or suspend the provisions of the development agreement if Harnett County determines that the failure of Harnett County to do so would place the residents of the territory subject to the development agreement, or the residents of Harnett County, or both, in a condition dangerous to their health or safety, or both.

## **8.6 Amendment or Cancellation of Development Agreement**

A development agreement may be amended or canceled by mutual consent of the parties to the agreement or by their successors in interest.

## **SECTION 9.0 HOMEOWNERS' ASSOCIATION**

The following shall establish requirements and guidelines for those developments including a homeowners' association (HOA) or any similar entity.

- A. A copy of the recorded organizational papers and by-laws shall be submitted at the final plat review stage to the DRB for review and approval. Such organizational papers and by-laws shall be applied to the entire development.
- B. The homeowners' association shall be established before the homes or units are sold.
- C. Membership shall be mandatory for each buyer, and any successive buyer.
- D. The developer or any subsequent developer shall manage the homeowners' association, which shall be responsible for all maintenance of the development, until 60 percent (60%) of all units to be sold are sold.
- E. The homeowners association shall be managed on a nonprofit basis; however, nothing herein shall be construed to prohibit the payment of a fair market management fee to the developer.
- F. The developer shall have the right to maintain control of and manage the homeowners' association for the following periods:
  - 1. Until 98 percent (98%) of the total dwelling units planned are conveyed to residents; or
  - 2. For 10 years from the date that the first plat in the development is recorded plus one (1) year for each 50 units planned in excess of 100 units; or
  - 3. For 50 years from the date that the first plat in the development is recorded, whichever shall first occur.
- G. The developer, or development owner, shall pay all fees levied by the homeowners' association on any improved lot which it owns and for which a final plat has been recorded in the Harnett County Register of Deeds, just as any other lot owner.
- H. The homeowners' association shall be responsible for liability insurance, payment of local taxes, and maintenance of recreational open space and other facilities. Any dues or fees levied by the homeowners' association that remain unpaid, shall become a lien on the individual property. The homeowners' association shall be able to adjust the assessment to meet changing needs.

## **SECTION 10.0 SCHOOL BUS STOPS WITHIN RESIDENTIAL SUBDIVISIONS**

All major subdivisions shall install school bus stop facilities and locations as approved by Harnett County Schools. The developer shall provide appropriate safe and facilitative movement for the bus and pedestrians. This location shall allow for adequate car parking and/or stacking so as not to block any existing ingress or egress, or to damage private property. These requirements shall be implemented at the time of final plat approval for each phase of the subdivision



## **ARTICLE VII. DEVELOPMENT DESIGN GUIDELINES**

### **SECTION 1.0 GENERAL**

Any land to be developed that does not meet the requirements of this Ordinance shall be prohibited. In reviewing such development, the reviewing body shall be guided by an analysis of available data on topography, soils, flood plains, drainage, and ground and surface water. Improvements shall be installed in accordance with the requirements and standards set forth in this Ordinance and other specifications and policies of Harnett County. All improvements shall be inspected and approved by the Administrator in conjunction with any other Harnett County Department, or State or Federal agency, as may be required.

#### **1.1 Other Approvals as Necessary**

It shall be the responsibility of the developer(s) to obtain required applications, permits, and other approvals from local, State, and Federal agencies as necessary. Failure to obtain such may result in delay of development approval.

#### **1.2 Improvements & Projections in Right(s)-of-Way**

No improvements other than driveways, sidewalks, and landscaping shall be permitted within the limits of projected right(s)-of-way as specified in the Harnett County Comprehensive Transportation Plan. No private signs or other structures shall project beyond an imaginary line drawn 10 feet from and parallel to the outer edge of the public or private right(s)-of-way.

### **SECTION 2.0 STREET & TRANSPORTATION STANDARDS**

#### **2.1 Comprehensive Transportation Plan**

##### *2.1.1 Purpose & Applicability*

The Harnett County Comprehensive Plan (CTP) is an officially adopted plan addressing long range transportation needs regarding land use and development within Harnett County. It shall be the responsibility of developer(s) of major subdivisions, minor subdivisions, and nonresidential sites to comply with the Harnett County Comprehensive Transportation Plan (CTP) to further the purpose of said plan. All such development located adjacent to a corridor identified by the CTP for future widening shall include building setbacks measured from the future right(s)-of-way identified, in order to accommodate future street widening. Existing nonresidential lots of less than one (1) acre in size shall be exempt from this requirement.

##### *2.1.2 Required Improvements*

All such development located adjacent to a corridor that is included in the County's adopted Comprehensive Transportation Plan, or any other officially adopted Plan, shall comply with the prescribed improvements as indicated within said Plan.

##### *2.1.3 Measurement of Land Area for Future Right-of-Way*

All such development located adjacent to a corridor identified by the CTP for future widening shall include building setbacks measured from the future right(s)-of-way identified, in order to accommodate future street widening. Existing nonresidential lots of less than one (1) acre in size shall be exempt from this requirement.

Land area necessary for future right(s)-of-way, shall be determined as identified by NCDOT plans where as available, or otherwise by applying half of the right(s)-of-way width recommended in the Harnett County Comprehensive Transportation Plan (CTP) along each side of the thoroughfare's existing edge of right(s)-of-way or centerline alignment, whichever is applicable.

## 2.2 Design Standards

The design of all streets and roads within the jurisdiction of this Ordinance shall be in accordance with the accepted policies of the North Carolina Department of Transportation, . The most current edition of the NCDOT, Division of Highways' *Subdivision Roads Minimum Construction Standards*, shall apply for any subdivision created in compliance with this Ordinance. All streets shall have a minimum of 10 feet pavement width per lane, unless otherwise stated by this Ordinance. When not outlined in *Subdivision Roads Minimum Construction Standards*, a minimum of 12 feet pavement width per lane shall be required. The location of utilities and sidewalks shall be considered in the layout of the street system and selection of a right-of-way width.

## 2.3 Connectivity

### 2.3.1 Connection to Strategic Highway Corridors

Projects located along strategic highway corridors, as defined by NCDOT, shall follow this part, in conjunction with NCDOT regulations. Every effort shall be made to provide alternative access to a public right-of-way not designated as a strategic highway corridor, if one is available.

### 2.3.2 Access to Adjacent Properties

Where, upon the recommendation of the Development Review Board, it is desirable to provide for street access to adjoining property, proposed streets shall be extended, dedicated, and where appropriate, constructed to the boundary of such property. It is the intention of this Section to promote the orderly development of a local street system that provides interconnection between developed or developing properties.

Connections shall be required where any of the following are met:

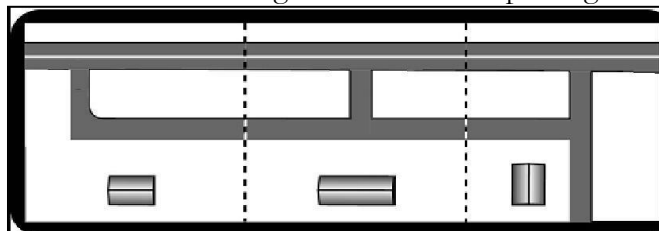
- A. Where the zoning and/or land use on the adjoining property are compatible with the proposed subdivision. For purposes of this Section, compatible land use shall mean any residential to residential land use or nonresidential to nonresidential land use.
- B. Where there are no natural or man-made barriers that make the street extension impractical;
- C. Where the street extension will result in desirable traffic flows and patterns and where inappropriate levels of through traffic are avoided; and/or
- D. Where the street extension will promote the overall orderly development of the area.

All stub streets shall be designed and where required to be built, constructed in accordance with the appropriate standards as delineated in this Ordinance.

### 2.3.3 Nonresidential Lateral/Cross Access

All new nonresidential development, specifically commercial development, shall provide lateral or cross access to adjacent property which is either existing nonresidential use or zoned nonresidential, or if the adjacent property is undeveloped. When located adjacent to residentially zoned and used property, a cross access easement shall be provided to provide for future connectivity. In the review process, lateral access shall be displayed and labeled clearly by showing the appropriate connections. See Subsection "Easements" below for further information.

Lateral Access through interconnected parking lots:



## 2.4 Curb & Gutter

All curb and gutter sections shall be concrete and meet Division of Highways Standards. In the instance where redevelopment is taking place of an existing use, such as manufactured home parks or other similar uses with an existing street system in place that is currently utilizing asphalt curb and gutter that is built to NC Department of Transportation standards, then asphalt curb and gutter may be allowable upon approval by the Development Review Board. Further all new street additions to the development may also be allowed to continue to use the asphalt curb and gutter in order to make the development consistent in appearance throughout as long as the total linear feet of new street additions does not exceed the total linear feet of the existing street system. All Neo-Traditional designed lots shall conform to North Carolina Department of Transportation Traditional Neighborhood Development Guidelines.

## 2.5 Subdivision Street Disclosure Statement

- A. All streets shown on the final plat shall be designated as public or private. Designation as public shall be conclusively presumed to be an offer of dedication to the public. Where streets are dedicated to the public but not accepted into the state-maintained street system, before lots are sold, a statement explaining the status of the street shall be included with the final plat. Designation as private shall be conclusively presumed to be a private street.
- B. Where streets are designated as private, a full disclosure of the status of the street and maintenance responsibilities is required and these listed items shall run with the land.
- C. Recorded Ingress & Egress Easement Maintenance Agreement

Where easements provide required access, they shall meet all applicable standards. Ingress and Egress easements with more than two (2) lots will provide a continued maintenance agreement and shall be approved by the Planning Director or designee and recorded with the County Register of Deeds in a legally valid and binding instrument that describes the method of maintenance, who will be responsible for maintenance, and the properties which the easement access way serves. See Subsection "Easements" below for further information.

## 2.6 Subdivision Entrances

### 2.6.1 Residential Subdivisions

- A. All developments of more than 200 residential units or additions to existing developments that increase the total number of residential units to 200 or more shall provide vehicular access to at least two (2) public streets. In cases where the property being developed is adjacent to more than one (1) State road, it is encouraged that the required entrances be located on separate State roads. The Planning Board, at the developer's request, may determine that topography, natural features, or the pattern of the existing adjacent development makes such provision impractical.
- B. A maximum of two (2) entrances per major subdivision are allowed unless additional entrances are approved by the Harnett County Planning Board. The Planning Board may grant additional entrances if it is determined, via applicant justification, that the additional entrances will increase the public health, safety, and/or general welfare.

### 2.6.2 Nonresidential Subdivisions

- A. Nonresidential subdivision developments shall not exceed the number of driveways/entrances permitted by NCDOT.

## 2.7 Blocks

Blocks shall be laid out with special attention given to the type of use contemplated.

- A. Block lengths shall not exceed 1,400 feet or be less than 400 feet.

- B. Blocks shall have a sufficient width to allow two (2) tiers of lots of minimum depth. Blocks may consist of single tier lots where such are required to separate residential development from through vehicular traffic or nonresidential uses.

## 2.8 Type of Streets Required

All subdivision lots shall abut a street designated as either public or private. All public or private streets shall be built to the standards of this Ordinance and all other applicable standards of the County and the North Carolina Department of Transportation (NCDOT).

### 2.8.1 Public Streets

Public streets, which are eligible for acceptance into the state-maintained road system, shall be put on such system. Streets which are not eligible to be put on the State Highway System, because there are too few lots or residences, shall be in accordance with the standards in this Ordinance or standards necessary to be put on the State Highway System.

### 2.8.2 Private Streets

Private streets shall be specifically allowed within planned unit developments, condominium and townhome developments. All other developments proposing to have private streets and/or gated entrances shall require Planning Board approval and may be subject to further conditions regarding safety and/or connectivity. Additionally, all projects are subject to reasonable and appropriate safety measure deemed necessary by the DRB under the following conditions.

- A. Where private streets are provided in developments with lots or units for sale, such streets shall be designated as part of areas held in common and under ownership of a homeowners' association with maintenance provisions.
- B. All private streets shall be constructed or improved to North Carolina Department of Transportation Standards and certification of construction must be submitted as the final plat stage by a professional licensed engineer.
- C. The recorded plat of any subdivision that includes a private road shall clearly state that such road is a private road. Further, the initial purchaser of a newly created lot served by a private street shall be furnished by the seller with a disclosure statement outlining the maintenance responsibilities for the road.
- D. All private streets shall be constructed within a public utility easement and shall be recorded as such, for the purpose of service and maintenance of public utilities with those right(s)-of-way. In any case in which a developer installs or causes the installation of water, sewer, electrical power, telephone, or cable television facilities and intends that such facilities shall be owned, operated, or maintained by a public utility or any entity the necessary ownership or easement rights to enable the utility or entity to operate and maintain such facilities must also be provided.
- E. Gated Private Streets
  - 1. All gated private streets shall be approved by the Fire Code Official prior to construction or installation of any such gates and related equipment and systems.
  - 2. Gates shall be constructed and installed in compliance with Harnett County regulations.
  - 3. Adequate distance between the driveway from the State road and the actual gated entrance shall be allowed for stacking of vehicles.

Gate Storage Lengths

Number of Dwelling Units	Minimum Storage
< 50	50 ft
50 – 100	75 ft
<u>≥100</u>	<u>100 ft</u>

## 2.9 Marginal Access Streets

It is the intent of this regulation, in accordance with NCDOT, to limit access onto principal arterial streets where appropriate, in order to maintain the traffic capacity and encourage smooth traffic flow. Where a tract of land to be subdivided adjoins a principal arterial street, the subdivider may be required to provide a marginal access street parallel to the arterial street or reverse frontage on a minor street for the lots to be developed adjacent to the arterial. Where reverse frontage is established, private driveways shall be prevented from having direct access to the principal arterial. Marginal access streets shall be built to the minimum requirements as stated in “Street Design Standards on Existing Easements” of Subsection “Minor Subdivision Streets” of this Section.

## 2.10 Dead-End Streets & Cul-de-Sacs

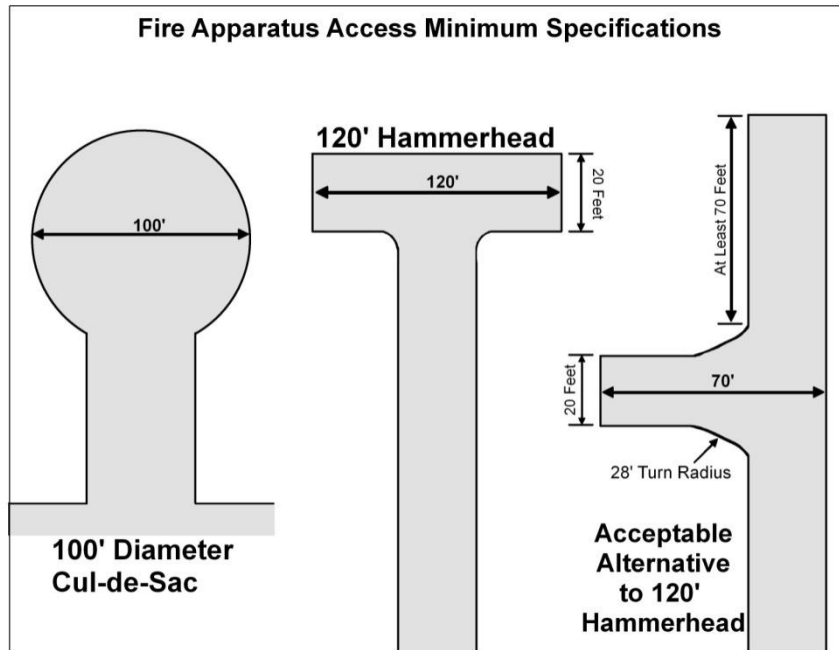
### 2.10.1 *Dead-End Street Length & Width*

- A. A permanent dead-end street shall not exceed 2,500 feet in length – measured from the centerline of its beginning point on a through street to the centerline of its end in the center of the turnaround of the cul-de-sac or the centerline at the end of a temporary turnaround. Stub out streets or intersecting cul-de-sacs shall not be points of measurement for dead-end streets.
- B. Cul-de-sacs shall have a minimum 35 foot pavement radius and should not be used to avoid connection with an existing street or to avoid the extension of an important street, unless exception is granted by the DRB. 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.

### 2.10.2 *Temporary Turn-Arounds*

Temporary turn-arounds may be required when located at the dead-end of a street meant for future connection, stub-streets, or as required by the Fire Code Official. Streets of less than 150 feet in length shall not be required to meet the regulations of this Section.

- A. In cases where a temporary turn-around is permitted to facilitate future connections or development, the last lots on the proposed street shall be wide enough to accommodate the temporary turn-around entirely within the property being developed.
- B. Temporary turn-arounds may be removed in cases where additional public right(s)-of-way is dedicated at the termini of an existing public right(s)-of-way. In cases where private right(s)-of-way is continued at the termini of public right(s)-of-way, the required temporary turn-around shall remain in place.
- C. In no case shall any area utilized for temporary turn-arounds be used for vehicle parking.
- D. Temporary bulb, hammerhead, and/or alternative hammerhead turn-around designs shall be constructed with a minimum of six (6) inches of ABC stone.



## 2.11 Alleys

- A. Except for neo-traditional designed lots, alleys shall not be provided in residential subdivisions unless necessitated by unusual circumstances. Unless otherwise provided herein neo-traditional designed lots shall have alleys that comply with the North Carolina Department of Transportation's *Traditional Neighborhood Development Street Design Guidelines*. Maintenance of alleyways will be the responsibility of the homeowners' association, comparable individual, or group that has responsibility for other common areas. Maintenance of alleyways shall be addressed in the organizational papers and by-laws of the homeowners' association.
- B. The width of an alley shall be at least 20 feet.
- C. Dead-end alleys shall be avoided where possible, but if unavoidable, shall be provided with adequate turn-around facilities at the dead-end as may be approved by the DRB.
- D. Sharp changes in alignment and grade shall be avoided.
- E. All alleys shall be designed in accordance with NC Department of Transportation standards.

## 2.12 Half-Streets

The dedication of half streets of less than 60 feet at the perimeter of a new subdivision shall be prohibited. If circumstances render this impracticable, adequate provision for the concurrent dedication of the remaining half of the street shall be furnished by the subdivider. Where a half-street exists in an adjoining subdivision, the remaining half shall be provided by the proposed subdivision. However, in circumstances where more than 60 feet of right-of-way is required, a partial width right-of-way, not less than 60 feet in width, may be dedicated when adjoining undeveloped property is owned or controlled by the subdivider; provided that the width of the partial dedication is such as to permit the installation of such facilities as may be necessary to serve abutting lots. When the adjoining property is subdivided, the remainder of the full required right-of-way shall be dedicated.

## 2.13 Minor Subdivision Streets

Minor subdivision streets shall meet the requirements of this Section, as applicable. See Subsection “Easements” of this Article for more information.

### 2.13.1 General Requirements

- A. For the purpose of this Part, all lots less than or equal to 10 acres in size shall count toward the total number of lots, regardless of location on the easement. Parcels greater than 10 acres in size shall not be counted toward the number of lots located on an easement.
- B. Each lot shall abut the easement, and street when required, for the entire length of the minimum lot width in the zoning district in which it is located, or 40 feet when located on the bulb of a cul-de-sac.
- C. Construction and installation of street(s) shall be required from the State-maintained right-of-way to the end of the easement or to the end of the property involved in the subdivision, whichever is less.
  - 1. In cases where an existing easement is greater than 2,000 feet in length and street installation is required, the subdivider(s) may petition to the Planning Board for relief from this requirement.
- D. The street shall remain clear of all obstructions and debris.
- E. A maintenance agreement shall be submitted and recorded with the minor subdivision plat whenever street installation is required.

### 2.13.2 Exemptions from Street Installation

Minor subdivisions which allow for less than three (3) lots on any existing easement shall be exempt from the street construction requirements of this Section.

### 2.13.3 Street Design Standards on Existing Easements

Minor subdivisions which allow for three (3) or more lots to be created on any existing easement shall be required to meet the following street construction standards.

- A. There shall be a minimum width of 20 feet width and three (3) inches of aggregate base course (ABC) gravel.

### 2.13.4 Street Design Standards on New Easements

Minor subdivisions which allow for three (3) or more lots to be created on any new easement shall be required to meet the following street construction standards:

- A. Minor subdivision streets shall meet NCDOT’s *Subdivision Roads Minimum Construction Standards* for residential local streets through the subgrade phase of construction, including drainage improvements, grading, and typically six (6) inches of ABC gravel. The minimum lane width shall be 10 feet. Certification of compliance with said NCDOT requirements shall be made by a Professional North Carolina Engineer.
- B. When existing conditions can meet NCDOT requirements, such conditions shall be certified by a Professional North Carolina Engineer, and the required gravel depth may be reduced.

## 2.14 Nonresidential Streets

The subdivider of a nonresidential subdivision shall provide streets in accordance with the standards of NCDOT; and the standards in this Ordinance, whichever are stricter in regard to each particular item.

## **SECTION 3.0 PARKING & OFF-STREET LOADING REQUIREMENTS**

### **3.1 Off-Street Parking Requirements**

There shall be provided at the time of the erection of any building, or at the time any principle building is enlarged or increased in capacity by adding dwelling units, guests rooms, seats, or floor area; or before conversion from one (1) type of use or occupancy to another, permanent off-street parking space in the amount specified by this Section, together with adequate driveway and maneuvering space. Such parking space may be provided in a parking garage or properly graded open space.

#### *3.1.1 Certification of Minimum Parking Requirements*

Each application for a land use and zoning permit to the Administrator as provided for in this Ordinance shall include information as to the location and dimensions of off-street parking and loading space and the means of ingress and egress to such space. This information shall be of sufficient detail to enable the Administrator to determine whether or not the requirements of this Section are met.

#### *3.1.2 Combination of Required Parking Spaces*

The required parking space for any number of separate uses may be combined in one (1) lot, but the required space assigned to one (1) use may not be assigned to another use, except that one-half ( $\frac{1}{2}$ ) of the parking space required for churches, theaters, or assembly halls whose peak attendance will be at night or on Saturdays and Sundays may be assigned to a use which will be closed at night and on Sundays. In cases where shared parking is permitted, adequate pedestrian access shall be provided to all uses.

#### *3.1.3 Remote Parking Spaces*

If the off-street parking space required by this Ordinance cannot be reasonably provided on the same lot on which the principal use is located, such space may be provided on any land within reasonable walking distance of the main entrance to such principal use, provided such land is in the same ownership as the principal use.

#### *3.1.4 Lighting*

Access ways, walkways, and parking areas shall be lighted adequately by lighting fixtures which shall be so installed as to protect the street and neighboring properties from direct glare or hazardous interference of any kind and in compliance with Section "Lighting Standards" of this Ordinance.

#### *3.1.5 Safety Barriers*

Curbs, walls, fences, wheel stops, or similar devices shall be located within spaces along the perimeter of parking lots, garages, and storage areas, except at entrances and exits indicated on approved parking plans. Such barriers shall be so designed and located as to prevent parked vehicles from extending beyond property lines of parking lots and garages and to protect public right(s)-of-way and adjoining properties from damaging effects of surface drainage. Such barriers shall be approved for the same use. In cases where a sidewalk is used as the safety barrier, the width of the raised sidewalk shall be increased by 18 inches.

#### *3.1.6 Parking Areas Adjacent to Public Alleys*

Where off-street parking facilities are located adjacent to a public alley, the width of such alley may be counted as a portion of the required maneuvering and access area, but not as



part of the parking spaces required.

*3.1.7 Improvements, Design, & Location Standards*

All off-street parking, including exits, entrances, and maneuvering and parking areas shall:

- A. Have access to a publicly dedicated street or alley
- B. Be designed so that vehicles cannot overhang property lines, public right(s)-of-way, or public sidewalks, or tend to bump against or damage any wall, vegetation, or other obstruction.
- C. Be permanently maintained by the owner(s)
- D. Be set back from the existing or future public right(s)-of-way, private right(s)-of-way, and property zoned residentially a minimum of 10 feet.
- E. Drive Aisle, Lane Width, & Parking Stall Dimensions

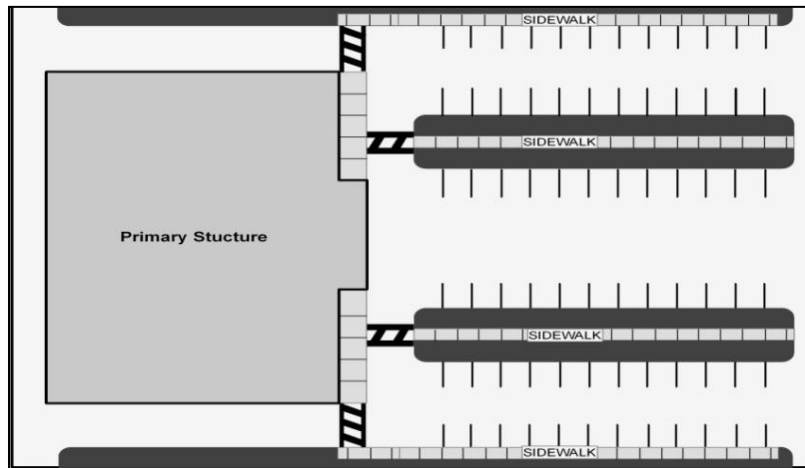
1. Drive Aisle & Lane Width Dimensions

<b>Minimum Access Drives Aisles &amp; Lane Width</b>					
Parking Angle	0°	30°	45°	60°	90°
One Way Traffic	14'	14'	14'	18'	24'
Two Way Traffic	20'	20'	21'	23'	24'

2. Parking Stall Dimensions

Minimum dimensions for parking stall is 18 feet in length by nine (9) feet in width. Handicapped parking stalls shall meet the requirements of ANSI 117.

- F. Parking areas for shopping centers, or for community or regional site plans, shall provide designated crosswalks for pedestrian access and internal sidewalks within parking medians, as appropriate, to ensure connection between parking areas and the facility for which the parking is provided.



*3.1.8 Parking Surface Areas*

- A. All parking surface areas that contain one (1) of the following scenarios shall be graded and surfaced with asphalt and/or concrete, unless stated otherwise within this Ordinance. In designated watershed areas, alternative pervious or porous materials may be utilized, as approved by the Administrator.
  - 1. Access drives with lanes for drive-in windows; or
  - 2. 15 or more parking spaces; or
  - 3. That are used at least five (5) days per week.

- B. Parking surface areas not permanently surfaced shall be graded and surfaced with crushed stone, gravel, or other suitable material with a minimum of six (6) inches and shall be maintained in a dust free condition.
- C. Parking area shall be properly maintained in good condition (free of potholes, etc.) and parking space lines and or markings shall be kept clearly visible and distinct.
- D. As required elsewhere by this Ordinance, curb & gutter shall be installed in accordance with Subsection “Curb & Gutter” of Section “Street & Transportation Standards.”

### 3.1.9 Minimum Parking Requirements

Minimum parking requirements are listed within the “Table of Use Types & Regulations”.

- A. The number of parking spaces shall not exceed 110 percent (110%) of the minimum number of spaces required for the approved land use, except for residentially classified uses. Pervious pavers, with installation certified by a Geotechnical Engineer, utilized for parking spaces shall not be counted toward the total number of allowable parking spaces.
- B. The number of parking spaces to be required in special situations in which none of the above conditions are applicable shall be determined by the Board of Adjustment.
- C. University and college uses and ancillary uses typically associated with a university or college that are customary and subordinate may demonstrate the use and activity is being served with parking facilities located on campus or by remote parking.

## 3.2 Off-Street Loading Requirements

- A. All uses and establishments commenced hereafter shall provide off-street loading spaces sufficient to allow all loading and unloading of vehicles to take place entirely within the property lines of the premises.
- B. The off-street loading space provided as required by this Section shall be permanent space and shall not be used for any other purpose.
- C. A loading space requirement may be waived by the Board of Adjustment on application due to a limited need for loading space based on the nature of the building.
- D. Loading berths shall be designed, along with the means of egress and ingress to such berths, so as not to interfere with the free, normal movement of vehicles and pedestrians on public right(s)-of-way and shall have the following dimensions
  - 1. Minimum width of 12 feet
  - 2. Minimum length of 55 feet
  - 3. Minimum height clearance of 15 feet
- E. The minimum number of off-street loading berths to be provided by individual establishments shall be according to the following schedule:
  - 1. Retail & Service Establishments
 

One (1) berth for every 20,000 square feet of gross floor area; or portion thereof, however, two (2) or more adjoining establishments with a total gross floor area of less than specified herein shall be considered as one (1) establishment provision.
  - 2. Office Buildings, Hotels, & Other Institutional Uses
 

One (1) berth for every 50,000 square feet of gross floor area or portion thereof.
  - 3. Industrial & Wholesale Establishments
 

One (1) berth for every 10,000 square feet of gross floor area, or portion thereof, up to 30,000

square feet; one (1) space for every 30,000 square feet of gross floor area, or portion thereof in excess of the first 30,000 square feet of gross floor area.

### **3.3 Landscape Requirements in Parking Area**

#### *3.3.1 Perimeter Screening*

The entire length of parking and vehicle circulation areas located along the public or private right(s)-of-way shall be screened using one (1) of the following options.

- A. Berm, meeting the requirements of Article VII “Development Design Guidelines”, Section “Buffering & Landscaping”, Subsection “Minimum Standards for Installation”; or
- B. Evergreen vegetation
  - 1. Maintained at a minimum height of three (3) feet
  - 2. Minimum planting size is 18 inches in height
  - 3. Spaced so that a continuous vegetative screen is established within two (2) years
  - 4. A minimum of three (3) feet shall be maintained between the vegetation and curb or wheel stop

#### *3.3.2 Parking Facilities with 30 or More Spaces*

Facilities with 30 or more spaces, unless located on or within a structure, shall be separated from the building and pedestrian walkways by a landscape strip or permanent planter boxes at least five (5) feet in width and meeting the following requirements.

- A. The sum length of this landscape strip shall equal at least 50 percent (50%) of the length of that side of the building or walkway.
- B. When parking abuts the landscape strip, the width shall be expanded to six (6) feet.
- C. Plantings shall be installed in accordance with the Type C Buffer of Section “Buffers & Landscaping”, Subsection “Required Buffer & Screening Types” of this Article.
- D. Service and loading areas are exempt from these requirements.

#### *3.3.3 Vehicle Use Area Planting*

- A. All parking spaces shall be within 50 feet of a tree trunk.
- B. Medians and/or islands planted with trees shall be at least 10 feet wide with a minimum of 300 square feet of permeable soil.
- C. Tree shall be a minimum of two (2) inches in caliper at planting.
- D. Trees planted in compliance with these requirements shall have demonstrated particular resistance to harsh growing conditions, diseases, and insects in this particular region.

#### *3.3.4 Maintenance*

- A. The owner(s) of the property shall be responsible for the installation, preservation, and maintenance of all plantings as required under this section.
- B. Any dead, unhealthy, or missing vegetation, or vegetation disfigured by severe pruning, shall be replaced in accordance with the standards of this Section.

### **3.4 Parking Plan Alternative**

In lieu of compliance with the parking landscaping requirements of this Section, an applicant may submit to the Planning Board for review and approval a detailed plan and specifications for

parking. The Planning Board may approve the alternative parking landscaping plan upon finding that the proposal will meet or exceed the intent of this Ordinance. Applications for parking landscaping plan alternative approval may be submitted when unreasonable or impractical situations would result from the strict application of this Section. The following criteria shall be used in determining whether a parking landscaping plan alternative can be accepted by the Planning Board in lieu of meeting the requirements of this Section.

- A. The proposal includes a clear and concise explanation of the specific standards that cannot be met and how the alternative methods proposed will achieve the intent of this Section;
- B. The proposal represents the use of alternative methods and/or materials which will result in a development pattern which is equivalent to or greater than that required by this Ordinance;
- C. The proposed use and design alternative is compatible with adjacent land uses;
- D. The proposal is compatible with and will enhance the use or value of adjacent and area properties;
- E. The proposal is consistent with the intent of adopted County plans; and,
- F. The proposed development standards are, in all other aspects, consistent with the intent and purpose of this Ordinance.

#### **SECTION 4.0 SIDEWALK STANDARDS**

Sidewalks shall be installed in accordance with the Compatibility Development Concept, as required by use regulations for specific uses, in nonresidential development located within the Employment Mixed Use and Compact Mixed Use Classifications identified by the Harnett County Land Use Plan, or as otherwise stated herein. Sidewalks required by this Ordinance shall be designed and constructed in accordance with the following standards:

- A. The sidewalk shall be constructed of concrete material.
- B. The developer shall bear the costs of the installation of the sidewalks required for all new or existing streets with specifications of the County. In lieu of requiring the installation prior to approval the developer may enter into an agreement with the County in accordance with Section "Improvement Guarantees" of this Ordinance.
- C. Shoulders shall be sufficient to permit the adequate installation and maintenance of sidewalks and utilities, as well as provide sufficient clear zone, as defined by NCDOT, for safe use by errant vehicles.
- D. The minimum thickness of a sidewalk shall be four (4) inches and six (6) inches at driveways; and with a minimum width of five (5) feet. Sidewalks shall have a uniform slope toward the roadway of one-quarter ( $\frac{1}{4}$ ) inch per foot. The utility strip between the sidewalk and the back of curb shall not be less than one-quarter ( $\frac{1}{4}$ ) inch per foot nor greater than one-half ( $\frac{1}{2}$ ) inch per foot toward the roadway.
- E. Where sidewalks and/or greenways intersect any section of curb and gutter, a wheelchair ramp shall be installed. In all other instances, the regulations of the Americans with Disabilities Act shall be adhered to.
- F. Grooved construction joints shall be cut to a depth equal to at least one-third ( $\frac{1}{3}$ ) of the total slab thickness. The joint shall be no less than one-eighth ( $\frac{1}{8}$ ) inch in width and cut at intervals equal to the width of the sidewalk. A one-half ( $\frac{1}{2}$ ) inch expansion joint filled with joint filler shall be placed between all rigid objects and placed no farther than 50 feet apart for sidewalks and curb and gutter, extending the full depth of the concrete with top of the filler one-half ( $\frac{1}{2}$ ) inch below the finished surface.
- G. Maintenance of sidewalks will be the responsibility of the homeowners' association or comparable individual or group that has responsibility for other common areas. Maintenance of sidewalks shall be addressed in the organizational papers and by-laws.
- H. Sidewalks shall be located within the dedicated, non-paved portion of the street right-of-way as follows unless otherwise noted.

<b>STREET CLASSIFICATION</b>	<b>LOCATION</b>	<b>MINIMUM WIDTH</b>	<b>MINIMUM DISTANCE OFF BACK OF CURB</b>
Major Thoroughfare	Both sides of street	5 feet	6.5 feet
Minor Thoroughfare	Both sides of street	5 feet	5.5 feet
Collector, Local or Cul-de-Sac Streets in any Nonresidential or Multifamily Development	Both sides of street	5 feet	3.5 feet
All streets in any Neo-Traditional Development	Both sides of street	5 feet	3.5 feet
Collector Street in any Residential Development	One side of street	4 feet	3.5 feet
Local Street or Cul-de-Sac Street in any residential Development	One side of street	4 feet	3.5 feet
Private Right-of-Way	Same standard as above for comparable Public Right-of-Way		

I. Pervious Greenways

Sidewalks to be located within watershed, flood areas, or designated wetlands may be substituted with pervious greenways, such as pervious pavers, as approved by the Administrator or Development Review Board upon site plan review. In no case shall sidewalks required by the Comprehensive Transportation Plan be substituted with pervious greenways.

**SECTION 5.0 EASEMENTS**

**5.1 General Easement Requirements**

- A. No permanent structure shall be located within any easement. Driveways, sidewalks, and other similar means of ingress and egress shall be permitted to perpendicularly cross any easement where necessary for access.
- B. Any lot area contained within an easement shall not be utilized to achieve the minimum square footage required for said lot.
- C. Unless justification can be made by the applicant as to why it is not feasible, all easements shall follow property lines.
- D. All easements identified and/or proposed on a plat/plan shall be referenced in the Deed of Record for the subject property.
- E. The Harnett County Development Review Board may require easements of widths deemed adequate for the intended purpose where necessary or advisable for water, electric power, conduits, storm and sanitary sewers, street trees, and gas, water, and other utilities. Specifically, all public utilities shall be included within easements, in accordance with *The Development of Water & Sewer Utilities in Harnett County Water & Sewer Districts*.

**5.2 Minor Subdivision Easements**

Access easements provided for minor subdivisions shall be identified for ingress/egress and utility purposes and shall meet the following requirements. Additionally, streets required as part of a minor subdivision shall meet the requirements of Subsection “Minor Subdivision Streets”, Section “Street & Transportation Standards” of this Article.

- A. Easements for minor subdivisions shall be created only off of a State-maintained road and shall be a minimum of 50 feet in width, unless otherwise stated.
  - 1. Where an existing easement is utilized and intersects with two (2) or more properties under separate ownership, the easement shall be a minimum of 30 feet in width. In such cases, the subdivider shall provide that the easement be 50 feet in width for the entire length of any property

on the easement and under the ownership of the subdivider.

2. Easements not legally binding or less than 30 feet in width shall not meet the purpose of this Section unless specifically included as part of a court order.
- B. The maximum length of an easement shall be 2,000 feet.
- C. Each lot shall abut the easement, and street when required, for the entire length of the minimum lot width in the zoning district in which it is located, or 40 feet when located on the bulb of a cul-de-sac.
- D. Easements required as part of a subdivision for access to proposed lots shall be kept clear of obstructions and debris.
- E. In no case shall an easement be created off of an existing easement when proposed as part of a subdivision, with the exception of easements for utility purposes only.

### 5.3 Drainage Easements

#### A. General

Drainage easements shall be required for any development that involves more than one (1) lot including residential and nonresidential development. Drainage easements shall be provided for the following conveyance structures outside of NCDOT right(s)-of-way:

1. All culverts;
2. All new or existing open channels on or near the site perimeter or development;
3. All new or existing storm drainage pipes and points of concentrated flow;
4. All attenuation facilities, including berms, primary and emergency spillways, etc.; and
5. Other locations deemed appropriate by the Development Review Board.

All drainage easements shall be designed to tie into existing easements, existing watercourses, or to other appropriate locations when possible. Maintenance of easements is the responsibility of the facility owner or homeowners' association.

#### B. The following minimum easement widths shall be provided:

##### 1. Culverts

- a. For culverts less than 72 inches diameter, the minimum easement width shall be 20 feet.
- b. For culverts greater than 72 inches diameter, the minimum easement width shall be the diameter of the culvert plus 20 feet.
- c. For multiple culverts, the minimum easement width shall be total width of the pipes measured from edge to edge plus 20 feet.

##### 2. Open Channels

CONTRIBUTING DRAINAGE AREA	MINIMUM EASEMENT WIDTH
<10 acres	20 feet
10 acres to 25 acres	50 feet
25 acres to 100 acres	50 feet
>100 acres	The floodway width or 50 feet whichever is greater

##### 3. BMPs & Stormwater Ponds

Easement shall be in accordance with North Carolina Department of Environment and Natural Resources, Division of Water Quality Stormwater Best Management Practices Manual.

## 5.4 Maintenance Easements

A maintenance easement shall be required on all lots of 9,000 square feet or less, or lots with a five (5) foot building setback. Said maintenance easement shall be provided along the side property lines for the purposes of future building maintenance and upkeep of both the structure on site and adjacent structure(s).

## 5.5 Cross Access Easements

When required by this Ordinance, cross access easements shall be included as part of a development plan. Such easements shall be properly identified on the required plat/plan, including details regarding maintenance, when required.

## 5.6 Off-Site Septic Easements

In cases where suitable soils are not available for the establishment of on-site septic system and repair area, off-site septic easements shall be permitted according to the following requirements.

### 5.6.1 General Off-Site Septic Usage Requirements

- A. Prior to approval of an off-site septic easement, applicants shall attempt to adjust lot lines or recombine parcels to acquire adequate, suitable soils for an on-site septic system.
- B. All septic systems, septic lines, and repair areas shall be designed by a Professional Engineer or Licensed Soil Scientist, both of which shall be licensed in North Carolina.
- C. Any lots for which an off-site septic system is either used or located shall be identified on the Deed of Record.

### 5.6.2 Major Subdivisions

- A. Individual off-site septic systems shall be limited based upon the number of lots on the approved preliminary subdivision plat. No more than ten percent (10%) of the total lots shall utilize off-site septic systems. In cases where the number of lots changes, the number of allowable off-site septic systems shall be adjusted accordingly.
- B. Off-site septic easements shall be contained only within common, unimproved open space of the subdivision.
- C. Such common open spaces areas shall have a minimum of one (1) access easement to allow for utilization by all owners of property within the subdivision. Access easements shall be a minimum of 12 feet in width and shall include an identification sign.
- D. All off-site septic easements shall be separate and distinct from one (1) another and shall be of sufficient size to accommodate the total area required by the Harnett County Department of Public Health, plus any additional area necessary to allow vehicular movement for repair or expansion purposes in case of future system failure.
- E. All supply line systems shall be installed by a professional licensed to do said work and shall be inspected and approved the Harnett County Department of Public Health prior to approval and recordation of the final subdivision plat.
- F. A Declaration of Covenants and/or Homeowners' Association By-Laws shall state the following:
  1. All benefits and burdens of the covenants and restrictions shall be binding upon the successive owners of each parcel.
  2. Those lots burdened by access easements shall be explicitly identified.
  3. Homeowners' Association shall conduct a program of regular septic easement monitoring and site maintenance. Said program shall be published and recorded in the Harnett County

Register of Deeds including a reference of the map book and page of the final subdivision plat map. The homeowner of each respective off-site septic easement shall be responsible for system maintenance and repair.

#### *5.6.3 Minor Subdivisions*

No minor subdivision shall utilize off-site septic easements.

#### *5.6.4 Existing Lots*

Regulations regarding location of off-site septic systems and easements within common open space areas shall not apply to septic system failures on existing lots.

- A. Any failure shall be determined by the Harnett County Department of Public Health or other appropriate local, State, or Federal agency.
- B. Applicant shall attempt to locate off-site septic systems on a lot immediately adjacent to the lot on which the failure occurred. Lots separated by right(s)-of-way shall not be considered immediately adjacent for the purpose of this Section.

### **SECTION 6.0 CONNECTION TO UTILITY SERVICES**

#### **6.1 General Provisions for Water & Sewer**

Installation and provision for water supply and sewage disposal shall be according to the standards of the Harnett County Department of Public Utilities Comprehensive Water and Sewer Plans and the Harnett County Health Department. When utilities are installed as part of a private development for public use, including but not limited to planned unit developments, a public access easement shall be provided to such utilities from the public right(s)-of-way. In addition, all utilities to be dedicated for public use shall be included within an easement for the purpose of maintenance and upkeep.

##### *6.1.1 Phased Construction*

When a development is to be developed in phases, the sewage disposal system and/or water distribution system required hereunder may be constructed in steps simultaneous with the development of each phase of the subdivision. A master sketch plan for such development shall be submitted to the County Department of Public Utilities or other appropriate agency in accordance with the provisions of this Ordinance. In such cases, the master sketch plan shall be included with the preliminary plat at the time of such submittal. In no case shall the master sketch plan constitute vested rights for development of the site unless it meets the provisions of this Ordinance for a major subdivision preliminary plat.

##### *6.1.2 Conceptual Plan*

A conceptual plan may be required for the purposes of review of proposed developments by County Staff to provide information on requirements for connection to utility services and compliance with Fire Code requirements, as well as any potential off-site and oversize improvements that may be required for conformance the Harnett County Sewer Master Plan or Harnett County Fire Code.

#### A. Predevelopment Conference

Prior to submission of a conceptual plan, the Developer shall consult with the following to determine if an initial conference will be necessary:

1. Department of Public Utilities



2. County Engineer
3. Fire Code Official

If the scope of the proposed development, in the opinion of the Public Utilities Director, County Engineer, or Fire Marshal is such that an initial conference will be beneficial prior to the development of plans and specifications, the developer or his engineer shall present at the time of this conference, conceptual schematic or layout of the proposed extensions and the estimated water and wastewater demands resulting from the proposed development.

B. Applicability

A preliminary subdivision plat, both residential and nonresidential, or site plan, except for minor site plans as defined by this Ordinance, shall include a conceptual plan. When required by this Ordinance, a stormwater management plan shall be submitted as part of the conceptual plan. Stormwater management plans shall be submitted in conjunction with Article X “Natural Resources”, Section “Stormwater Management.”

- C. The conceptual plan shall provide all information necessary to determine the probable effect of the proposed development on the County’s existing facilities. The plan shall include the nature of water usage (domestic, commercial, etc.), the probable character of the wastewater generated, a description of any proposed private water distribution and sewer collection systems, and a preliminary hydraulic analysis.
- D. The Public Utilities Department will advise the developer(s) or his engineer(s) of applicable Harnett County water and sewer policies and ordinances, including all applicable fees and assessments.
- E. The conceptual plan shall include the following information and any other information deemed necessary by the Department of Public Utilities, County Engineer, or Fire Code Official to enable them to make a determination of the acceptability of the proposed plans. All information shall be submitted in a package and not in a “piece-meal” manner.

1. Conceptual Plans

Submit three (3) copies of conceptual subdivision plans or site plans at a scale of one (1) inch equals 200 feet (or larger scale) showing:

- a. The proposed layout of the water and sewer extensions;
- b. All proposed pipelines and sizes, manholes, valves, fire hydrants and pump stations;
- c. Nearest existing water and sewer facilities to which the proposed new extensions will connect;
- d. All proposed easements shall be shown; and
- e. Where extension of utility is anticipated, provide sketch of extension and projected inverts with service area for sanitary sewer.

2. Design

All design shall include, at a minimum, the following:

- a. Preliminary engineering design calculations used to determine estimated average and peak water and wastewater demands;
- b. Calculations used to size lines, pump station(s), and for fire protection, including expected initial and future populations to be served;
- c. The nature of the water usage (domestic, commercial, etc.), and the probable character of the wastewater generated; and

- d. A hydraulic analysis, demonstrating the adequacy of the system to meet domestic and fire flows for water, and the adequacy of downstream sewer capacity.
3. Estimated Time Schedules  
An estimated time schedule shall be submitted, identifying the expected dates of completion of the final plans and specifications, and expected beginning and completion dates of construction for phases, as applicable.
4. Stormwater Management Statement  
A stormwater management statement shall be submitted, when required by this Ordinance, in accordance with Article X “Natural Resources”, Section “Stormwater Management.”

## 6.2 Water Supply System

To further the intent of this Section, as well as orderly development of utilities, the Harnett County Department of Public Utilities may require a larger water supply line than is typically required to ensure capacity for future development.

### 6.2.1 Connection

#### A. Connection Requirement

1. Any development which is created after the adoption of this Section, and is located within that number of feet of an existing County owned or operated water supply and distribution system as is specified in Subsection “Distance Specification” below, whether the development is located within or without the service area of an existing County owned or operated public water supply and distribution system, the developer shall cause a water distribution system, meeting the standards herein specified, to be constructed and installed in such development and shall further cause said water distribution system to be connected to the existing County owned or operated public water supply and distribution system which is located as specified in said Subsection “Distance Specification.” This requirement also applies to new phases of existing development where these phases have not been previously approved by the appropriate Harnett County Development Review Board.
2. The developer may establish and create a public water supply system or connect the development to an existing public water supply system. However, such created public water supply system or such water distribution system to be connected to an existing system shall be approved by and meet the requirements of all Federal, State, and local governments, including but not limited to the DENR.

#### B. Distance Specification

A development shall be required to meet the conditions of this Section when the development is located within that number of feet of an existing County owned or operated water supply and distribution system which equals the product of the number of lots within the development (including lots to be developed in the future) multiplied by 100; provided however, that the maximum distance required for connection shall not exceed 5,000 feet.

#### C. Subject to Capacity Sufficiency

In the event that a development should meet the distance specification requirements of Subsection “Connection” of this Section, and the County owned or operated water supply and distribution system to which the development would connect shall be of insufficient capacity to permit the the delivery of water to said development, the subject development shall be relieved of the requirement to connect to such County system. In no case shall capacity be guaranteed until such time that plans have been approved and permitted by DENR and capacity fees are paid in full.

### 6.2.2 *Review Requirements*

When a developer or subdivider is required to install a water distribution system pursuant to this Section, prior to final plat approval, the plans for the water distribution system to be so installed shall be submitted to the County Department of Public Utilities. The location, size, and specifications of the water distribution system shall be placed upon said plat for review and approval. The County Department of Public Utilities shall review the information supplied and determine whether the plans meet the requirements of this Section.

### 6.2.3 *Plan Specification*

The plans for a water distribution system to be installed pursuant to this Section shall show and/or state thereon such information as will indicate that the system planned will meet, when constructed and installed, the requirements of this Section.

### 6.2.4 *Water Distribution System Specifications*

A water distribution system to be constructed within a development pursuant to this Section and/or connected to the County owned or operated system shall:

- A. Be a minimum of 6 inches (6”), except on the last 500 feet of water line on permanent cul-de-sacs within subdivisions, as approved by the Director of Public Utilities.
- B. Be properly connected in such a manner as to adequately serve all lots shown on the subdivision plat (including both present and future lots) for domestic use and fire protection.
- C. Conform to the specifications of the Harnett County Department of Public Utilities as provided by said Department and conform to Title 15A Subchapter 18C of NCAC, as specified by the North Carolina Department of Environment and Natural Resources (NC DENR), Division of Environmental Health, Public Water Supply Section and as specified in The Development of Water & Sewer Utilities in Harnett County Water & Sewer Districts..
- D. Be approved by the necessary federal and/or state agencies prior to or at the time of completion.
- E. Conform to all Federal, State and/or local ordinances, rules, and regulations relating thereto, and any license and/or permits required thereby shall be obtained, including all NC DENR regulations.
- F. Be constructed pursuant to the necessary contractual agreements required by the policies, rules, and regulations of the Harnett County Department of Public Utilities.

### 6.2.5 *Subdivisions Where Section Not Applicable*

When located outside the service area of a County owned or operated water supply and distribution system and/or outside the distance specifications, lot sizes within a subdivision may be allowed to be reduced, provided adequate water is available for domestic use from a community water system to be installed by the developer; and provided six (6) inch water lines are installed to service fire hydrant locations such that no primary structure is farther than 500 feet from such a location, and stub outs with gate valves are provided at said fire hydrant locations. If the subdivision does not meet these provisions, it shall be considered under the regulations specified herein for property not having public water available.

## **6.3 Sewage Disposal System**

### 6.3.1 *Connection*

#### A. Connection Requirement

1. Any development which is created after the adoption of this Section, and is located within

that number of feet of an existing County owned or operated sewage disposal system as is specified in Subsection “Distance Specification” below, whether the development is located within or without the service area of an existing County owned or operated public sewage disposal system, the developer shall cause a sewage disposal system, meeting the standards herein specified, to be constructed and installed in such development and shall further cause said sewage disposal system to be connected to the existing County owned or operated public sewage disposal system which is located as specified in said Subsection “Distance Specification.” This requirement also applies to new phases of existing development where these phases have not been previously approved by the appropriate Harnett County Development Review Board.

- a. All property which abuts right(s)-of-way in which is installed and constructed a County owned or operated gravity sewer collection line and the property is located not more than 300 feet from said gravity sewer collection line shall be required to connect to the County owned or operated system.
  - b. All property which abuts right(s)-of-way in which is installed and constructed a County owned or operated force main sewer collection line designed to serve a specific area where due to topography or other engineering factors, a gravity sewer line is not feasible, as determined by the Director of the Harnett County Department of Public Utilities, shall be required to connected to the County owned or operated system when the property is not located more than 300 feet from said collection line.
2. The developer may establish and create a public sewage disposal system or connect the development to an existing public sewage disposal system. However, such created public sewage disposal system or such sewage disposal system to be connected to an existing system shall be approved by and meet the requirements of all Federal, State, and local governments, including but not limited to the DENR.

B. Distance Specification

A development shall be required to meet the conditions of this Section when the development is located within that number of feet of an existing County owned or operated sewage disposal system which equals the product of the number of lots within the development (including lots to be developed in the future) multiplied by 100; provided however, that the maximum distance required for connection shall be 5,000 feet.

C. Subject to Capacity Sufficiency

In the event that a development should meet the distance specification requirements of Subsection “Connection” of this Section, and the County owned or operated sewage disposal system to which the development would connect shall be of insufficient capacity to permit the collection and treatment of sewage from said development, the subject development shall be relieved of the requirement to connect to such County system. In no case shall capacity be guaranteed until such time that plans have been approved and permitted by DENR and capacity fees are paid in full.

*6.3.2 Review Requirements*

When a developer or subdivider is required to install a sewage disposal system pursuant to this Section, prior to final plat approval, the plans for the sewage disposal system to be so installed shall be submitted to the County Department of Public Utilities. The location, size, and specifications of the sewage disposal system shall be placed upon said plat for review and approval. The County Department of Public Utilities shall review the information supplied and determine whether the plans meet the requirements of this Section.

*6.3.3 Plan Specification*

The plans for a sewage disposal system to be installed pursuant to this Section shall show and/or state thereon such information as will indicate that the system planned will meet, when constructed and installed, the requirements of this Section.

#### *6.3.4 Sewage Disposal System Specifications*

A sewage disposal system to be constructed within a subdivision pursuant to this Section and/or connected to the County owned or operated system shall:

- A. Be properly connected in such a manner as to adequately serve all lots shown on the subdivision plat (including both present and future lots).
- B. Conform to the specifications of the Harnett County Department of Public Utilities as provided by said Department and conform to 15A NCAC 2T, as specified by the North Carolina Department of Environment and Natural Resources, Division of Water Quality, and as specified in *The Development of Water & Sewer Utilities in Harnett County Water & Sewer Districts*.
- C. Be approved by the necessary Federal and/or State agencies prior to or at the time of completion.
- D. Conform to all Federal, State, and/or local ordinances, rules, and regulations relating thereto, and any license and/or permits required thereby shall be obtained.
- E. Be constructed pursuant to the necessary contractual agreements required by the policies, rules, and regulations of the Harnett County Department of Public Utilities.

#### *6.3.5 Subdivisions Where Section Not Applicable*

When located outside the service area of a County owned or operated sewage disposal system and/or outside the distance specifications, lot sizes within a subdivision may be allowed to be reduced, provided adequate sewage disposal is provided from a community sewerage system to be installed by the developer. If the subdivision does not meet these provisions, it shall be considered under the regulations specified herein for property not having public sewerage disposal.

## **6.4 Fire Protection**

### *6.4.1 General Fire Hydrant Requirements*

Adequate fire protection shall be provided to all new subdivision developments and nonresidential new construction and expansions. The developer or subdivider shall install fire hydrants in such a manner that the development is afforded adequate fire protection as provided in this Ordinance. The regulations contained herein are intended to facilitate proper installation of required fire protection measures.

- A. All hydrants shall be Harnett County Public Utilities and Fire Code Official approved, in accordance with the requirements of this Section.
  1. No fire hydrant shall be installed on less than a 6 inch (6") main.
  2. Hydrants shall have two (2) two and one half inch (2 1/2") and one (1) four and one half inch (4 1/2") connections with threads of the National Pipe Thread (NPT) type.
  3. The upper hydrant operation stem within the bonnet shall be sealed and lubricated by means of an oil or grease bath, unless otherwise approved. The operating nut shall be pentagonal type measuring one and one half inch (1 1/2") from point to flat. Hydrants shall open left.
  4. All hydrants shall be furnished with barrel and stem extensions as required for the final field location. Nominal minimum bury will be a depth of three and one half (3 1/2) feet. All

hydrants at finish grade shall measure 18 inches (18") from ground to center of steamer cap.

5. Water lines servicing fire hydrants shall have at least 500 gallons of water per minute.

B. The Fire Code Official shall approve all hydrant types and locations in new developments and any alterations to this Ordinance related to fire hydrants and fire protection.

C. All fire hydrants shall be located on the right side of the roadway in which responding fire apparatus would travel into subdivisions, beginning at the main entrance to the subdivision.

#### *6.4.2 Fire Hydrants in Subdivisions*

##### A. Residential Subdivisions

In residential subdivisions, fire hydrants shall be located in such a manner that no primary structure is further than 500 feet from a hydrant. The distance between hydrants, shall be measured along street centerlines. There shall be at least one (1) fire hydrant at each intersection. When residential intersections are less than 700 feet apart, a hydrant is not required between the intersections.

##### B. Nonresidential Subdivisions

In nonresidential subdivisions, fire hydrants shall be located in such a manner that no primary structure is further than 400 feet from a hydrant, measured along street centerlines. There shall be at least one (1) fire hydrant at each intersection. Fire hydrants required in addition to those required at intersections may be installed at the time of lot development in order to facilitate better location and shall be noted on the site plan, as required; however each lot shall meet the requirements of this Section.

#### *6.4.3 Fire Hydrants for Nonresidential Development*

Fire hydrants, or other fire protection methods as approved by the Fire Marshal's Office, shall be required for all new construction and expansions of nonresidential development. Fire hydrants shall be located in such a manner that no primary structure is further than 400 feet from a hydrant, measured along the street centerline. Development of lots located along divided right(s)-of-way shall only consider distance to hydrants located on the same side of the right(s)-of-way.

### **6.5 All Other Utilities**

All other utilities, including but not limited to electrical, cable, and telephone utilities, shall be placed underground.

## **SECTION 7.0 LIGHTING STANDARDS**

Outdoor lighting for nonresidential purposes and for major subdivisions shall be designed to provide the minimum lighting necessary to ensure adequate safety, night vision, and comfort, and not create or cause excessive glare onto adjacent properties and public right(s)-of-way. Vehicular lights, temporary emergency lighting needed by Emergency Management personnel, navigational lighting systems at airports, lighting for outdoor advertising signs, and lighting required by other local, State, or Federal regulations shall be exempt from the requirements of this Section.

### **7.1 General**

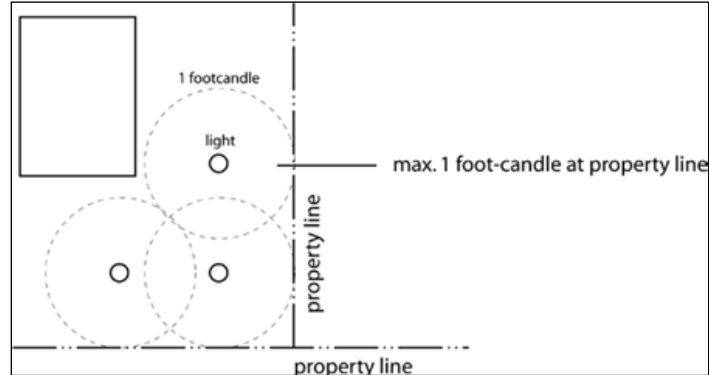
#### *7.1.1 Applicability*

All applications for site plans, nonresidential Special Use permits, and major subdivisions shall meet the requirements of this Section and shall include information regarding lighting,

including location, type, height, and lumen output of all proposed and existing fixtures.

### 7.1.2 General Standards

Lighting shall be located in such a manner as to prevent direct glare and lighting onto adjacent property or into the public right(s)-of-way. All flood lights shall be installed such that the fixture shall be aimed down at least 45 degrees from vertical.



- A. All wall pack fixtures shall be cutoff fixtures, as provided in the example below.



- B. Sensor activated lighting may be unshielded provided it is located in such a manner as to prevent direct glare and lighting into properties of others or into a public right(s)-of-way, and provided the light is set to only go on when activated and to go off within five (5) minutes after activation has ceased. The light shall not be triggered by activity off the property.
- C. Uplighting is prohibited in all zoning districts, except in cases where the fixture is shielded by a roof overhang or similar structural shield. Upward flagpole lighting is permitted for governmental flags only and provided that the maximum lumen output is 1,300 lumens. Flags are encouraged to be taken down at sunset to avoid the need for lighting.
- D. Outdoor lighting fixtures shall use metal halide or light emitting diode (LED) bulbs.

## 7.2 Nonresidential & Multifamily Developments

### 7.2.1 Maximum Lighting Height

The mounting height of all outdoor lighting shall not exceed 35 feet above finished grade, unless otherwise approved by the Planning Board or as part of a development plan. Athletic field and race track lighting shall have a maximum height of 80 feet above finished grade and the hours of operation for the lighting system for any athletic field or race track shall not exceed one (1) hour after the end of the event.

## 7.3 Major Subdivisions

### 7.3.1 Street Lighting

Adequate lights shall be provided to illuminate right(s)-of-way, common driveways, walkways, and dead-end streets for the safe movement of vehicles and pedestrians at night.

#### A. Minimum Lighting

The minimum size streetlight shall be 7,000 lumen class or its equivalent.

#### B. Spacing

Lights shall be spaced at intervals not more than 300 feet for residential subdivisions and not more than 200 feet for nonresidential subdivisions. Lighting shall be installed beginning at the entrance to the subdivision.

#### C. Materials

High-pressure sodium fixtures shall be permitted only within residential subdivisions.

## 7.4 Lighting Standard Plan Alternative

In lieu of compliance with the lighting standards of this Section, an applicant may submit to the Planning Board for review and approval a detailed plan and specifications for lighting. The Planning Board may approve the alternative lighting standard plan upon finding that the proposal will afford a degree of lighting, in terms of height, spacing, and safety to or exceeding that provided by the requirements of this Section.

The following criteria shall be used in determining whether a lighting standard plan alternative can be accepted by the Planning Board in lieu of meeting the requirements of this Section.

- A. The proposal includes a clear and concise explanation of the specific standards that cannot be met and how the alternative methods proposed will achieve the intent of this Section;
- B. The proposal represents the use of alternative methods and/or materials which will result in a development pattern which is equivalent to or greater than that required by this Ordinance;
- C. The proposed use and design alternative is compatible with adjacent land uses;
- D. The proposal is compatible with and will enhance the use or value of adjacent and area properties;
- E. The proposal is consistent with the intent of adopted County plans; and,
- F. The proposed development standards are, in all other aspects, consistent with the intent and purpose of this Ordinance.

## **SECTION 8.0 OPEN SPACE**

### 8.1 General Provisions

- A. The Board of Commissioners declares the purposes and intent of the open space regulations adopted and prescribed in this Section to be as follows:
  - 1. To provide adequate improved recreational open space areas and unimproved open space;
  - 2. To provide prime views and open vistas, providing relief from an urban landscape;
  - 3. To encourage the preservation of existing trees and vegetation;
  - 4. To encourage the retention of environmentally sensitive areas, such as, steep slopes, bodies of water, streams, wetlands and land adjoining the Cape Fear River;



5. To encourage the protection of air and water quality;
  6. To enhance flood control; and
  7. To provide protection for historically or archeologically significant areas.
  8. A minimum of 10 percent (10%) of the total open space provided in residential developments shall include improved open space area(s) as defined by this Ordinance. The improved open space area shall be proportionate to the entire development and, if applicable, each phase shall include an area of improved open space. In no case shall an open space area be less than the smallest lot within the phase in which the open space is located.
- B. For purposes of this document, usable open space means an area that:
1. Is not encumbered with any structure unless such structure is intended for recreational open space purposes;
  2. Is not contained within street right(s)-of-way or otherwise devoted to use as a roadway, ingress/egress easement, or parking area not associated with the use of the open space;
  3. Is left in its natural or undisturbed state (as of the date development began), if wooded (except for the cutting of trails for walking or jogging) or, if not wooded at the time of development, is landscaped for ballfields, picnic areas, play areas, or similar recreational open space facilities, or is properly vegetated and landscaped with the objective of creating a wooded area or other area that is consistent with the objective set forth in;
  4. Is capable of being used and enjoyed for purposes of informal and unstructured recreation and relaxation;
  5. Is legally and practicably accessible to the residents of the development out of which the required open and recreational open space is taken, or to the public if dedication of the open and recreational open space; and
  6. Is not encumbered by private underground septic lines, any part of a private sewage disposal system, or any private above-ground or below-ground septic related structure, or related easements.
- C. The following areas shall be regarded as open space where such areas satisfy the criteria set forth in the above Section:
1. Public utility easements located outside of street right(s)-of-way such as drainage, access, sewer or water lines, or other public purpose
  2. Private cemeteries located on a tract prior to its development
  3. Areas used for growing crops
  4. Agricultural and horticultural uses, specifically excluding commercial livestock operations
  5. Pastureland for horses used solely for recreation purposes
  6. Public or private recreational facilities including but not limited to playgrounds, tennis courts, ball fields, volleyball courts, etc., which are improved to the accepted national or local standards for size and associated amenities.
  7. Neighborhood open space uses such as village greens, community gardens, and trails
  8. Golf or tennis club open to the public
- D. The following areas shall not be regarded as open space and shall not be counted toward open space required by this Section:
1. Islands or internal planted areas required by other Sections of this Ordinance shall not be

considered open space for the purposes of this Section. For example, islands in parking lots shall not count towards required open space.

E. Flexibility in Administration Authorized

1. The requirements set forth in this Section concerning the amount, size, location, and nature of open space to be provided in connection with residential developments are established by the Board of County Commissioners as standards that presumptively will result in the provision of that amount of open space that is consistent with generally recognized standards relating to the need for such areas. The Board recognizes, however, that due to the particular nature of a tract of land, or the particular type or configuration of development proposed, or other factors, the underlying objectives of this Section may be achieved even though the standards are not adhered to with mathematical precision. Therefore, the Planning Board is authorized to permit minor deviations from these standards whenever it determines that:
  - a. The objectives underlying these standards can be met without strict adherence to them; and
  - b. Because of peculiarities in the developer's tract of land or the particular type or configuration of the development proposed, it would be unreasonable to require strict adherence to these standards.
2. Whenever the Planning Board authorizes some deviation from the standards set forth in open space requirement, the official record of action taken on the development application shall contain a detailed statement of the reasons for allowing the deviation.

## 8.2 Design Standards for Open Space

- A. All floodplains, streams, ponds, lakes, and other water bodies are encouraged to be contained in open space area.
- B. All wetlands, and blue-line streams with a required vegetative, riparian buffer, shall be contained in open space areas, unless platted prior to September 16, 2019 or mitigated via the US Army Corps of Engineers permitting process.
- C. For developments located entirely or partially within a Conservation Zoning District that surrounds a water feature (wet or dry), a minimum of 50 percent (50%) of the depth of the District (measured perpendicularly from the water feature and located closest to the water feature) shall be dedicated to open space
- D. This dedication of open space shall count towards any other open space requirements.
- E. Prime Views & Open Vistas  
Such area shall be defined as the area between existing street right(s)-of-way and property line of proposed lots for the new development.
  1. Developments located adjacent to Interstate and Principle Arterials shall provide a 175 foot minimum of prime views
  2. Developments located adjacent to Minor Arterials and Major and Minor Collectors shall provide a 75 foot minimum of prime views.
  3. Developments located adjacent to all other street types shall provide a 50 foot minimum of prime views.
  4. Required Streetscape Buffer shall be planted within the Prime Views & Open Vista area.
- F. All open space area shall be permanently restricted from future subdivision and development unless specifically stated here in.
- G. Common open space areas shall have a minimum of one (1) access easement to allow for utilization by all owners of property within the subdivision. Access easements shall be a minimum of 12 feet in

width and shall include an identification sign.

#### H. Parking for Improved Open Space Areas

All required parking areas shall, at a minimum, be development with six (6) inches of aggregate base course (ABC) gravel and include parking stops. Shared parking shall be permitted for differing types of improved open space, utilizing the greater number of spaces required.

##### 1. Structures

Where a structure is built, parking shall be provided in accordance with this Ordinance for the same type of facility. Structures that are not listed in this Ordinance shall provide parking at a ratio of one (1) space per 200 square feet of covered area.

##### 2. Athletic Fields

When an athletic field is developed, parking shall be provided at a ratio of half (1/2) of what is required by this Ordinance.

##### 3. Pedestrian Trails & Other Improvements

Where a pedestrian trail or other improvements are made, parking shall be provided at the trail head or main entrance with a minimum of five (5) parking spaces.

### 8.3 Ownership Options

One (1) of the following methods shall be utilized for ownership of open space.

- A. Open space or any portion thereof may be dedicated to the County of Harnett for public use or any municipality located within the jurisdiction of Harnett County. Any dedication shall be formally accepted by the County or municipality to be valid. Nothing in this Ordinance in any way obligates the County or municipality to accept the dedication of any property;
- B. The common open space or any portion thereof may be retained, operated, and maintained by the developer and/or development owner if a legal document is submitted to the County prior to the issuance of a building permit binding in perpetuity the common open space to be used as such and to be maintained in an appropriate manner. If at any future date the owner(s) of the common open space and its facilities wishes or is required to relinquish control of such facilities, the common open space shall be conveyed as described above, dedicated to the County for public use, or sold with all operating requirements and legal obligations still binding. The common open space shall forever be part of the development;
- C. Condominium & Homeowners' Association;  
All common facilities and open space areas may be controlled through the use of condominium agreements, covenants, and/or homeowners' association by-laws. Such agreements shall be in accordance with relevant State law;
- D. Non-profit conservation organization; or
- E. Private ownership

## **SECTION 9.0 BUFFERS & LANDSCAPING**

### **9.1 General Provisions**

Buffers shall be required in accordance with the "Land Use Relationships" table in this Section in an effort to reduce environmental and aesthetic impacts of development, and to screen public right(s)-of-way and adjacent property unless otherwise provided by this Ordinance.

### *9.1.1 Development Exempt from Buffer Requirements*

The following activities or uses shall be exempt from Buffer requirements in this Section:

A. Public Improvement Projects

The construction of any public street or utility service line, whether publicly or privately owned.

B. Maintenance

Maintenance of any structure.

C. Single Family Residence

Single family residences, including manufactured homes, are exempt from buffer requirements, but shall comply with all other requirements regarding single family residences and manufactured homes.

D. Home Occupation

Home occupation, as defined in this Ordinance.

E. Accessory to Principal Use

Any accessory structure or use, whether temporary or permanent, integral to an approved development permitted in accordance with the provisions of this title. Such accessory structure or use shall comply with the design and performance provisions of this Ordinance.

F. Temporary Uses, Nonmaterial

Those activities of short duration that do not materially affect the area's natural environment, parking requirements, transportation patterns, public health, or economic values shall be reviewed for approval by the Administrator.

### *9.1.2 Buffering of Expanded Uses*

Expansion of a use existing prior to the effective date of this Ordinance shall be required to come into conformance with all buffer requirements.

### *9.1.3 Minimum Standards for Installation*

Required installation, trees, and shrubs shall meet the following standards, except as may be specifically provided elsewhere in the Ordinance. Trees shall meet the standard definition of the tree type for which it is intended to be utilized.

A. Large Maturing Tree

All required large maturing trees shall have a minimum caliper of two (2) inches, measured six (6) inches above the proper planting level, or a minimum height of six (6) feet at the time of planting.

B. Medium & Small/Ornamental Tree

All required medium and small/ornamental trees shall have a minimum height of six (6) feet at the time of planting. In lieu of the large maturing tree planting requirement, medium and small/ornamental trees shall be planted at a rate of two (2) trees for every required large maturing tree.

C. Shrub

Shrubs shall be a minimum of two (2) feet in height at time of planting.

1. Shrubs planted for screening purposes shall form the density necessary to fulfill the requirements of this Ordinance within two (2) years from the time of planting.

2. Shrubs planted in conjunction with a berm shall be exempt from the minimum height requirement.

D. Ground Cover

Ground cover shall include evergreen or organic covering, and provide 100 percent (100%) coverage within one (1) year of planting, except for mulch or turf which shall provide 100 percent (100%) coverage upon installation. Organic mulch or inorganic materials (such as river rock) may be utilized to fulfill the ground cover requirement of this Ordinance but may not be substituted for required plantings and shall provide 100 percent (100%) coverage upon installation.

E. Berm

A berm shall have a maximum of 3:1 slope with a minimum crown width of two (2) feet and planting combination, with the berm an average height of three (3) feet and dense plantings which will, when combined with the berm, achieve a minimum height of six (6) feet and 75 percent (75%) opacity within two (2) years.

- F. All specifications for the measurement, quality, and installation of trees and shrubs shall be in accordance with *American Standards for Nursery Stock* published by the American Nursery & Landscape Association, free of disease, and in otherwise sound and healthy condition.

9.1.4 *Existing Vegetation*

The retention of existing vegetation shall be maximized to the extent practical, wherever such vegetation contributes to required buffering and screening or to the preservation of significant trees.

- A. If it is demonstrated that existing vegetation meets the intent of this section, the Administrator may waive some or all of the requirements for the planting(s). Such waiver shall be considered only after an inventory of existing vegetation to be utilized has been provided by the developer. Said inventory shall indicate the type, number, and size of each existing plant to be utilized. It shall not be necessary to include the total number of plants, only those being utilized to fulfill the requirements of this Ordinance.
- B. Plantings to be utilized shall be maintained without injury and with sufficient area for the root system to sustain the plant. Protective care and restraint barriers shall be utilized at the drip line of any trees to be utilized.

9.1.5 *Responsibility of Installation & Maintenance*

- A. One hundred percent (100%) of the applicable buffer requirements shall be the responsibility of the developer, unless expressly provided otherwise.
- B. The owner(s) of the property where the buffer or screening is shall be responsible for maintaining the buffer and all required plantings in good condition at all times.

9.1.6 *Alternative Buffers & Screening Plan*

Alternative buffer and screening techniques may be utilized in accordance with the following provisions. In such cases where the required buffering may create a sight distance conflict with an existing or proposed driveway, the required trees may be clustered with other plantings so as to maintain a proper sight distance. Planning Board approval shall not be required in such a case.

A. Administrative Review of Alternative Buffer & Screening Plan

An applicant may submit to the Administrator for review and approval a detailed plan and specifications for landscaping and screening of up to a 50 percent (50%) reduction in buffer

width. In such case, plantings shall be provided at 150 percent (150%) of the listed requirement for the appropriate buffer type. This option shall not apply to “Streetscape Buffer for Major Subdivisions” or for “Prime Views & Open Vistas” requirements of this Ordinance.

**B. Planning Board Review of Alternative Buffers & Screening Plan**

In lieu of compliance with the buffer and screening requirements of this Section, an applicant may submit to the Planning Board for review and approval a detailed plan and specifications for landscaping and screening. The Planning Board may approve the alternative buffering and screening upon finding that the proposal will afford a degree of buffering and screening, in terms of height, opacity, and separation to or exceeding that provided by the requirements of this Section.

The following criteria shall be used in determining whether an alternative buffer and screening plan alternative can be accepted by the Planning Board in lieu of meeting the requirements of this Section.

1. The proposal includes a clear and concise explanation of the specific standards that cannot be met and how the alternative methods proposed will achieve the intent of this Section;
2. The proposal represents the use of alternative methods and/or materials which will result in a development pattern which is equivalent to or greater than that required by this Ordinance;
3. The proposed use and design alternative is compatible with adjacent land uses;
4. The proposal is compatible with and will enhance the use or value of adjacent and area properties;
5. The proposal is consistent with the intent of adopted County plans; and,
6. The proposed development standards are, in all other aspects, consistent with the intent and purpose of this Ordinance.

*9.1.7 Land Use Relationships*

The following land use relationships shall be used to determine required screening and buffering as provided in “Required Buffer & Screening Types”. All uses listed in Use Group Level One (1) shall be exempt from buffer requirements.

PROPOSED USE	ADJACENT USE			
	Group 1	Group 2	Group 3	Group 4
Group 1	None	None	None	None
Group 2	Type A, C	Type C	Type C	Type C
Group 3	Type A, D	Type A, C	Type C	Type C
Group 4	Type B	Type B	Type A, D	Type C

- A. Refer to the “Table of Use Types and Regulations” for Use Group Level.
- B. If a specific use is not mentioned then it will be the duty of the Administrator to determine which existing use is most closely related to the proposed use in order to determine which group to classify the use under. Further, the following Use Group Levels are assumed for undeveloped land: Residential and Conservation zoned land is Use Group Level One (1), Office & Institutional zoned land is Use Group Level Two (2), Commercial zoned land is Use Group Level Three (3), and Light Industrial and Industrial zoned land are Use Group Level Four (4).

### 9.1.8 Required Buffer & Screening Types

In situations where a development is adjacent to multiple uses then the buffer requirement for each use shall be required along each property line, otherwise the development shall follow the requirements listed below. In situations where both vegetative screening and fencing are either required or utilized, the required vegetation shall be planted on the finished side of the fence, which shall face out. Buffer shall be installed in accordance with the Buffer Types (Type A, Type B, Type C, and Type D) listed herein.

A. All buffer types shall include:

1. A staggered row of large maturing trees, spaced not more than 30 feet apart; and
2. Low-growing evergreen shrubs, evergreen ground cover, or mulch covering the balance of the buffer area.

B. Type A Buffer

1. Minimum width of 15 feet (applies to side and rear property lines)

2. Option 1

A row of evergreen shrubs placed not more than four (4) to six (6) feet apart which will grow to form a continuous hedge of at least six (6) feet in height within two (2) years of planting; or

3. Option 2

A masonry wall located within the required buffer area; such wall shall be a minimum height of six (6) feet (above finished grade;) and, if a block wall, it shall be painted on all sides; or an opaque fence six (6) feet in height; or

4. Option 3

A berm meeting the requirements of this Section.

C. Type B Buffer

1. Minimum width of 30 feet (applies to front, side, and rear property lines)

2. Option 1

An opaque fence located within the required buffer area; such fence shall be a minimum height of six (6) feet in height; or

3. Option 2

A berm meeting the requirements of this Section.

D. Type C Buffer

1. Minimum width of 10 feet (applies to area between right-of-way and building front)
2. Five (5) low growing shrubs for every required large maturing tree.

E. Type D Buffer

1. Minimum width of 15 feet (applies to property lines adjacent to public right-of-way or as otherwise noted within this Ordinance)

2. Option 1

A row of evergreen shrubs, 10 shrubs for every required large maturing tree, placed not more than four (4) feet apart which will grow to form a continuous hedge of at least six (6) feet in height within two (2) years of planting; or

### 3. Option 2

An opaque fence located within the required buffer area; such fence shall be a minimum height of six (6) feet in height.

#### *9.1.9 Scheduled Street Improvements*

In cases where a right(s)-of-way is scheduled to be widened, the developer shall plant the trees prior to the widening project and outside of the proposed right(s)-of-way, provided that the North Carolina Department of Transportation (NCDOT) has marked the proposed right-of-way.

## **9.2 Specific Buffering & Screening Requirements**

The following requirements shall be required in any development on which such type of use is required or provided, as applicable.

#### *9.2.1 Perennial Stream Buffering*

All perennial streams, as identified by the United States Geological Survey (USGS), not located within a watershed or Conservation Zoning District shall have a 30 foot buffer from the edge of the waterway. Said buffer area shall remain undisturbed.

#### *9.2.2 Utility & Mechanical Screening*

All nonresidential and multifamily developments mechanical, utility equipment which is located on, beside, or adjacent to any building or developments shall be fully screened from the view of public right(s)-of-way and adjacent property. The screen shall exceed the height of the equipment by a minimum of one (1) foot, shall not interfere with the operation of the equipment, and shall use one (1) or a combination of the following screening techniques.

- A. Building materials and design which are compatible with those used for the exterior of the principal building or
- B. Large maturing evergreen trees or other acceptable alternative approved by the Administrator.

In situations where mechanical and utility equipment is (are) located on the roof of a structure, all devices will be fully screened from the view of right(s)-of-way or adjacent property using building materials as listed above.

#### *9.2.3 Trash Containment Areas Screening*

All trash containment devices, including compactors and dumpsters, shall be located and designed so as not to be visible from the view of adjacent right(s)-of-way and properties. If the device is not visible from off the site, then it need not be screened. The type of screening used shall be a continuous row of large maturing evergreen trees or other acceptable alternative approved by the Administrator.

#### *9.2.4 Outdoor Storage Area Screening*

Any area utilized for outdoor storage, as defined herein, or inventory shall be screened from view of public and private right(s)-of-way and adjacent property. Screening shall meet the following requirements:

- A. Any area utilized for outdoor storage or inventory shall be screened in accordance with the Type D Buffer screening techniques and shall be located in the side or rear yard.
  - 1. Development located within industrial parks shall be exempt from said screening requirements except along perimeter property lines when said property line is located on the



exterior of the park or adjacent to a residential zoning district.

- B. An alternate buffer plan may be submitted as provided in the “Alternate Buffers & Screening” Section of this Ordinance.

### **9.3 Streetscape Buffer for Major Subdivisions**

All subdivisions with more than six (6) lots that have lots that abut State maintained right(s)-of-way shall be required to adhere to the following streetscape buffer requirements for all property that adjoins an existing state maintained street, unless otherwise stated herein.

Developments with lots that abut a NCDOT maintained roads shall be buffered with a minimum 30 foot buffer measured from the right-of-way.

#### *9.3.1 Streetscape Buffer Types*

All buffer types shall include a staggered row of large maturing trees and at least five (5) low growing shrubs for every required large maturing tree as well as one of the following screening techniques:

- A. A row of evergreen conifers or broadleaf evergreens placed not more than five (5) feet apart which would grow to form a continuous hedge of at least six (6) feet in height within two (2) years of planting supplemented with large maturing trees every 30 feet; or
- B. A masonry wall located within the required buffer; such wall shall be a minimum height of six (6) feet (above finished grade) and, if a block wall, it shall be painted on all sides, supplemented with large maturing trees every 50 feet; or an opaque fence six (6) feet in height finished side of fence shall face out, and supplemented with large maturing trees every 50 feet; or
- C. A berm, meeting the requirements of this Section.

#### *9.3.2 Modification of Planting Types*

If it is demonstrated that existing vegetation meets the intent of this section, the subdivision administrator may waive the requirements for the plant material.

#### *9.3.3 Ownership & Maintenance of Streetscape Buffers*

The developer shall be completely responsible for the installation and initial maintenance of all required streetscape buffers; until ownership changes through one of the methods described below:

- A. Ownership with a Homeowners’ Association

In the situation where a Homeowners’ Association (HOA) will be established for the proposed subdivision then the HOA shall be responsible for modifications, maintenance, removal, or damage to the streetscape buffer. This requirement shall be clearly labeled on the preliminary and final plats for all proposed subdivisions. The developer shall remain responsible for all ownership and maintenance of streetscape buffers until the HOA has been completely established.

- B. Ownership without a Homeowners’ Association

In the situation where there is not going to be a Homeowners’ Association (HOA) established for the proposed subdivision, then the streetscape buffer shall be left under control of the lot owner provided that each lot that contains a streetscape buffer shall have a deed recorded with a restriction that the streetscape buffer remain undisturbed. Further, the restriction shall state that the land owner shall be responsible for modifications, maintenance, removal, or damage to the streetscape buffer. This requirement shall be clearly labeled on the preliminary and final plats for all proposed subdivisions.

### 9.3.4 *Uses Prohibited within the Streetscape Buffer*

The following uses shall be prohibited from being located within the streetscape buffer.

- A. All Structures
- B. Storage of equipment
- C. Playground equipment and other similar structures
- D. Driveways with the exception of main entrances to the subdivisions

## 9.4 Landscaping for Major Subdivisions

Installation of street trees shall be required for major subdivisions, in accordance with the regulations herein.

- A. The subdivider or developer of developments of more than six (6) residential lots or six (6) dwelling units shall either plant or retain existing healthy trees so that there is at least one (1) deciduous tree for every 50 linear feet of street. Street trees shall be planted or retained along both sides of newly created public or private streets. Street trees shall be staggered on both sides of the right(s)-of-way on local or cul-de-sac streets in residential subdivisions.
- B. Street trees shall be of species that is expected to attain a minimum height of 25 - 35 feet at maturity. Where required street trees are located under overhead utility lines, the species shall be of a type to reach a maximum of 20 to 25 feet. All street trees shall be at least two (2) inches in caliper and a minimum of six (6) feet in height at the time of planting.
- C. Street trees shall be planted in a linear arrangement parallel to the street no less than five (5) feet and no more than 10 feet outside the right-of-way. Street trees shall be planted at least eight (8) feet from utility poles and 10 feet from electrical transformers.
- D. Plans for street tree planting and retention of existing trees shall be approved by the NCDOT for all streets proposed to be dedicated as public streets.

## **SECTION 10.0 SIGN REQUIREMENTS**

No sign may be located in, or overhang into, any public right-of-way except as permitted and erected by the North Carolina Department of Transportation. Signs shall be set back at least 10 feet from any public right(s)-of-way line or property line. In cases where signs are placed at intersections, the minimum setback shall be 20 feet as measured from each right-of-way line or property line in both directions, except those erected for orderly traffic control and other municipal and governmental purposes.

### **10.1 Sign Measurement Standards**

#### *10.1.1 Dimensions*

For the purpose of this Ordinance, the square feet area of the sign shall be measured to include the entire sign, including lattice work, fencing, or wall work incidental to its decoration. When a sign consists of letters placed directly on a wall, building surface, awning or marquee, or against open air (as when raised above a marquee), there being no background to the letters save the wall or surface itself, the area of the sign shall be that of the smallest parallelogram within which all the lettering can be included.

#### *10.1.2 Height*

The height of a sign shall be measured from the highest point of a sign to the point of ground surface beneath it. Ornamentation such as columns, caps, spires, and finials shall not extend more than two (2) feet from the top of the sign. The use of berms or raised landscape areas is only permitted to raise the base of the sign to the mean elevation of

the fronting street and shall not be used as a means to avoid compliance with regulations.

## **10.2 General Setback Requirements**

No sign may be located in, or overhang into, any public right-of-way except as permitted and erected by the North Carolina Department of Transportation. Signs that are located within public right(s)-of way shall be constructed to meet NC DOT standards. Signs shall be set back at least 10 feet from any public right(s)-of-way line or property line. In cases where signs are placed at intersections, the minimum setback shall be 20 feet as measured from each right-of-way line or property line in both directions, except those erected for orderly traffic control and other municipal and governmental purposes.

## **10.3**

### **10.4 Maintenance of Conforming Signs**

Whenever a sign becomes structurally unsafe or endangers the safety of a building or the public, the Administrator shall order that such a sign be made safe or removed. A period of 10 days following receipt of said order by the person, firm, or corporation owning or using the sign shall be allowed for compliance.

- A. A conforming business or outdoor advertising sign that has been destroyed or significantly damaged may be reconstructed within the limits of the rules and filling procedures set forth in this Ordinance.
- B. As per G.S. 136-133.2, conforming outdoor advertising signs shall be allowed to be repaired or reconstructed so long as the square footage of its advertising surface area is not increased. This also includes the changing of an existing multipole outdoor advertising structure to a new monopole structure.
- C. Conforming sign structures may be reconstructed so long as the reconstruction does not conflict with any applicable local, State, or Federal rules, regulations, or ordinances.
- D. Developments with existing conforming sign shall be allowed to make repairs without receiving permits, unless other local, State, or Federal rules apply.
- E. Conforming signs shall be allowed to perform reasonable repair and maintenance. The following activities are considered to be reasonable repair and maintenance (No Building permit shall be needed to make the following repairs with exception of numbers 3 & 5):
  1. Change of advertising message or copy on the sign face.
  2. Replacement of border and trim, stringer, or panel, with like material.
  3. Repair and replacement of a pole(s), with like material or materials allowed by these regulations.
  4. Alterations of the dimensions of painted bulletins incidental to copy change.
  5. Any net decrease in the outside dimensions of the advertising copy portion of the sign; but if the sign face or faces are reduced they may not thereafter be increased beyond the size of the sign on the date it became nonconforming.
- F. No sign shall be allowed to remain after the activity, business, or use to which it was related has been discontinued.
- G. If at any time an outdoor advertising sign falls into a state of dilapidation, disrepair, or becomes abandoned or discontinued, as defined by this Ordinance, the permits for this sign shall be revoked.

## 10.5 Lighting & Illumination

Where illuminated signs are permitted, they shall conform to the following requirements:

- A. All signs illuminated under the provisions of this section shall be constructed to meet the requirements of the National Electric Code.
- B. Display lighting of signs shall be shielded so as to prevent the direction of such light into any area or structure used primarily for residential purposes, residential zoning district, and/or vehicles approaching on a public right-of-way from any direction. No intermittent lighting effects shall be permitted on signs.
- C. Signs which contain, include, or are lighted by any flashing, intermittent, or moving lights are prohibited, except as follows:
  - 1. Illuminated signs shall be permitted to provide information such as time, temperature, date, and public announcements related to the business on-site only.
  - 2. Such signs shall be permitted only as part of an otherwise permitted sign or in conjunction with a permitted replacement of an existing sign, provided that the illuminated portion shall be at least 15 percent (15%) of the total square footage area of the sign and shall not exceed 35 percent (35%) of the total square footage area of the sign.
  - 3. Messages on such signs shall not change more than seven (7) times per minute. In no case shall an animated presentation or animated change of frame be allowed.
  - 4. Illuminated signs, as an addition to an existing sign, shall be comparable in composition, durability, and workmanship to the existing sign.
- D. Illuminated signs shall be limited to those lighted internally with glass or plastic faces bearing the advertisement; provided, however, that exposed neon tubing and exposed incandescent or other bulbs not exceeding 15 watts each shall be permitted.
- E. The following materials shall be prohibited:
  - 1. Flame (even as a source of light)
  - 2. Exposed neon lighting

## 10.6 Sign Materials

All signs shall be constructed of weather-resistant material designed expressly for signs.

### 10.6.1 Pole Style Ground Signs

All pole style ground signs with support(s), upright(s), bracing(s), or framework(s) that include a pole encasement shall meet the following requirements. Pole style ground signs for street signs, manufactured home park signs, interstate signs, historical identification signs, shall be exempt from the requirements of this Section.

- A. Said support(s), upright(s), bracing(s), or framework(s) shall be encased in an ornamental shell of stone, brick, ornamental metal, or similar materials, and shall be a minimum width of one quarter ( $\frac{1}{4}$ ) of the width of the sign face; or
- B. Said sign shall be constructed of an external support structure including stone, brick, ornamental metal or similar materials, provided that the maximum number of supports, uprights, bracings, or frameworks extending between grade and the base of the sign face shall not exceed two (2).

## 10.7 Prohibited Signs

- A. Any sign that obscures a sign displayed by public authority for the purposes of giving traffic

instruction or direction or other public information.

- B. Any sign that uses the word “stop” or “danger” or otherwise presents or implies the need or requirement of stopping or caution or the existence of danger, or which is a copy or imitation of, or which for any reason is likely to be confused with, any sign displayed by a public authority.
- C. Any sign that obstructs any window, door, fire escape, stairway, ladder, or opening intended to provide light, air, ingress, or egress for any building, as required by law.
- D. Any portable sign, including any sign displayed on a vehicle when used primarily for the purpose of such display; except, that this paragraph shall not apply to temporary political signs.
- E. Any sign that violates any provision of any law of the State relative to outdoor advertising.
- F. If a sign advertises a business, service, commodity, attraction, or other enterprise or activity that is no longer operating or being offered or conducted, then that sign and sign structure shall be considered discontinued regardless of reason or intent and shall, within 30 days after such discontinuation, be removed by the owner of the property where the sign is located. A blank sign face shall be provided to prevent any exposed sign light bulbs and other internal sign components. Signs shall be completely removed from the premise once a period of one (1) year has passed from the date of vacancy.
- G. Off-site advertising shall be prohibited, except in accordance with the provisions of this Section for the uses listed below. A sign easement shall be provided, on a survey map and recorded with the Harnett County Register of Deeds, prior to issuance of permits for any off-site signs. Additionally, for the uses listed below, up to one (1) off-site advertising signs per use, which shall not exceed 16 square feet in size and six (6) feet in height, with written consent of the property owner(s) on which the sign is located, only in cases where no sign exists on site.
  - 1. Religious facilities may have off-site advertising signs, for directional purposes only. A sign easement shall be provided, on a survey map and recorded with the Harnett County Register of Deeds, prior to issuance of any permits for such signs.
  - 2. Active residential subdivisions off-site advertising signs shall be removed once the subdivision reaches 75 percent (75%) build-out.

## **10.8 Signs that Do Not Require a Permit**

The following signs shall be permitted in all zoning districts. Such signs shall not require a sign permit as long as they conform to the requirements stated below.

### *10.8.1 Identification Signs*

Not to exceed one (1) square foot in display area bearing only addresses or names of occupants of the premises and located on privately owned property.

### *10.8.2 Memorial Plaques*

Such as cornerstones, historical tablets, and similar devices not to exceed six (6) square feet.

### *10.8.3 Instructional Signs*

Erected on private property, not to exceed six (6) square feet in display area, erected strictly for the direction, safety or convenience of the public, including signs which identify rest rooms, parking area entrances or exits, freight entrances, and similar devices, warning, danger, and no trespassing signs.

### *10.8.4 Flags, Emblems, & Banners*

Flags, emblems, or banners that are decorative, seasonal, political, civic, philanthropic, educational, or religious in nature, or that are displayed in connection with the observance of holidays, not to exceed three (3) per lot. Flags, emblems, or banners advertising for-profit

organizations are not covered by this Section and shall meet the requirements of this Ordinance for signs.

*10.8.5 "For Sale" or "For Rent" Signs*

Signs pertaining to realty on the premises offered for sale or rent, not exceeding four (4) square feet in area and not illuminated. Such a sign may be placed not closer to a front property line than 10 feet. There shall be a limit of one (1) such sign per street frontage.

*10.8.6 Signs Advertising Agricultural Products Produced on the Premises*

Not to exceed 16 square feet in area. There shall be a limit of one (1) such sign per street frontage.

*10.8.7 Signs Advertising Only the Name, Time, & Place of any Temporary Event*

When conducted by a public agency or for the benefit of any civic, fraternal, religious, or charitable cause; provided that no such sign shall be displayed in any residential district, except on the immediate site of the event to which it pertains; and provided further, that all such signs shall be removed within 10 days after the last day of the event to which they pertain for such events including but not limited to bona fide fairs, carnivals, festivals, bazaars, or horse shows.

*10.8.8 Athletic Field Signs*

Signs located as part of athletic fields, including scoreboards and sponsorship signs, are not required to get a permit, unless they are visible from the public right(s)-of-way.

*10.8.9 Portable A-Frame & Sandwich Board Signs*

A-Frame and sandwich board signs may be used to announce sales or special features during hours of operation only. Such signs shall be professionally made of materials intended for sign manufacturing and shall not impede pedestrian or vehicular traffic, safety, or access. Said signs shall not exceed three (3) feet in height and maximum size of six (6) square feet.

*10.8.10 Window Signs*

Signs displayed in windows of store fronts shall not cover greater than 25 percent (25%) of the total area of the windows of such store fronts, and shall not count toward the total area permitted for wall signs.

*10.8.11 Temporary Signs*

Those giving information pertaining to construction taking place on the lot upon which the sign is located. Such signs will be removed prior to issuance of a certificate of occupancy. Temporary signs may be allowed provided said signs are not erected more than 21 calendar days per year and not larger than 16 square feet. Temporary signs shall not be illuminated. Said signs shall not be closer to each other on the same property than 400 feet.

*10.8.12 Off-Site Directional Sign Setbacks for Religious Facilities*

Directional signs of less than six (6) square feet and referring only to religious facilities shall be located at least 10 feet from any public right(s)-of-way.

**10.9 Signs that Require a Permit**

Signs shall be permitted on the premises of the business, institution, or subdivision in districts in which the principal use is permitted and in districts in which the principal use is conditional. All business signs shall be subject to the following limitations:

- A. Business signs shall not project more than one (1) foot from any building wall or canopy.

- B. If suspended from a canopy, the sign shall be at least eight (8) feet above the sidewalk, pavement, or ground level.
- C. Maximum display area, number, and height requirements for ground and wall signs are as follows:

		Max # of walls with signs	Maximum signs per		Maximum sign area		Maximum Height	Min. distance between sign type on same property	Notes
			Street Frontage	Project	Project ≤ one acre	Project > one acre			
SINGLE TENANT	Ground		1	2	100 sq. ft. / side	150 sq. ft. / side	15 ft.*	300 ft.	*Required monument signs shall have a max. height of 12 ft.
	Wall	3			sq. ft. = Total linear ft. of mounting wall	sq. ft. = Total linear ft. of mounting wall			
MULTI-TENANT & SHOPPING COMPLEX	Ground		1	2	150 sq. ft. / side OR sq. ft. = Total linear ft. of mounting wall	200 sq. ft. / side OR sq. ft. = Total linear ft. of mounting wall	15 ft.	300 ft.	
	Directory		1		20 sq. ft. / side	20 sq. ft. / side	5 ft.	50 ft.	Located at interior intersections only
	Wall	2*#			sq. ft. = Total linear ft. of mounting wall	sq. ft. = Total linear ft. of mounting wall			Applies to each tenant of complex  *All side wall signs shall be no larger than 50% of allowable maximum sign area.  #One sign per wall, maximum of 2 wall signs, including a front, rear or side if applicable
OFFICE BUILDINGS	Ground		1	2	100 sq. ft. / side	150 sq. ft. / side	15 ft.	300 ft.	
	Wall	3			sq. ft. = Total linear ft. of mounting wall	sq. ft. = Total linear ft. of mounting wall			
NON-RES. SUBDIVISION	Ground (Subdivision)		1	2	150 sq. ft. / side	200 sq. ft. / side	15 ft.		
	Directory		1				4 ft.	50 ft.	Located at interior intersections only
	Ground (Parcels)			1	75 sq. ft. / side	75 sq. ft. / side	12 ft.		
	Wall	3			sq. ft. = Total linear ft. of mounting wall	sq. ft. = Total linear ft. of mounting wall			
INSTITUTIONAL LOCATIONS	Ground (Directory)		1	2	75 sq. ft. / side	75 sq. ft. / side	12 ft.	300 ft.	Portion may be used for changeable copy
	Wall	3			sq. ft. = Total linear ft. of mounting wall	sq. ft. = Total linear ft. of mounting wall			

		Max # of walls with signs	Maximum signs per		Maximum sign area		Maximum Height	Min. distance between sign type on same property	Notes
			Street Frontage	Project	Project ≤ one acre	Project > one acre			
<b>BUSINESS SIGNS</b>	Interstate Highways			1	500 sq. ft. total	500 sq. ft. total	125 ft.		Shall be governed by remaining sections of the Ordinance
<b>COLLEGE &amp; UNIVERSITY LOCATIONS</b>	Ground (Campus Directory Signs)			6	300 sq. ft. / side	300 sq. ft. / side		300 ft.	
	Ground (per Facility)			2	75 sq. ft. / side	75 sq. ft. / side	12 ft.		Portion may be used for changeable copy
	Wall	3			sq. ft. = Total linear ft. of mounting wall	sq. ft. = Total linear ft. of mounting wall			Applies to each facility
	Sporting Facility Signs*	Follow above Wall Sign Req.		1	650 sq. ft. / side	650 sq. ft. / side	25 ft.		
	Temporary (Events or Construction)			2 per Event/ 1 per Const.	100 sq. ft. / side	100 sq. ft. / side	12 ft.	300 ft.	Shall be removed at completion or end
<b>CUSTOMARY HOME OCCUPATIONS</b>	Ground		1	1	6 sq. ft. / side	6 sq. ft. / side	4 ft.		
<b>RESIDENTIAL SUBDIVISION</b>	Ground (Subdivision)				50 sq. ft. / side	50 sq. ft. / side	6 ft.		1 double-faced or 2 single-faced signs per entrance
<b>DIRECTIONAL SIGNS</b>	Ground		1	1	2 sq. ft. / side	2 sq. ft. / side	3 ft.		Only one (1) directional sign shall be located per intersection and/or driveway.
<b>MANUFACTURED HOME PARK</b>	Ground		1		32 sq. ft. /side MIN AREA: 16 sq. ft.	32 sq. ft. /side MIN AREA: 16 sq. ft.	12 ft.		Name of MHP & owner/operator phone num. shall be included.
<b>OFFICIAL GOVERNMENT SIGNS</b>	Ground (Multi-Tenant or Directory)		1	2	75 sq. ft. / side	75 sq. ft. / side	12 ft.	300 ft.	
	Wall	3			sq. ft. = Total linear ft. of mounting wall	sq. ft. = Total linear ft. of mounting wall			

### 10.10 Outdoor Advertising Signs

Outdoor advertising signs shall be permitted in the Commercial/Business District; except in Commercial/Business districts located within a designated Highway Corridor Overlay District.



All outdoor advertising signs shall be subject to the following regulations:

*10.10.1 Maximum Display Area*

The maximum size of the display area of outdoor advertising signs along interstate highways shall be 500 square feet. The maximum size of the display area of outdoor advertising signs for all other sections of the County shall be 300 square feet. Double faced signs shall be permitted provided that each individual sign shall meet the display area requirements for that area of the County.

*10.10.2 Height Regulations*

- A. No outdoor advertising sign shall exceed a height of 35 feet at street grade not to exceed 45 feet measured from the ground level to the highest part of the sign structure.
- B. The minimum height of the lowest portion of display surface of said outdoor advertising sign shall be elevated to a height of eight (8) feet from the ground level.
- C. The Planning Department shall be supplied with drawings certifying that this height requirement has been met once the sign has been constructed.

*10.10.3 Setback Requirements*

Outdoor advertising signs shall be setback a minimum of 50 feet from any public or private right-of-way or easement. No portion of the sign shall be located within the required minimum setback.

*10.10.4 Lighting*

Display lighting of signs shall be shielded so as to prevent the direction of such light into any structure used primarily for residential purposes and into vehicles traveling on nearby roadways. No rotating, revolving, flashing, or intermittent lighting devices shall be attached to or made a part of any outdoor advertising sign.

*10.10.5 Spacing*

- A. All outdoor advertising signs shall be spaced a minimum of 1,500 feet apart.
- B. The minimum distance between signs shall be measured along the nearest edge of the pavement between points directly opposite the signs along each side of the highway and shall apply to sign structures located on both sides of the highway.
- C. Such signs shall be no closer than 500 feet from any residential structure. However a sign may be allowed to locate within 250 feet from any residential structure if the applicant can secure a waiver from all adjacent property owners within 500 feet of the proposed sign. This waiver shall state that the property owner is aware of the proposed sign and agrees that the sign can locate within said distance; this waiver shall be signed and notarized by all applicable owners of the adjacent properties.
- D. All outdoor advertising signs shall be located at least 500 feet from any intersection. This measurement shall be taken along the edge of the pavement to the center of the intersecting street.
- E. All outdoor advertising signs shall be located at least 500 feet from any controlled access point. This spacing measurement shall be taken in accordance with the regulations given in the latest edition of *Regulations for the Control of Outdoor Advertising in North Carolina* by the North Carolina Department of Transportation. See also, Section 19A NCAC 02E.0203 "Outdoor Advertising on Controlled Routes" of the North Carolina Administrative Code.
- F. No outdoor advertising signs shall be located within any of the designated airport zones

mentioned in Article “Airport Height Control” of this Ordinance.

#### *10.10.6 Department of Transportation Compliance*

All outdoor advertising signs that are required to be permitted from the North Carolina Department of Transportation shall maintain compliance with all required regulations.

#### *10.10.7 Movable Message & Electronic Display*

- A. Electronic display techniques include any portion of a billboard that contains alphanumeric characters, graphics, or symbols defined by a small number of matrix elements using different combinations of light emitting diodes (LED’s), fiber optics, light bulbs, or other illumination device within the display area, including computer programmable, microprocessor controlled electronic displays, and projected images or messages with these characteristics onto the sign face.
- B. Any billboard utilizing electronic display techniques in whole or in part must meet the following operational standards:
  1. Duration  
The full billboard image, or any portion thereof, must have a minimum duration of 20 minutes and must be a static display. No portion of the image may flash, scroll, swirl, change color, in any manner imitate movement, or meet the characteristics of a flashing sign.
  2. Transition  
Where the full billboard image, or any portion thereof, changes, the change sequence must be accomplished by means of instantaneous re-pixelization.
  3. Brightness  
The sign must not exceed a maximum illumination of 5,000 nits (candelas per square meter) during daylight hours and a maximum illumination of 500 nits (candelas per square meter) between dusk to dawn as measured from the sign’s face at maximum brightness.
  4. Dimmer Control  
Electronic graphic display signs must have an automatic dimmer control to produce a distinct illumination change from a higher illumination level to a lower level for the time period between one half-hour (½) before sunset and one half-hour (½) after sunrise.
  5. Audio or pyrotechnics  
Audio speakers or any form of pyrotechnics shall be prohibited in association with a billboard.
  6. Fluctuating or Flashing Illumination  
No portion of any billboard shall fluctuate in light intensity or use intermittent, strobe, moving light, or light that changes in intensity in sudden transitory bursts, streams, zooms, twinkles, sparkles, or in any manner creates the illusion of movement.
  7. Video Display  
No portion of any billboard shall change its message or background in a manner or by a method of display characterized by motion or pictorial imagery, or depicts action or a special effect to imitate movement, or the presentation of pictorials or graphics displayed in a progression of frames that give the illusion of motion or the illusion of moving objects, moving patterns, or bands of light or expanding or contracting shapes.

#### *10.10.8 Transfer of Permit*

The transfer of ownership of a specific outdoor advertising sign for which a permit has been lawfully issued to the original owner shall not in any way affect the validity of the permit for that specific sign, provided that the Administrator and the appropriate Department of Transportation District Engineer is given written notice of the transfer of ownership within 60 days of the actual transfer. Once this period has expired and no notification has been made then the applicant shall be required to obtain a new land use & zoning permit.

#### *10.10.9 Dilapidated and Abandoned Signs*

If at any time an outdoor advertising sign falls into a state of dilapidation, disrepair, or becomes abandoned or discontinued, as defined by the latest edition of *Regulations for the Control of Outdoor Advertising in North Carolina* by the North Carolina Department of Transportation, and thus no a NCDOT permitted sign, the permits for such sign shall be revoked.

#### *10.10.10 Structural Support*

Where the structural support is visible from any street, the display shall be constructed on a steel single pole or I-Beam type structure.

#### *10.10.11 Revocation of Permit*

Any valid permit issued for a lawful outdoor advertising structure may be revoked by the Administrator for any one (1) or more of the following reasons:

- A. Mistake of material facts by the issuing authority for which had the correct facts been made know, the outdoor advertising permit in question would not have been issued.
- B. Issuance of a permit based on an error in law.
- C. Misrepresentation of material facts by the outdoor advertiser on the application for a permit for outdoor advertising.
- D. Failure to pay all applicable fees.
- E. Any alteration of an outdoor advertising structure for which a permit has previously been issued which would cause that outdoor advertising structure to fail to comply with the provisions of the Outdoor Advertising Control Act and the rules and regulations promulgated by the North Carolina Board of Transportation pursuant thereto.
- F. Any violation of the standards for nonconforming signs.
- G. Any violation of the transfer of permit standards.
- H. Failure to reconstruct a non-conforming sign within 180 days as noted in the expiration of a sign permit section.
- I. Failure to locate sign in the approved location on the site plan.
- J. Any violation of State or Federal regulations for outdoor advertising that results in revocation of permits.
- K. Any violation of the standards for dilapidated or abandoned sign.

## **SECTION 11.0 DISPLAY AREA**

### **11.1 Display Area: Retail Sales**

Any outdoor display areas shall be permitted as an accessory to the retail use for which site plan approval has been granted and shall meet the following requirements:

- A. Display areas shall be located on an improved surface in a location so as not to impede pedestrian or vehicular ingress/egress to the establishment, and specifically shall not be located within public or private right(s)-of-way or create unsafe conditions.
- B. Display area shall be limited to one-half (1/2) the length of the store front and shall not be located within five (5) feet of the entrance to the establishment.

### 11.2 Display Area: Retail Sales, Outdoor

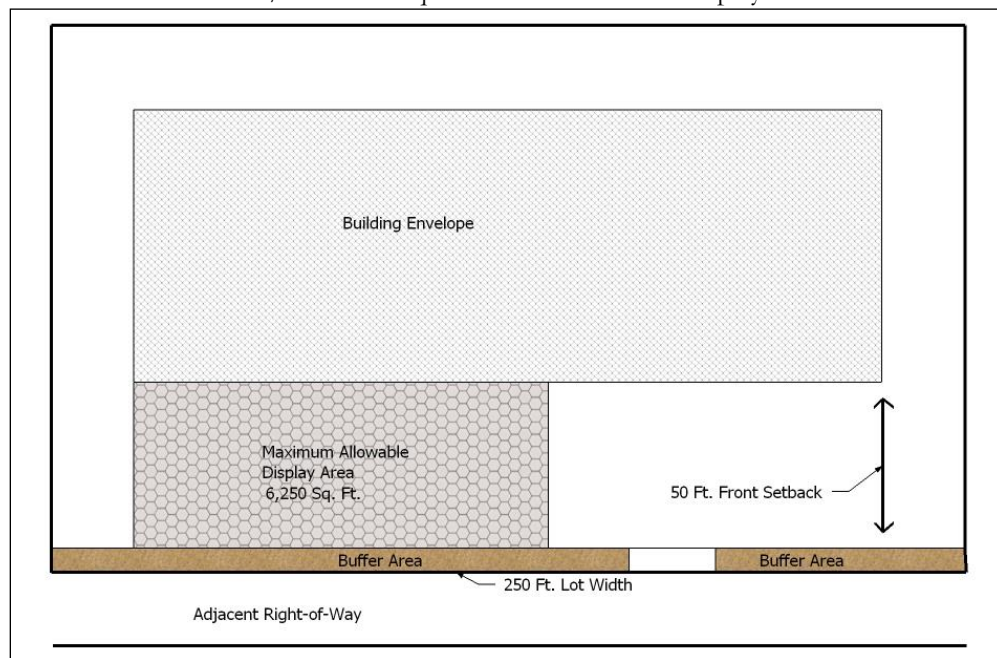
Outdoor display areas shall be permitted as an accessory to the outdoor retail sales use for uses which site plan approval has been granted and shall not be located within public or private right(s)-of-way or in required landscaping or buffer yards. Display area shall meet the following requirements:

- A. Maximum allowable outdoor display shall be 50 percent (50%) of the sum total of the following equation:

Length of proposed front property line times (X) Required front setback

EXAMPLE: 250 ft. wide lot located in Industrial zoning district

$250 \times 50 = 12500 / 2 = 6250$  sq. ft. allowable outdoor display area



- B. In no case shall more than 50 percent (50%) of the total allowable display area be developed into an impervious surface.

## SECTION 12.0 ARCHITECTURAL DESIGN GUIDELINES

### 12.1 Modular Structures

Any modular structure intended for nonresidential use or purpose(s) shall meet the following standards:

- A. The structure shall have masonry underpinning that is continuous, permanent, and unpierced except for ventilation and access.

- B. Evergreen plantings shall be installed, along the front property line and all property lines visible from the public right(s)-of-way, within 5 feet of the perimeter of the structure, spaced at a minimum of one (1) planting every five (5) feet.

## **12.2 Manufactured Homes Used for Nonresidential Purposes**

Manufactured homes are constructed to Federal Standards rather than the North Carolina State Building Code; therefore use of manufactured homes without modification for purposes other than a single family dwelling unit is prohibited.

## **SECTION 13.0 OTHER IMPROVEMENT STANDARDS**

### **13.1 Recreation & Park Development**

All residential subdivisions and developments, except minor subdivisions, shall provide funds to the County whereby the County may acquire public recreation and park land or areas to serve the development or subdivision in the immediate area.

- A. The amount of such fee shall be the product of the total number of dwelling units and/or building lots located in the development or subdivision multiplied by the recreation fee as established by The Harnett County Board of Commissioners.
- B. The fee shall be paid prior to approval of a final plat for the subdivision, provided that payments may be phased in accordance with the approved phasing of the subdivision.
- C. The County may transfer funds paid by one (1) or more subdivisions to a municipality or make arrangements for the joint County/municipal expenditure of the funds where the County determines that such transfer or arrangements would better ensure the funds will be used to acquire public recreation and park areas that will serve the recreational needs of the development and developments in the immediate area.
- D. In situations where a development has already been approved prior to the adoption of the Harnett County Bicycle, Pedestrian, & Greenway Plan, the developer may choose to build the prescribed facility in place of paying all or a portion of the above described recreation fee. If it is desirable to provide for such improvements, this discussion and review shall be conducted by the Development Review Board and any of its advisory members, per policy and standards set by the appointed Harnett County Parks & Recreation Board. Upon approval, the applicant and the County may enter into a development agreement as set forth in article VI, Section 8.0 of this Unified Development Ordinance.

### **13.2 Bicycle, Pedestrian, & Greenway Plan**

#### **A. Purpose & Applicability**

The Harnett County Bicycle, Pedestrian, & Greenway Plan is an officially adopted plan addressing short and long range recreation and transportation needs linking quality of life with land use and development within Harnett County. For the purpose of this Ordinance, it shall be the responsibility of developer(s) of major subdivisions, multifamily developments, and nonresidential sites to comply with the Harnett County Bicycle, Pedestrian, & Greenway Plan.

#### **B. Required Improvements**

All such development located adjacent to a corridor that is included in the County's Bicycle, Pedestrian, & Greenway Plan., adopted January 19, 2021, or any other officially adopted Plan, shall comply with the prescribed improvements as indicated within said Plan.

### **13.3 Monuments & Lot Corners**

All permanent monuments shall be of a type in compliance with State statutes regulating Professional North Carolina Land Surveyors. All lot corners, other than those marked by permanent monuments as herein described, shall be marked in a type in compliance with State statutes regulating Professional North Carolina Land Surveyors.

### **13.4 Guidelines for Handicapped Persons**

In order to remove restrictive barriers which severely impede the daily movements of physically handicapped and elderly persons, the developer shall comply with all requirements of North Carolina General Statute 136-44.14.

## **SECTION 14.0 INSTALLATION & MAINTENANCE OF REQUIRED IMPROVEMENTS**

- A. It is the intent of this Ordinance that the original developer or any subsequent developer shall be responsible for the maintenance of all required improvements until such time as a unit of government, public utility, or other legal entity assumes responsibility for the maintenance of those improvements.
- B. It shall be the responsibility of the developer to complete the installation of sidewalks, street trees, curb and gutter systems, and any and all other required improvements. If the installation of these listed amenities is not complete by the time that the County has issued building permits for 75 percent (75%) of the lots shown on the record plat within a subdivision, the County shall not issue any more building permits until the improvements have been completed. The County shall have the ability to call the improvement guarantee due at this time to ensure installation of all required improvements. Development of a subdivision in phases shall be considered on a phase by phase basis. No building permit shall be issued for single lot development prior to installation of improvements. In the event that the developer of record has dissolved, filed for bankruptcy, or executed any other action that would disbar the developer from continuing such a project, as determined by the Planning Department, the following shall apply: Subsequent individual(s) that own, or have an interest in lots that are not allowed to obtain permits, may be allowed to make the necessary improvements on a per street basis, if determined to be acceptable by NCDOT. Only streets that are contiguous with existing NCDOT maintenance are eligible for this exception.
- C. Contained on the record plat shall be a certification assigned by the developer and notarized acknowledging that the developer is responsible for the maintenance of all required improvements until such responsibility is assumed by a unit of government, public utility or other legal entity.
- D. It shall be the responsibility of the developer to formally notify the District Engineer from the NC Department of Transportation and initiate the process of transferring the responsibility of street maintenance. If the District Engineer or his designee has not recommended that the NC Department of Transportation accept maintenance responsibility for the required public street improvements by the time that the County has issued building permits for 75 percent (75%) of the lots shown on the record plat, the County shall not issue any more building permits until the District Engineer makes such a recommendation and formally notifies the Administrator.
- E. If all streets within the subdivision have not been accepted by the NC Department of Transportation or the appropriate amenities have not been correctly installed by the time at which building permits have been issued for 75 percent (75%) of the lots, the developer may post a surety performance bond, provide cash, or an equivalent security. Should this alternative be used, the method of payment chosen shall be equal to one and one quarter (1.25) times the cost of installing all remaining required improvements according to the standards required by the NC Department of Transportation (for roadway improvements) or a Certified Engineer (for amenity improvements). Estimates of costs shall be provided by the developer and verified by the County in accordance with this Section.
- F. Within 30 days after the Administrator receives formal notice of acceptance of the streets by the NC Department of Transportation, the County shall release any unused portion of the securities posted through

this procedure.

- G. For purposes of this Ordinance, maintenance shall mean that all required improvements are kept in a good state of repair and that such improvements are able to be used for their intended purpose without any impediments. In the case of streets, the developer shall not install or allow to be installed any items within the right-of-way which will have to be removed prior to the acceptance of the streets by the NC Department of Transportation. Such items include but are not limited to fences, masonry mailbox supports, shrubbery, and driveway markers.

## **SECTION 15.0 IMPROVEMENT GUARANTEES**

In lieu of requiring the completion, installation, and dedication of improvements required as part of development, the County may enter into a written agreement with the developer(s) whereby the developer(s) shall agree to complete all required improvements. Once said agreement is signed by both parties and the security required herein is provided, the development may be approved by the Development Review Board or other appropriate government body, if all other requirements of this Ordinance are met. Improvements required by State and Federal agencies shall not be included as part of any improvement guarantees provided by the developer(s) to Harnett County. However, the requirements of these agencies shall have been met prior to approval of a development. To secure this agreement, the developer(s) shall provide, as approved by the County, any and all required forms, and either one (1) or a combination of the following guarantees equal to one and one quarter (1.25) times the entire cost of the improvements secured.

### **15.1 Improvements Required Prior to Acceptance of Improvement Guarantees**

To ensure that adequate measures have been made to provide public safety and emergency service access to the development, the following improvements shall have been made by the developer(s), and approved by the County, prior to acceptance of any improvement guarantee allowed by this Section.

- A. Permits shall have been issued for the water supply system, with final approval by DENR.
- B. Temporary fire protection shall be made available. The appropriate and required temporary fire protection for each development shall be determined by the Harnett County Fire Code Official.
- C. Minimum ingress/egress access shall be provided, in compliance with “Street Design Standards on New Easements”, Subsection “Minor Subdivision Streets”, Section “Street & Transportation Standards” of this Article.
- D. All street sign fees shall have been received by the County.

### **15.2 Required Estimate for Improvement Guarantees**

A written, itemized estimate shall be provided by a third-party, industry expert in the field in which the guarantees are being provided for. The County may require that additional estimates be provided. All estimates shall be sealed.

### **15.3 Surety Performance Bond(s)**

The developer shall obtain a performance bond(s) from a surety bonding company authorized to do business in North Carolina and approved by Harnett County. The bond shall be payable to Harnett County and shall be in an amount equal to one and one quarter (1.25) times the entire cost, as estimated by the developer and verified by the County, of installing all required improvements. The duration of the bond(s) shall be until such time as the improvements are accepted by the County. Any expenses associated with the cost verification by the County shall

be paid entirely by the developer.

#### **15.4 Cash, Letter of Credit, or Equivalent Security**

- A. The developer shall deposit cash, an irrevocable letter of credit, or other instrument readily convertible into cash at face value with the County. The use of any instrument other than cash shall be subject to the approval of Harnett County. The amount of deposit shall be equal to one and one quarter (1.25) times the entire cost, as estimated by the developer, and verified by the County, of installing all required improvements.

#### **15.5 Improvement Guarantee Review Process**

The Planning Department shall provide required forms and documents to be used as part of a completed application to provide improvement guarantees. A minimum 10 day review period shall begin once a completed application has been submitted, including required forms and estimates. All applicable Harnett County Departments, including but not limited to the County Engineer and Legal Services, shall review all improvement guarantee applications prior to approval.

#### **15.6 Default**

Upon default, meaning failure on the part of the developer to complete the required improvements in the time allowed by this Ordinance or as spelled out in the performance bond or security agreement, then the surety, or financial institution holding the account, shall, if requested by the County, pay all or any portion of the bond or security to the County of Harnett up to the amount needed to complete the improvements based on an estimate by the County. Upon payment, the County, in its discretion, may expend such portion of said funds as it deems necessary to complete all or any portion of the required improvements. The County shall return to the developer any funds not spent in completing the improvements.

#### **15.7 Release of Guarantee Security**

The County may release all or a portion of any security posted as the improvements are completed and recommended for approval by the Administrator, after receiving a written request. The Administrator shall approve or disapprove the request within 30 days. When Harnett County approves said improvements, it shall immediately release the portion of the security posted which covers the cost of the improvements approved.

##### *15.7.1 Reduction in Improvement Guarantee Amount*

In the instance when a reduction in the improvement guarantee is being requested, the required process for improvement guarantee approvals shall begin again for the remaining portion to be held in guarantee. The developer(s) shall provide an affidavit stating that all subcontractors have been paid for the portion to be reduced.



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## **ARTICLE VIII. HISTORIC PRESERVATION**

### **SECTION 1.0 GENERAL**

The purpose and intent of the historic preservation regulations are to safeguard the heritage of Harnett County by preserving important elements of our cultural, social, economic, and political, or architectural history, in order to promote the use and conservation of such property for the education, pleasure, and enrichment of the residents of Harnett County and the State as a whole.

### **SECTION 2.0 HISTORIC LANDMARKS**

#### **2.1 Designation**

##### *2.1.1 Criteria for Designation*

In order for any building, structure, site, area, or object to be designated in a resolution as a historic landmark, the Historic Properties Commission (HPC) shall find that the property is of special significance in terms of its history, prehistory, architecture, archaeology, and/or cultural importance, and that it possesses integrity of design, setting, workmanship, materials, feeling, and/or association.

##### *2.1.2 Required Procedures for Designation*

The Board of Commissioners may not adopt or amend a resolution designating a historic building, structure, site, area, or object, or acquire any landmark, until the steps prescribed by this Ordinance and its Subsections have been taken, including rules of procedure and guidelines for the altering, restoring, moving, or demolishing properties designated as historic, and all other guiding documents of the Historic Properties Commission. Designation procedures may be initiated by the HPC or at the request of property owner(s) or his duly authorized agent.

##### *2.1.3 Submittal of Application*

An application for a designation shall be obtained from and, when completed, filed with the Planning Department. Applications for designation shall be considered by the HPC at its next regularly scheduled meeting, provided they have been filed, complete in form and content, at least 15 working days before the meeting; otherwise consideration shall be deferred until the following meeting.

##### *2.1.4 Contents of Application*

The HPC shall, by uniform rule in its Rules of Procedure, require information as is reasonably necessary to determine the nature of the application. An application for a designation shall not be considered complete until the required information is included. An incomplete application shall not be accepted. Nothing shall prevent the applicant(s) from filing with the application additional relevant information bearing on the application.

#### **2.2 Designation Reports**

The Historic Properties Commission (HPC) shall make, or cause to be made, an investigation and report that includes all the information contained in this Section. Applications prepared by property owner(s) will be judged by the same criteria as those prepared by the HPC.

- A. The name(s) of the property to be considered for designation; both common and historic names, if they can be determined;

- B. The name(s) and address of the current property owner(s);
- C. The location of the property proposed to be designated historic, including the street address, Harnett County tax map and parcel numbers, and/or the parcel identification number;
- D. The date of construction and of any later alterations, if any, if they can be determined;
- E. An assessment of the significance of the site or structure pursuant to Subsection “Criteria for Designation” of this Article;
- F. An architectural and/or archaeological description of the area of the site or structure proposed to be designated. If outbuildings or other appurtenant features are proposed to be designated, the report shall contain a description of those features;
- G. A historical discussion of the site or structure within its type, period, and locality;
- H. A photograph, current and historic if available, that clearly depicts the property proposed to be designated and supplementary photographs showing facades, details, and site layout; and
- I. A map showing the location of the property, including any outbuildings and appurtenant features.

## **2.3 Required Procedures for Designation**

### *2.3.1 Review Standards*

Prior to the designation of any historic landmark or district, the HPC shall prepare and adopt standards, not inconsistent with the North Carolina General Statutes for altering, restoring, moving, or demolishing of property designated as historic. It is the intention of these standards to ensure, insofar as possible, that changes in designated landmarks or properties located within designated districts shall be in harmony with the reasons for designation.

### *2.3.2 Review by the North Carolina Department of Cultural Resources (NCDRC), Division of Archives and History*

A report accepted by the HPC shall be submitted to the North Carolina Department of Cultural Resources (NCDRC), Division of Archives and History or its successor agency, for comments pursuant to North Carolina General Statutes, as amended from time to time. The NCDRC, Division of Archives and History or its successor agency, acting through the State Historic Preservation Officer, shall, either at their own request or at the initiative of the HPC, be given an opportunity to review and comment upon the substance and effect of the designation of any landmark pursuant to this ordinance.

### *2.3.3 Consideration of the Report*

Once the designation report has been prepared, either by the HPC or by the property owner(s), and is deemed by the Planning Department to meet the provisions of this Ordinance, the HPC shall consider the report. The HPC may accept it, amend it, reject it, or recommend further study. Prior to final action on a designation report, the HPC shall indicate the extent to which the landmark meets the criteria for designation in Subsection “Criteria for Designation” of this Article. The HPC shall consider any comments received in writing from the NCDRC, Division of Archives and History or its successor agency. If the NCDRC, Division of Archives and History does not submit its written comments or recommendations in connection with any proposed designation within 30 days following receipt of the report, the HPC and Board of Commissioners shall be relieved of any responsibility to consider such comments. After the expiration of the 30 day comment period given the NCDRC, Division of Archives and History, the HPC may recommend to the Board of Commissioners that the property be designated as a historic landmark.

#### *2.3.4 Submission to the Board of Commissioners*

The Historic Properties Commission (HPC) shall forward its recommendation to the Board of Commissioners. The HPC shall submit a copy of the designation report, any written comments received from the NCDCCR, Division of Archives and History, and, if the recommendation is for approval, a proposed designation resolution, to the Board of Commissioners.

#### *2.3.5 Public Hearing*

When a proposed designation resolution is submitted, the Board of Commissioners shall hold a public hearing on the proposed designation resolution. The HPC shall send a notification letter, including time and place, to property owners adjacent to the subject property. It is recommended, but not required, that the HPC also post a notification sign on the subject property and publish notice in a local periodical.

#### *2.3.6 Adoption of a Designation Resolution*

Following the required public hearing, the Board of Commissioners shall consider the designation report, the HPC's recommendation, the NCDCCR, Division of Archives and History's comments, and the comments made at the public hearing, and may adopt the designation resolution as proposed, adopt it with amendments, or reject the resolution. Upon compliance with the procedures set out in this Article, the Board of Commissioners may adopt and, quarterly, amend or repeal a designation resolution of one (1) or more historic landmarks. The designation resolution shall include information which shall:

- A. List the name(s) of the owner(s) of the property;
- B. Describe each property in the designation resolution, including the approximate area (size) of the property so designated;
- C. Describe those elements of the property that are integral to its historical, prehistorical, architectural, archaeological, and/or cultural significance;
- D. Provide for each designated historic landmark, a suitable sign or plaque indicating that the landmark has been so designated; and
- E. Any other information the HPC and/or Board of Commissioners deems necessary within the authority of this ordinance and the NCGS.

#### *2.3.7 Actions Subsequent to Approval*

Upon adoption of the resolution:

- A. Planning Department shall send the owner(s) of the landmark, as identified by current tax records, written notice of such designation of adoption of the resolution by certified mail, return receipt requested.
- B. The HPC shall file one copy of the resolution and any subsequent amendments thereto, in the office of the Register of Deeds of Harnett County. The Register of Deeds shall index each historic landmark according to the name of the owner(s) in the grantee and grantor indexes.
- C. All tax maps maintained by Harnett County shall clearly indicate the designation of a building, structure, site, area, or object as a historic landmark for as long as the designation remains in effect.
- D. The Planning Department shall notify the tax assessor of Harnett County of the landmark designation. The assessor shall consider the designation and any recorded restriction on the landmark in appraising it for tax purposes.

### *2.3.8 Denied Applications*

If the Board of Commissioners denies a designation report, a copy of the minutes of the public hearing at which such a decision to deny the report was made, shall be mailed to the owner(s) of the property proposed for designation, as requested.

## **2.4 Inventory**

The Historic Properties Commission (HPC) shall use an inventory of buildings, structures, sites, areas, or objects of historical, prehistorical, architectural, and archaeological significance in the County as a guide to the identification, assessment, and designation of historic landmarks. The HPC shall update the inventory quarterly.

## **SECTION 3.0 HISTORIC DISTRICTS**

### **3.1 Adoption of a Designation Resolution**

No historic district may exist without a resolution designating it as such. Upon compliance with the procedures contained in Section “Required Procedures for Designation” below, the Board of Commissioners within its jurisdiction, may adopt and, quarterly, amend or repeal a resolution designating one (1) or more historic districts.

### **3.2 Criteria for Designation**

In order for any area to be designated in a resolution as a historic district, the HPC shall find that the area is of special significance in terms of its history, prehistory, architecture, archaeology and/or cultural importance, and that it possesses integrity of design, setting, workmanship, materials, feeling, and/or association.

### **3.3 Inventory**

The Historic Properties Commission (HPC) shall use an inventory of buildings, structures, sites, areas, or objects of historical, prehistorical, architectural, and archaeological significance in the County as a guide for the identification, assessment, and designation of historic districts. The HPC shall update the inventory quarterly.

### **3.4 Required Procedures for Designation**

The Board of Commissioners may not adopt or amend a resolution designating a historic district, nor may the Board of Commissioners or the HPC accept any district until the steps prescribed by this Section have been taken.

#### *3.4.1 Designation Report*

The HPC shall prepare or review an investigation and report describing the significance of the buildings, structure, features, sites, or surroundings included in any such proposed district, and the description of the boundaries of such district. Such report shall be referred to the Board of Commissioners and the Planning Department for its review and comment according to procedures set forth in the Harnett County Unified Development Ordinance.

#### *3.4.2 Review by the North Carolina Department of Cultural Resources (NCDCCR), Division of Archives and History*

All designation reports shall be submitted to the NCDCCR, Division of Archives and History by the Historic Properties Commission (HPC). The NCDCCR, Division of Archives and History or its successor agency, acting through the State Historic Preservation Officer, shall, either upon their own request or at the initiative of the HPC, be given an opportunity to

review and comment upon the substance and effect of the designation of any district. If the NCDCCR, Division of Archives and History does not submit its written comments or recommendations in connection with any proposed designation within 30 days following receipt of the report, the HPC and the Board of Commissioners shall be relieved of any responsibility to consider such comments. After the expiration of the 30 day comment period given the NCDCCR, Division of Archives and History, the HPC may recommend to the Board of Commissioners that the area be designated as a historic district.

#### *3.4.3 Review by Other Groups*

The Board of Commissioners may also, in its discretion, refer the designation report and proposed boundaries to any local preservation commission or other interested body for its recommendations prior to taking action to adopt or amend the designation resolution.

#### *3.4.4 Adoption of a Designation Resolution*

Upon receipt of these reports and recommendations, the Board of Commissioners may proceed with review and approval or denial.

### **3.5 Revisions to Districts**

With respect to any changes in the boundaries of an adopted historic district subsequent to its initial establishment, the requirements and procedures contained in this Section shall apply.

## **SECTION 4.0 CERTIFICATE OF APPROPRIATENESS**

### **4.1 Rules & Regulations**

#### *4.1.1 Development Restriction*

From and after the designation of a historic landmark or district, no exterior portion of any building or other structure (including masonry walls, fences, light fixtures, steps and pavement, or other appurtenant features), nor above-ground utility structure nor any type of outdoor advertising sign shall be erected, altered, restored, moved, or demolished on such landmark or within such district until after an application for a Certificate of Appropriateness as to exterior features has been submitted to and approved by the HPC. A Certificate of Appropriateness shall be required whether or not a building permit is required.

#### *4.1.2 Exterior Features*

In adopting a resolution, establishing a historic district, the Harnett County Board of Commissioners may provide that “exterior features” also include historic signs, color, and significant landscape, archaeological, and natural features of the area.

#### *4.1.3 Building Permit Restriction*

In adopting a resolution establishing a historic district, the County shall provide that no building permit or other permit granted for the purposes of constructing, altering, moving, or demolishing structures shall be issued unless the HPC has first issued a Certificate of Appropriateness authorizing the construction, alteration, moving, restoration, or demolition. Any building permit or such other permit not issued in conformity with this Section shall be invalid. In approving a Certificate of Appropriateness, the HPC may attach reasonable conditions necessary to carry out the purposes of this ordinance.

#### *4.1.4 Protection of Character*

The HPC shall take no action under this Section except to prevent the construction,

reconstruction, alteration, restoration, moving, or demolition of buildings, structures, appurtenant fixtures, outdoor advertising signs, or other significant features which would be incongruous with the special character of the landmark or district.

#### **4.2 Review Standards**

The HPC shall review the established guidelines prepared during the designation resolution process for the subject property. It is the intention of these guidelines to ensure, insofar as possible, that changes in designated landmarks or properties located within designated districts shall be in harmony with the reasons for designation.

#### **4.3 Administrative Approval for Minor Works Allowed**

The Planning Department may issue a Certificate of Appropriateness for minor works, as listed in the Historic Property Commission's Rules of Procedure. No application for a minor works Certificate of Appropriateness may be denied without formal action by the HPC.

#### **4.4 Limitations on Interior Review**

Notwithstanding this Ordinance, jurisdiction of the HPC over interior spaces shall be limited to specific interior features of architectural, artistic, or historical significance in publicly owned landmarks, and of privately owned historic landmarks for which consent for interior review has been given by the owner(s). If an owner's consent for interior review has been filed with the Register of Deeds of Harnett County and indexed according to the name of the owner(s) of the property in the grantee and grantor indexes, such consent shall bind future owners and/or successors in title. The designation resolution establishing the historic designation shall specify the interior features to be reviewed and the specific nature of the HPC's jurisdiction over those features.

#### **4.5 Certain Changes Not Requiring a Certificate of Appropriateness**

- A. Nothing in this Ordinance shall be construed to prevent the ordinary maintenance or repair of any exterior architectural feature of a historic landmark or property located within a district that does not involve a change in design, material, or outer appearance thereof. See *Harnett County Design Guidelines: Harnett County Historic Properties Commission* for further information on maintenance and cleaning of such exterior architectural features.
- B. This Ordinance shall not be construed to prevent the construction, reconstruction, alteration, restoration, moving, or demolition of any such feature when a building inspector or similar County official certifies to the HPC that such action is required for the public safety because of an unsafe or dangerous condition.
- C. Nothing herein shall be construed to prevent the property owner(s) from making any use of his property not prohibited by other statutes, ordinances, or regulations.
- D. Nothing in this Ordinance shall be construed to prevent the maintenance of or, in the event of an emergency, immediate restoration of any existing above-ground utility structure without approval by the HPC.

#### **4.6 Delay in Demolition of Designated Properties**

Except as provided below, the Historic Properties Commission (HPC) may not deny an application for Certificate of Appropriateness authorizing the demolition of a designated historic landmark or property located within a district.

- A. However, the HPC may delay the effective date of such a Certificate for a period of up to 12 months from the date of approval. The HPC may reduce the period of delay where it finds that the owner(s) would suffer extreme hardship or be permanently deprived of all beneficial use of or return from such

property by virtue of the delay.

- B. During such period, the HPC may negotiate with the owner(s) and with any other parties in an effort to find a means of preserving the property, as provided in Article “Administration & Boards”, Section “Historic Properties Commission” of this Ordinance.
- C. The HPC may deny an application for a Certificate of Appropriateness authorizing the demolition or destruction of a building, site, or structure determined by the State Historic Preservation Office to have statewide significance, as defined in the criteria of the National Register of Historic Places, unless the HPC finds that the owner(s) would suffer extreme hardship or be permanently deprived of all beneficial use or return by virtue of the denial.
- D. If the HPC has voted to recommend designation of a property as a landmark or designation of an area as a district, and final designation has not been made by the Board of Commissioners, the demolition or destruction of any building, site, or structure located on the property of the proposed landmark or in the proposed district may be delayed by the HPC for a period of up to 180 days or until the Harnett County Board of Commissioners takes action on the designation, whichever occurs first. Should the Board of Commissioners approve the designation prior to the expiration of the 180 day delay period, an application for a Certificate of Appropriateness for demolition shall then be filed; however, the maximum delay period of 12 months shall be reduced by the period of delay while the designation was pending.

#### **4.7 Demolition by Neglect**

Demolition by neglect of any designated historic landmark or property located within a district shall constitute a violation of this Ordinance. The Board of Commissioners, and/or HPC with the expressed consent of the Board of Commissioners, may take appropriate actions to prevent demolition by neglect, provided such actions include appropriate safeguards to protect the property owner(s) from undue economic hardship.

#### **4.8 Required Procedures**

##### *4.8.1 Submittal of Application*

An application for a Certificate of Appropriateness shall be obtained from and, when completed, filed with the Planning Department. Applications for Certificates of Appropriateness shall be considered by the HPC at its next regularly scheduled meeting, provided they have been filed, complete in form and content, at least 15 working days before the meeting; otherwise consideration shall be deferred until the following meeting.

##### *4.8.2 Contents of Application*

The HPC shall, by uniform rule in its Rules of Procedure, require information as is reasonably necessary to determine the nature of the application. An application for a Certificate of Appropriateness shall not be considered complete until the required information is included. An incomplete application shall not be accepted. Nothing shall prevent the applicant(s) from filing with the application additional relevant information bearing on the application.

##### *4.8.3 Notification of Affected Property Owners*

Before considering an application for a Certificate of Appropriateness, the HPC shall notify by mail the owner(s) of any adjacent property. The mailed notices are for the convenience of the property owner(s) and occupant(s) and any defect or omission therein shall not impair the validity of issuing a Certificate of Appropriateness, or any following action.

##### *4.8.4 Public Hearing*

When considering an application, the HPC shall give the applicant(s) and stakeholder(s) of any property likely to be materially affected by the application, an opportunity to be heard at a public hearing.

#### *4.8.5 Reasons for Historic Properties Commission's Actions to Appear in Minutes*

The Historic Properties Commission (HPC) shall cause to be entered into the minutes of its meeting the reasons for its actions, whether it be approval, approval with modifications, deferral, or denial. The minutes shall also contain a summary of any citation to the evidence, testimony, studies, or other authority upon which it based its decision.

#### *4.8.6 HPC Action on Application*

When considering the application, the HPC shall apply the review guidelines required by Section “Conflicts with Other Laws or Regulations” of Article I “General Provisions”, and shall, before final action on the application, make findings of fact indicating the extent to which the application is or is not in compliance with the review criteria. The HPC's quasi-judicial action on the application shall be approval, approval with modifications, deferral, or disapproval.

#### *4.8.7 Time Limitation*

If the HPC fails to take final action upon any application within 180 days from the date the complete application is filed with the Planning Department, the application shall be deemed to be approved as submitted. This time period may be extended to an exact date upon mutual agreement between the HPC and the applicant(s). A Certificate of Appropriateness shall expire 180 days after the date of issuance, or in the case of a demolition Certificate of Appropriateness, the effective date, if the work authorized by the Certificate has not been commenced. If the work has been discontinued for a period of 12 months after commencement, the Certificate shall immediately expire.

#### *4.8.8 Submission of New Application*

If the HPC denies a Certificate of Appropriateness, a new application affecting the same property may be submitted only if substantial change is made in plans for the proposed construction, reconstruction, alteration, restoration, or moving.

#### *4.8.9 Appeals of the Historic Properties Commission's Decision*

An appeal may be made to the Harnett County Board of Adjustment regarding the HPC's action in approving or denying any application for a Certificate of Appropriateness. Appeals shall be filed with the Harnett County Board of Adjustment within 30 days following the Commission's decision. Appeals shall be in the nature of certiorari. The Board of Adjustment's decision in any such case may be appealed to the Superior Court of Harnett County.

### **4.9 Publicly Owned Buildings & Structures**

Designated historic buildings, structures, sites, areas, or objects in the HPC's jurisdiction owned by State of North Carolina or any of its political subdivisions, agencies, or instrumentalities shall be subject to the regulations imposed by this Ordinance, in accordance with North Carolina General Statutes.

### **4.10 Remedies**

In case any building, structure, site, area, or object designated a historic landmark or any property



located within a historic district is about to be demolished as the result of deliberate neglect or otherwise, materially altered, remodeled, constructed, or removed, except in compliance with this Ordinance, the Board of Commissioners, the HPC, or other party aggrieved by such action may institute any appropriate action or proceedings to prevent such unlawful demolition, material alteration, remodeling, or removal, to restrain, correct or abate such violation, or to prevent any illegal act or conduct with respect to such historic property.

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## **ARTICLE IX. AIRPORT HEIGHT CONTROL**

### **SECTION 1.0 GENERAL**

#### **1.1 Application of the Height Control Regulations**

##### *1.1.1 New Uses or Construction*

After March 16, 1998, all new construction or use of land shall conform to the height requirements for the district in which it is to be located.

##### *1.1.2 Existing Conforming Situations*

After March 16, 1998, land or structures which then conform to the regulations for the district in which it is located, may be continued, provided that any structural alterations or change in use shall conform with the regulations herein specified.

##### *1.1.3 Existing Nonconforming Situations*

After March, 16, 1998, pre-existing lots, or structures which would be prohibited under the regulations for the district in which it is located shall be considered as nonconforming. Nonconforming structures or uses may be continued, provided they conform to the provisions of this Section.

#### **1.2 Use Restrictions**

Notwithstanding any other provisions of this Ordinance, no use may be made of land or water within any airport zone established by this Section 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, result 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. The owner of any existing nonconforming structure or tree or other vegetation is hereby required to permit the installation, operation, and maintenance thereon of such markers and lights as shall be deemed necessary by the Harnett County Airport Administrator to indicate to the operators of aircraft in the vicinity of the airport the presence of such airport obstruction. Such markers and lights shall be installed, operated, and maintained at the expense of Harnett County.

### **SECTION 2.0 AIRPORT ZONES**

In order to carry out the provisions of this Section, there are hereby created and established certain airport zones which include all of the land lying beneath the approach surfaces, transitional surfaces, horizontal surfaces, and conical surfaces as they apply to Harnett County Airport. Such zones are shown on the "Harnett County Airport Height Control Map". An area located in more than one (1) of the following airport zones is considered to be only in the airport zone with the more restrictive height limitation. The various zones are hereby established and defined as follows:

#### **2.1 Nonprecision Instrument Approach Zone (for runway larger than utility with a visibility minimum greater than $\frac{3}{4}$ mile)**

The inner edge of this approach zone coincides with the width of the primary surface and is 500 feet wide. The approach zone expands outward uniformly to a width of 3,500 feet at a horizontal distance of 10,000 feet from the primary surface. Its centerline is the continuation of the centerline of the runway.

#### **2.2 Transitional Zones**

The transitional zones are the areas beneath the transitional surfaces.

### **2.3 Horizontal Zone**

The horizontal zone is established by swinging arcs of 10,000 feet 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.

### **2.4 Conical Zone**

The conical zone is established as the area that commences at the periphery of the horizontal zone and extends outward and upward there from from a horizontal distance of 4,000 feet.

## **SECTION 3.0 AIRPORT ZONE HEIGHT LIMITATIONS**

Except as otherwise provided in this Section, no structure shall be erected, altered, or maintained, and no tree shall be allowed to grow in any airport zone created by this Section to a height in excess of the applicable height limit herein established for such zone. Such applicable height limitations are hereby established for each of the zones in question as follows:

### **3.1 Nonprecision Instrument Approach Zone (for runway larger than utility with a visibility minimum greater than $\frac{3}{4}$ mile)**

Slopes 34 feet outward for each foot upward beginning at the end of and at the same elevation as the primary surface and extending to a horizontal distance of 10,000 feet along the extended runway centerline.

### **3.2 Precision Instrument Runway Approach Zone**

Reserved

### **3.3 Transitional Zones**

Slopes seven (7) feet outward for each foot upward beginning at the sides of and at the same elevation as the primary surface and the approach surface, and extending to a height of 150 feet above the airport elevation, which is 199 feet above mean sea level. In addition to the foregoing, there are established height limits sloping seven (7) feet outward for each foot upward beginning at the sides of and at the same elevation as the approach surface, and extending to where they intersect the conical surface.

### **3.4 Horizontal Zone**

Established at 150 feet above the airport elevation or at a height of 349 feet above mean sea level.

### **3.5 Conical Zone**

Slopes 20 feet outward for each foot upward beginning at the periphery of the horizontal zone and at 150 feet above the airport elevation and extending to a height of 350 feet above the airport elevation, (549 feet above mean sea level).

### **3.6 Excepted Height Limitations**

Nothing in this Section shall be construed as prohibiting the construction or maintenance of any structure, or growth of any tree to a height up to 50 feet above the surface of the land.

## **SECTION 4.0 PERMITS**

### **4.1 Future Uses**

Except as specifically provided in A. and B. below, no material change shall be made in the use of land which results in creation of an aviation hazard, no structure shall be erected or otherwise established, and no tree shall be planted in any airport zone hereby created unless a permit therefore shall have been applied for and granted. Each application for a permit shall indicate the purpose for which the permit is desired, with sufficient particularity to permit it to be determined whether the resulting use, structure, or tree would conform to the regulations herein prescribed. If such determination is in the affirmative, the permit shall be granted. No permit for a use inconsistent with the provisions of this Section shall be granted unless a variance has been approved in accordance with this Ordinance.

- A. In the area lying within the limits of the horizontal zone and conical zone, no permit shall be required for any tree or structure less than 75 feet of vertical height above the ground, except when because of terrain, land contour, or topographic features, such tree or structure would extend above the height limits prescribed for such zones.
- B. In areas lying within the limits of the approach zones, but at a horizontal distance of not less than 5,300 feet from each end of the runway, no permit shall be required for any tree or structure less than 75 feet of vertical height above the ground, except when such tree or structure would extend above the height limit prescribed for such approach zones.
- C. In the areas lying within the limits of the transition zones beyond the perimeter of the horizontal zone, no permit shall be required for any tree or structure less than 75 feet of vertical height above the ground, except when such tree or structure, because of terrain, land contour, or topographic features, would extend above the height limit prescribed for such transition zones.

Nothing contained in any of the foregoing exceptions shall be construed as permitting or intending to permit any construction, alteration of any structure, or growth of any tree in excess of any of the height limits established by this Section except as set forth in Subsection “Excepted Height Limitations” of Section “Airport Zone Height Limitations.”

#### **4.2 Existing Uses**

No permit shall be granted that would allow the establishment or creation of an obstruction or permit a nonconforming use, structure, or tree to become a greater hazard to air navigation than it was on the March 16, 1998 or any amendments thereto or than it is when the application for a permit is made. Except as indicated, all applications for such a permit shall be granted.

#### **4.3 Nonconforming Uses Abandoned or Destroyed**

Whenever the Airport Administrator determines that a nonconforming tree or structure has been abandoned or more than 80 percent (80%) torn down (or damaged more than 80 percent (80%) of the current Harnett County tax value), physically deteriorated, or decayed, no permit shall be granted that would allow such structure or tree to exceed the applicable height limit or otherwise deviate from the zoning regulations.

#### **4.4 Variances**

Any person desiring to erect or increase the height of any structure, or permit the growth of any tree, or use property, not in accordance with the regulations prescribed in this Section, may apply to the Board of Adjustment for a variance from such regulations in accordance with the provisions of this Ordinance. The Procedure for application and review of variance requests can be found in Article XII “Interpretations, Amendments, Hearing Procedures, Appeals, & Variances”.

#### **4.5 Obstruction Marking and Lighting**

Any permit or variance granted may, if such action is deemed advisable to effectuate the purpose

of this Ordinance and be reasonable in the circumstances, be so conditioned as to require the owner of the structure or tree in question to install, operate, and maintain, at the owner's expense, such markings and lights as may be necessary. If deemed proper by the Board of Adjustment, this condition may be modified to require the owner to permit Harnett County, at its own expense, to install, operate and maintain the necessary markings and lights.

#### **4.6 Airport Zone Disclosure Statement**

The following statement shall be included on all development related plats/plans for those properties located in “Airport Zones”, as described by this Article. In no case shall a permit be issued for a plat/plan unless such statement is included thereon.

“All or a portion of property shown on this plat/plan is within a Harnett County Regional Jetport Airport Zone, subject to the height requirements for such zones, as regulated by the Harnett County Unified Development Ordinance.”

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## **ARTICLE X. NATURAL RESOURCES**

In addition to the regulations contained in this Article, all other local, State, and Federal requirements regarding natural resources shall be met, including those of the North Carolina Department of Environment and Natural Resources and the US Army Corps of Engineers. Below is a table illustrating important regulations regarding stormwater and other natural resource controls.

<b>LOCATION</b>	<b>REGULATION, LAW, OR ORDINANCE</b>	<b>BUFFER REQUIREMENT</b>
High Quality Waters	15A NCAC 02H .1006	30 foot wide stream buffer
All Areas of the County Outside the Watershed Protection Area or High Quality Waters	North Carolina Session Law 2006-246, Section 9. Proposed amendments and rule adoptions to 15A NCAC 2H .0100 and 2H .1000 incorporate S.L. 2006-246.	Built-upon areas to be located at least 30 feet landward of all perennial and intermittent surface waters.
Watershed Protection Area	Harnett County Unified Development Ordinance	Within the WS-IV-PA Watershed District, a minimum of a 100 foot stream buffer for development activities that exceed the low density standards as established in this Ordinance is required; otherwise a minimum of 30 foot stream buffer is required in the Watershed District.
Conservation Zoning District	Harnett County Unified Development Ordinance	Single family dwelling yard adjacent to surface water: Minimum Yard for Cape Fear: 250 ft. Minimum Yard for Black River: 150 ft. Minimum Yard for Other Creeks: 100 ft.

### **1.1 Standards for Effluent & Emissions**

All effluent and emissions into the air, surface, or ground waters from development permitted by this Ordinance shall be in conformity with applicable Federal, State, or County health and environmental quality regulations.

### **1.2 Soil Erosion & Sedimentation Control**

The developer(s) shall cause all grading, excavations, open cuts, side slopes, and other land surface disturbances to be so mulched, seeded, sodded, or otherwise protected that erosion, siltation, sedimentation, and washing are prevented in accordance with plans and specifications and within such time periods approved by the DRB.

Where applicable, erosion and sedimentation control provisions shall be in conformity with the appropriate State regulations.

## **SECTION 2.0 STORMWATER MANAGEMENT**

### **2.1 Purpose**

The purpose of these requirements is to provide criteria in addition to other ordinances, rules, regulation, and law to control and minimize the adverse impacts of stormwater runoff from new development and redevelopment.

### **2.2 Applicability**

Development shall comply with the requirements of this Section if any:

- A. New residential or nonresidential development or redevelopment disturbs more than one (1) acre of land; and/or
- B. Nonresidential development that adds more than 22,000 square feet of disturbed area.

### **2.3 General**

For areas inside the water supply watershed, development shall be in accordance with Section “Water Supply Watershed” of this Article. For areas of the County that are within one (1) mile of and drain to waters classified as High Quality Waters, development shall be in accordance with 15A NCAC 02H .1006.

All other areas of the County are subject to Phase II Post-Construction Stormwater Requirements as established in North Carolina Session Law 2006-246. A stormwater permit issued by North Carolina Department of Environment and Natural Resources (DENR), Division of Water Quality is required for new development and redevelopment activities that will result in a cumulative disturbance of one (1) or more acres of land.

This Section outlines stormwater requirements for new development and redevelopment. Redevelopment is defined as any development on previously-developed land , other than a rebuilding activity that results in no net increase in built-upon area and provides equal or greater stormwater control than the previous development. The requirements of this Section are not intended to modify or repeal any other ordinance, rule, regulation, or other provision of law. The requirements of this Section are in addition to the requirements of any other ordinance, rule, regulation, or other provision of law. For additional information, please see NCDENR’s *Stormwater BMP Manual*.

### **2.4 Predevelopment Conference**

Prior to submission of a conceptual plan, the Developer shall consult with the following to determine if an initial conference will be necessary:

- 1. County Engineer
- 2. Planning Department

If the scope of the proposed development, in the opinion of the County Engineer or Planning Department, is such that an initial conference will be beneficial prior to the development of plans and specifications, the developer or his engineer shall present at the time of this conference, conceptual schematic or layout of the proposed stormwater management system.

### **2.5 Stormwater Management Statement**

A preliminary subdivision plat or site plan (except for minor site plans as defined by this Ordinance) for a commercial or residential subdivision shall include a stormwater management statement, submitted as part of the required Conceptual Plan. A stormwater management statement shall include the following:

- A. Development name and location
- B. Developer/owner and consultant contact information
- C. Site description including the following:
  - 1. Vicinity map
  - 2. USGS Topographic Map and Harnett County Soil Survey indicating area of development
  - 3. Description of all water courses, impoundments, and wetlands on or adjacent to the site or into which stormwater directly flows

- D. Statement noting whether the site is located within the conservation zoning or a watershed district.
- E. Impervious area calculations
- F. A description of the proposed stormwater management system including:
  - 1. Best Management Practices (BMPs) and preliminary sizes and locations, including post development drainage map delineating the flows diverted to each BMP.
  - 2. Description and concept for diversion of off-site stormwater
  - 3. Pre-development and post-development discharges for the 10 year and 25 year storms. If the increase in the pre-development discharge is less than 10 percent (10%), then an additional may not be required unless deemed necessary by the DRB.
- G. Downstream Analysis, if required:
  - 1. Provide topography with the following identified:
    - a. Drainage areas for the development
    - b. Drainage areas for downstream drainage structures
    - c. Provide photographs of downstream structures
  - 2. For existing streams and ditches, the analysis should focus on increases in velocity and flooding within the stream.
  - 3. For existing culverts, the analysis should focus on increases in headwater and flooding at the structure.
  - 4. Identify the point at which the drainage area of the development or redevelopment becomes less than 10 percent (10%) of the total watershed.
  - 5. All negative impacts of existing improvements and developments shall be identified, if there are no negative impacts, the analysis specifically state and demonstrate that there are not adverse impacts in the increase in site runoff.
  - 6. If downstream measures are found to be inadequate, detention or other improvements will be required to minimize downstream impacts.

**2.6 Stream Buffers/Setbacks**

Stream buffers/setbacks shall be required water features as noted in the following table:

<b>LOCATION</b>	<b>REGULATION, LAW, OR ORDINANCE</b>
High Quality Waters	15A NCAC 02H .1006
All Areas of the County Outside the Watershed Protection Area or High Quality Waters	North Carolina Session Law 2006-246, Section 9
Watershed Protection Area	Harnett County UDO, Article X “Natural Resources”
Conservation District	Harnett County UDO, Article IV “Zoning Districts”

**2.7 Stormwater Control Requirements**

All structural stormwater Best Management Practices (BMPs) shall meet the minimum design requirements of this Section, as well as those established in the most current edition of the North Carolina Department of Environment and Natural Resources, Division of Water Quality’s *Stormwater Best Management Practices Manual*. The use of environmentally friendly water quality controls, such as storm drain trays and pervious tree surrounds, are encouraged.

- A. All structural stormwater BMPs shall be designed to be aesthetically pleasing (or the extent that the



BMP type allows, and as defined by compliance with this Ordinance, and shall not include fencing unless approved by the County Engineer.

1. Fencing may be permitted or required due to site conditions and/or under special circumstances where the public health and safety is a reasonable concern. The following are examples of site conditions which may necessitate fencing: within 50 feet of public right(s)-of-way, driveway, or parking area, and/or if the structural BMP is three (3) or more feet deep.
  - a. All fences shall meet the requirements of this Ordinance, as applicable.
  - b. In cases where chain link fencing is permitted, such fencing shall be coated.
- B. Drought tolerant species of vegetation and warm weather grasses shall be utilized on the BMPs. Vegetation shall be required around perimeter slopes but shall not be planted on the structural BMP dam. Plantings shall be in a single row when medium sized trees are used and shall be in two (2) rows when small trees and shrubs are utilized.
- C. Side slopes shall be stabilized with vegetation and with a slope no steeper than 3:1 ratio.
- D. As-built drawings shall be submitted to the County for review prior to issuance of a certificate of occupancy for the site.

## **2.8 Operation & Maintenance of Stormwater Control Measures**

2.7.1 When stormwater control measures are installed voluntarily or are required by this Ordinance but not by the State, such as through the downstream analysis process, the following criteria shall be adhered to. As required by this Section, the operation and maintenance agreement shall be submitted with the final plat or site plan as part of the submittal materials, as applicable. Failure to comply with the requirements of this Section, or maintain those improvements required by this Section, shall be deemed a violation of this Ordinance. *Operation & Maintenance Agreement Required*

The permit applicant(s) shall enter into the binding Operation and Maintenance Agreement (O&M Agreement) between the all interests in the development. Said Agreement shall require the owner(s)/applicant(s) to maintain, repair, and if necessary, reconstruct the stormwater control structure in accordance with the operation management plan or manual, as provided. The owner(s) shall file the operation and maintenance agreement with the Harnett County Register of Deeds. The obligations incurred as part of the required O&M Agreement by owner(s) and applicant(s) are appurtenant and run with the property, and shall be binding upon all subsequent owners, successors, and assigns of the project or any parcel thereof.

### *2.7.2 Operation & Maintenance Plan Required*

An operation and maintenance plan or manual shall be provided by the owner(s) for each stormwater control structure, indicating what operation and maintenance actions are needed, what specific quantitative criteria will be used for determining when those actions are to be taken and, consistent with the operations maintenance agreement, who is responsible for those actions. The plan shall clearly indicate the steps that will be taken for restoring a stormwater control structure to design specifications if a failure occurs.

### *2.7.3 Landscaping & Grounds Maintenance*

Landscaping and grounds management shall be the responsibility of the owner(s). However, vegetation shall not be established or allowed to mature to the extent that the integrity of the control structure is diminished or threatened, or to the extent of interfering with any easement or access to the stormwater control structure.

### *2.7.4 Repair or Reconstruction*

Except for general landscaping and grounds management, the owning entity shall notify the Harnett

County Engineer and North Carolina Department of Environment and Natural Resources (NCDENR) prior to any repair or reconstruction of the stormwater control structure. All improvements shall be made consistent with the approved plans and specifications of the stormwater control structure and the operation and maintenance plan or manual. After notification by the owner(s), the County Engineer shall inspect the completed improvements and shall inform the owner(s) of any required additions, changes, or modifications and of the time period to complete said improvements.

#### *2.7.5 Amendments to Plans & Specifications*

##### A. Minor Amendments

Amendments to the plans and specifications of the stormwater control structure and/or the operation and maintenance plan or manual shall be approved by the County Engineer, provided that the changes do not involve a change in the size or location of the structure. Proposed changes shall be prepared by a Professional North Carolina Engineer or landscape architect (to the extent that the General Statutes Chapter 89A allows) and submitted to and reviewed by the County Engineer.

1. If the County Engineer approves the proposed changes, the owner(s) of the stormwater control structure shall file sealed copies of the revisions with the Administrator and County Engineer.
2. If the County Engineer disapproves the changes, the proposal may be revised and resubmitted as a new proposal.

##### B. Major Amendments

Proposed changes shall be prepared by a Professional North Carolina Engineer or landscape architect (to the extent that the General Statutes Chapter 89A allows) and submitted to, and reviewed by the County Engineer and NCDENR. Amendments to the plans and specifications of the stormwater control structure and/or the operation and maintenance plan or manual that involve a change in the size or location shall be approved by the County Engineer and NCDENR.

#### *2.7.6 Revision of Plan Required if Found to be Inadequate*

If the County Engineer finds that the operation and maintenance plan or manual is inadequate for any reason, the Administrator shall notify the owner(s) of any required changes. Once the revised plan or manual has been deemed adequate, the owner(s) shall prepare and file copies of the revised agreement with the Harnett County Register of Deeds, the County Engineer, and the Administrator of this Ordinance.

#### *2.7.7 Inspection by County Engineer*

The stormwater control structure shall be inspected by the County Engineer, after the owner(s) notifies the Administrator that all work has been completed and prior to issuance of a Certificate of Occupancy (CO). At this inspection, the owner(s) shall provide:

- A. The signed deed, related easements, and survey plat for the stormwater control structure ready for filing with the Harnett County Register of Deeds.
- B. A certification sealed by an Professional North Carolina Engineer or landscape architect (to the extent that the General Statutes Chapter 89A allows) stating that the stormwater control structure is complete and consistent with the approved plans and specifications.

#### *2.7.8 Annual Inspection Required*

- A. All stormwater control structures shall be inspected at least once on an annual basis to determine whether the controls are performing as designed and intended. It shall be the responsibility of

the property owner(s) to ensure such inspection is performed. Records of inspections shall be maintained on forms approved or supplied by the North Carolina Division of Environment and Natural Resources. Annual inspections shall begin within one (1) year of the filing date of the deed for the stormwater control structure.

- B. In the event that the County Engineer discovers the need for corrective action or improvements, he/she shall notify the Administrator who shall notify the owner(s) of the needed improvements and the date by which the corrective action is to be completed. All improvements shall be made consistent with the plans and specifications of the stormwater control structure and the operation plan or manual. After notification by the owner(s), the County Engineer shall inspect and approve the completed improvements.

## 2.9 Storm Drainage

The following guidelines shall be used for street and local drainage within the development of a subdivision:

- A. Proposed stormwater channels shall be designed in accordance with the most current edition of the *North Carolina Erosion and Sediment Control Planning and Design Manual*.
- B. Channels shall provide positive drainage. The minimum slope shall be one-half (1/2) percent (0.5%).
- C. The minimum pipe diameter allowed, including driveway pipe, is 15 inches.
- D. Acceptable pipe materials outside of NCDOT right-of-way include Class III reinforced concrete pipe and HDPE, AASHTO M294 – corrugated exterior/smooth interior pipe (Type S). No HDPE end treatments are allowed. Reinforced concrete pipe/headwall shall be used for all end treatments. Pipe shall be installed according to the manufacturer's requirements. Corrugated metal pipe is not allowed. Pipe inside NCDOT right-of-way shall be in accordance with *Subdivision Roads Minimum Construction Standards* published by the North Carolina Department of Transportation.
- E. Minimum cover for all pipes located outside traffic areas is one-half (1/2) feet. Minimum cover for all pipes located in proposed traffic areas is one (1) foot.
- F. At utility crossings, the minimum vertical separation between storm drainage and water and sanitary sewer lines shall be 24 inches or in accordance with 15A NCAC 2T .0305, whichever is more stringent.
- G. Storm structures are required where there is a change in pipe size, a change in grade, or changes in horizontal alignment greater than 45 degrees. All structures shall allow for access to the storm drainage system with a removable lid or grate.
- H. All local drainage systems shall be designed to convey the 10 year design storm.
- I. The minimum design storm frequency for cross drainage for streets shall be in accordance with the current edition of *Subdivision Roads Minimum Construction Standards* published by the North Carolina Department of Transportation.
- J. All curb and gutter shall meet the NCDOT, Division of Highways standards. Curb inlet and storm drainage design shall be in accordance with requirements outlined in the NCDOT's *Best Management Practices for Construction & Maintenance Activities*.

## 2.10 Construction Plan/Drawing

In addition to the construction plan requirements for water and sewer, stormwater management plans showing grading and drainage shall be submitted. One (1) complete set of development plans signed and sealed by a Professional North Carolina Land Surveyor or Engineer or North Carolina Registered Landscape Architect shall be submitted. The following information shall be provided on the site specific stormwater management plans:

- A. Erosion control measures and details.

- B. Detailed topographic information. A minimum of two (2) foot contours is required. Vertical datum shall be provided.
- C. Storm sewer profiles or design tables indicating the top of structure, invert elevations, and pipe slope.
- D. The 100-year flood plain boundaries and elevations from the most recent FIRM
- E. All jurisdictional wetland boundaries on site
- F. All proposed stormwater management facilities
- G. All existing stormwater management facilities should be shown. Existing structures shall be labeled with invert, size, and material.
- H. Construction detail for improvements
- I. Drainage easements

With the construction drawings, a revised stormwater management statement shall be submitted, if required. A copy of submittal for stormwater permit and the submittal for erosion control plan, if required, shall be submitted.

## **2.11 Stormwater Certification**

Certification shall be provided by a Professional North Carolina Land Surveyor or Engineer, or registered landscape architect, for the “as-built” plans. The certification to be made is provided by this Ordinance, and should be sealed signed and dated and submitted with “as-built” drawings and the final plat.

## **SECTION 3.0 FLOOD DAMAGE PREVENTION**

### **3.1 Statutory Authorization, Findings of Fact, Purpose, & Objectives**

#### *3.1.1 Statutory Authorization*

The Legislature of the State of North Carolina has in Part 6, Article 21 of Chapter 143; Parts 3 and 4 of Article 18 of Chapter 160D; and Part 121, Article 6 of Chapter 160D, all of the North Carolina General Statutes, delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry.

Therefore, the Board of Commissioners of Harnett County, North Carolina does ordain as follows:

#### *3.1.2 Findings of Fact*

The flood prone areas within the jurisdiction of Harnett 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 the floodplain causing increases in flood heights and velocities, and by the occupancy in flood prone areas of uses vulnerable to floods or hazardous.

#### *3.1.3 Statement of Purpose*

It is the purpose of this Section to promote the 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 that are dangerous to health, safety, and property due to water or erosion hazards or that result in damaging increases in erosion or in 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 other development that may increase erosion or flood damage; and,
- E. Prevent or regulate the construction of flood barriers that will unnaturally divert floodwaters or which may increase flood hazards to other lands.

### **3.2 General Provisions**

#### *3.2.1 Lands to Which this Section Applies*

This Section shall apply to all Special Flood Hazard Areas within the jurisdiction of Harnett County.

#### *3.2.2 Basis for Establishing the Areas of Special Flood Hazard*

The Special Flood Hazard Areas are those identified under the Cooperating Technical State (CTS) agreement between the State of North Carolina and FEMA in its Flood Insurance Study (FIS) and its accompanying Flood Insurance Rate Maps (FIRM), for Harnett County dated October 3, 2006, which are adopted by reference and declared to be a part of this Section.

#### *3.2.3 Warning & Disclaimer of Liability*

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

### **3.3 Administration**

#### *3.3.1 Designation of Local Administrator*

The Manager of Planning Services, herein referred to as the Floodplain Administrator, is hereby appointed to administer and implement the provisions of this Section.

#### *3.3.2 Certification Requirements*

##### A. Elevation Certificates

1. An Elevation Certificate (FEMA Form 81-31) or Floodproofing Certificate (FEMA Form 81-65) is required after the reference level is established. Within 21 calendar days of establishment of the 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 mean sea level. Elevation certification shall be prepared by, or under the direct supervision of, a Professional North Carolina Land Surveyor or Engineer and certified by

same. Any work done within the 21 day 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 work being permitted to proceed. Failure to submit the certification or failure to make required corrections shall be cause to issue a stop-work order for the project.

2. A Final As-Built Elevation Certificate (FEMA Form 81-31) 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. Elevation certification shall be prepared by, or under the direct supervision of, a Professional North Carolina Land Surveyor or Engineer and certified by same. 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.
- B. If nonresidential floodproofing is used to meet the regulatory flood protection elevation requirements, a Floodproofing Certificate (FEMA Form 81-65) 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 floodproofed design elevation of the reference level and all attendant utilities, in relation to mean sea level. Floodproofing certification shall be prepared by or under the direct supervision of a Professional North Carolina Engineer or Architect licensed by the North Carolina Board of Architecture and certified by same. 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. Failure to construct in accordance with the certified design shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy.
- C. If a manufactured home is placed within Zone A, AO, AE, or A1-30 and the elevation of the chassis is more than 36 inches in height above grade, an engineered foundation certification is required per "Provisions for Flood Hazard Reduction" of this Section, Subsection "Specific Standards", Item "Manufactured Homes."
- D. If a watercourse is to be altered or relocated, a description of the extent of watercourse alteration or relocation; 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 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.
- E. Certification Exemptions

The following structures, if located within Zone A, AO, AE or A1-30, are exempt from the elevation/floodproofing certification requirements specified in items (a) and (b) above:

1. Recreational Vehicles meeting requirements of "Provisions for Flood Hazard Reduction" of this Section, Subsection "Specific Standards", Item "Recreational Vehicles" (1);
2. Temporary Structures meeting requirements of "Provisions for Flood Hazard Reduction" of this Section, Subsection "Specific Standards", Item "Temporary Nonresidential Structures"; and
3. Accessory Structures less than 150 square feet meeting requirements of "Provisions for Flood Hazard Reduction" of this Section, Subsection "Specific Standards", Item "Accessory

Structure.”

### 3.3.3 *Duties & Responsibilities of the Local Administrator*

The Floodplain Administrator shall perform, but not be limited to, the following duties:

- 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 Section have been satisfied.
- B. Advise applicant that additional Federal or State permits (wetlands, endangered species, erosion and sedimentation control, riparian and stream buffers, mining, etc.) may be required, and require that copies of such permits be provided and maintained on file with the development permit.
- C. Notify adjacent communities and the North Carolina Department of Crime Control and Public Safety, Division of Emergency, State Coordinator for the National Flood Insurance Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification the Federal Emergency Management Agency (FEMA).
- 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 unless the certification and flood hazard reduction provisions of “Provisions for Flood Hazard Reduction” of this Section, Subsection “Standards for Riverine Floodplains with BFE but without Established Floodways or Non-encroachment Areas” are met.
- F. Obtain actual elevation (in relation to mean sea level) of the reference level (including basement) and all utilities of all new or substantially improved structures, in accordance with Subsection “Certification Requirements”, above.
- G. Obtain the actual elevation (in relation to mean sea level) to which the new or substantially improved structures and all utilities have been floodproofed, in accordance with Subsection “Certification Requirements”, above.
- H. Obtain Actual elevation (in relation to mean sea level) of all public utilities in accordance with Subsection “Certification Requirements”, above.
- I. When floodproofing is utilized for a particular structure, obtain certifications from a Professional North Carolina Engineer or Architect licensed by the North Carolina Board of Architecture and certified by same in accordance with Subsection “Floodplain Permit” of Article III “Development & Subdivision Review, Permitting, & Approval Requirements.”
- J. Where interpretation is needed as to the exact location of boundaries of the Special Flood Hazard 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 or floodway data has not been provided in accordance with Subsection “Basis for Establishing the Areas of Special Flood Hazard” of Section “General Provisions” (above), obtain, review, and reasonably utilize any Base Flood Elevation (BFE) data, along with floodway data or non-encroachment area data available from a Federal, State, or other source, including data developed pursuant to Item (B)(2) of Section “Standards for Floodplains without Established Base Flood Elevations” of this Section, 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 Subsection “Basis for Establishing the Areas of

Special Flood Hazard” of Section “General Provisions” (above), obtain, review, and reasonably utilize any floodway data or non-encroachment area data available from a Federal, State, or other source in order to administer the provisions of this Section.

- M. When the exact location of boundaries of the Special Flood Hazard Areas conflict with the current, natural topography information at the site, the property owner may apply and be approved for a Letter of Map Amendment (LOMA) by FEMA. Maintain a copy of the Letter of Map Amendment (LOMA) issued by FEMA in the floodplain development permit file.
- N. Permanently maintain all records that pertain to the administration of this Section and make these records available for public inspection.
- O. 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 this Section 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.
- P. Issue stop-work orders as required. Whenever a building or part thereof is being constructed, reconstructed, altered, or repaired in violation of this Section, 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. 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.
- Q. Revoke 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.
- R. 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.
- S. Follow through with corrective procedures of Article XIII “Enforcement & Penalties.”
- T. Review, provide input, and make recommendations for variance requests.
- U. Maintain a current map repository to include, but not limited to, the FIS Report, FIRM and/or other official flood maps/studies adopted under Subsection “Basis for Establishing the Areas of Special Flood Hazard” of Section “General Provisions” of this Section, including any revisions thereto including Letters of Map Change, issued by State and/or FEMA. Notify State and FEMA of mapping needs.
- V. Coordinate revisions to FIS reports and FIRMs, including Letters of Map Revision Based on Fill (LOMR-F) and Letters of Map Revision (LOMR).

### **3.4 Provisions for Flood Hazard Reduction**

#### *3.4.1 General Standards*

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



- A. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure;
- B. All new construction and substantial improvements below the regulatory flood protection elevation shall be constructed with materials and utility equipment resistant to flood damage;
- C. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damages;
- D. 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. 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 (washers, dryers, refrigerators, freezers, etc.), hot water heaters, and electric outlets/switches.
- 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; and,
- H. Any alteration, repair, reconstruction, or improvements to a structure which is in compliance with the provisions of this Section, shall meet the requirements for 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 or prior to September 18, 2006 and located totally or partially within the floodway, non-encroachment area, or stream setback, provided that the bulk of the building or structure below the regulatory flood protection elevation in the floodway, non-encroachment area, or stream setback is not increased and provided that such repair, reconstruction, or replacement meets all of the other requirements of this Ordinance.
- J. New solid waste disposal facilities, hazardous waste management facilities, salvage yards, and chemical storage facilities shall not be permitted in Special Flood Hazard Areas, except by variance as specified in Subsection "Flood Damage Prevention Variance Procedures" of Article XII of this Ordinance. 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 Subsection "Certification Requirements", above, of this Section.
- 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.

### 3.4.2 *Specific Standards*

In all Special Flood Hazard Areas where Base Flood Elevation (BFE) data has been provided, as set forth by the provisions of this Section, in addition to Subsection “General Standards” (above), 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, as defined in Section “Natural Resources Definitions & Acronyms” of Article XIV “Definitions & Certifications” of this Ordinance.

#### B. Nonresidential Construction

New construction or substantial improvement of any commercial, industrial, or nonresidential structure shall have the reference level, including basement, elevated no lower than the regulatory flood protection elevation, as defined in Section “Natural Resources Definitions & Acronyms” of Article XIV “Definitions & Certifications” of this Ordinance. Structures located in A, AO, AE, and A1-30 Zones may be floodproofed to the regulatory flood protection elevation in lieu of elevation provided that all areas of the structure below the required 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. A Professional North Carolina Engineer or Architect licensed by the North Carolina Board of Architecture and certified by same shall certify that the standards of this Subsection are satisfied. Such certification shall be provided to the Floodplain Administrator as set forth in Subsection “Certification Requirements”, above, of this Section, along with the operational and maintenance plans.

#### 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 in accordance with the State of North Carolina Regulations for Manufactured/Mobile Homes, 1995 Edition, and any revision thereto adopted by the Commissioner of Insurance pursuant to NCGS §143-143.15 or a certified engineered foundation. Additionally, when the elevation would be met by an elevation of the chassis 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 36 inches in height, an engineering certification is required.
3. All foundation enclosures or skirting shall be in accordance with Subsection “Elevated Buildings”, below.
4. An evacuation plan shall 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 Emergency Service Director.

#### D. Elevated Buildings

Enclosed areas, of new construction or substantially improved structures, which are below the regulatory flood protection elevation:

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 partitioned or finished into separate rooms, except to enclose storage areas;

2. Shall be constructed entirely of flood resistant materials below the regulatory flood protection elevation;
3. Shall include, in Zones A, AO, AE, and A1-30, measures to automatically equalize hydrostatic flood forces on walls by allowing for the entry and exit of floodwaters. To meet this requirement, the openings shall either be certified by a Professional North Carolina Engineer or Architect licensed by the North Carolina Board of Architecture and certified by same or meet the following minimum design criteria:
  - a. Provide a minimum of two (2) openings on different sides of each enclosed area subject to flooding;
  - b. The total net area of all openings shall be at least one (1) square inch for each square foot of enclosed area subject to flooding;
  - c. If a building has more than one (1) enclosed area, each area shall have openings to allow floodwaters to automatically enter and exit;
  - d. The bottom of all required openings shall be no higher than one (1) foot above the adjacent grade;
  - e. 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. Foundation enclosures made of flexible skirting are not considered enclosures for regulatory purposes, and, therefore, do not require openings. Masonry or wood underpinning, regardless of structural status, is considered an enclosure and requires openings as outlined above.

#### E. 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. Not a substantial improvement, the addition and/or improvements shall be designed to minimize flood damages and shall not be any more nonconforming than the existing structure.
  - b. A substantial improvement, both the existing structure and the addition and/or improvements shall comply with the standards for new construction.
2. 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.
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 are:
  - a. Not a substantial improvement, the addition and/or improvements only shall comply with the standards for new construction.
  - b. A substantial improvement, both the existing structure and the addition and/or improvements shall comply with the standards for new construction.
4. Where a fire wall or independent perimeter load-bearing wall is provided between the addition and the existing building, the addition(s) shall be considered a separate building and only the addition shall comply with the standards for new construction.

#### F. Recreational Vehicles

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

1. 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
2. Meet all the requirements for new construction, including anchoring and elevation requirements of Subsection "Certification Requirements" of "Administration" of this Section and Subsection "General Standards" and "Manufactured Homes", both above.

#### G. Temporary Nonresidential Structures

Prior to the issuance of a floodplain development permit, for a temporary structure, applicants shall 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 should be minimal with total time on site not to exceed 12 months;
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 to ensure the availability of removal equipment when needed; and
5. Designation, accompanied by documentation, of a location outside the floodplain to which the temporary structure will be moved.

#### H. Accessory Structure

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 be used for human habitation (including work, 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 Subsection "General Standards", above, Item (A);
6. All service facilities such as electrical shall be installed in accordance with Subsection "General Standards", above, Item (D); and
7. Openings to relieve hydrostatic pressure during a flood shall be provided below flood protection elevation in conformance with "Elevated Buildings", Item (1), above.
8. 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

Subsection “Certification Requirements” of this Section.

### 3.4.3 *Reserved*

### 3.4.4 *Standards for Floodplains without Established Base Flood Elevations*

Within the Special Flood Hazard Areas established in Subsection “Basis for Establishing the Areas of Special Flood Hazard” of Section “General Provisions” of this Section, where no Base Flood Elevation (BFE) data has been provided by FEMA, the following provisions, in addition to Section “Provisions for Flood Hazard Reduction”, Subsection “General Standards”, shall apply:

- A. No encroachments, including fill, new construction, substantial improvements or new development shall be permitted within a distance of 20 feet each side from top of bank or five (5) times the width of the stream, whichever is greater, unless certification with supporting technical data by a Professional North Carolina Engineer is provided demonstrating that such encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- B. The BFE used in determining the regulatory flood protection elevation shall be determined based on one (1) of the following criteria set in priority order:
  1. If 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 Section “Administration”, Subsection “Duties & Responsibilities of the Local Administrator”, Items (K) and (L).
  2. All subdivision, manufactured home park, and other development proposals located within Special Flood Hazard Areas shall provide Base Flood Elevation (BFE) data if development is greater than five (5) acres or has more than 50 lots or manufactured home sites. Such Base Flood Elevation (BFE) data shall be adopted by reference per Subsection “Basis for Establishing the Areas of Special Flood Hazard” of Section “General Provisions” of this Section to be utilized in implementing this Section.
  3. 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 above the highest adjacent grade as required in the regulatory flood protection elevation definition.

### 3.4.5 *Standards for Riverine Floodplains with BFE but without Established Floodways or Non-encroachment Areas*

Along rivers and streams where BFE data is provided 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:

- A. Standards outlined in Section “Provisions for Flood Hazard Reduction”, Subsections “General Standards” and “Specific Standards”; and
- B. No encroachments, including fill, new construction, substantial improvements, or other development, shall be permitted unless certification with supporting technical data by a Professional North Carolina 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.

### 3.4.6 *Floodways & Non-encroachment Areas*

Areas designated as floodways or non-encroachment areas are located within the Special

Flood Hazard Areas established in Subsection “Basis for Establishing the Areas of Special Flood Hazard” of Section “General Provisions” of this Section. 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 Section “Provisions for Flood Hazard Reduction”, Subsections “General Standards” and “Specific Standards”, 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 that:
  - 1. 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 Administrator prior to issuance of floodplain development permit, or
  - 2. A Conditional Letter of Map Revision (CLOMR) has been approved by FEMA. A Letter of Map Revision (LOMR) shall also be obtained upon completion of the proposed encroachment.
- B. If Item (A), above, is satisfied, all development shall comply with all applicable flood hazard reduction provisions of this Section.
- 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 Subsection “Manufactured Homes” of Section “Specific Standards”; and
  - 2. The no encroachment standard of Item (A), above, are met.

#### *3.4.7 Standards for Areas of Shallow Flooding (Zone AO)*

Located within the Special Flood Hazard Areas established in Subsection “Basis for Establishing the Areas of Special Flood Hazard” of Section “General Provisions” of this Section, 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 Section “Provisions for Flood Hazard Reduction”, Subsection “General Standards”, 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 two (2) feet, above the highest adjacent grade; or at least two (2) feet above the highest adjacent grade plus a freeboard of two (2) feet if no depth number is specified.
- B. Nonresidential structures may, in lieu of elevation, be floodproofed to the same level as required in item (1) of Subsection “Specific Standards,” Section “Provisions for Flood Hazard Reduction” of this Part 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 as per Subsection “Floodplain Permit” of Article III “Development & Subdivision Review, Permitting, & Approval Requirements” and Subsection “Nonresidential Construction” of Section “Specific Standards”, above.
- C. Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

## **SECTION 4.0 WATER SUPPLY WATERSHED**

### **4.1 Exceptions to Applicability**

- A. Nothing contained herein shall repeal, modify, or amend any Federal or State law or regulation, or any ordinance or regulation pertaining thereto except any ordinance which these regulations specifically replace; nor shall any provision of this Ordinance amend, modify, or restrict any provision of the Harnett County Unified Development Ordinance; however, the adoption of this Section shall and does amend any and all ordinances, resolutions, and regulations in effect in Harnett County at the time of the adoption of this Ordinance that may be construed to impair or reduce the effectiveness of this Ordinance or to conflict with any of its provisions.
- B. It is not intended that these regulations interfere with any easement, covenants or other agreements between parties. However, if the provisions of these regulations impose greater restrictions or higher standards for the use of a building or land, then the provisions of these regulations shall control.
- C. Existing development, as defined in this Ordinance, is not subject to the requirements of this Ordinance. Expansions to structures classified as existing development shall meet the requirements of this Ordinance, however, the built upon area of the existing development is not required to be included in the density calculations.
- D. If a nonconforming lot of record is not contiguous to any other lot owned by the same party, then that lot of record shall not be subject to the development restrictions of this Ordinance if it is developed for single-family residential purposes.

### **4.2 Development Regulations**

#### *4.2.1 Establishment of Watershed Areas*

The purpose of this Section is to list and describe the watershed areas herein adopted. For purposes of this Section, Harnett County is hereby divided into the following areas, as appropriate:

- A. WS-III-BW (Balance of Watershed)
- B. WS-IV-CA (Critical Area)
- C. WS-IV-PA (Protected Area)

#### *4.2.2 Watershed Areas Described*

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

In order to maintain a low to moderate land use intensity pattern, single family detached uses shall develop at a maximum of three (3) dwelling units per acre. All other residential and nonresidential development shall be allowed a maximum of 24 percent (24%) built-upon area. In addition, nonresidential uses may occupy 10 percent (10%) of the watershed with a 70 percent (70%) built-upon area when approved as a Special Nonresidential Intensity Allocation (SNIA), as outlined in this Ordinance. Non-discharging landfills and sludge application sites are allowed.

- 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.
  - b. Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15 NCAC II.6101.0209).
  - c. Residential development
  - d. Nonresidential development excluding discharging landfills

2. Density & Built-upon Limits

- a. Single family residential development shall not exceed three (3) dwelling units per acre on a project by project basis. No residential lot shall be less than one-half (1/2) acre, except within an approved cluster development.
- b. All other residential and nonresidential development shall not exceed 24 percent (24%) built-upon area on a project by project basis, except that up to 10 percent (10%) of the protected area may be developed for nonresidential uses to 70 percent (70%) built-upon area on a project by project basis. 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.

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

Only 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 Section when located in the WS-IV watershed. In order to address a moderate to high land use intensity pattern, single family residential uses are allowed at a maximum of three (3) dwelling units per acre. All other residential and nonresidential development shall be allowed at 24 percent (24%) built-upon area. New residual waste sites and landfills are specifically prohibited.

1. Uses Allowed

- a. Agriculture subject to the provisions of the Food Security Act of 1985 and the Food, Agriculture, Conservation and Trade Act of 1990.
- b. Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15 NCAC II.6101-.0209).
- c. Residential
- d. Nonresidential development, excluding:
  - i. Landfills; and
  - ii. Sites for land application of sludge/residuals or petroleum contaminated soils.

2. Density & Built-upon Limits

- a. Single family residential development shall not exceed three (3) dwelling units per acre on a project by project basis. No residential lot shall be less than one-half (1/2) acre, except within an approved cluster development.
- b. All other residential and nonresidential development shall not exceed 24 percent (24%) built-upon area on a project by project basis. 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.

C. WS-IV Watershed Area - Protected Area (WS-IV-PA)

Only 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 Section when located in a WS-IV Watershed. In order to address a moderate to high land use intensity pattern, single family residential uses shall develop at a maximum of three (3) dwelling units per acre. All other residential and nonresidential development shall be allowed at a maximum of 24 percent (24%) built-upon area.

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.



- b. Silviculture, subject to the provisions of the Forest Practices Guidelines Related to Water Quality (15 NCAC II.6101-.0209).
  - c. Residential development
  - d. Nonresidential development
2. Density & Built-upon Limits
- a. Single family residential development shall not exceed three (3) dwelling units per acre on a project by project basis. No residential lot shall be less than one-half (1/2) acre except within an approved cluster development.
  - b. All other residential and nonresidential development shall not exceed 24 percent (24%) built-upon area on a project by project basis. For projects without a curb and gutter street system, development shall not exceed 36 percent (36%) built-upon area on a project by project basis.
  - c. Exception for Nonresidential Uses  
Up to 10 percent (10%) of the protected area may be developed for nonresidential uses to 70 percent (70%) built-upon area on a project by project basis. 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.

#### 4.2.3 *Cluster Development*

Clustering of development is allowed in all watershed areas under the following conditions:

- A. Minimum lot sizes are not applicable to single family cluster development projects; however, the total number of lots shall not exceed the number of lots allowed for single family detached developments in Subsection “Watershed Areas Described”, above.
- B. All built-upon areas shall be designed and located to minimize stormwater runoff impact to the receiving waters and minimize concentrated stormwater flow.
- C. The remainder of the tract shall remain in a vegetated or natural state. Title to the open space area shall be conveyed to:
  - 1. An incorporated homeowners’ association for management. Where a property association is not incorporated, a maintenance agreement shall be filed with the property deeds; or
  - 2. A local government for preservation as a park or open space; or
  - 3. A conservation organization for preservation in a permanent easement.

#### 4.2.4 *Buffer Areas Required*

Within the WS-IV-PA Watershed District, a minimum of a 100 foot stream buffer for development activities that exceed the low density standards as established in this Section is required along all perennial waters indicated on the most recent versions of the USGS 1:24,000 (7.5 minute) scale topographic maps; otherwise a minimum of 30 foot stream buffer is required. Desirable artificial streambank or shoreline stabilization is permitted. No new development is allowed in the buffer except that water dependent structures, other structures such as flag poles, signs, and security lights which result in only diminutive increases in impervious areas, and public projects such as street crossings and greenways where no practical alternatives exists. These activities should minimize built-upon surface area, direct runoff away from the surface waters, and maximize the utilization of stormwater Best Management Practices (BMP’s).

#### 4.2.5 *Rules Governing the Interpretation of Watershed Area Boundaries*

Where uncertainty exists as to the boundaries of the watershed areas, as shown on the Watershed Map, the following rules shall apply:

- A. Where area boundaries are indicated as approximately following either street, alley, railroad, or highway lines or centerlines thereof, such lines shall be construed to be said boundaries.
- B. Where area boundaries are indicated as approximately following lot lines, such lot lines shall be construed to be said boundaries. However, a surveyed plat prepared by a Professional North Carolina Land Surveyor may be submitted to Harnett County as evidence that one (1) or more properties along these boundaries do not lie within the watershed area. The Administrator shall determine such boundaries.
- C. Where the watershed area boundaries lie at a scaled distance more than 25 feet from any parallel lot line, the location of watershed area boundaries shall be determined by use of the scale appearing on the watershed map.
- D. Where the watershed area boundaries lie at a scaled distance of 25 feet or less from any parallel lot line, the location of watershed area boundaries shall be construed to be the lot line.
- E. Where other uncertainty exists, the Watershed Administrator shall interpret the Watershed Map as to the location of such boundaries. This decision may be appealed to the Harnett County Board of Adjustment, acting as the Watershed Review Board.

#### *4.2.6 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 Section 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.

#### *4.2.7 Existing Development*

- A. Any existing development as defined in this Section, may be continued and maintained subject to the provisions provided herein. Expansions to structures classified as existing development shall meet the requirements of this Section; however the built-upon area of the existing development is not required to be included in the density calculations.
- B. Reconstruction of Buildings or Built-upon Areas
- C. Any existing building or built-upon area not in conformance with the restrictions of this Section that has been damaged or removed may be repaired and/or reconstructed, except that there are no restrictions on single family residential development, provided:
  - 1. Repair or reconstruction is initiated within three (3) months and completed within one (1) year of such damage; and
  - 2. The total amount of space devoted to built-upon area may not be increased.

### **4.3 Public Health Regulations**

#### *4.3.1 Public Health in General*

No activity, situation, structure or land use shall be allowed within the watershed which poses a threat to water quality and the public health, safety, and welfare. Such conditions may arise from:

- A. Inadequate on-site sewage systems which utilize ground absorption; inadequate sedimentation and erosion control measures;

- B. The improper storage or disposal of junk, trash or other refuse within a buffer area;
- C. The absence or improper implementation of a spill containment plan for toxic and hazardous materials;
- D. The improper management of stormwater runoff; or
- E. Any other situation found to pose a threat to water quality.

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## **ARTICLE XI. ADMINISTRATION & BOARDS**

### **SECTION 1.0 GENERAL**

It is the intention of this Ordinance that:

- A. All questions arising in connection with the enforcement of this Ordinance shall be presented first to the Administrator; and
- B. Such questions shall be presented to the Board of Adjustment only on appeal from the Administrator and within the time limits prescribed; and
- C. Any interested party may seek review of a decision of the Board of Adjustment in Superior Court in the nature of certiorari. Any appeal to the Superior Court shall be taken within 30 days after the decision of the Board of Adjustment.

### **SECTION 2.0 COUNTY BOARD OF COMMISSIONERS**

It is the intention of this Ordinance that the Board of Commissioners, in connection with the Ordinance, shall not include the hearing and passing of disputed questions that may arise in connection with the enforcement thereof or Special Use. The Board of Commissioners' duties shall include:

- A. The hearing of vested rights requests;
- B. The hearing of amendments to the Ordinance text and the Zoning Map; and/or
- C. The question of repeal of the Ordinance as provided by law.
- D. The hearing of amendments to approved comprehensive and land use plan.

### **SECTION 3.0 PLANNING BOARD**

#### **3.1 Establishment & Procedure of Planning Board**

- A. The Planning Board shall have all the powers and authority granted by NCGS153-A - 320 and subsequent provisions of law and any other powers and duties so delegated by the Board of County Commissioners.
- B. There shall be a quorum of three (3) members for the purpose of taking any official action required by this Ordinance.
- C. The Planning Board shall elect one (1) of its members as Chairman and another as Vice Chairman. It shall be the duties of the Chairman to conduct the meetings, address the County Commissioners as needed, sign documents as required, and function as the liaison with the Planning Department staff. In the absence of the Chairman, the Vice-Chairman shall perform all duties of the Chairman.
  1. At the regular meeting in January of each year, the Planning Board shall elect a Chairman and Vice Chairman from its regular membership as the first order of business during its regular meeting. The term of office shall last for 12 months, beginning in January. Officers may serve consecutive terms. Any member who has served at least 12 months prior to the date of the elections is eligible to hold either office. Election of officers may be by secret ballot or by nomination and voice vote.

#### **3.2 Membership**

The Harnett County Planning Board shall consist of five (5) regular members and two (2) alternates, for a total of seven (7) members. Members shall be appointed by the Harnett County Commissioners with terms of office being set according to the Rules of Procedure for the Board of Commissioners as they may exist from time to time. Each commissioner district should be represented on the Planning Board by a regular member. Membership should be distributed throughout the County in as much as is practical. Alternates shall be designated as Alternate #1 and Alternate #2 and shall, when feasible, rotate service on the Board.

### **3.3 Rules of Procedure**

The Board shall adopt rules and regulations as it may deem necessary to carry into effect the provisions of this Section. These rules and regulations shall be designated in the Harnett County Planning Board By-Laws, which shall be kept on file in the County Planning Department Office.

### **3.4 Powers & Duties**

#### **A. Review & Recommendation**

1. Zoning Map Amendments to Official Zoning Map
2. Text Amendments to Unified Development Ordinance
3. Text Amendments to Land Use Plan
4. Prepare and make recommendations on plans, studies, and other items, as outlined in *By-Laws Harnett County Planning Board*

#### **B. Final Decision-Making Body**

1. Appeal of the Development Review Board

Appeals of the Development Review Board (DRB) and Subdivision Administrator, below, shall follow the same procedure outlined in “Administrative Review”, Section “Board of Adjustment” of this Article.

2. Appeal of Subdivision Administrator
3. Planned Unit Development (PUD) Modification
4. Architectural Standard Design Alternative
5. Parking Landscaping Plan Alternative
6. Lighting Standard Plan Alternative
7. Alternative Buffers & Screening Plan
8. Office & Institutional Development Plan

## **SECTION 4.0 DEVELOPMENT REVIEW BOARD**

### **4.1 Establishment of Development Review Board**

- A. This board shall be officially known and cited as the Harnett County, North Carolina Development Review Board, although it may be referred to hereafter as the “DRB,” “this Board,” or the “Development Review Board.”
- B. The Development Review Board is hereby enacted under powers granted by the State of North Carolina.

## 4.2 Purpose & Intent

- A. To protect the character and the stability of the residential, business, and manufacturing areas within Harnett County and to promote the orderly and beneficial development of such areas;
- B. To prevent the overcrowding of land and undue concentration of structures, so far as possible and appropriate in each district, and to provide adequate light, air, privacy, and convenience of access to property;
- C. To encourage innovative and quality new residential development so that growing demand for housing may be met by greater variety in type, design, and layout of dwellings and by conservation and more efficient use of open space ancillary to such dwellings;
- D. Encourage pedestrian and vehicular connections between residential neighborhoods and between residential neighborhoods and nearby employment centers, shopping, and community services, such as parks and schools;
- E. To encourage quality, nonresidential development that preserves and protects the character of the community, including its natural landscape, and that minimizes objectionable noise, glare, odor, traffic, and other impacts of such development especially when adjacent to residential uses;
- F. To encourage quality, single-family and multifamily residential development that preserves and protects the character of the community, including its natural landscape, and that minimizes objectionable noise, glare, odor, traffic, and other impacts of such development especially when adjacent to residential uses; and
- G. To provide for a continuing, coordinated, and comprehensive review of the technical aspects of this Ordinance, and for the approval of certain technical aspects of development proposals;

## 4.3 Membership

### 4.3.1 General Membership

- A. The Development Review Board shall consist of staff representatives from the following Harnett County Departments:
  - 1. Planning Department
  - 2. Public Health
  - 3. Public Utilities
  - 4. Fire Code Official's Office
  - 5. E-911 Addressing Department
  - 6. County Engineer
- B. The general membership shall be responsible for reviewing, commenting, and voting on all technical aspects of applications for development submitted to the Board, taking into consideration the comments of advisory members, relevant to their area of expertise. In the absence of a DRB member, the completed staff report from the member's department shall serve as the decision for such department.
- C. To perform any other related duties that the Harnett County Board of Commissioners may direct.

### 4.3.2 Advisory Membership

- A. Depending upon the specific aspects of a development proposal, additional members of the DRB include representatives of the following agencies:
  - 1. NC Department of Transportation

2. NC Department of Environment and Natural Resources
  3. Fort Bragg, Master Planning Division
  4. Parks & Recreation
  5. GIS/Land Records Department
  6. Harnett County Board of Education
  7. Private Utility Company(ies)
  8. Harnett County Finance Department
  9. Harnett County Legal Services
- B. The advisory members shall review and comment on all technical aspects of applications for development submitted to the Board relevant to their area of expertise.
- C. The advisory members shall not vote on application appearing before the Development Review Board.

#### *4.3.3 Chairperson*

The chairperson of the DRB shall be a general member. The Board shall select an alternate chairperson in the absence of the serving chairperson. All authority granted to the chairperson shall be carried over to the alternate chairperson.

### **4.4 Rules of Procedure**

#### *4.4.1 Meetings*

- A. The Development Review Board shall establish standard meeting dates, times, and a standard meeting location. The schedule for each calendar year shall be published in the Harnett County Planning Office and be available for public access.
- B. The chairperson may call for additional meetings or may cancel any meeting of the Development Review Board assuming that an announcement is made at the previous DRB meeting and good faith attempts are made to notify those who shall be present.

#### *4.4.2 Records*

The DRB shall keep minutes of its proceedings, showing the vote of each member upon each question, or if absent or failing to vote, indicating such fact, and shall also keep records of its hearings and other official actions.

#### *4.4.3 Review & Approval*

- A. Complete applications or revisions shall be submitted to the Development Review Board via the Harnett County Planning Department.
  1. The Harnett County Planning Department shall establish criteria for a complete application. Any change in requirements shall be posted in the Planning Department office no less than 30 days prior to enforcement.
  2. The Harnett County Planning Department shall establish standard deadlines for complete applications. This information shall be made available to the public and shall be posted in the Planning Department Office.
- B. When an application first appears before the Board, the petitioner, or his duly appointed representative, shall make a brief presentation about the development proposal and provide time for the general and advisory members to ask questions and state concerns.
- C. The petitioner shall be granted the opportunity to revise the application based upon the

Development Review Board's comments. The petitioner is encouraged to contact each member's agency directly in regards to comments or concerns specifically relating to that members area of expertise.

- D. Once all comments have been exhausted, each general member shall vote to either 'approve', 'approve with conditions', 'hold', or 'deny' an application.
  - 1. 'Approve'  
To approve an application means to accept the development entirely as presented on the application.
  - 2. 'Approve with Conditions'  
To approve with conditions means to accept the development overall, but require minor changes between the time of approval and construction.
  - 3. 'Hold'  
To hold an application means to find that the application does not conform to a number of existing regulations or development policies due to major changes that are required on the submittal. Any application placed on hold shall go through the DRB review process again once resubmittal is requested by the applicant.
  - 4. 'Deny'  
To deny an application means to find that the application does not conform to the existing regulations or development policies, and/or the applicant is unwilling to conform to existing regulations or development policies. Any application that is denied shall go through the DRB review process as a new application once resubmittal is requested by the applicant.
- E. Any regular and special advisory members shall issue comments in writing on each development application to the Planning Department. These comments shall be forwarded on to the petitioner.
- F. The most restrictive vote that any DRB member renders shall be considered the final decision of the Board for an application.

#### **4.5 Powers & Duties**

##### **A. Final Decision-Making Authority**

The DRB shall have final review and decision-making authority over the following types of applications and submittals:

- 1. Major subdivision preliminary plans & plats
- 2. Major subdivisions final plans & plats
- 3. Neighborhood site plans
- 4. Community site plans
- 5. Regional site plans
- 6. Construction plan/drawing
- 7. Attached single family development
- 8. Multifamily development
- 9. Manufactured home parks



## B. Appeals

The applicant may appeal the Development Review Board's decision to the Harnett County Planning Board by following the procedures in Article XII "Interpretations, Amendments, Hearing Procedures, Appeals, & Variances" of this Ordinance.

## **SECTION 5.0 BOARD OF ADJUSTMENT**

### **5.1 Establishment & Procedure of the Board of Adjustment (NCGS 160D-345)**

- A. The Chairman of the Board of Adjustment is authorized in his official capacity to administer oaths to witnesses in any matter coming before the Board. Any member of the Board, while acting as chairman, shall have and may exercise like authority.
- B. All meetings of the Board shall be held at a regular place and shall be open to the public. The Board shall keep minutes of its proceedings, showing the decision of the Board upon each question, or if absent or failing to vote, an indication of such fact, and the final disposition of appeals shall be by recorded resolution indicating the reasons of the Board thereof, all of which shall be a public record.
- C. A concurring vote from the simple majority of the Board shall be necessary to reverse any order, requirement, decision, or determination of the Administrator or to grant a Special Use permit.
- D. A concurring vote of four-fifths (4/5) majority of the Board shall be necessary to grant a variance from the provision of this Ordinance.

### **5.2 Membership**

- A. The Board of Adjustment is hereby created, which shall consist of five (5) members and six (6) alternates, who shall all be citizens of Harnett County, North Carolina. These members shall be appointed by the Board of County Commissioners for staggered three (3) year terms. Alternates shall also be appointed to three (3) year terms.
- B. The Board of Adjustment shall elect one (1) of its members as chairman and another as vice-chairman and shall appoint a secretary to keep minutes of its proceedings. The Board shall adopt such rules and regulations as it may deem necessary to carry into effect the provisions of this section. These rules and regulations shall be designated in the Harnett County Board of Adjustment By-Laws, which shall be kept on file in the County Planning Department Office.
- C. Initial appointment of the members shall be as follows:
  - 1. One (1) member for a term of three (3) years, two (2) members for a term of two (2) years, and two (2) members for a term of one (1) year.
  - 2. Vacancies shall be filled for unexpired terms only.
  - 3. Members shall be removed for cause by the Board of Commissioners upon written charges and after a public hearing.
  - 4. The members of the Board of Adjustment may receive for their services per diem compensation the amount of which shall be fixed by the County Board of Commissioners.

### **5.3 Powers & Duties**

The Board of Adjustment shall have the following powers and duties:

- A. Administrative Review (Appeal of the Administrator)

The Board of Adjustment shall hear and decide appeals where it is alleged there is error in any order, requirement, decision, or determination made by the Administrator in the enforcement of this Ordinance with the exception of those decisions related to the subdivision regulations of this

Ordinance, as well as decisions of the Development Review Board (DRB). Appeals from the enforcement and interpretation of this Ordinance shall be filed with the Administrator specifying the grounds thereof, within 30 days of the date the decision was made. The Administrator shall transmit to the Board of Adjustment all applications and records pertaining to such appeals and variances. The Board of Adjustment shall fix a reasonable time for the hearing of appeal, giving notice to all participants by first class mail. The Board of Adjustment shall have the authority to waive penalties in cases where the Administrator's decision is overturned or amended, and if the penalty was assessed during the time period allotted for appeal.

B. Variance

To authorize upon appeal in specific cases such variances from the terms of the zoning and airport height control regulations contained within this Ordinance as will not be contrary to the public interest where, owing to special conditions a literal enforcement of the provisions of the Ordinance will, in an individual case, result in practical difficulty or unnecessary hardship, so that the spirit of the Ordinance shall be observed, public safety and welfare secured, and substantial justice done.

C. Special Use Permits

The Board of Adjustment shall hear and decide to issue Special Use permits as prescribed in this Ordinance. Prior to the granting of any Special Use permit, the Board of Adjustment may stipulate, such conditions and restrictions upon the establishment, location, reconstruction, maintenance, and operation of the Special Use as it deems necessary to secure compliance with the standards and requirements specified herein. In all cases in which Special Use permits are granted, the Board of Adjustment shall require such evidence and guarantees as it may deem necessary as proof that the provisions of this Section have been met. Procedures for Special Use permit hearings shall be found in Article XII "Interpretations, Amendments, Hearing Procedures, Appeals, & Variances" of this Ordinance.

D. Abandonment of Special Use Permits

The Board of Adjustment shall have the authority to abandon a Special Use permit at the request of the permit holder, following the provisions of Article XII "Interpretations, Amendments, Hearing Procedures, Appeals, & Variances" of this Ordinance.

E. Revocation of Special Use Permits

The Board of Adjustment shall have the authority to revoke a Special Use permit upon request, following the provisions of Article XII "Interpretations, Amendments, Hearing Procedures, Appeals, & Variances" of this Ordinance.

F. Watershed Review Board

The Board of Adjustment shall serve as the acting Watershed Review Board.

G. Flood Damage Prevention Appeal Board

The Board of Adjustment shall serve as the acting Flood Damage Prevention Board.

## **SECTION 6.0 WATERSHED REVIEW BOARD**

### **6.1 Establishment of Watershed Review Board**

There is hereby created a Watershed Review Board which shall be the Harnett County Board of Adjustment, including its alternates, serving at the time of adoption of this Ordinance and its duly appointed successor Boards.

### **6.2 Rules of Procedure**

The Watershed Review Board shall operate consistent with the adopted by-laws for the Harnett County Board of Adjustment.

### **6.3 Powers & Duties**

The Watershed Review Board shall have the following powers and duties:

A. Administrative Review

The Watershed Review Board shall hear and decide appeals from any decision or determination made by the Administrator in the enforcement of this Section.

B. Variances

The Watershed Review Board shall have the power to authorize, in specific cases, minor variances from the terms of this Section as will not be contrary to the public interests where, owing to special conditions, a literal enforcement of this Section will result in practical difficulties or unnecessary hardship, so that the spirit of this Section shall be observed, public safety and welfare secured, and substantial justice done. In addition, the Administrator shall notify and allow a reasonable comment period for all other local governments having jurisdiction in the designated watershed where the variance is being considered.

C. Special Nonresidential Intensity Allocation (SNIA)

The following criteria shall be used in determining whether a SNIA can be accepted by the Watershed Review Board. Projects shall:

A. Minimize built-upon surface area;

B. Direct stormwater away from surface waters; and

C. Incorporate Best Management Practices (BMP's) to minimize water quality impacts.

### **SECTION 7.0 FLOOD DAMAGE PREVENTION APPEAL BOARD**

The Board of Adjustment, as established by the Board of Commissioners, hereinafter referred to as the Appeal Board, shall serve as the Appeal Board, and hear and decide requests for variances from the requirements of the Flood Damage Prevention regulations of this Ordinance. Any person aggrieved by the decision of the Appeal Board may appeal such decision to Superior Court, as provided in the North Carolina General Statutes.

### **SECTION 8.0 HISTORIC PROPERTIES COMMISSION**

#### **8.1 Establishment of Historic Properties Commission**

The Historic Properties Commission (HPC) shall consist of five (5) regular members and two (2) alternate members appointed by the Harnett County Board of Commissioners. All members shall reside in Harnett County within the jurisdiction of the HPC, which shall include the area wherein the County has authority for planning and regulation of development. There shall be a minimum of one (1) member from each of the five (5) Board of Commissioner's districts. The members of the HPC may receive for their services per diem compensation the amount of which shall be fixed by the Board of Commissioners.

##### *8.1.1 Representation of Jurisdiction*

In making appointments to the HPC, the Board of Commissioners shall strive to appoint members geographically representing all areas of the HPC's territorial jurisdiction. The provisions of this Section shall apply to the unincorporated areas of Harnett County as specifically identified and delineated on the zoning map identified as The Official Zoning Map of Harnett County, North Carolina. In establishing the HPC and making appointments to it, the Board of Commissioners shall seek the advice of State or local historical agencies,

societies, or organizations as it may deem necessary. The HPC may appoint advisory bodies and committees as appropriate.

## **8.2 Membership**

### *8.2.1 Qualification of Members*

A majority of the members of the HPC shall have demonstrated special interest, experience, or education in history, architecture, archaeology, or related fields.

### *8.2.2 Terms*

HPC members shall serve overlapping terms of three (3) years, and until their successors have been appointed. Initially, the Board of Commissioners shall appoint three (3) regular members to a full term of three (3) years and appoint two (2) regular members to a two (2) year term. Alternate members shall be appointed to three (3) year terms. Thereafter, the Board of Commissioners shall appoint members to three (3) year terms. Any vacancy during the unexpired term of a member of the HPC shall be filled in accordance with the Rules of Procedure for the Board of Commissioners.

## **8.3 Rules of Procedure**

The HPC shall follow adopted rules of procedure, titled *Harnett County Historic Properties Commission Rules of Procedure*, necessary to the conduct of its affairs and in keeping with the provisions of this Section. The rules of procedure adopted by the HPC provide for the selection of its officers, the time and place of its regular meetings and the calling of special meetings, the procedures for the conduct of public hearings, the conduct of voting, the forms to be used in applying for and issuing or denying certificates of appropriateness, and a list of minor works for which the Harnett County Planning Department may issue Certificates of Appropriateness. These rules and procedures are on file in the County Planning Department Office.

## **8.4 Powers & Duties**

The Historic Properties Commission (HPC) is authorized and empowered to undertake such actions reasonably necessary to the discharge and conduct of its duties and responsibilities as outlined in this Section and the North Carolina General Statutes, including but not limited to the following:

- A. Undertake an inventory of properties of historical, prehistorical, architectural, archaeological, and/or cultural significance.
- B. Recommend to the Board of Commissioners individual buildings, structures, sites, areas, or objects within its zoning jurisdiction to be designated by designation resolution as "historic landmarks," and areas within its zoning jurisdiction to be designated by designation resolution as "historic districts."
- C. Recommend to the Board of Commissioners that designation of any area as a historic district or part thereof, or of any building, structure, site, area, or object as a historic landmark, be revoked or removed for cause.
- D. Review and act upon proposals for alteration or demolition of designated landmarks and for alteration, demolition, or new construction within historic districts, pursuant to this Section.
- E. Conduct educational programs on historic landmarks and districts within the County.
- F. Cooperate with State, Federal, and local governments in pursuing the purposes of this Section. The Board of Commissioners, or the HPC when authorized by the Board of Commissioners, may contract with the State, or the United States of America, or any agency of either, or with any other organization,

provided the terms are not inconsistent with State or Federal law.

- G. Prepare and recommend the official adoption of a historic preservation element as part of the County's comprehensive plan, at the request of the Board of Commissioners.
- H. Acquire by any lawful means the fee or any lesser included interest, including options to purchase, to any historic landmarks, land to which historic buildings or structures may be moved, or properties located within historic districts; hold, manage, preserve, restore and improve the interest; and exchange or dispose of the interest by public or private sale, lease, or otherwise, subject to covenants or other legally binding restrictions which will secure appropriate rights of public access and promote the preservation of the property. All lands, buildings, structures, sites, areas, or objects acquired by funds appropriated by the HPC, Board of Commissioners, or other County agency shall be acquired in the name of the Harnett County unless otherwise provided by the Board of Commissioners.
- I. Restore, preserve, and operate such historic properties.
- J. Enter, at reasonable times, upon private property designated as a historic landmark, within a historic district or under review for such designation and make examinations or surveys as necessary to the performance of its official duties. The HPC shall make a good faith attempt to notify the property owner(s) or his duly authorized agent prior to entry.
- K. Negotiate at any time with the owner(s) of a building, structure, site, area or object for its acquisition or its preservation, when such action is reasonably necessary and appropriate.

## **SECTION 9.0 PLANNING DIRECTOR & PLANNING DEPARTMENT STAFF**

Except as otherwise specifically provided, primary responsibility for administering and enforcing this Ordinance may be assigned by the County Manager to one (1) or more individuals. The person(s) to whom these functions are assigned shall be referred to herein as the Administrator. The term "staff" or "Planning Staff" may be used interchangeably with the term Administrator.

### **9.1 Director of Planning Services**

*Reserved*

### **9.2 Administrator**

The Administrator shall have the authority to administer the provisions of this Ordinance, as listed herein.

#### *9.2.1 Zoning Administrator*

The Manager of Planning Services, or his authorized agent, shall be the Zoning Administrator. The Zoning Administrator shall administer and enforce the zoning provisions of this Ordinance.

#### *9.2.2 Subdivision Administrator*

The Manager of Planning Services, or his authorized agent, shall be the Subdivision Administrator. The Subdivision Administrator shall administer and enforce the subdivision provisions of this Ordinance.

#### *9.2.3 Floodplain Administrator*

*Reserved*

#### *9.2.4 Water Supply Watershed Administrator*

The Harnett County Board of County Commissioners shall appoint a Watershed

Administrator, who shall be duly sworn in, herein referred to as “Watershed Administrator” or “Administrator.” It shall be the duty of the Watershed Administrator to administer and enforce the provisions of this Ordinance as follows:

- A. The Watershed Administrator shall issue, or cause to be issued, Watershed Protection Permits and Watershed Protection Occupancy Permits as prescribed herein. A record of all permits shall be kept on file and shall be available for public inspection during regular office hours of the Administrator.
- B. The Watershed Administrator or his designee shall serve as clerk to the Watershed Review Board.
- C. The Watershed Administrator shall keep records of the County’s utilization of the provision that a maximum of 10 percent (10%) of the non-critical area of WS III-BW watersheds may be developed with nonresidential development to a maximum of 70 percent (70%) built-upon surface area. Records for each watershed shall include:
  1. The total acres of non-critical watershed area;
  2. Total acres eligible to be developed under this option;
  3. Total acres approved for this development option; and
  4. Individual records for each project with the following information:
    - a. Location;
    - b. Acres of site plan;
    - c. Use;
    - d. Stormwater management plan as applicable; and
    - e. Inventory of hazardous materials as applicable
- D. The Watershed Administrator is granted the authority to administer and enforce the provisions of this Ordinance, exercising in the fulfillment of his responsibility the full police power of Harnett County. The Watershed Administrator, or his duly authorized representative, may enter any building, structure, or premises, as provided by law, to perform any duty imposed upon him by this Ordinance.
- E. A description of all projects receiving a variance and the reason for granting the variance shall be submitted to the Environmental Management Commission on January 1, of each year.

#### *9.2.5 Communication Tower Regulations Review*

The County may, through contract, secure the professional services of telecommunications consultants to assist County staff in the implementation of the communication tower regulations of this Ordinance. Such professional, services include, but are not limited to:

- A. Review and evaluation of permit applications;
- B. Determination of compliance with existing and proposed Federal regulations;
- C. Minimization of the aesthetic impact;
- D. Review of the technical data; and/or
- E. Expert testimony, as needed.

#### *9.2.6 Enforcement Officer*

The Manager of Planning Services, or his authorized agent, shall be the Enforcement Officer, herein referred to as “Enforcement Officer,” “Administrator,” or “Zoning

Inspector”, . The Enforcement Officer shall administer and enforce the provisions of this Ordinance.

### **9.3 Powers & Duties**

The Administrator shall have the following powers and duties, in addition to those items included in this Section:

- A. Administration of the provisions of this Ordinance
- B. Set forth procedure deemed necessary and appropriate to ensure this Ordinance is properly administered and enforced
- C. Administrative Review of Alternative Buffer & Screening Plan
- D. Administrative Review of Alternative Prime Views & Open Vistas
- E. Administrative Variances

## **SECTION 10.0 OTHER DEPARTMENTS**

Harnett County, within its jurisdictional authority, shall serve as the review and approval body for additional ordinance, regulation, and policy relating to the Departments listed herein. In no case shall inclusion of or reference to those ordinances or policies within this Section be construed to intended that the Harnett County Planning Department be responsible for administration or enforcement of such.

### **10.1 Register of Deeds**

The Planning Board of Harnett County shall file a copy of this Ordinance with the Register of Deeds of Harnett County. The Register of Deeds shall not thereafter file or record a plat of a subdivision located within the applicable territorial jurisdiction of Harnett County without the approval of the DRB and the County Commissioners, as required in this Ordinance. The filing or recording of a plat of a subdivision, without the approval of the DRB and the County Commissioners as required by this Ordinance, shall be null and void. The Clerk of Superior Court of Harnett County shall not order or direct the recording of a plat where such recording would be in conflict with this Section.

### **10.2 Review Officer**

#### *10.2.1 Review Officer Appointment*

Pursuant to GS 47-30.2, an appointed Harnett County Review Officer, shall review each map or plat prior to being submitted to the Register of Deeds Office for recording.

#### *10.2.2 Review Officer Location*

The Review Officer is located in the GIS/Land Records Division of Harnett County.

### **10.3 Fire Code Official**

*Reserved*

### **10.4 E-911 Addressing**

The E-911 Operations Administrator shall be responsible for enforcement of Article VI “General Development Standards,” Section “Addressing” of this Ordinance.

**10.5 County Engineer**

*Reserved*

**10.6 Public Health**

*Reserved*

**10.7 Public Utilities**

*Reserved*

**SECTION 11.0 COURTS**

All matters of the Courts shall be in accordance with local and State regulations.



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## **ARTICLE XII. AMENDMENTS, HEARING PROCEDURES, APPEALS, & VARIANCES**

### **SECTION 1.0 RESERVED**

*Reserved*

### **SECTION 2.0 AMENDMENTS**

#### **2.1 General Procedures**

The Harnett County Board of Commissioners may amend, supplement, or change the text regulations and zoning district lines according to the following procedures:

Upon the filing of an application for a zoning change a stay shall go into effect for properties specified within said application, whereby the Harnett County Planning Department, Harnett County Environment Health Department, Harnett County Public Utilities Department, and Harnett County Inspections Department shall not accept applications for permits, requests for approval of minor subdivisions, preliminary plats for major subdivisions, and manufactured home parks within the proposed zoning area. This stay shall exist for 120 days from the date the application or petition is filed with the Harnett County Planning Department or until the petition is approved or disapproved by the Harnett County Board of Commissioners, whichever first occurs. However, those applications for permits, minor subdivision approvals, and preliminary plat approvals meeting all provisions of the proposed zoning district, and not in conflict with the current zoning, will be accepted and processed provided approval has been granted or recommended by the Administrator or his designee.

##### *2.1.1 Action by the Applicant*

The following actions shall be taken by the applicant:

##### A. Initiation of Amendments

1. Proposed changes or amendments to the Official Zoning Map may be initiated by the County Board of Commissioners, Planning Board, Board of Adjustment, Planning Department, or by the owner(s), or his agent, of property within the area proposed to be changed. Property not owned by the applicant(s) may be included as part of a proposed amendment to the Official Zoning Map. Applications by the owner(s) or his agent for changes or amendments to the Official Zoning Map may be submitted no more than once within a 12 month period for each individual parcel of property. This waiting period shall not apply to zoning map amendment requests initiated by the County Board of Commissioners, Planning Board, Board of Adjustment, or Planning Department.
2. Proposed amendments to the text of the Ordinance may be initiated by any interested party.

##### B. Application

1. An application shall be filed in the Planning Department Office, according to the filing schedule, for any proposed map change or text amendment. This application shall cite the area on the existing map or the portion of the existing Ordinance for which the change is requested.
2. The County Board of Commissioners shall set a fee, payable to Harnett County, North Carolina, to cover the necessary administrative costs and advertising of each proposed amendment or map change application. The set fee shall be posted in the County's Planning Department Office. The Planning Department, Planning Board, Board of Adjustment, and Board of County Commissioners shall be exempted from this fee.

### *2.1.2 Action by Planning Department Staff*

Planning Staff shall, upon receipt of an application for amendment, review such application for completion. Incomplete applications may be returned to the applicant(s) and/or delayed in review by applicable Boards due to insufficiencies. Upon receipt of a completed application, Planning Staff will review and compare to best available information and data used to evaluate appropriateness of amendment requests. Planning Staff will then make a recommendation on the amendment request, included as part of a staff report, which will be presented to the applicable Boards.

### *2.1.3 Action by the Planning Board*

The Planning Board shall consider and make recommendations to the County Board of Commissioners concerning each proposed text change or zoning district change. The following policy guidelines shall be followed by the Planning Board concerning text change or zoning district change and no proposed zoning district change will receive favorable recommendation unless the intent of the following statements are met.

- A. The proposal will place all property similarly situated in the area in the same category, or in appropriate complementary categories.
- B. There is convincing demonstration that all uses permitted under the proposed district classification would be in the general public interest and not merely in the interest of an individual or small group.
- C. There is convincing demonstration that all uses permitted under the proposed district classification would be appropriate in the area included in the proposed change. (When a new district designation is assigned, any use permitted in the district is allowable, so long as it meets district requirements, and not merely uses which applicants state they intend to make of the property involved.)
- D. There is convincing demonstration that the character of the neighborhood will not be materially and adversely affected by any use permitted in the proposed change.
- E. The proposed change is in accordance with the comprehensive plan and sound planning principles.

In cases where a zoning district change request is recommended for approval by the Planning Board but does not correspond with the adopted Land Use Plan, the Planning Board shall further recommend that the Land Use Plan be amended as appropriate. See Subsection "Land Use Plan Amendments" of this Section, below, for additional information.

### *2.1.4 Action by the Board of County Commissioners*

The County Board of Commissioners may from time to time as they see fit, amend any provisions of this Ordinance according to the following procedure:

- A. Notice of Public Hearing
  - 1. No amendment or map change shall be adopted by the County Board of Commissioners until and after public notice and hearing. Such notice and hearing shall be as provided in NC Statute 160D-323 and 160D-343 as each may exist from time to time.
  - 2. Before taking such lawful action as it may deem advisable, the County Board of Commissioners shall consider the Planning Board's recommendations on each proposed zoning amendment or map change. If no recommendation is received from the Planning

Board within 30 days after public hearing by the County Board of Commissioners, the proposed amendment shall be deemed to have been approved by the Planning Board.

B. **Statement of Consistency**

As required, whenever the County Board of Commissioners makes a decision to adopt or reject an amendment, the Board shall approve a written statement describing whether the action is consistent with adopted plan(s). For purposes of this Ordinance, the required written statement shall be considered the staff report, unless otherwise specifically stated in the decision motion by the Board.

## **2.2 Zoning Map & Text Amendments**

Zoning map and text amendments shall follow the procedures outlined above.

## **2.3 Amendments to Historic Preservation Regulations**

No amendment shall receive recommendation from the Harnett County Planning Board unless the Historic Properties Commission has first been given the opportunity to make a recommendation on an application for any text, district, or designation change regulated by Article “Historic Preservation” of this Ordinance.

## **2.4 Amendments to Airport Height Control Regulations**

No amendment shall receive favorable recommendation unless the application for any text or map change located within the boundary created by the airport control regulations shall be accompanied by a determination from the Federal Aviation Administration (FAA) as to the effect of the proposal on the operation of air navigation facilities and the safe, efficient use of navigable airspace. Additionally, no amendment shall receive recommendation from the Harnett County Planning Board unless the Airport Committee has first been given the opportunity to make a recommendation on an application for any change regulated by Article “Airport Height Control” of this Ordinance.

## **2.5 Amendments to Water Supply Watershed Regulations**

The NC DENR will be informed of all amendments to this Section that represent major changes in land use regulations related to all water supply watersheds located in the jurisdiction of Harnett County.

## **2.6 Land Use Plan Amendments**

### *2.6.1 General Land Use Plan Amendments*

Amendments to the Land Use Plan shall be considered for approval following the same procedure for text amendments of this Ordinance, as outlined herein. For the purposes of this Ordinance, an amendment to the Land Use Plan shall be considered as such in regards to advertising, public hearings, and all other similar requirements.

### *2.6.2 Land Use Plan Amendments Made in Conjunction with Zoning Map/Change Amendments*

Where a proposed zoning change petition conflicts with the Land Use Plan, the Planning Staff may also request a Land Use Plan amendment, to be considered simultaneously with the zoning district change request, as outlined herein.

- A. In such a case, the Planning Board and County Board of Commissioners shall consider the plan amendment proposal and the zoning change petition separately, and shall vote separately on the

two (2) items (though the votes may occur simultaneously).

- B. The Planning Board shall submit its report and recommendation regarding the Land Use Plan amendment to Board of Commissioners at the same time it submits its report and recommendation regarding the zoning change petition.
- C. For the purposes of this Section, Land Use Plan amendments will automatically be advertised in conjunction with the zoning district change request.

### **SECTION 3.0 HEARING & MEETING PROCEDURES**

#### **3.1 Evidentiary Hearing (Quasi-judicial) Procedures (Special Use Permit)**

##### *3.1.1 Evidentiary Hearing Notification Procedures*

The Chairman of the Board of Adjustment shall schedule an evidentiary hearing on the application for a Special Use permit to be held within 60 days after the application is filed.

##### A. Mailed Notice

Those property owners directly affected by a request heard as an evidentiary hearing shall be notified of the request and hearing by individual mailed notice. This notice shall be provided to all adjoining property owners. The property owners shall be determined using best available County tax records. Planning Department staff shall maintain a record of those property owners notified, a copy of the mailing itself, and the date on which the mailing was done. This notice shall be sent via first class mail, made at least 10 days but not more than 25 days prior to the evidentiary hearing, and shall include information regarding the proposed request, and the time and place of the hearing.

##### B. Posted Notice

A notice of the evidentiary hearing shall be posted on the affected site. The County shall determine an appropriate time and number of postings, so long as the posting provides reasonable notice to interested parties.

##### *3.1.2 Reserved*

##### *3.1.3 Action by the Board of Adjustment*

The Board of Adjustment shall approve, modify, or deny the application for Special Use permit following the evidentiary hearing. In granting a Special Use permit, the Board of Adjustment shall make written findings that the applicable regulations of the district in which it is located are fulfilled.

##### A. Findings of Fact

With due regard to the nature and state of all adjacent structures and uses, the district within which it is located, and official plans for future development, the Board of Adjustment shall also make required written findings of fact that the following provisions are fulfilled.

1. The requested use will not materially endanger the public health and safety;
2. The requested use meets, or will meet, all required conditions and specifications;
3. The requested use will not substantially injure the value of adjoining property, or, alternatively, the requested use is or will be a public necessity;
4. The requested use is in harmony with the surrounding area and compatible with the surrounding neighborhood; and
5. The requested use is in general conformance with the Harnett County Unified Development

Ordinance (UDO), Land Use Plan, and other relevant adopted plans.

#### *3.1.4 Conditions of Approval*

The Board of Adjustment applies existing regulations of this Ordinance and does not have unlimited discretion to apply conditions on approval for a Special Use application unless those conditions are reasonable and specifically address one (1) or more of the required findings of fact. Special Use permit hearings are not the appropriate place to make policy; rather the Board is applying previously set policies to an individual case. The conditions can be general (for example, the activity shall not have a significant adverse effect on neighboring property values and the activity be compatible with the surrounding neighborhood), specific (for example, the use shall be located on a lot of at least 40,000 square feet), or a combination of general and specific standards.

Conditions placed upon a Special Use permit may include but are not limited to the following:

- A. Such conditions may include a time limitation.
- B. Conditions may be imposed which require that one (1) or more things be done before the use requested can be initiated. For example, “A solid board fence shall be erected around the site to a height of six (6) feet before the use requested is initiated.”
- C. Conditions of a continuing nature may be imposed. For example, “Exterior loud speakers shall not be used between the hours of 10:00 PM and 8:00 AM.”

#### *3.1.5 Abandonment of a Special Use Permit*

The Board of Adjustment shall have the authority to approve the abandonment of a Special Use permit at the written and signed request of the permit holder if it determines that:

- A. No construction or activity authorized by the Special Use permit has been started and the starting time limit has not yet expired; or
- B. The development or use authorized by the Special Use permit no longer requires a Special Use permit, and all conditions of the approval have been satisfied.

#### *3.1.6 Revocation of a Special Use Permit*

A Special Use permit may be revoked by the Board of Adjustment if the permit recipient fails to develop or maintain the property in accordance with the plans submitted, the requirements of this Ordinance, or any additional requirements lawfully imposed by the Board of Adjustment.

- A. Before a Special Use permit may be revoked, all of the notice and hearing procedures of the Ordinance shall be complied with. The notice shall inform the permit holder of the alleged grounds for the revocation.
- B. The burden of presenting evidence sufficient to authorize the Board of Adjustment to conclude that a Special Use permit should be revoked for any reason shall be upon the party advocating that position. The burden of persuasion shall also be upon that party.
- C. A motion to revoke a Special Use permit shall include, insofar as practicable, a statement of the specific reasons or findings of fact that support the motion.

### **3.2 Public Meeting Procedures**

#### *3.2.1 Public Meeting Notification Procedures*

Notification to the public for public meetings may be made via one (1) or more of the

following methods.

- A. Notice of the public meeting shall be posted on the property.
- B. The public meeting shall be open to the public and all interested persons shall be given the opportunity to present evidence and arguments and to ask questions of persons who testify.

### *3.2.2 Public Hearing Notification Procedures*

Zoning amendments, both text and map amendments, shall be considered for approval only after a properly advertised public hearing is held, in compliance with the North Carolina General Statutes. Those procedures are outlined herein.

#### A. Published Notice

Notice of the public hearing shall be published in at least two (2) newspaper advertisements, in a publication of general circulation in the area affected. The first of the two (2) notices shall be published at least 10 days, but not more than 25 days, prior to the hearing. The second notice shall appear in a separate calendar week.

#### B. Mailed Notice

Those property owners directly affected by a zoning map amendment shall be notified of the request and hearing by individual mailed notice. This notice shall be provided to all adjoining property owners, as well as to the owners of the property to be rezoned. The property owners shall be determined using best available County tax records. Planning Department staff shall maintain a record of those property owners notified, a copy of the mailing itself, and the date on which the mailing was done. This notice shall be sent via first class mail, made at least 10 days but not more than 25 days prior to the public hearing, and shall include information regarding the proposed zoning change, and the time and place of the hearing.

#### C. Posted Notice

A notice of the public hearing for a zoning map amendment shall be posted on the affected site. The County shall determine an appropriate time and number of postings, so long as the posting provides reasonable notice to interested parties.

#### D. Large Scale Zoning Changes

When large scale zoning changes are proposed, those affecting more than 50 parcels with at least 50 different property owners, the County may have the option of providing an expanded published notice instead of individual mailed notices. With this alternative, the County shall run two (2) half-page newspaper advertisements for the hearing, post a notice on the site, and mail notice to those property owners who live outside of the newspaper's circulation area.

#### E. Additional Requirements

The County may establish notice requirements in addition to those required by the General Statutes.

## **SECTION 4.0 APPEALS**

It is the intention of this Ordinance that all questions arising in connection with the enforcement of this Ordinance shall be presented first to the Administrator. Such questions shall be presented to the Board of Adjustment or Planning Board only on appeal of a decision of the Administrator or Development Review Board and within the time limits prescribed in this Ordinance. Recourse for appeal of a decision of the Board of Adjustment or Planning Board shall be to the courts as provided by law. Appeals of the Administrator shall be made to the Board of Adjustment, except in cases of appeal of the Subdivision Administrator or Development Review Board, which are appealed to the Planning Board.

An appeal of the Administrator stays all proceedings in furtherance of the action appealed from unless the Administrator certifies to the Board of Adjustment or Planning Board that by reason of facts stated in the record a stay would, in his opinion, cause eminent peril to life and or property. In such a case proceedings shall not be stayed other than by an order from the Harnett County Superior Court.

#### **4.1 Appeal of the Administrator**

Review of a decision of the Administrator shall be made by the Board of Adjustment or Planning Board, in accordance with this Ordinance, upon request of the aggrieved party within 30 days of the date of the decision. A complete application shall be submitted to the County Planning Department Office, including all required information and applicable fees. Reviews by the Board of Adjustment or Planning Board of administrative appeals are quasi-judicial and shall follow the procedural standards for such.

#### **4.2 Appeal of the Development Review Board**

Review of a decision of the Development Review Board shall be made to the Planning Board upon request of the aggrieved party within 30 days of the date of the decision. A complete application shall be submitted to the County Planning Department Office, including all required information and applicable fees. The Planning Board shall conduct a de novo review of the Development Review Board decision.

#### **4.3 Appeal of the Watershed Administrator**

Any order, requirements, decision, or determination made by the Watershed Administrator may be appealed to and decided by the Watershed Review Board.

- A. An appeal from a decision of the Watershed Administrator shall be submitted to the Watershed Review Board within 30 days from the date the order, interpretation, decision, or determination is made. All appeals shall be made in writing stating the reasons for appeal. Following submission of an appeal, the Watershed Administrator shall transmit to the Board all papers constituting the record upon which the action appealed from was taken.
- B. An appeal stays all proceedings in furtherance of the action appealed, unless the Administrator from whom the appeal is taken certifies to the Board after the notice of appeal has been filed with him, that by reason of facts stated in the certificate, a stay would in his opinion cause imminent peril to life or property. In such case, proceedings shall not be stayed otherwise than by a restraining order which may be granted by a court of record on application of notice of the Administrator from whom the appeal is taken and upon due cause shown.
- C. The Board shall fix a reasonable time for hearing the appeal and give notice thereof to the parties and shall decide the same within a reasonable time. At the hearing, any party may appear in person, by agent or by attorney.

#### **4.4 Appeal of the Board of Adjustment**

Any interested party may seek review of a decision of the Board of Adjustment in Superior Court in the nature of certiorari. Any appeal to the Superior Court shall be made within 30 calendar days after the decision of the Board of Adjustment has been filed. Such decision shall be filed with the Clerk to the Board of Adjustment in the County Planning Department Office.

### **SECTION 5.0 VARIANCES**

A grant of relief from the requirements of this Ordinance may be requested, following the provisions of this Section, where unusual circumstances specific to the property exist, and where literal

enforcement would result in unnecessary and undue hardship; provided however that the need for the variance was not caused by the applicant or property owner. This Section does not provide for use variances or enlargement of existing nonconformities beyond what this Ordinance provides for. Notice of variance requests shall follow “Evidentiary Hearing Notification Procedures” of this Article.

### **5.1 Zoning Variance Procedures**

Zoning regulation variances may be granted in such individual case of unnecessary hardships only upon findings by the Board of Adjustment after a public hearing that the following conditions exist. Additionally, the existence of a nonconforming use on neighboring land, buildings, or structures in the same district or of permitted or nonconforming uses in other districts shall not constitute a reason for the requested variances. Individual variances may be made subject to conditions, as imposed by the Board of Adjustment.

No change in permitted uses may be authorized by variance. Appropriate conditions may be imposed on any variance, provided that the conditions are reasonably related to the variance. Any other ordinance that regulates land use or development may provide for variances consistent with the provisions of this subsection.

As per S.L. 2013-126, when unnecessary hardships would result from carrying out the strict letter of this ordinance, the Board of Adjustment shall vary any of the provisions of the ordinance upon a showing of all of the following:

- A. Unnecessary hardship would result from the strict application of the ordinance. It shall not be necessary to demonstrate that, in the absence of the variance, no reasonable use can be made of the property.
- B. The hardship results from conditions that are peculiar to the property, such as location, size, or topography. Hardships resulting from personal circumstances, as well as hardships resulting from conditions that are common to the neighborhood or the general public, may not be the basis for granting a variance.
- C. The hardship did not result from actions taken by the applicant or the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a variance shall not be regarded as a self-created hardship.
- D. The requested variance is consistent with the spirit, purpose, and intent of the ordinance, such that public safety is secured and substantial justice is achieved.

### **5.2 Subdivision Variance Procedures**

The Planning Board may vary from the design standards and improvements required by this Ordinance, after finding that the following conditions exist:

- A. There are extraordinary and exceptional conditions pertaining to the particular piece of property in question because of its size, shape, or topography that are not applicable to other lands or structures.
- B. Granting the variance requested will not confer upon the subdivider(s) any special privileges that are denied to others.
- C. A literal interpretation of the provisions of this Ordinance would deprive the subdivider(s) of rights commonly enjoyed by others.
- D. The requested variance will be in harmony with the purpose and intent of this Ordinance and will not be injurious to the neighborhood or to the general welfare.
- E. The special circumstances are not the result of the actions of the subdivider(s).



- F. The variance requested is the minimum needed.
- G. The burden of producing substantial evidence to support the required findings by the Planning Board is clearly upon the applicant(s). The Planning Board shall deny any request for a variance that is not directly supported by substantial and credible evidence.
- H. Land uses on adjoining property may be considered by the Planning Board during its deliberation. However ownership of any adjoining property by direct lineal descendants or direct lineal ascendants of the applicant(s) or subdivider(s) shall not be considered by the Planning Board.

No variance shall be granted which conflicts with any other local, State, or Federal statutes, Ordinances, or regulations. The subdivider shall submit a written request and justification for any such variance and the Planning Board may attach to the granting of such a variance any conditions necessary to insure that the purpose and intent of this Ordinance is not compromised.

### **5.3 Flood Damage Prevention Variance Procedures**

The following shall regulate application for variances from the flood damage prevention regulations of this Ordinance.

- A. Variances may be applied issued for when:
  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; or
  2. Functionally dependant facilities if determined to meet the definition as stated in Section “Natural Resources Definitions & Acronyms” of Article XIV “Definitions & Certifications” of this Ordinance; or
  3. Any other type of development, provided it meets the requirements stated in this Section.
- B. In passing of variances, the Appeal Board shall consider all technical evaluations, all standards specified in other parts 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 as defined under Section “Natural Resources Definitions & Acronyms” of Article XIV “Definitions & Certifications” of this Ordinance as a functionally dependant facility, 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 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 flood waters 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.
- C. A written report addressing each of the above factors shall be submitted with the application for a variance, along with all other variance application requirements of this Ordinance.
  - D. Upon consideration of the factors listed above and 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.
  - E. Variances shall not be issued within any designation floodway or non-encroachment area if any increase in flood levels during the base flood discharge would result.
  - F. 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 only be issued upon determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
    - 3. 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, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
    - 4. Any applicant to whom a variance is granted shall be given written notice specifying the difference between the Base Flood Elevation (BFE) and the elevation to which the structure is to be built and a written statement that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced level elevation. Such notification shall be maintained with a record of all variance actions.
    - 5. Variances shall only be issued prior to development permit approval.
    - 6. The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency and the State of North Carolina upon request.
  - G. A variance may be issued for solid waste disposal facilities, hazardous waste management facilities, salvage yards, and chemical storage facilities that are located in Special Flood Hazard Areas provided that all of 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; and
    - 5. Harnett County has notified the Secretary of the North Carolina Department of Crime Control and Public Safety of its intention to grant a variance at least 30 calendar days prior to granting the variance.

#### **5.4 Water Supply Watershed Variance Procedures**

- A. Applications for a variance shall be made on the proper application, obtainable from the Watershed Administrator and shall include the following information:

1. A site plan, drawn to a scale of at least one (1) inch to 40 feet, indicating:
    - a. The property lines of the parcel upon which the use is proposed;
    - b. Any existing or proposed structures;
    - c. Parking areas and other built-upon areas;
    - d. Surface water drainage;
    - e. North point;
    - f. Name and address of person who prepared the plan;
    - g. Date of the original drawing; and
    - h. An accurate record of any later revisions.
  2. A complete and detailed description of the proposed variance together with any other pertinent information which the applicant(s) feels would be helpful to the Watershed Review Board in considering the application.
  3. The Watershed Administrator shall notify in writing each local government having jurisdiction in the watershed and such other entities using the water supply for consumption. Such notice shall include a description of the variance being requested. Local governments receiving notice of the variance request may submit comments to the Watershed Administrator prior to a decision by the Watershed Review Board. Such comments shall become a part of the record of proceedings of the Watershed Review Board.
- B. Before the Watershed Review Board may grant a variance, it shall make the following three (3) findings, which shall be recorded in the permanent record of the case, and shall include the factual reasons on which they are based:
1. There are practical difficulties or unnecessary hardships in the way of carrying out the strict letter of the Ordinance. In order to determine that there are practical difficulties or unnecessary hardships, the Board shall find that the five following conditions exist:
    - a. If he complies with the provisions of the Ordinance, the applicant can secure no reasonable return from, nor make reasonable use of his property. Merely proving that the variance would permit a greater profit to be made from the property will not be considered adequate to justify the Board in granting a variance. Moreover, the Board shall consider whether the variance is the minimum possible deviation from the terms of the Ordinance that will make possible the reasonable use of his property.
    - b. The hardship results from the application of the Ordinance to the property rather than from other factors such as deed restrictions or other hardships.
    - c. The hardship is due to the physical nature of the applicant's property, such as its size, shape, or topography, which is different from that of neighboring property.
    - d. The hardship is not the result of the actions of an applicant who knowingly or unknowingly violates the Ordinance, or who purchases the property after January 1, 1994, and then comes to the Board for relief.
    - e. The hardship is peculiar to the applicant's property, rather than the result of conditions that are widespread. If other properties are equally subject to the hardship created in the restriction, then granting a variance would be a special privilege denied to others, and would not promote equal justice.
  2. The variance is in harmony with the general purpose and intent of the Ordinance and preserves its spirit.
  3. In the granting of the variance, the public safety and welfare have been assured and substantial

justice has been done. The Board shall not grant a variance if it finds that doing so would in respect impair the public health, safety, or general welfare.

- C. In granting the variance the Board may attach thereto such conditions regarding the location, character, and other features of the proposed building, structure, or use as it may deem advisable in furtherance of the purpose of this Ordinance. If a variance for the construction, alteration or use of property is granted, such construction, alteration, or use shall be in accordance with the approved site plan.
- D. The Watershed Review Board shall refuse to hear an appeal or an application for a variance previously denied if it finds that there have been no substantial changes in conditions or circumstances bearing on the appeal or application.
- E. A variance issued in accordance with this Section shall be considered a Watershed Protection Permit and shall expire if a Building Permit or Watershed Occupancy Permit for such use is not obtained by the applicant within six (6) months from the date of the decision.
- F. If the application calls for the granting of a major variance, and if the Watershed Review Board decides in favor of granting the variance, the Board shall prepare a preliminary record of the hearing. The preliminary record of the hearing shall include:
  - 1. The variance application;
  - 2. The hearing notices;
  - 3. The evidence presented;
  - 4. Motions, offers of proof, objections to evidence, and rulings on them;
  - 5. Proposed findings and exceptions;
  - 6. The proposed decision, including all conditions proposed to be added to the permit.
- G. The preliminary record shall be sent to the Environmental Management Commission for its review as follows:
  - 1. If the Commission concludes from the preliminary record that the variance qualifies as a major variance and that:
    - a. The property owner(s) can secure no reasonable return from, nor make any practical use of the property unless the proposed variance is granted; and
    - b. The variance, if granted, will not result in a serious threat to the water supply, then the Commission shall approve the variance as proposed or approve the proposed variance with conditions and stipulations.

The Commission shall prepare a Commission decision and send it to the Watershed Review Board. If the Commission approves the variance as proposed, the Board shall prepare a final decision granting the proposed variance. If the Commission approves the variance with conditions and stipulations, the Board shall prepare a final decision, including such conditions and stipulations, granting the proposed variance.
  - 2. If the Commission concludes from the preliminary record that the variance qualifies as a major variance and that:
    - a. The property owner(s) can secure a reasonable return from or make a practical use of the property without the variance; or
    - b. The variance, if granted, will result in a serious threat to the water supply, then the Commission shall deny approval of the variance as proposed.

The Commission shall prepare a Commission decision and send it to the Watershed Review Board. The Board shall prepare a final decision denying the variance as proposed.

## **5.5 Airport Height Control Variance Procedures**

The application for variance shall be accompanied by a determination from the Federal Aviation Administration (FAA) as to the effect of the proposal on the operation of air navigation facilities and the safe, efficient use of navigable airspace. Such variances shall be allowed where it is duly found that a literal application or enforcement of the regulations will result in unnecessary hardship, and relief granted will not be contrary to the public interest, will not create a hazard to air navigation, will do substantial justice, and will be in accordance with the spirit of this Section. Additionally, no application for variance to the requirements of this Ordinance may be considered by the Board of Adjustment unless a copy of the application has been furnished to the Harnett County Airport through the Planning Department and Airport Administrator, or other designated County department head, for advice as to the aeronautical effects of the variance.

Variances shall be allowed where it is duly found that:

- A. A literal application or enforcement of the regulations will result in unnecessary hardship;
- B. Relief granted, will not be contrary to the public interest,
- C. Relief granted will not create a hazard to air navigation;
- D. Relief granted will do substantial justice; and
- E. Relief granted will be in accordance with the spirit of the Ordinance.

Additionally, no application for variance to the requirements of this Ordinance may be considered by the Board of Adjustment unless a copy of the application has been furnished to the Airport Administrator for advice as to the aeronautical effects of the variance. If, however, failure of the Airport Administrator to provide a recommendation within 45 days of his receipt of the variance request shall be considered a recommendation for approval.

## **5.6 Administrative Variance Procedures**

The Administrator shall have the authority to issue an administrative variance for the zoning regulations of this Ordinance following the regulations listed herein:

Encroachments of a principle building into any required yard up to a maximum of ten percent (10%) of the applicable required yard setback provided that:

- A. The request involves only one (1) encroachment into one (1) required yard per lot;
- B. The encroachment is a result of a construction error by the property owner or a person acting on his behalf;
- C. The encroachment cannot be corrected without substantial hardship and expense to the property owner; and
- D. The encroachment, if approved, will not substantially interfere with the convenient and enjoyable use of adjacent properties and will not pose any substantial danger to the public health and safety.

## **SECTION 6.0 JUDICIAL REVIEW**

Judicial review, as provided by the State of North Carolina, shall follow the procedures outlined by the North Carolina General Statutes.

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## **ARTICLE XIII. ENFORCEMENT & PENALTIES**

### **SECTION 1.0 ADMINISTRATION & ENFORCEMENT**

The Manager of Planning Services or his authorized agent shall be the Administrator. The Administrator shall administer and enforce this Ordinance, and shall set forth procedure deemed necessary and appropriate to ensure this Ordinance is properly administered and enforced. If the Administrator or his designee finds that any provisions of the Ordinance are being violated, notification shall be given to the property owner(s) indicating the nature of the violation and ordering corrective action.

#### **1.1 Duty to Investigate**

When the Administrator finds a violation of this Ordinance or receives a complaint alleging a violation of this Ordinance, it shall be his duty to investigate the complaint and determine whether a violation exists.

#### **1.2 Emergency Enforcement**

In cases where delay would seriously threaten the effective enforcement of this Ordinance or pose a danger to the public health, safety, or welfare, the Administrator may seek enforcement of this Ordinance without prior written notice by invoking any of the penalties or remedies herein authorized.

### **SECTION 2.0 AUTHORITY**

Harnett County shall enforce this Ordinance under the authority of North Carolina General Status 160D-123.

### **SECTION 3.0 VIOLATIONS**

#### **3.1 General**

It shall be unlawful and a violation of this Ordinance to establish, create, expand, alter, occupy, or maintain any use, land development activity, or structure, including but not limited to signs, and buildings, that violates or is inconsistent with any provisions of this Ordinance or any other approval, or authorization issued pursuant to this Ordinance. Approvals and authorizations include, but are not limited to: Special Use permits, sign permits, certificates of compliance, variances, building permits, development plans, site plans, and conditions of such permits, variances, and plans.

#### **3.2 Approval Required**

It shall also be a violation to engage in any construction, land development activity, or use, without all approvals and authorizations required by this Ordinance.

#### **3.3 Separate Offense**

Each day that a violation continues after notification by the Administrator, such violation shall be considered a separate offense for purpose of penalties and remedies specified herein.

### **SECTION 4.0 INSPECTIONS & INVESTIGATIONS**

A program of inspection and investigations to determine compliance with this Ordinance and orders, plans, permits, and authorizations issued under this Ordinance is hereby authorized. This program

shall be conducted and carried out under the general authority of the Manager of Planning Services, or designee. Violations of this Ordinance that are deemed to be in violation of other local, State, or Federal agency regulations may be forwarded to those agencies for further review and action.

#### **4.1 Inspections on Private Property**

Inspections on private property to determine compliance may be made at any reasonable time with consent of the occupant or property owner upon presentation of credentials. Inspections may also be made when an administrative search and inspection warrant has been issued pursuant to NCGS 15-27.2 by a proper judicial official. To obtain a warrant, the Administrator shall show through facts supplied in a sworn affidavit that either:

- A. The inspection is being conducted as part of an administrative plan to inspect all properties of a certain type, and the determination of the properties to inspect was made in accordance with neutral criteria; or
- B. That there is probable cause for believing that a violation may exist.

### **SECTION 5.0 NOTIFICATION**

#### **5.1 General**

The Administrator shall notify the owner(s) of property and/or permittee(s) found to be in violation of this Ordinance in writing by personal delivery, electronic delivery, or first class mail. Notifications may be provided by similar means to the occupant(s) of the property or person(s) undertaking an activity found to be in violation. The notice of violation shall give a description of the violation and its location, the measures necessary to correct it, the possibility of civil penalties and judicial enforcement action, and notice of the right to appeal. The notice shall also state the time period allowed, if any, to correct the violation. Time period for compliance may vary depending on the nature of the violation.

#### **5.2 Posted Notice of Violation**

The Administrator may give notice by way of posting notice of the violation conspicuously on the property. The official providing the notice of violation shall certify to the local government that the notice was provided and the certificate shall be deemed conclusive in the absence of fraud. The posting of the notice of violation is considered County property and removal of the posting shall be considered a criminal offense. Once the posting has been made, whether or not the posting has been removed, it shall be treated as official notice of the violation.

### **SECTION 6.0 REMEDIES**

In order to ensure compliance with the provisions stated in this Ordinance, the Administrator may utilize the following remedies to prevent, correct, or abate a violation. In a situation where a development approval is called to be revoked, the Administrator shall follow that same process as utilized for approval.

- A. Order the discontinuance of illegal use of land, buildings, or structures; or
- B. Order removal of illegal motor vehicles, signs, buildings, structures, additions, alterations, or structural changes thereto; or
- C. Order the discontinuance of any illegal work being done; or
- D. Call for denial or withhold approval of any permit provided for in this Ordinance that is sought for the

property on which the violation exists until such time that the violation is remedied; or

- E. Revoke any permit issued in conjunction with this Ordinance (see Article XII “Interpretations, Amendments, Hearing Procedures, Appeals, & Variances” for the procedure for revocation of Special Use permits); or
- F. Revoke any required certificate of zoning compliance due to failure to comply with this Ordinance; and/or
- G. Withhold any permit or certificate of compliance provided for in this Ordinance for a property, or property under development, that is in violation of this Ordinance, or any other State or Federal regulations.

**6.1 Forfeiture & Confiscation of Signs**

Any illegal sign installed or placed on public property or within the public right-of-way shall be subject to forfeiture to the public and confiscated. The County shall retain such illegal signs for a minimum period of seven (7) days at the Planning Department Office. Upon initial violation of this Section, the Planning Department shall make one (1) attempt to notify the property and/or sign owner(s). Notification of the initial violation shall be deemed sufficient and additional notification shall not be required for subsequent violations by the same owner. In addition to other remedies and penalties of this Ordinance, the County has the right to recover from the sign owner, or person who placed the sign, all applicable fees.

**6.2 Conservation Zoning District & Natural Resource Violations**

Any violation of Article X “Natural Resources” and/or Article IV “Zoning & Overlay Districts”, Section 11 “Conservation” shall be remedied by returning the subject area to the condition(s) prior to the violation.

**SECTION 7.0 COMPLIANCE PERIOD**

A specified time frame shall be given to render compliance to a violation as noted in the notice of violation. A mandatory re-inspection shall take place to evaluate the status of the violation at the end of the compliance period. An extension may be requested by the property owner in writing to the Administrator providing valid evidence as to the reason for failure to comply within the specified time. If compliance is not rendered nor an extension is granted, the Administrator shall proceed with the assessment of penalties as described in Subsection “Penalties” of this Section. Compliance periods shall be in conjunction with the severity of the violation.

**7.1 Compliance Period Table**

The Administrator shall have the ability to amend the specific time period for compliance due to the nature of the violation if considerable work has been done in an attempt to remedy the violation or if such violation is determined to be a potential risk to the public health, safety, and general welfare.

NATURE OF VIOLATION	SPECIFIED COMPLIANCE PERIOD
Junked/Abandoned Vehicles	5 Calendar Days
Abandoned Manufactured Homes	60 Calendar Days
Illegal Signs	0-5 Calendar Days
Manufactured Home Park / Certificate of Zoning Compliance	30 Calendar Days
Landscaping & Plantings	180 Calendar Days
Zoning, Subdivision, & Historic Preservation Regs.	30 Calendar Days



All Other Regulations	30 Calendar Days
Subsequent Violations	0 Calendar Days

**SECTION 8.0 PENALTIES**

The Administrator shall be authorized to use any one (1) or more of the methods described in this Section, or action authorized by law, to insure compliance with or to prevent a violation of the provisions of this Ordinance.

**8.1 Civil Penalties**

Any person who violates any provisions of this Ordinance may be subject to assessment of the maximum civil penalty of up to \$500.00 per violation.

*8.1.1 Civil Citations*

A civil citation shall be issued to any person(s) failing to take corrective action within the specific compliance period given by the Administrator after receiving written notice from the Harnett County Planning Department. Each day such violation exists after the expiration of the compliance period shall constitute a separate offense and be charged as a separate violation. Each said violation shall be subject to a civil penalty in the amount of 100 dollars (\$100.00) per day until such violation has reached compliance. Failure to pay the penalty within 15 days from the receipt of the notice of civil penalty shall subject themselves to a civil action in the nature of debt for the stated penalty plus any additional penalties, together with the cost of the action to be taxed by the Court.

*8.1.2 Citation Content*

A citation issues for a violation of this Ordinance shall, among other things:

- A. State upon its face the amount of the penalty for the specific violation if the penalty is paid within 15 days from and after issuance of the citation;
- B. Notify the offender that a failure to pay the penalty within the prescribed time shall subject the offender to a civil action in the nature of debt for the stated penalty plus any additional penalties, together with the cost of the action to be taxed by the Court;
- C. Further provide that the offender may answer the citation by mailing the citation and the stated penalty to Post Office Box 65, Lillington North Carolina, 27546, or may pay the amount in person at the Harnett County Planning Department Office; and/or
- D. State that a citation following the original notice of violation shall be appealed to the Board of Adjustment.

*8.1.3 Settlement of Civil Claim*

The Harnett County Planning Department is authorized to accept payment in full and final settlement of the claim(s), right or rights of action which the County may have to enforce such penalty by civil action in the nature of debt. Acceptance of a penalty shall be deemed a full and final release of any and all claims, or right of action arising out of contended violations, only if the activities or non-activities which gave rise to the violations are abated or otherwise made lawful.

*8.1.4 Additional Penalty*

A penalty of 25 dollars (\$25.00), in addition to the one imposed for payment within 15 days, shall apply in those cases in which the penalties prescribed in this section have not been paid

within the prescribed 15 days period and in which a civil action shall have been instituted.

## **8.2 Criminal Prosecution**

Violations of this Ordinance may constitute a misdemeanor or infraction penalty and is punishable as provided in NCGS 14-4 and the maximum fine; term of imprisonment or infraction penalty allowed by law is hereby authorized.

## **8.3 Injunction**

Enforcement may also be achieved by injunction. When a violation occurs the County may either before or after the institution of any other authorized action or proceeding, apply to the appropriate division of the General Court of Justice for a mandatory or prohibitory injunction commanding the defendant, or in the case of counterclaims the plaintiff, to correct the unlawful condition or cease the unlawful use of the property.

## **8.4 Order of Abatement**

The County may apply for and the court may enter an order of abatement. An order of abatement may direct:

- A. The buildings or other structures on the property be closed, demolished, or removed; that fixtures, furniture, or other moveable property be removed;
- B. That improvements or repairs be made; or
- C. That any other action be taken that is necessary to bring property into compliance with this Ordinance.

Whenever the party is cited for contempt by the court and the County executed the order of abatement the County shall have a lien, in the nature of a mechanic's and material man's on the property for the cost of executing the order of abatement.

## **SECTION 9.0 RIGHT OF APPEAL**

Any person aggrieved by the notice of violation has 30 days to appeal the action of the Administrator to the Board of Adjustment. Beyond the decision of the Board of Adjustment, recourse shall be to the courts as provided by law.

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## **ARTICLE XIV. DEFINITIONS & CERTIFICATIONS**

### **SECTION 1.0 GENERAL GUIDELINES**

#### **1.1 Interpretation**

Words and terms used in this document have their commonly accepted, dictionary meaning unless specifically defined or the context in which they are used in this document clearly indicates otherwise. In the construction of this Ordinance, the definitions contained in this Article shall be observed and applied, except when the content clearly indicates otherwise.

#### **1.2 Meaning of Common Words**

In further amplification and for clarity of interpretation of the context, the following shall apply:

- A. All words used in the present tense include future tense.
- B. All words in the plural include the singular, and all words used in the singular include the plural.
- C. All words used in the masculine gender include the feminine gender.
- D. The word “shall” is mandatory and not discretionary.
- E. The word “may” is permissive.
- F. The word “building” includes the words “structure,” and “structure and any part thereof”; and more specifically includes all structures of every kind, regardless of similarity to buildings.
- G. The word “lot” includes the words “plot,” “parcel,” “tract,” “piece”, and “site”.
- H. The word “person” includes the words “association”, “company”, “corporation”, “firm”, “individual”, “organization”, and “partnership”.
- I. The word “County” shall mean the “County of Harnett”, or “Harnett County, North Carolina”, the same being a creature of the General Assembly of the State of North Carolina having the powers bestowed upon it by Chapter 160D of the North Carolina General Statutes.
- J. The words “Board of County Commissioners” or “County Commissioners” shall mean the “Harnett County Board of Commissioners”.
- K. The words “ordinance” and “regulations” shall mean the “Unified Development Ordinance of Harnett County, North Carolina”.
- L. The words “Register of Deeds” shall mean the “recorder of deeds for Harnett County, North Carolina”.
- M. The word “street” includes the words “road”, “highway”, “avenue”, “boulevard”, “place”, “court” and “circle”.
- N. The word “development review board” or “DRB” shall mean the Harnett County Development Review Board.
- O. The phrase “used for” shall include the phrases “arranged for”, “designed for”, “intended for”, and “occupied for”.

### **SECTION 2.0 GENERAL DEFINITIONS & ACRONYMS**

#### **2.1 General Acronyms**

AMPI	Abandoned Manufactured-home Planning Initiative
BOA	Board of Adjustment

BRAC	Base Realignment and Closure
CAMPO	Capitol Area Metropolitan Planning Organization
CC	County Commissioners
CO	Certificate of Occupancy
COG	Council of Governments
CP	Central Permitting
DENR	Department of Environment and Natural Resources
DRB	Development Review Board
DWQ	Division of Water Quality
FAMPO	Fayetteville Area Metropolitan Planning Organization
HPC	Historic Properties Commission
HUD	US Department of Housing & Urban Development
LUP	Land Use Plan
MOU	Memorandum of Understanding
NCAC	North Carolina Administrative Code
NCDCR	North Carolina Department of Cultural Resources
NCDOT	North Carolina Department of Transportation
NCGS	North Carolina General Statutes
PB	Planning Board
PUD	Planned Unit Development
RLUAC	Regional Land Use Advisory Commission
RPO	Regional Planning Organization
UDO	Unified Development Ordinance
UL	Underwriters Laboratories
USACE	US Army Corps of Engineers
USGS	United States Geological Survey

## 2.2 General Definitions

### Access way

A way of approaching or entering a property across another property to their parcel that has a width of not less than 20 feet that is legally recorded in the Harnett County Register of Deeds. Access way also includes ingress, the right to enter, and egress, and the right to leave.

### Adjacent

Having property lines in common. Lots are also considered to be abutting if they are directly opposite each other and separated by a public or private right-of-way or easement. Also known as abutting or adjoining.

### **Agriculture**

The terms “agriculture”, “agricultural”, and “farming” refer to all of the following:

- A. The cultivation of soil for production and harvesting of crops, including but not limited to fruits, vegetables, sod, flowers and ornamental plants;
- B. The planting and production of trees and timber;
- C. Dairying and the raising, management, care, and training of livestock, including horses, bees, poultry, and other animals for individual and public use, consumption, and marketing;
- D. Aquaculture as defined in GS 106-758;
- E. The operation, management, conservation, improvement, and maintenance of a farm and the structures and buildings on the farm, including building and structure repair, replacement, expansion, and construction incident to the farming operation; and/or
- F. When performed on the farm, “agriculture”, “agricultural”, and “farming” also include the marketing and selling of agricultural products, agritourism, the storage and use of materials for agricultural purposes, packing, treating, processing, sorting, storage, and other activities performed to add value to crops, livestock, and agricultural items produced on the farm, and similar activities incident to the operation of a farm; and/or
- G. A public or private grain/crop warehouse or warehouse operation where grain or crops are held 10 days or longer and includes, but is not limited to, all buildings, elevators, equipment, and warehouses consisting of one or more warehouse sections and considered a single delivery point with the capability to receive, load out, weigh, dry, and store grain or crops.

### **Agritourism**

Any activity carried out on a farm or ranch that allows members of the general public, for recreational, entertainment, or educational purposes, to view or enjoy rural activities, including farming, ranching, historic, cultural, harvest-your-own activities, or natural activities and attractions. An activity is an agritourism activity whether or not the participant paid to participate in the activity.

### **Airport**

A place where aircraft can land and take off, usually equipped with hangars, facilities for refueling and repair, and various accommodations for passengers.

### **Alley**

A strip of land, publicly or privately owned, set aside primarily for secondary vehicular service access to the back or side of properties whose principal frontage is abutting a street right-of-way.

### **Apartment**

(See “Multifamily Residential Dwelling”)

### **Applicant**

Any person, whether or not the property owner, who submits any plans for review, or requests any administrative action, for approval under this Ordinance. Also known as petitioner.

### **Athletic Fields, Private**

Privately owned and operated facility that provides outdoor recreational fields for sports including but not limited to: football, baseball, softball, and soccer.

### **Automated Teller Machine (ATM)**

A stand-alone or attached automated device that performs banking financial functions at a location that may be separate from the controlling financial institution.

**Automobile**

A self-propelled, free-moving vehicle, typically with four (4) wheels, usually used to transport passengers and licensed by the appropriate state agency for such purposes.

**Automobile, Abandoned**

A motor vehicle which is left on private property, specifically not located within the public right-of-way, without the consent of the owner(s), occupant, or lessee of the property.

**Automobile, Junked**

A motor vehicle that is:

- A. Partially dismantled or wrecked; or
- B. Cannot be self-propelled or moved in the manner in which it was originally intended to move; or
- C. Does not display a current license plate.

**Automobile Repair Facility**

Any building, land area, or other premises, or portion thereof, used for servicing and repair of automobiles, and including as an accessory use, but not limited to: the sale and installation of lubricants, tires, batteries, and similar vehicle accessories.

**Bar/Tavern**

An establishment in which alcoholic beverages are served as a primary source of income, alcoholic beverages are sold primarily by the drink, and where food or packaged liquors may also be served or sold. As deemed under the Alcoholic Beverage Control law in G.S. 18B-1000.

**Base Flood**

(See “Natural Resources Definitions & Acronyms”)

**Bed & Breakfast Residence**

A business in a private home of not more than eight (8) guest rooms that offers bed and breakfast accommodations for a period of less than one week and that meets all of the following criteria:

- a. does not serve food or drink to the general public for pay;
- b. serves the breakfast meal, the lunch meal, the dinner meal, or a combination of all or some of these three meals, only to overnight guests of the home;
- c. includes the price of any meals served in the room rate; and
- d. is the permanent residence of the owner or the manager of the business.

**Berm**

A mound of earth with a minimum slope of 3:1 intended for landscaping or buffering purposes.

**Billboard**

(See “Sign, Outdoor Advertising”)

**Ethanol Diesel or Biofuel**

A renewable fuel manufactured from methanol and vegetable oil, animal fats, and recycled cooking fats, that comes in various forms, including B100 and B20.

**Block**

A tract of land, lot, or group of lots typically bounded by street right(s)-of-way.

**Board of Adjustment**

The Harnett County Board of Adjustment. See Article “Administration & Board” of this Ordinance.

**Boarding House**

A private residence where guests are provided meals and lodging, typically for a fee.

**Boarding Stable**

A structure designed for the feeding, housing, and exercising of horses, all of which may not be owned by the owner(s) of the premises, and for which the owner(s) of the premises may receive compensation.

**Bona Fide Farm**

Except as provided in GS 106-743.4 for farms that are subject to a conservation agreement under GS 106-743.2, bona fide farm purposes include the production and activities relating or incidental to the production of crops, fruits, vegetables, ornamental and flowering plants, dairy, livestock, poultry, and all other forms of agriculture as defined in GS 106-581.1. For purposes of this Section, the production of a nonfarm product that the Department of Agriculture and Consumer Services recognizes as a “Goodness Grows in North Carolina” product that is produced on a farm subject to a conservation agreement under GS 106-743.2 is a bona fide farm purpose. For purposes of determining whether a property is being used for bona fide farm purposes, any of the following shall constitute sufficient evidence that the property is being used for bona fide farm purposes:

- A. A farm sales tax exemption certificate issued by the Department of Revenue;
- B. A copy of the property tax listing showing that the property is eligible for participation in the present use value program pursuant to GS 105-277.3;
- C. A copy of the farm owner's or operator's Schedule F from the owner's or operator's most recent federal income tax return;
- D. A forest management plan; or
- E. A Farm Identification Number issued by the United States Department of Agriculture Farm Service Agency.

**Buffer Strip**

A strip of land to be used for planting and/or open area, the purpose of which is to provide the minimum required separation of different uses of property or a naturally existing wooded area of sufficient width and density to provide a visual screen.

**Built-Upon Area**

Built-upon area shall include that portion of a development project that is covered by impervious or partially impervious cover including buildings, pavement, gravel, streets, recreation facilities (e.g. Tennis courts), etc., but not including wooden slatted decks or swimming pools.

**Buffer**

A landscaped area, as required by this Ordinance, or solid fence or wall used to enclose, screen, or separate certain uses, as specified in this Ordinance. The design, composition, height, and location of such facilities shall be approved prior to installation.

**Building**

Any structure used or intended for supporting or sheltering any use or occupancy

**Building, Principal**

A building in which is conducted the principal use of the plot on which it is situated.

**Business Service Establishment**

A facility primarily engaged in rendering services to business establishments on a fee or contract basis, including but not limited to advertising and mailing, building maintenance, employment services, consulting services,

protective services, equipment rental and leasing, commercial research and development, and personal supply services.

**Capacity Fee**

Requirement of the developer to dedicate or pay for all or a portion of land or costs of public facilities as a condition of development approval.

**Car Wash**

Any building or premises used for washing motor vehicles, either performed by employees or by vehicle operators, and related accessory uses.

**Carport**

Prefabricated, roofed structure without any foundation, footings, enclosed walls, or sides, providing space for the parking of motor vehicles. When attached to a residential structure, a carport is considered part of the residential structure.

**Cemetery, Commercial Use**

Property used for the interment of the dead, generally with more than 10 burial plots, and intended for commercial purposes.

**Cemetery, Private Use**

Property used for the interment of the dead with 10 or fewer burial plots. Also referred to as a “family burial plot”.

**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 natural Historic Preservation Act of 1966 as amended in 1980.

**Childcare Facility**

(See “Daycare Facility”)

**Civic Center**

A building or complex of building that houses government offices and services (or is sanctioned by the government) and that may include cultural, recreational, athletic, convention, and entertainment facilities.

**Civil Penalty**

A monetary penalty assessed by the County for violation of this Ordinance and is treated as a debt owed to Harnett County but is not a fine. Civil penalties are generally imposed by means or in the form of a civil citation.

**Club or Lodge, Private**

A non-profit association of persons, who are bona fide members paying dues, which owns, hires, or leases a building, or portion thereof; the use of such premises being restricted to members and their guests. The affairs and management of such “private club or lodge” are conducted by a board of directors, executive committee, or similar body chosen by the members.

**College or University**

An educational institution authorized by the State to award associate, baccalaureate, or higher degrees. (See “School”)

**Common Areas**

(See “Open Space”)



**Community Center**

A facility used for recreational, social, educational, and cultural activities, either privately or publicly owned.

**Comprehensive Transportation Plan**

This plan serves to address present and anticipated multi-modal transportation needs within the County, including roadway, bicycle, pedestrian, and transit transportation needs. The plan provides for land reservation for future transportation corridors and helps guide decisions on setbacks and transportation improvements as development occurs today and into the future, and includes recommendations on roadway improvements, and bicycle and pedestrian and other facilities.

**Conceptual Plan**

Requirement that development applications demonstrate that adequate public facilities be made available at prescribed levels of service concurrent with the impact or occupancy of development units.

**Conditions**

Requirements to be met prior to subsequent action, typically required as part of approval by a board.

**Construction**

Erection, alteration, excavation, demolition, or similar work on any development authorized by such permits.

**Continuing Care Retirement Community (CCRC)/Facility**

An age-restricted development that provides a continuum of accommodations and care ranging from independent living to long-term bed care and enters into contracts to provide lifelong care in exchange for the payment of monthly fees and often an entrance fee in excess of one (1) year of monthly fees.

**Convenience Store**

A retail establishment of up to 5,000 square feet selling primarily food products, household items, newspapers and magazines, candy, and beverages, a limited amount of freshly prepared foods such as sandwiches and salads for on or off-premises consumption, and which may be used for the retail dispensing or sales of vehicular fuels. Convenience business establishments shall not be construed to encompass retail sales not geared toward neighborhood convenience.

**Covenants**

Private land use controls that are attached to a deed and are not regulated or enforced by Harnett County.

**Crematorium**

An establishment containing a furnace used for reducing a body to ashes by burning.

**Critical Area**

(See “Critical Area” definition in “Natural Resources Definitions & Acronyms” Section)

**Customary Home Occupation**

Any use, whether intended to produce income or not, conducted entirely within a dwelling and carried on by the occupants thereof, whose use is clearly incidental and secondary to the use of the dwelling for residential purposes and does not change the character thereof.

**Daycare Facility**

An establishment providing for the care, supervision, and protection of facility clients, by person(s) other than the guardians or full-time custodians of the client(s), or from persons not related to them by birth, marriage, or adoption on a regular basis of at least once per week.

**Daycare Facility, Adult Daycare**

Adult Daycare is a facility providing care for the elderly and/or functionally impaired adults in a protective setting for part of a 24 hour day.

**Daycare Facility, Childcare Facility**

Childcare Facility is a childcare arrangement, not in a residence where, at any one (1) time, there are three (3) or more pre-school-age children or nine (9) or more school-aged children receiving care.

**Daycare Facility, In-Home Childcare**

In-Home Childcare is a child care arrangement located in a residence where, at any one (1) time, there are between three (3) and eight (8) children receiving care.

**Dedication**

The object or the act of an owner(s) offering property or property rights to the public without any considerations being given for the transfer. Since a transfer of property rights is involved, dedications shall be written recordable instruments.

**Development Plan**

(See “Phased Development Plan” and Site Specific Development Plan”)

**Development Review Board**

Herein, the Harnett County Development Review Board. See Article “Administration & Board” of this Ordinance.

**Developer**

The owner(s), or his/her representative, of land proposed to be developed or subdivided. Consent shall be required from the legal owner of the premises.

**Display Area**

The area used for display of merchandise or goods available for purchase from the business located outside of a building. Said use shall be allowable only as an accessory to the primary use of the establishment.

**Distribution Center**

An establishment engaged in the receipt, storage, and distribution of goods, products, cargo, and materials including transshipment by boat, rail, air, or motor vehicle.

**Drainageway**

Any stream, watercourse, channel, ditch or similar physiographic feature draining water from the land.

**Drainage Easement**

A recorded easement that remains undisturbed except as may be necessary to accommodate:

- A. Streets, provided they cross at a horizontal angle at least 60 degrees;
- B. Utilities and their easements; and/or
- C. Greenways, pedestrian paths, and their easements.

Drainage easements are measured perpendicular to the flow of the drainageway banks, except when no drainageway banks exist, in which case, the centerline of the drainage swale is used.

**Dripline**

An imaginary ground line around a tree that defines the limits of the tree canopy.

**Driveway**

An access point that serves for ingress and egress from a public or private right-of-way or easement, most commonly used for vehicles.

### **Dwelling**

A building that contains one or two family dwelling units used, intended or designed to be used, rented, leased, let or hired out to be occupied for living purposes. (See “Multifamily Residential Development” and “Single Family Dwelling”)

#### **Dwelling, Single Family**

A building containing one (1) dwelling unit and that is not attached to any other dwelling by any means and is surrounded by open space or yards.

#### **Dwelling Unit**

A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

### **E-911 Address**

A physical address assigned by the E-911 Addressing Department for a structure or parcel of land.

### **Easement**

The right to use another person’s property, but only for a limited and specifically named purpose. The owner generally continues, but not including encroachments at the location of the easement, to make use of such land since he/she has given up only certain, and not all, ownership rights. An easement is typically a strip of land occupied or intended to be occupied by a street, crosswalk, railroad, road, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer main, or for another special use.

#### **Easement, Access**

A legally recorded, both by plat and deed, right of approach to physical entrance to a property, by vehicle or other means and specifically not dedicated to NCDOT.

### **Educational Services**

A college, university, or trade school authorized by the State to award degrees. University and college uses and ancillary uses typically associated with a university or college that are customary and subordinate to the primary educational function of that university or college use, including dormitories, stadium, enclosed arenas, auditoriums, and museums. Typical ancillary uses may also include uses with a direct relationship to a university academic use, such as university medical center uses, including teaching hospitals, medical schools, nursing schools, biomedical research facilities, and support space. Limited commercial uses, such as university-related bookstores, childcare facilities, and dining facilities located within other buildings shall be permitted to the extent that they are designed to serve on-campus population of the university and not to attract additional traffic to the campus.

### **Entertainment & Dance Venue**

An establishment that is either public or private in which people gather for dancing and/or listening to recorded or live entertainment and/or music, and which may include the sale and consumption of alcoholic beverages on premises.

### **Entrance**

An access point or driveway that serves for ingress and egress to a site or development. When included as part of a subdivision, each entrance or driveway onto a State right-of-way, whether for an individual property or for the entire development, shall be considered an entrance to the subdivision.

### **Evidentiary Hearing**

The formal hearing required to gather evidence prior to making a quasi-judicial zoning decision. All of the essential elements of a fair trial shall be observed, such as having witnesses under oath and subject to cross-examination, no gathering of evidence outside the hearing, written findings of fact, and substantial, competent, and material evidence in the record to support the findings. Such meetings are held open to the public, for the

purpose of providing and gaining information to and from the public, that may or may not have a bearing on the decision of the Board of Adjustment, and required by the North Carolina General Statutes.

### **Exterior Features**

The architectural style, general design, and general arrangement of the exterior of a building or other structure, including the kind and texture of the building material, the size and scale of the building or other structure, and the type and style of all windows, doors, light fixtures, signs, and other appurtenant fixtures.

### **Family Care Home**

A home with support and supervisory personnel that provides room and board, personal care, and rehabilitation services in a family environment for not more than six (6) resident handicapped persons.

### **Fence**

A barrier constructed of material or a combination of materials, and erected to enclose, screen, or separate areas. Where applicable, such materials shall be limited to: chain link, wrought iron, wood, stucco, brick, stone, and/or vinyl.

### **Financial Institution**

An establishment such as banks, credit agencies, investment companies, brokers of and dealers in securities and commodities, and security and commodity exchanges.

### **Firearm Certification Facility**

A facility designed and utilized to perform instruction in areas associated with the concealment, possession, operation or discharge of a firearm which results in the granting of a level of certification issued by a licensed professional. Such facilities may or may not include a qualifying range for the purpose of illustrating practical skill levels associated with a level of certification.

### **Firing Range**

A specialized facility, either indoor or outdoor, that has been designed or utilized for the purpose of discharging projectiles from various sources such as firearms, archery equipment and other sources capable of propelling an object to impact a target.

### **Flea Markets, Rummage, Secondhand Sales & Activities, Indoor**

Indoor sales area in which typically more than one (1) space is set aside or rented, and is intended for use to sell a variety of articles such as those which are either homemade, hand-crafted, new, used, old, or obsolete.

### **Flea Markets, Rummage, Secondhand Sales & Activities, Outdoor**

Outdoors sales area in which typically more than one (1) space is set aside or rented, and is intended for use to sell a variety of articles such as those which are either homemade, hand-crafted, new, used, old, or obsolete.

### **Freight Handling**

The use of a facility or terminal with the capability of handling a large variety of goods, sometimes involving various forms of transportation and may provide multimodal shipping capabilities, including but not limited to rail to truck transfer.

### **Funeral Home**

A building used for the preparation of the deceased for burial and viewing of the deceased and rituals connected therewith burial or cremation.

### **Government Training Facilities**

Facilities owned and operated by a Federal, State or Local form of government that are designed and utilized for the purpose of training or aiding in the practical skills necessary to perform duties as assigned by a

governmental body or agency. Such agencies may include police, fire, rescue or other forms of public service and protection.

**Graveyard**

(See “Cemetery”)

**Grocery Store**

A retail establishment primarily selling food as well as other convenience and household goods.

**Group Care Facility**

An establishment qualified for a license by the State of North Carolina for a the provision of resident services of two (2) or more individuals of whom one (1) or more are unrelated, and who are either handicapped, aged, disabled, or who are runaway, disturbed, or emotionally deprived children, and who are undergoing rehabilitation or extended care, and who are provided services to meet their needs. For the purposed of this definition included in this are “group homes” for all ages, half-way houses, boarding homes for children, and convalescent homes.

**Gunsmithing**

The act of performing repairs, modifications, design or assembly of a firearm.

**Habitable**

A space in a building for living purposes, which includes working, sleeping, eating, or cooking. Bathrooms, toilet rooms, closets, halls, storage, or utility spaces and similar areas are not considered habitable space.

**Health & Training Center (Indoor & Outdoor)**

An establishment that provides facilities for aerobic exercises, running and jogging, exercise equipment, game courts, swimming facilities, saunas, showers, massage rooms, and lockers. Health & training centers may also include facilities to assess individual’s nutritional and fitness levels, instructs them on the proper way to perform exercises, conducts individual and/or small group training at designated times, and advises individuals on their dietary needs. Such establishments are usually open only to members and their guests.

**Health Care Service**

An establishment providing support to hospitals and medical professionals and their patients, such as medical and dental clinics and laboratories, blood banks, oxygen, and miscellaneous types of medical supplies and services.

**Homeless Shelter**

A facility providing temporary housing to indigent, needy, or homeless persons.

**Homeowners Association (Property Owners Association)**

Legal entities that are responsible for the maintenance and control of common areas, and may include regulations within the development, shall be established in such a manner that:

- A. Provision for the establishment of the association or similar entity is made before any lot in the development is sold or any building occupied; and
- B. The association or similar legal entity has clear legal authority to maintain and exercise control over such common areas and facilities; and
- C. The association or similar legal entity has the power to compel contributions from property owners within the development to cover their proportionate shares of the costs associated with the maintenance and upkeep of such common areas and facilities.

**Hospital**

One (1) or more buildings or structures located on the same lot or campus, primarily devoted to the rendering of health, medical, and nursing care to persons on an in-patient basis, and which provide facilities and services

of a scope and type customarily provided by hospitals, including facilities for intensive care, self-care, out-patient facilities, clinical, pathological and other laboratories, laundries, training facilities for nurses, interns, physicians and other staff members, food preparation and food service facilities, administration buildings, administrative facilities, medical office facilities owned and operated by the hospital for physicians who are members of the hospital medical staff, and other general hospital facilities.

### **Hotel/Motel**

An establishment which is open to transient guests, as distinguished from a boarding, rooming, or lodging house, and is commonly known as a hotel in the community in which it is located; and which provides customary hotel services such as maid service, the furnishing and laundering of linen, telephone and secretarial or desk service, the use and upkeep of furniture, and bellboy service.

### **Impact Fee**

A fee imposed on new development by Harnett County pursuant to this Ordinance in order to mitigate the impacts on community facilities created by the demand for capital improvements by the new development. Impact fees do not include the dedication of rights-of-way or easements for such facilities, or the construction of other required improvements.

### **Impervious Surface**

A surface that has been compacted or covered with a layer of material so that it is highly resistant to infiltration by water.

### **Incompatible Use**

A use or service which is unsuitable for direct association and/or contiguity with certain other uses because it is contradictory, incongruous, or discordant.

### **Industrial Park**

A special or exclusive type of planned industrial area designed and equipped to accommodate a community of industries providing them with all necessary facilities and services in attractive surroundings among compatible neighbors. Industrial parks may be promoted or sponsored by private developers, community organizations, or government organizations.

### **Junk**

Scrap copper, brass, rope, rags, batteries, paper, trash, rubber, debris, waste, or junked, dismantled, or wrecked automobiles, or parts thereof, iron, steel, or other scrap ferrous or nonferrous material and dismantled or used white goods or parts thereof.

### **Junkyard**

An establishment or place of business, or portion of a property, which is maintained, operated, or used for storing, keeping, buying, or selling junk, or for maintenance or operation of an automobile graveyard. Any lot containing more than three (3) unregistered and non-functional vehicles shall constitute a junkyard for the purposes of this Ordinance.

#### **Junkyard, Nonconforming**

An establishment or place of business, or portion of a property, fitting the definition of a "Junkyard", where the use for which was established prior to zoning in the same location. Nonconforming junkyards are typically identified as such using best available information to determine the intensity of the junkyard itself at the current time as well as at the time of adoption of zoning at the location.

### **Kenel**

An establishment in which dogs or domesticated animals are housed, groomed, bred, boarded, trained, or sold, all for a fee or compensation for purposes not primarily related to medical care.

**Kennel, Private Accessory**

An establishment in which dogs or domesticated animals are housed, groomed, bred, or trained, typically for personal use, not related to the primary use of the property, and where such animals are not primarily held for the purposes of sale or other profit.

**Land Clearing & Inert Debris (LCID) Landfill**

A lot, parcel, area, or facility for the land disposal of land clearing waste, concrete, brick, concrete block, uncontaminated soil, gravel and rock, untreated and unpainted wood and yard trash by burying and covering with soil. This definition does not include the placing of any Land Clearing or Inert Debris on a lot, plot, or parcel that was generated on, or came from the property on which it was placed, by the owner of the property. (see Land Clearing Waste and Yard Trash)

**Land Clearing Waste**

Solid waste that is generated solely from land clearing activities such as stumps, trees, limbs, brush, grass, and other naturally occurring vegetative material.

**Landowner**

Any owner(s) of a legal or equitable interest in real property, including the heirs, devisees, successors, assigns, and personal representative of such owner.

**Learning Center**

A facility used for educational purposes, including tutoring and administration of standardized testing, that occurs entirely indoors.

**Live/Work Development**

A building or group of buildings containing two (2) or more distinct uses, with each building including a combination of residential and office, financial, and/or retail uses.

**Lot**

A parcel of land occupied or to be occupied by a main building, or group of main buildings, and any accessory buildings, together with such yards, open spaces, lot width, and lot area as are required by this Ordinance.

**Lot, Corner**

A lot abutting two (2) or more public or private right(s)-of-way or easement(s) at the intersection of such.

**Lot, Double Frontage**

A contiguous (through) lot that is accessible from both streets upon which it fronts. Also known as “through lot,” and “reverse frontage lot.”

**Lot, Flag**

A lot that, in its shape, resembles a flag on a pole where the “flag” part is the main body of the lot and the “pole” part is the narrow portion of the lot that provides access from the street or easement .

**Lot, Interior**

A lot other than a corner lot with frontage on only one (1) street.

**Lot, Single-Tier**

A lot that backs upon a limited access highway, a railroad, a physical barrier, or another type of land use and to which access from the rear is usually prohibited.

**Lot Area**

The total horizontal area included within lot lines.

**Lot Area (useable)**

Lot area suitable for septic fields. The area within the lot lines that is a contiguous area suitable for a septic field, well, house, and access. This area does not include areas such as: public right(s)-of-way, land on the opposite side of a public right-of-way from the location of the house site, or land within the flood hazard area.

**Lot Boundary Line**

A line that divides one (1) lot from another or from a right-of-way or easement.

**Lot Depth**

The average horizontal distance between front and rear lot lines.

**Lot Frontage**

The side of a lot abutting on a street or easement. Also referred to as the front lot line.

**Lot Improvement**

Physical changes made to raw land and structures on or under the land surface in order to make the land more useable for human activity. Typical improvements in these regulations include, but shall not be limited to: grading, street pavement, drainage ditches, and street name signs.

**Lot of Record**

A lot which is a part of a subdivision, a plat of which has been recorded in the Office of the Harnett County Register of Deeds, or, prior to April 4, 1977, a lot described by metes and bounds, and description of which has been recorded in the Office of the Harnett County Register of Deeds by the owner or predecessor in title thereto.

**Lot Width**

The average horizontal distance between the side property lines.

**Manufactured Home**

A home that:

- A. Consists of a single unit completely assembled at the factory or of two (double-wide) or three (triple-wide) principal components totally assembled at the factory and joined together at the site;
- B. Is designed so that the total structure (or in the case of double-wide or triple-wide, each component thereof) can be transported on its own chassis;
- C. Is over 32 feet long and over 8 feet wide;
- D. Is designed to be used as a dwelling and provides complete, independent living facilities for one (1) family, including permanent provisions for living, sleeping, eating, cooking, and sanitation;
- E. Is actually being used, or is held ready to use, as a dwelling; and
- F. Meets or exceeds the construction standards adopted by the U.S. Department of Housing and Urban Development that were in effect at the time of construction.

**Manufactured Home, Abandoned**

An abandoned manufactured home or mobile classroom that is:

- A. Not being occupied as a dwelling and does not provide complete, independent living facilities for one (1) family, including permanent provisions for living, sleeping, eating, cooking, and sanitation or a manufactured home that has not received the proper permits to be located within the County's jurisdiction; or
- B. A structure which is a manufactured/mobile home which is a health or safety hazard as a result of the attraction of insects or rodents, conditions creating a fire hazard, dangerous condition constituting a threat to children, or frequent use by vagrants as living quarters in the absence of sanitary facilities; or



- C. Any structure, which is manufactured/mobile home that was designed and intended for residential or other uses, which has been vacant or not in active use, regardless of purpose or reason, for the past two (2) year period, and has been deemed a nuisance due to public safety or public appearance by the Harnett County Planning Department or Harnett County Department of Public Health.

**Manufactured Home Lot**

A manufactured home lot is a piece of land within a manufactured home park whose boundaries are delineated in accordance with the requirements of the Ordinance, and that is designed and improved in accordance with the requirements of the Ordinance to accommodate a single manufactured home.

**Manufactured Home Park**

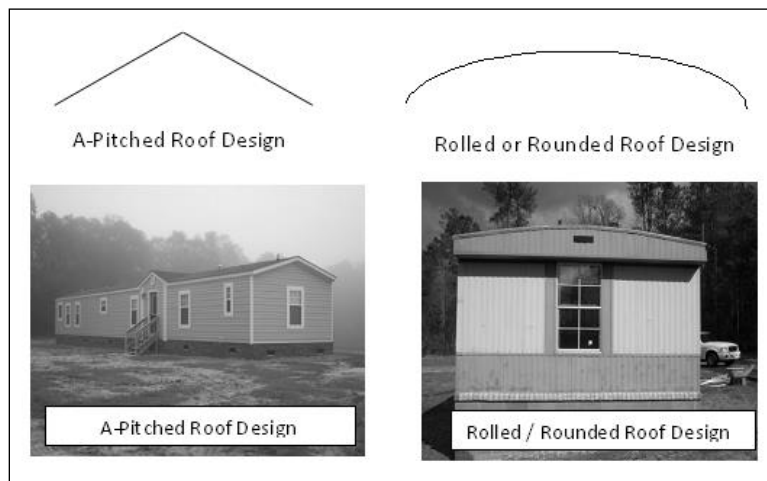
A manufactured home park is a parcel of land, adjoining parcels of land, or a group of lots within 500 feet of each other in single/same ownership designed to provide three (3) or more manufactured homes or spaces, or any combination of homes and spaces. One (1) lot, solely established for the primary residence of the park owner(s) may be established on a parcel adjacent to a permitted manufactured home park.

**Manufactured Home, A-Pitched Roof**

A roof that is designed to have a ridge or peak at the center of the structure and where the primary roof structure is generally made up of two (2) angled pieces which meet in the middle forming a degree of slope or pitch to the roof. See example below.

**Manufactured Home, Rounded or Rolled Roof**

A roof that is designed to cover a structure without the presence of a ridge or peak and are generally covered by materials that are connected in a vertical manner and do not intersect at the center of the structure. See example below.



**Manufactured Home Space**  
(See “Manufactured Home Lot”)

**Manufacturing, General**

The use of an establishment in the mechanical or chemical transformation of materials or substances into new products, in the course of any trade or business other than agriculture, such as creation of products, assembly and blending of materials, manufacturing of large items, and processing. Such establishments may include hazardous operations and the use of combustible materials. Materials utilized in such establishments include, but are not limited to oils, plastics, resins, or liquors.

**Manufacturing, Light**

The use of an establishment in assembly, processing, packaging, or finishing activities, in the course of any trade or business other than agriculture, that that are carried on without an unreasonable detrimental effect of noise, vibration, smell, fumes, smoke, ash, or dust onto the surrounding community. This is intended to function as a transitional use between the more intense general manufacturing and industrial uses and other less intense uses. Uses related to research and development, including laboratories and other facilities for basic or applied research and development, pilot plants, prototype production facilities, manufacturing uses with a high degree of scientific input, and facilities for organizations or associations that promote research. This includes the fields of biology, chemistry, electronics, engineering, geology, medicine, and physics.

### **Massage & Bodywork Therapist**

A person who holds a valid license issued by the North Carolina Board of Massage and Bodywork Therapy to engage in the practice of massage and bodywork therapy

### **Massage & Bodywork Therapy Practice, Licensed**

The application of massage and bodywork therapy to any person for a fee or other consideration. “Practice of massage and bodywork therapy” does not include the diagnosis of illness or disease, medical procedures, chiropractic adjustment procedures, electrical stimulation, ultrasound, prescription of medicines, or the use of modalities for which a license to practice medicine, chiropractic, nursing, physical therapy, occupational therapy, acupuncture, or podiatry is required by law.

### **Massage & Bodywork Therapy Practice, Unlicensed**

A place of business where a massage is offered for a salary or fee, and which is not licensed by the North Carolina Board of Massage and Bodywork Therapy.

### **Mausoleum**

(See “Cemetery”)

### **Mining**

The extraction of minerals, including solids, liquids, and gases and/or the excavating and removing material from the surface and/or subsurface.

### **Minor Works**

Those exterior changes that do not involve substantial alterations, additions, or removals that could impair the integrity of the property and/or district as a whole. Used in reference to historic properties and districts.

### **Modular Unit**

A manufactured building designed to be used for nonresidential purposes, which has been constructed and labeled indicating compliance with the North Carolina State Building Code. This should include modular class rooms, construction offices, and the like.

### **Modular Home**

A manufactured building designed to be used as a single family dwelling unit which has been constructed and labeled indicating compliance with the North Carolina State Building Code for residential structures.

### **Monuments**

Markers placed on or in the land to identify property corners and other notable features. Metal pins not less than three-fourth (3/4) inches in diameter and 18 inches long or concrete monuments four (4) inches in diameter or square and three (3) feet long.

### **Mortuary**

A place for the storage of human bodies prior to autopsy, burial, or release to survivors.

**Motel**

An establishment which is open to transient guests, as distinguished from a boarding, rooming, or lodging house.

**Motor Home**

(See “Recreational Vehicle”)

**Motor Vehicle**

Includes any machine designed or intended to travel over land or water by self-propulsion or while attached to self-propelled vehicle.

**Multifamily Residential Development**

A building or development containing two (2) or more dwelling units, including units that are located over one (1) another in one (1) or more buildings on the same lot, or attached or detached units on separate lots at densities permitted by this Ordinance.

**Multifamily, Condominium Development**

A building or group of buildings in which dwelling units are owned individually and the structure, common areas, and facilities are owned by all owners on a proportional, undivided basis and meets the requirements of the NC Unit Ownership Act as specified in GS 47A-1 et seq.

**Multifamily, Duplex Development**

Is a development consisting of more than one (1) duplex, as defined herein, created as a single project.

**Multifamily, Townhome**

An attached single family dwelling on a fee-simple lot meeting the minimum front and rear yard setback requirements, fronting on a dedicated street, and sharing a common side(s) with adjoining units within a townhome complex.

**Multifamily, Two-Family Dwelling (Duplex)**

Is a residential use consisting of two (2) dwelling units within a single building on a single lot. Also commonly referred to as a “two-family dwelling.”

**Neo-Traditional Design**

An approach to land use planning and urban design that promotes the building of pedestrian friendly neighborhoods with a mix of uses, housing types and costs, lot sizes and density, architectural variety, a central meeting place , and defined development edges.

**Nonconforming Lot of Record**

A lot described by a plat or a deed that was recorded prior to adoption of zoning at the location of the lot and does not meet the minimum lot size or other development requirements of this Ordinance.

**Nonconforming Sign**

Any sign that does not meet the requirements of this Ordinance.

**Nonconforming Structure**

A structure or building, the size, dimensions, or location of which was lawful prior to the adoption of zoning at the location of the lot and does not meet the requirements of this Ordinance.

**Nonconforming Use**

A legal use of a building and/or land that began prior to adoption of zoning at the location of the lot and does not conform to the regulations of this Ordinance.

### **Nursery**

The agricultural production or growth, storage, and sales of garden plants, flowers, trees, shrubs, and similar products that are grown on site, as well as the sale of fertilizer, mulch, and other related materials, garden tools, and similar accessory and ancillary products, to the general public. Said use shall not include those nurseries that are classified as a 'Bona Fide Farm', as defined herein.

### **Nursery, Retail**

The storage and sale of garden plants, flowers, trees, shrubs, and similar products that are not grown on site; as well as the sale of fertilizer, mulch, and other related materials, garden tools, and similar accessory and ancillary products, to the general public.

### **Nursing Home**

(See "Continuing Care Retirement Facility (CCRC)")

### **Office**

A room or group of rooms used for conducting the affairs of a business, profession, service, industry, or government and generally furnished with desks, tables, files, and communication equipment.

### **Open Space**

An area of land or water designed and intended for public or private use. Said area is typically left in its natural or undisturbed state if wooded, except for the cutting of trails for walking or jogging, or, if not wooded at the time of development, is landscaped for ball fields, picnic areas, or similar facilities.

#### **Open space, Common**

Land within or related to a development, not individually owned or dedicated for public use, that is designed and intended for the common use or enjoyment of the residents of the development and their guests and that may include such complementary structures and improvements as are necessary and appropriate.

#### **Open Space, Greenway**

A linear park network left in its natural state except for the introduction of trails used by pedestrians and bicyclists.

#### **Open Space, Improved**

A type of open space wherein the land is not left in its natural state, but is developed, to varying degrees, for the enhanced enjoyment of the community, including but not limited to: golf courses, swimming pools, miniparks, and sheltered picnic areas.

#### **Open Space, Minipark**

A type of open space, typically between 2,000 and 30,000 square feet in size, intended to serve the immediate surrounding neighborhood within a development, including but not limited to: tennis courts, tot lots, and clubhouses.

#### **Open, Space Preserve**

Open space that preserves or protects endangered species, critical environmental features, viewsheds, or other natural elements including but not limited to nature, wildlife, and forests, and is specifically intended for preservation of native species.

#### **Open Space, Recreation Area**

An area of land and/or water resources that is developed for active recreation pursuits with various man-made features that accommodate such activities. Also referred to as 'Park'.

#### **Open Space, Recreational**

A type of improved open space whereby organized activities requiring equipment, often performed with others (including but not limited to basketball courts, swimming facilities, and tennis courts) are commenced.

**Open Space, Unimproved**

An area of land and/or water that is set aside for permanent preservation and left in its natural, undeveloped state.

**Open Space, Usable**

Any area that:

- A. Is not encumbered with any substantial structure;
- B. Is not devoted to use as a roadway, parking area (paved or peripheral), or sidewalk;
- C. Is left in its natural or undisturbed state, if such a state is compatible with use of the area or property planted and landscaped; (Facilities for the pursuit of passive types of recreation, such as picnic tables, are permissible.)
- D. Is capable of being used and enjoyed for purposes of informal and unstructured recreation and relaxation; and
- E. Is legally and practicably accessible to the residents of the development out of which the required open space is taken, or to the public if dedication of the open space is required.

**Outdoor Storage**

The keeping of any inventory, goods, material, or merchandise, including raw, semi-finished, and finished materials for any period of time, and as an accessory to the primary use of the establishment, typically retail. Storage related to a residential use, required vehicular parking areas, nurseries, and the display of automobiles or other vehicles shall not be considered such.

**Pave**

To cover with concrete, asphalt, brick, stone slabs, or blocks (such as cobblestones), or other manufactured products (such as concrete blocks) having the characteristics of concrete, asphalt, brick, or stone.

**Pavement**

A created surface, typically asphalt but also concrete, brick, or stone, placed on the land to facilitate ingress and egress.

**Person**

Any individual or group of individuals, or any corporation, general, or limited partnership, joint venture, unincorporated association, or governmental or quasi-governmental entity.

**Personal Service Establishment**

A facility primarily engaged in providing services involving the care of a person or personal goods or apparel, including but not limited to a laundry mat, beautician, plumber, carpenter, electrician, or other trade establishment.

**Pervious Surface**

Any material that permits full or partial absorption of stormwater into previously unimproved land, or as otherwise determined by the State.

**Phase**

Sections of development on an approved site-specific plan, including detailed information pertaining to both the overall site and proposed division within the development, typically for a subdivision or planned unit

development, as identified on such approved plan. For purposes of this Ordinance, the words ‘section’, ‘phase,’ and ‘sub-phase’ shall be considered the same.

**Phased Development Plan**

A plan which has been submitted to the County by a landowner for phased development which shows the type and intensity of use for specific parcel(s) with a lesser degree of certainty than the plan determined by the County to be a site specific development plan.

**Planned Unit Development**

A development constructed on a tract of at least 10 acres under single, corporation, firm, partnership, or association ownership planned and developed as a integral unit, and consisting of a combination of principal uses that could be combined only in a planned unit development.

**Plat**

A map or plan of a tract or parcel of land that is to be, or that has been subdivided.

**Pod**

Sections of proposed development types, including limited detail such as use, type, density, and a general layout of the transportation network, most often found on a planned unit development master plan. Phases are further divisions found within a pod.

**Portable Food Sales**

A temporary retail food establishment that operates at for a temporary period of time in connection with another event, including but not limited to a fair, carnival, concert, or other public gathering, and are most often an accessory to the principal permitted use. Portable food sales establishments shall include portable units, mobile food units, and temporary food establishments, as defined by the Harnett County Department of Public Health.

**Preliminary Subdivision Plat**

A map of a proposed land subdivision showing the character and proposed layout of the tract in sufficient detail to indicate the compliance of the proposed subdivision of land with these regulations and not intended for recordation.

**Primitive Campground**

A designated tent site of an undeveloped character, provided at carefully selected locations typically in forested areas. The campground will be located so as to accommodate the need for shelter in a manner that is least intrusive to the surrounding environment. These campgrounds shall be developed without hookups for water, power, sewage, or many of the other amenities found at developed campgrounds.

**Principal Building**

A building in which is conducted the principal or main use of the property. Also referred to as “principal structure.”

**Private Driveway**

A roadway serving two (2) or fewer lots, building sites, or other divisions of land and not intended to for public ingress or egress.

**Privately Owned Public Utility Structures & Facilities**

Any structures and facilities owned or operated by a privately owned electric, telephone, gas, cable, or water and waste water company.

**Property**

All real property subject to zoning regulations and restrictions and zone boundaries by the County.

**Public Hearing**

A meeting, open to the public, held for the purpose of providing and gaining information to and from the public, that may or may not have a bearing on the decision of the Board of Commissioners or decision making body, and required by the North Carolina General Statutes.

**Public Improvement**

Any improvement including but not limited to drainage ditch, roadway, sidewalk, lot improvement, and/or other facility for which the local government may ultimately assume the responsibility for maintenance and operation, or which may affect an improvement for which the local government responsibility is established.

**Public Library**

A place containing books for reading, study, and research that is open for public use.

**Public Meeting**

A meeting, open to the public, held for the purpose of providing and gaining information to and from the public, but not required by North Carolina General Statutes.

**Publicly Owned Utility Structures & Facilities**

Any structures and facilities owned by Harnett County or its agencies, or any other local government entity, including, but not limited to: water lines, waste water lines, stormwater facilities, water treatment plants, waste water treatment plants, lift stations, pumping stations, booster stations, water tanks, and associated facilities.

**Public Sewage Disposal System**

A wastewater sewage system that is owned by any unit of government or authority, or by a private corporation, person, or association, and which is designed to serve uses locating along existing lines or within the service area of the system, should additional collection lines be constructed. This definition does not include individual sewage disposal systems that serve only one (1) lot.

**Public Water Supply**

Any water system furnishing potable water to the public that is owned by any unit of government or authority, or by a private corporation, person, or association and which is designed to serve uses locating along existing lines or within the service area of the system, should additional distribution lines be constructed. This definition does not include individual systems that serve only one (1) lot.

**Race Track**

An establishment either open to the public or organized groups, including both indoor and outdoor facilities, whereby participants race on a designated track and may or may not include a designated area for spectators. Race track uses include, but are not limited to, the following: radio controlled (RC) vehicles, motor vehicles, go-karts, all-terrain vehicles, animals, and other similar uses.

**Recreation & Amusement Services**

Any establishments engaged in providing entertainment for a fee and including such activities as dance halls; studios; theatrical productions; bands, orchestras, and other musical entertainment; bowling alleys; billiard and pool establishments; and any coin or token operated machine for use as a game, entertainment, or amusement.

**Recreational Day Camp**

A camp providing care and recreational activities for participants, typically children, for a minimum of four (4) consecutive days and usually during the summer months.

**Recreational Facility**

A place designed and equipped for the conduct of sports and leisure-time activities, including but not limited to commercial, personal, private, and public.

**Recreational Facility, Indoor**

A permanent structure containing facilities for recreational activities including but not limited to: tennis, platform games, swimming, exercise rooms, handball, and/or similar activities, all of which shall be performed indoors.

**Recreational Vehicle**

A vehicular, portable structure without permanent foundation that can be towed, hauled, or driven and is designed for travel, recreation, or vacation purposes, and is not designed to be used as a permanent dwelling unit. Recreational vehicles include, but are not limited to, travel trailers, truck campers, camping trailers, and self-propelled motor homes.

**Recreational Vehicle (RV), Park Model**

A vehicle that is built on a single chassis, is 400 square feet or less when measured at the largest horizontal projection, is self-propelled or permanently towable by a light duty truck, and is generally used as temporary living quarters for recreational, camping, travel, and seasonal use.

**Recreational Vehicle Park (RV Park)**

Any lot or parcel of land upon which three (3) or more sites and/or campsites are located, established, or maintained for occupancy by recreational vehicles as temporary living quarters for recreation or vacation purposes, and for which the owner(s) of the premises may receive compensation.

**Recyclables**

Waste products capable of being reused or reprocessed into a new product and specifically excluding motor vehicles, motor vehicle parts, tires, batteries, accessories, petroleum products, or white goods.

**Recycling Collection Centers**

Unmanned facilities used for the collection, separation, and short-term storage of recyclables but not on-site processing, and typically an accessory to another use.

**Recycling Collection Centers & Solid Waste Container Sites**

Manned facilities, typically satellite locations provided for convenience to citizens, used for the collection of solid waste, and for the collection, separation, and short-term storage of recyclables but not on-site processing.

**Recycling Plant**

A facility in which recyclables such as but not limited to: newspapers, magazines, books, or other paper products; plastics; glass; metal cans; and other similar products are recycled, reprocessed, or treated in order to return such products to a condition whereby they may be used again to make new products. This definition does not include junkyards or any other facility to reprocess motor vehicles, motor vehicle parts, tires, batteries, accessories, petroleum products, or white goods.

**Religious Structure**

A place in which worship, ceremonies, rituals, and education pertaining to a particular system of beliefs are held.

**Repossession Storage Facility (Repot Lot)**

An establishment or place of business which is maintained, operated, or used for the temporary storage of repossessed automobiles, machinery, and other similar merchandise.

**Research Laboratory & Development**



A facility for investigation into the natural, physical, or social sciences, which may include engineering and product development. Research laboratories imply physical activities usually associated with “wet” labs or places with running water, gases, special ventilation devices, chemicals, special heating and electrical or electronic equipment, and/or use of animals or humans under controlled conditions. Uses related to research and development, including laboratories and other facilities for basic or applied research and development, pilot plants, prototype production facilities, manufacturing uses with a high degree of scientific input, and facilities for organizations or associations that promote research. This includes the fields of biology, chemistry, electronics, engineering, geology, medicine, and physics.

**Residence**

(See “Dwelling”)

**Restaurant**

An establishment where the primary use is preparation, serving, and consumption of food and drink, mostly within the principal building.

**Retail Sales**

Establishments including shops, stores, and service establishments, engaged in the selling or rental of goods or merchandise (usually to the general public for personal or household use) and in rendering services incidental to the sale of such goods, entirely within an enclosed building.

**Retail Sales, Outdoor**

Use of property for the display and sales of products and services, primarily outside of a building or structure, including but not limited to manufactured homes; burial monuments; swimming pools; and portable storage sheds, including related repair activities and sale of parts. Material sold is usually stored outdoors and typically a building is on site in which sales may be consummated or products displayed.

**Roadside Stands**

Sales of agricultural products grown on-site but not considered a bona fide farm for purposes of this Ordinance.

**Right-of-Way**

A strip of land occupied or intended to be occupied by a street, crosswalk, railroad, road, electric transmission line, oil or gas pipeline, water main, sanitary or storm sewer main, or for another special use.

**School**

Any building or part thereof that is designed, constructed, or used for education or instruction in any branch of knowledge that is licensed by the State and meets State requirements for either elementary or secondary education, but specifically not including those uses listed as otherwise by this Ordinance.

**Seasonal Sales**

Sales that are typically made in relation to seasonal, agricultural-related products, including but not limited to Christmas trees and pumpkins, and only for a limited duration of time.

**Setback, Building**

A line in the interior of a lot that is generally parallel to, and a specified distance from, the street right-of-way line; which creates a space between such lines in which no building shall be placed.

**Setback, Corner Side Yard**

The minimum horizontal distance between the sideline of a building or structure and the adjacent public right-of-way line. In cases where no public right-of-way exists, the setback shall be measured from the easement line.

### **Setback, Front Yard**

The minimum horizontal distance between the front line of a building or structure and adjacent public right-of-way line. In cases where no public right-of-way exists, the setback shall be measured from the easement line, or property line if no easement exists.

### **Setback, Rear Yard**

The minimum horizontal distance between the rear line of a building or structure and the rear property line or right-of-way line.

### **Setback, Side Yard**

The minimum horizontal distance between the sideline of a building or structure and the side property line.

### **Sexually-Oriented Business**

An establishment:

- A. Where more than 40 percent (40%) of its stock is characterized as relating to sexual activities or anatomical genital areas; or
- B. Either with or without a liquor license, offering adult live entertainment, which may include but is not limited to: topless and go-go dancers, strippers, or male or female impersonators; and/or
- C. That advertises or holds itself out in any forum as an adult or sexually-oriented business.

### **Adult Bookstore**

A retail establishment having as its primary stock-in-trade books, magazines, periodicals, video tapes, films, or other items that are distinguished by their explicit emphasis on matter depicting, describing, or relating to sexual activities, genital areas, or erotic behavior and is intended to cause sexual excitement.

### **Adult Motion Picture Theatre**

A theatre within a permanent indoor structure used for presenting films distinguished, characterized, or relating to sexual activities, genital areas, or erotic behavior, and is intended to cause sexual excitement.

### **Adult Nightclub**

An entertainment establishment intended for patrons of legal age which presents shows or acts distinguished by an emphasis on but not limited to topless dancers, strippers, male or female impersonators, or similar entertainers for observation by the patrons.

### **Shopping Center**

Two (2) or more commercial establishments having off-street parking and loading facilities provided on the property and related in location, size, and type of shops to the trade area which the unit serves.

### **Sign**

An advertising device used to disseminate information concerning a person, place, or thing.

### **Sign, Business**

Any device which directs attention to a business, profession, industry, or service located on the premises where such sign is displayed either indoors or outdoors, including words, letters, figures, designs, symbols, fixtures, colors, illumination, or projected images.

### **Sign, Directory**

Any sign used for the purpose of listing the tenants or occupants of building or group of buildings and/or development and that may also indicate their respective location(s). Directory signs are similar to

wayfinding signs typically found in municipalities; however directory signs are intended for identification of facilities located within a development.

**Sign, Ground**

A freestanding sign in which the sign and/or support is in contact with the ground. Ground signs include monument style and pole style signs, and may also include directory and/or directional style signs.

**Sign, Off-Site Directional**

Any sign limited to directional message for a business or nonprofit, and in some cases may include the name of such, as allowed by this Ordinance.

**Sign, Outdoor Advertising**

Any outdoor sign, display, light, device, figure, painting, drawing, message, plaque, poster, billboard, or any other thing which is designed, intended or used to advertise or inform any part of the advertising or information contents, to the public about a subject unrelated to the premises upon which the sign is located. For purposes of this Ordinance, the term “Outdoor Advertising Sign” and its definition shall be interchangeable with the following terms: outdoor advertising, outdoor advertising structure, outdoor advertising sign structure, and billboard.

**Sign, Portable**

Any sign not permanently attached to the ground or other permanent structure, or a sign designed to be transported. Includes, but is not limited to:

- A. Signs designed to be transported by means of wheels, runners, castors, trailers, or other mobile devices;
- B. Balloons used as signs;
- C. Umbrellas used for advertising; and
- D. Signs attached to or painted on vehicles parked and visible from the public right(s)-of-way, unless said vehicle is regularly and customarily used in the normal day-to-day operations of the business.

**Sign, Salvageable Components**

Components of the original sign structure prior to the damage that can be repaired or replaced on site by the use of labor only. If any materials, other than nuts, bolts, nails or similar hardware, are required in order to repair a component, the component is not considered to be salvageable.

**Sign, Significantly Damaged**

A sign which has been damaged or partially destroyed due to factors other than vandalism or other criminal or tortious acts to such extent that the damage to the sign is greater than fifty percent.

**Sign, Street**

The sign designating the official name and/or number of the street and being of a design approved by the County and installed according to County guidelines.

**Sign, Wall**

A sign fastened to, or painted on, the wall of a building or structure, or canopy, awning, or marquee of such building, in such a manner that the wall becomes the supporting structure for, or forms the background surface of, the sign.

**Site Plan (Site Specific Development Plan)**

A plan which has been submitted to the County by a property owner describing with reasonable certainty the type and intensity of use for parcel(s) of property. Such plan may be in the form of, but not limited to, any of the following plans or approvals: planned unit development plan, subdivision plat, preliminary or general development plan, Special Use permit, or any other land use approval designation as may be utilized by the County. Refer to GS 160D-344.1.

**Site Plan, Community**

A plan which has been submitted to the County, describing with reasonable certainty the type and intensity of use for parcel(s) of property, meeting the requirements of this Ordinance, and which is intended for project or development between five (5) and 15 acres in size.

**Site Plan, Minor**

A plan which has been submitted to the County, describing with reasonable certainty the type and intensity of use for parcel(s) of property, meeting the requirements of this Ordinance, and which is intended for existing structures, or for new structures or expansions of existing structures of less than 600 square feet.

**Site Plan, Neighborhood**

A plan which has been submitted to the County, describing with reasonable certainty the type and intensity of use for parcel(s) of property, meeting the requirements of this Ordinance, and which is intended for projects or developments up to five (5) acres in size.

**Site Plan, Regional**

A plan which has been submitted to the County, describing with reasonable certainty the type and intensity of use for parcel(s) of property, meeting the requirements of this Ordinance, and which is intended for projects or developments larger than 15 acres in size.

**Sketch Plat/Plan**

A sketch preparatory to the preliminary plat (or final plat in the case of minor subdivisions) to enable the developer to save time and expense in reaching general agreement with the County as to the form of the plat and the objectives of these regulations and shall in no case be construed to garner vested rights.

**Skirting**

(See “Underpinning”)

**Solar Collector**

A device or combination of devices, structure, or part of a device or structure that transforms direct solar energy into usable energy.

**Solar Energy Facility**

A complete design or assembly for the purpose of transforming solar energy into usable energy, consisting of a solar energy collector, an energy storage facility (where used), and components for the distribution of transformed energy.

**Solar Energy System**

A complete design or assembly for the purpose of transforming solar energy into electricity or for heating water, used exclusively for accessory purposes only.

**Solid Waste Disposal**

For purposes of this Ordinance, ‘solid waste disposal’ is unwanted or discarded material that cannot be salvaged or recycled, and shall refer to the following types of waste disposal:

- A. Construction & Debris (C&D);
- B. Land Application of Sludge, or Petroleum-Contaminated Soil;
- C. Land Clearing & Inert Debris (LCID) Landfill; and/or
- D. Municipal Solid Waste (MSW).

Associated acronyms for certain types of facilities shall be deemed to refer to the appropriate facility type, as described herein, for purposes of this Ordinance.

**Stream**

A watercourse having a source and terminus, banks, and channel through which water flows at least periodically.

**Storage, Self Mini-Warehouse**

A building or group of buildings designed to provide separate access to individually rented storage units used exclusively for storing customer's goods or wares. No sales, service, or repair activities other than the rental of storage units and its related activities, are permitted within storage units.

**Street/Road**

A dedicated, and designed and installed for the purpose of acceptance by NCDOT, public right-of-way for transportation, including vehicular traffic and pedestrian circulation.

**Street, Alley**

A service street of 20 feet in width, providing a secondary means of access to adjoining property and not intended for general traffic circulation.

**Street, Artery**

A major street designed as part of a network/system of continuous routes and primarily to carry heavy volumes of through traffic. Expressways and boulevards are examples of roadways in the arterial system.

**Street, Half**

A street whose centerline coincides with a subdivision plat boundary, with one-half (1/2) the street right-of-way width being contained within the subdivision plat. Also, any existing street to which the parcel of land to be subdivided abuts on only one (1) side.

**Street, Local/Rural**

A road whose primary function is to provide access to abutting properties and to provide service to travel over relatively short distances as compared to collectors or other higher systems.

**Street, Major Collector**

Routes that provide services to large towns not directly served by the arterial systems and to other traffic generators of equivalent intracounty importance, and serve as important intracounty travel corridors.

**Street, Minor Collector**

Routes that collect traffic from local roads, bring all developed areas within a reasonable distance of a collector, provide service to smaller communities, and distribute that traffic to major collectors and arterials.

**Street, Private**

Any street or roadway not maintained by the NC Department of Transportation. An undedicated private right-of-way that affords access to abutting properties according to the standards of this Ordinance and in accordance with the North Carolina General Statutes. This is also any road or street that is not publicly owned and maintained and is used for access by the occupants of the development, their guests, and the general public.

**Street, Residential Local Subdivision**

Either cul-de-sacs, loop roads, roads that do not connect thoroughfares or serve major traffic generators Residential collector streets include the types of streets listed below.

A. Dead-End Roads

These roads are no more than 2,500 feet in length, open at one (1) end only without special provisions for turning around, and have collector characteristics. For purposes of this Ordinance, dead-end roads with temporary turn-arounds shall be deemed to meet this definition.

B. Short Connecting Roads

These roads are normally one (1) block long or extend on a block-by-block basis and have no collector characteristics. .

C. Loop Roads

A road that has its beginning and ending points on the same route. It is more than one (1) mile in length and has no collector characteristics.

D. Other Roads

These roads do not connect thoroughfares or serve major traffic generators and do not have collector characteristics.

E. Cul-de-Sac Roads

These are very short roads, open at one (1) end only, with a special provision for turning around. They have a bulb end design with a specific turning radii and a limited number of lots.

**Street, Through**

A road which serves as a connecting road system between public right(s)-of-way.

**Thoroughfare, Major**

Consist of Inter-State, other freeway, expressway, or parkway roads and major streets that provide for the expeditious movement of high volumes of traffic within and through urban areas.

**Thoroughfare, Minor**

Perform the function of collecting traffic from local access streets and carrying it to the major thoroughfare system. Minor thoroughfares may be used to supplement the major thoroughfare system by facilitating minor through traffic movements and may also serve abutting property.

**Structure**

Anything constructed or erected, including but not limited to buildings, which requires location on land or attachment to something having permanent location on the land.

**Subdivider**

Any person who:

- A. Having an interest in land, causes it, directly or indirectly, to be divided; or
- B. Directly or indirectly sell, leases, or develops, or offers to sell, lease, or develop, or advertises for sale, lease, or Development, any interest, lot, parcel, site, unit, or plat in a subdivision; or
- C. Engages directly or through an agent in the business of selling, leasing, developing, or offering for sale, lease, or development a subdivision, of any interest, lot, parcel, site, unit, or plat in a subdivision; and/or
- D. Is directly or indirectly controlled by, or under direct, or indirect common control with any of the foregoing.

**Subdivision**

The division of a lot, tract, or parcel of land into two (2) or more lots, tracts, parcels, or other divisions of land for sale, development, or lease.

**Subdivision, Major**

All subdivisions of land into six (6) or more residential lots, three (3) or more nonresidential lots, and/or any subdivision not classified as minor subdivisions.

**Subdivision, Minor**

A minor subdivision is:

- A. Any subdivision which creates a maximum of five (5) residential lots each of which front on a state maintained street; or
- B. Any subdivision which allows a maximum of six (6) residential lots to be created on a 50 foot easement abutting a State-maintained street, unless otherwise stated by this Ordinance.

### **Subdivision, Phased**

Subdivision approval submitted pursuant to a master preliminary plat, or at the option of the subdivider, pursuant to a specific plan in which the applicant proposes to immediately subdivide the property but will develop in two (2) or more individual phase(s), where each phase could be considered a major subdivision on its own, over a period of time.

### **Subdivision Administrator**

The Manager of Planning Services in the Harnett County Planning Department, or his designee, who has administrative and enforcement duties related to the subdivision regulations included herein.

### **Surety Performance Bond**

A promise to pay one (1) party a certain amount if the second party fails to meet some obligation, issued by an insurance company or bank to guarantee satisfactory completion of a project by a contractor.

### **Swimming Pool**

Any permanent structure, chamber, and/or tank, either in or above ground, containing an artificial body of water at least four (4) feet deep at any point which is used for swimming, diving, wading, recreation or therapy together with all buildings, appurtenances and equipment used in connection with the body of water.

### **Temporary Event**

An activity limited in duration and infrequent in occurrence, which is not part of the ordinary activities of the facility or site on which the event is located, including but not limited to carnivals, fairs, and festivals.

### **Temporary Turn-Around**

Area for turning motor vehicles at the end of a street, which is constructed either within the dedicated right-of-way or upon a temporary easement, to be removed when said road is extended.

### **Test Fire Berm**

A compaction of soil utilized solely for the purpose of conducting a test to establish the proper working order of a firearm or other device that has the capability of propelling a projectile. This earthen berm is generally located in an outdoor environment and must be constructed to a thickness that will allow for the projectile to be lodged within the berm without risk of escape and compacted to a minimum height of four (4) feet above target location.

### **Test Fire Vault**

A structure designed and utilized solely for the purpose of conducting a test to establish the proper working order of a firearm or other device that has the capability of propelling a projectile. This type of structure is designed to receive and contain the projectile without risk of escape.

### **Tie Downs**

Galvanized steel cables or strapping which “ties” a manufactured home and its steel frame to anchors embedded in the ground.

### **Tract**

A piece of land whose boundaries have been described or delimited by a legal instrument or map recorded in the Office of the Register of Deeds.

### **Trade School**

A secondary or higher education facility primarily teaching usable skills that prepares students for jobs in a trade and meeting requirements of the State for certification.

### **Truck Driving School**

A secondary or higher education facility primarily teaching skills that prepares students for jobs in the trucking or truck driving industry and meeting the requirements of the State for certification.

### **Turkey Shoot, Temporary/Seasonal**

An establishment catering to guests who participate in a marksmanship contest using targets with compensation offered as a prize.

### **Underpinning**

Skirting or curtain walls installed in good workmanship-like manner along the entire base of a manufactured home, except for ventilation and crawl space requirements, and consisting of the following one (1) of the following:

- A. Metal with a baked-on finish of uniform color;
- B. Uniform design and color vinyl, including artificial stone; or
- C. Brick and stone masonry.

### **Unit Ownership Structure**

Any building or structure in which unit ownership has been created by the owners or co-owners of an express declaration of intent under the Unit Ownership Act of Chapter 47A-1 et seq. North Carolina General Statutes.

### **Use**

The activity or function that actually takes place or is intended to take place on a lot.

#### **Use, Accessory**

A use or structure which includes, but is not limited to, freestanding gazeboes, freestanding decks, sheds, and storage buildings, and are:

- A. Conducted or located on the same lot as the principal building or use served, except as may be specifically provided elsewhere in this Ordinance;
- B. Clearly incidental to, subordinate in purpose to, and serves the principal use; and
- C. Either in the same ownership as the principal use or is clearly operated and maintained solely for the comfort, convenience, necessity, or benefit of the occupants, employees, customers, or visitors of or to the principal use.

#### **Use, Principal**

A use that is listed in the "Table of Use Types & Regulations" and is the primary use of the lot on which it is located.

#### **Use, Temporary**

A use established for a limited duration with the intent to discontinue such use upon the expiration of the time period allotted.

### **Variance**

A grant of relief to an applicant from the requirements of this Ordinance where unusual or unique circumstances peculiar to the property exist, literal enforcement would result in unnecessary and undue hardship, and such relaxation of the regulations would not be contrary to the public interest. Provided however, that the need for the variance was not caused or created by the applicant or property owner.

### **Vehicle Sales**

Sales of automobiles, recreational vehicles, boats, farm equipment, and other similar products, typically in an open area, used for the display, sale, or rental of new or used vehicles in operable condition where no repair work is done. Small equipment shall not be considered a vehicle herein.



**Vested Right**

The right to undertake and complete the development and use of property under the terms and conditions of an approved site specific development plan or approved phased development plan.

**Veterinarian Service**

A place where animals are given medical care and the boarding of animals is limited to short-term care incidental to the hospital care.

**Violation**

The establishment, creation, expansion, alteration, occupation, or maintenance of any use, land development activity, or structure, including but not limited to signs and buildings, that is inconsistent with any provisions of this Ordinance or any order, approval, or authorization issued pursuant to this Ordinance.

**Violation, Subsequent**

A violation, as defined herein, that occurs more than once on the same parcel(s) or by the same property owner(s) within any 12 month period.

**Wall**

(See "Fence")

**Warehouse**

A building used primarily for the storage of goods and materials.

**Watercourse**

Any natural or artificial stream, river, brook, swamp, sound, bay, creek, run, branch, canal, waterway, estuary, or lake where water flows in a definite direction or course, either continuously or intermittently; has a definite channel, bed, and banks; and includes any areas adjacent thereto subject to inundation by reason of overflow or floodwater.

**Watershed**

The entire land area contributing surface drainage to a specific point, such as the water supply intake.

**Wholesale Trade**

An establishment or place of business primarily engaged in selling merchandise to other businesses, including but not limited to retailers, industrial, commercial, institutional, or professional business users, other wholesalers, or acting as agents or brokers and buying merchandise for, or selling merchandise to, such individuals or companies.

**Wind Energy Facility**

A system designed to provide energy, wherein the power is generated from wind turbines, towers, and associated control or conversion electronics.

**Wind Energy System**

A single system designed to supplement other electricity sources as an accessory use to existing buildings or facilities wherein the power generated is used primarily for on-site consumption. Such facilities consist of a single wind turbine, tower, and associated control or conversion electronics.

**Wind Turbine**

A wind energy conversion system that converts wind energy into electricity through the use of a wind turbine generator, and may include a nacelle, rotor, tower, guy wires, and pad transformer. Also known as a "windmill."

**Yard Sale**

The resale, sale, or offering for sale to the general public of items of personal property by the owner(s) or tenants of an improved lot in a residential zoning district, whether without or outside any building.

**Zoo & Petting Zoo**

A place where animals are kept, often in a combination of indoor and outdoor spaces, and are viewed by the public.

## **SECTION 3.0 AIRPORT HEIGHT CONTROL DEFINITIONS & ACRONYMS**

### **3.1 Airport Height Control Acronyms**

CFR	Code of Federal Regulations
FAA	Federal Aviation Administration
FBO	Fixed Base Operator
HRJ	Harnett Regional Jetport
ILS	Instrument Landing System
NCDA	NCDOT Division of Aviation
NTSB	National Transportation Safety Board
OFZ	Object Free Zone
REIL	Runway End Identifier Lights
ROFA	Runway Object Free Area
RPZ	Runway Protection Zone
RSA	Runway Safety Area
TSA	Transportation Security Administration

### **3.2 Airport Height Control Definitions**

#### **Airport**

Herein, all references to airport shall mean the Harnett Regional Jetport.

#### **Airport Elevation**

The highest point of an airport's usable landing area measured in feet above sea level.

#### **Approach Surface**

A surface longitudinally centered on the extended runway centerline, extending outward and upward from the end of the primary surface and at the same slope as the approach zone height limitation slope set forth in Section "Airport Zone Height Limitations", Article IX "Airport Height Control" of this Ordinance. In plan the perimeter of the approach surface coincides with the perimeter of the approach zone.

#### **Approach, Transitional, Horizontal, & Conical Zones**

These zones are set forth in Section "Airport Zones", Article IX "Airport Height Control" of this Ordinance.

#### **Conical Surface**

A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to one (1) for a horizontal distance of 4,000 feet.

#### **Expected Height Limitations**

Nothing in the Airport Height Control Section of this Ordinance shall be construed as prohibiting the construction or maintenance of any structure, or growth of any tree or other vegetation to a height up to 50 feet above the surface of the land.

### **Hazard to Air Navigation**

An obstruction determined to have a substantial adverse effect on the safe and efficient utilization of the navigable airspace.

### **Height**

For the purpose of determining the height limits in all zones set forth in Airport Height Control Section of this Ordinance and shown on the zoning map, the datum shall be mean sea level elevation unless otherwise specified.

### **Horizontal Surface**

A horizontal plane 150 feet above the established airport elevation, the perimeter of which in plan coincides with the perimeter of the horizontal zone.

### **Larger than Utility Runway**

A runway that is constructed for and intended to be used by propeller driven aircraft of greater than 12,500 pounds maximum gross weight and jet powered aircraft.

### **Nonprecision Instrument Runway**

A runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in nonprecision instrument approach procedure has been approved or planned.

### **Obstruction**

Any structure, growth, or other object, including a mobile object, which exceeds a limiting height set forth in Section "Airport Zone Height Limitations", Article IX "Airport Height Control" of this Ordinance.

### **Precision Instrument Runway**

Reserved

### **Primary Surface**

A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway. The width of the primary surface is set forth in Section "Airport Zones", Article IX "Airport Height Control" of this Ordinance. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.

### **Runway**

A defined area on an airport prepared for landing and take-off of aircraft along its length.

### **Runway Ends**

Refers to the existing physical end of the hard-surfaced asphalt runway on the southwest end (coordinates Lat. 35022'29.7" N, Long. 78044'16.5" W), and the future end of the runway on the northeast end after an extension to 5,000 feet (coordinates Lat. 35023'07.5" N, Long. 78043'36.4" W).

### **Structure**

In reference to the Airport Height Control Section of this Ordinance, "structure" shall mean an object, including a mobile object, constructed or installed by man, including but without limitation, buildings, towers, cranes, smokestacks, earth formation, and overhead transmission lines.

### **Transitional Surfaces**

These surfaces extend outward at 90 degree angles to the runway centerline and the runway centerline extended at a slope of seven (7) feet horizontally for each foot vertically from the sides of the primary and approach surfaces to where they intersect the horizontal and conical surfaces. Transitional surfaces for those portions of the precision approach surfaces, which project through and beyond the limits of the conical surface, extend a

distance of 5,000 feet measured horizontally from the edge of the approach surface and at 90 degree angles to the extended runway centerline.

**Tree**

In reference to the Airport Height Control Section of this Ordinance, “tree” shall mean any object of natural growth.

**Utility Runway**

A runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

**Visual Runway**

A runway intended solely for the operation of aircraft using visual approach procedures.

## **SECTION 4.0 COMMUNICATIONS TOWER DEFINITIONS & ACRONYMS**

### **4.1 Communications Tower Acronyms**

ASR	Antenna Structure Registration
FAA	Federal Aviation Administration
FCC	Federal Communications Commission

### **4.2 Communications Tower Definitions**

#### **Alternative Structure**

A structure that is not primarily constructed for the purpose of holding antennas but on which one (1) or more antennas may be mounted, including buildings, water tanks, pole signs, billboards, church steeples, and electric power transmission towers.

#### **Amateur Radio Tower**

Any tower used for amateur radio transmissions consistent with the FCC Part 97 Rules and Regulations for amateur radio towers.

#### **Ancillary Structure**

For the purposes of Subsection “Communications Tower (Microwave, TV, Telephone, Radio, & Cellular)”, Article V “Use Regulations” of this Ordinance, any form of development associated with a communications facility, including foundations, concrete slabs on grade, guy anchors, generators, and transmission cable supports, but excluding equipment cabinets.

#### **Anti-Climbing Device**

A piece or pieces of equipment, which are either attached to a tower, or which are freestanding and are designed to prevent people from climbing the structure, including fine mesh wrap around structure legs, “squirrel-cones,” and other approved devices, but excluding the use of barbed or razor wire.

#### **Antenna**

Any apparatus designed for the transmitting and/or receiving of electromagnetic waves, including telephonic, radio, or television communications. Types of elements include omni-directional (whip) antennas, sectionalized (panel) antennas, multi or single bay (FM & TV), yagi, or parabolic (dish) antennas.

#### **Antenna Array**

A single or group of antenna elements and associated mounting hardware, transmission lines, or other appurtenances which share a common attachment device such as a mounting frame or mounting support structure for the sole purpose of transmitting or receiving electromagnetic waves.

#### **Antenna Element**

Any antenna or antenna array.

#### **ASR**

The Antenna Structure Registration Number as required by the FAA and FCC.

#### **Base Station**

The electronic equipment utilized by the wireless providers for the transmission and reception of radio signals.

#### **Breakpoint Technology**

The engineering design of a monopole wherein a specified point on the monopole is

designed to have stresses concentrated so that the point is at least five percent (5%) more susceptible to failure than any other point along the monopole so that in the event of a structural failure of the monopole, the failure will occur at the breakpoint rather than at the base plate, anchor bolts, or any other point on the monopole.

### **Broadcast Facilities**

Towers, antennas, and/or antenna arrays for AM/FM/TV/HDTV broadcasting transmission facilities that are licensed by the Federal Communications Commission.

### **Co-location**

The practice of installing and operating multiple wireless carriers, service providers, and/or radio common carrier licensees on the same tower or attached communication facility using different and separate antenna, feed lines, and radio frequency generating equipment.

### **Combined Antenna**

An antenna or an antenna array designed and utilized to provide services for more than one (1) wireless provider, or a single wireless provider utilizing more than one (1) frequency band or spectrum, for the same or similar type of services.

### **Concealed**

A tower, ancillary structure, or equipment compound that is not readily identifiable as such, and is designed to be aesthetically compatible with existing and proposed building(s) and uses on a site. There are two (2) types of concealed facilities:

#### A. Antenna Attachments

Antenna Attachments, including painted antenna and feed lines to match the color of a building or structure, faux windows, dormers, or other architectural features that blend with an existing or proposed building or structure and

#### B. Freestanding

Freestanding concealed towers usually have a secondary, obvious function which may include church steeple, windmill, bell tower, clock tower, light standard, flagpole with or without a flag, or tree.

### **Development Area**

The area occupied by a communications facility including areas inside or under an antenna-support structure's framework, equipment cabinets, ancillary structures, and/or access ways.

### **Discontinued**

Any tower without any mounted transmitting and/or receiving antennas in continued use for a period of 180 consecutive days.

### **Equipment Compound**

The fenced-in area surrounding the ground-based wireless communication facility including the areas inside or under a tower's framework and ancillary structures such as equipment necessary to operate the antenna on the structure that is above the base flood elevation including cabinets, shelters, pedestals, and other similar structures.

### **Equipment Cabinet**

Any structure above the base flood elevation including cabinets, shelters, pedestals, and other similar structures and used exclusively to contain radio or other equipment necessary for the transmission or reception of wireless communication signals.

### **Feed Lines**

Cables used as the interconnecting media between the transmission/receiving base station and the antenna.

**Flush-Mounted**

Any antenna or antenna array attached directly to the face of the support structure or building such that no portion of the antenna extends above the height of the support structure or building. Where a maximum flush-mounting distance is given, that distance shall be measured from the outside edge of the support structure or building to the inside edge of the antenna.

**Guyed Structure**

(See “Tower”)

**Geographic Search Ring**

An area designated by a wireless provider or operator for a new base station, produced in accordance with generally accepted principles of wireless engineering.

**Handoff Candidate**

A wireless communication facility that receives call transference from another wireless facility, usually located in an adjacent first tier surrounding the initial wireless facility.

**Lattice Structure**

(See “Tower”)

**Least Visually Obtrusive Profile**

The design of a wireless communication facility intended to present a visual profile that is the minimum profile necessary for the facility to properly function.

**Mitigation**

A modification of an existing tower to increase the height, or to improve its integrity, by replacing or removing one (1) or several tower(s) located in proximity to a proposed new tower in order to encourage compliance with Subsection “Communications Tower (Microwave, TV, Telephone, Radio, & Cellular)”, Article V “Use Regulations” of this Ordinance, or improve aesthetics or functionality of the overall wireless network.

**Monopole Structure**

(See “Tower”)

**Non-concealed**

A wireless communication facility that is readily identifiable as such and can be either freestanding or attached.

**Personal Wireless Service**

Commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services as defined in the *Telecommunications Act of 1996*.

**Public Safety Communications Equipment**

All communications equipment utilized by a public entity for the purpose of ensuring the safety of the citizens of the County and operating within the frequency range of 700 MHz and 1,000 MHz and any future spectrum allocations at the direction of the FCC.

**Radio Frequency Emissions**

Any electromagnetic radiation or other communications signal emitted from an antenna or antenna-related equipment on the ground, tower, building, or other vertical projection.

**Radio Frequency Propagation Analysis**

Computer modeling to show the level of signal saturation in a given geographical area.



## **Replacement**

(See “Mitigation”)

## **Satellite Earth Station**

A single or group of parabolic or dish antennas mounted to a support device that may be a pole or truss assembly attached to a foundation in the ground, or in some other configuration, including the associated separate equipment cabinets necessary for the transmission or reception of wireless communications signals with satellites.

## **Streamlined Processing**

Expedited review process for co-locations.

## **Structure**

For purposes of Subsection “Communications Tower (Microwave, TV, Telephone, Radio, & Cellular)”, Article V “Use Regulations” of this Ordinance, “structure” shall mean anything constructed or erected, the use of which required permanent location on the ground, or attachment to something having a permanent location on the ground, including advertising signs.

## **Tower**

Any staffed or unstaffed location for the transmission and/or reception of radio frequency signals or other wireless communications, and usually consisting of an antenna or group of antennas, transmission cables, equipment cabinets, and may include a tower. The following developments shall be deemed a communications facility: new, mitigated, or existing towers, public towers, replacement towers, co-location on existing towers, attached wireless communications facilities, concealed wireless communication facilities, and non-concealed wireless communication facilities. Towers do not include any device used to attach antennas to an existing building, unless the device extends above the highest point of the building by more than 20 feet. Types of support structures include “Guyed Tower”, “Lattice Structure”, and “Monopole Structure.”

### **Tower, Guyed**

A style of tower consisting of a single truss assembly composed of sections with bracing incorporated. The sections are attached to each other, and the assembly is attached to a foundation and supported by a series of wires that are connected to anchors placed in the ground or on a building.

### **Tower, Lattice Structure**

A tapered style of tower that consists of vertical and horizontal supports with multiple legs and cross bracing, and metal crossed strips or bars to support antennas.

### **Tower, Monopole Structure**

A style of freestanding tower consisting of a single shaft usually composed of two (2) or more hollow sections that are in turn attached to a foundation. This type of tower is designed to support itself without the use of guy wires or other stabilization devices. These facilities are mounted to a foundation that rests on or in the ground or on a building’s roof. All feed lines shall be installed within the shaft of the structure.

## **Tower Base**

The foundation, usually concrete, on which the tower and other support equipment are situated. For measurement calculations, the tower base is that point on the foundation reached by dropping a line perpendicular from the geometric center of the tower.

## **Tower Height**

The vertical distance measured from the grade line to the highest point of the tower, including any antenna, lighting, or other equipment affixed thereto.

**Tower Site**

The land area that contains, or will contain, a proposed tower, support structures, collapse zone, and other related buildings and improvements.

## **SECTION 5.0 NATURAL RESOURCES DEFINITIONS & ACRONYMS**

The following definitions include those applicable to both the Flood Damage Prevention and Water Supply Watershed regulations, specifically, as well as all natural resources regulations, generally, of this Ordinance.

### **5.1 Natural Resources Acronyms**

A	Flood Zone A
AE	Flood Zone AE
AO	Flood Zone AO
BFE	Base Flood Elevation
BMP	Best Management Practices
FEMA	Federal Emergency Management Agency
FBFM	Flood Boundary & Floodway Map
FHBM	Flood Hazard Boundary Map
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Study
HAG	Highest Adjacent Grade
LAG	Lowest Adjacent Grade
NFIP	National Flood Insurance Program
NAVD	North American Vertical Datum
NGVD	National Geodetic Vertical Datum
NPDES	National Pollution Discharge Elimination System
RFPE	Regulatory Flood Protection Elevation
SFHA	Special Flood Hazard Area
SNIA	Special Nonresidential Intensity Allocation
WS	Watershed
WSE	Water Surface Elevation
X	Flood Zone X
X500	Flood Zone X500

### **5.2 Natural Resources 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**

An extension or increase in the floor area or height of a building or structure.

**Agricultural Use**

For purposes of the Water Supply Watershed Regulations of this Ordinance, “agricultural use” shall mean the use of waters for stock watering, irrigation, and other farm purposes.

**Animal Unit**

A unit of measurement developed by the US Environmental Protection Agency that is used to compare different types of animal operations.

**Appeal**

A request for a review of the floodplain administrator’s interpretation of any provision of Section “Flood Damage Prevention”, Article X “Natural Resources” of this Ordinance.

**Area of Shallow Flooding**

A designated Zone AO on the Harnett County Flood Insurance Rate Map (FIRM) with base flood depths determined to be from one (1) to three (3) feet. 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)”)

**Basement**

Any area of the building having its floor subgrade (below ground level) on more than one (1) side.

**Base Flood**

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

**Base Flood Elevation (BFE)**

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

**Best Management Practices (BMP)**

A structural or non-structural management based practice which uses singularly or combination of methods to reduce non-point source inputs to receiving waters in order to achieve water quality protection goals.

**Buffer**

For purposes of the Water Supply Watershed Regulations of this Ordinance, “buffer” shall mean an area of natural or planted vegetation through which stormwater runoff flows in a diffuse manner so that the runoff does not become channelized and which provides for infiltration of the runoff and filtering of pollutants. The buffer is measured landward from the normal pool elevation of impounded structures and from the bank of each side of streams or rivers.

**Building**

For purposes of the Water Supply Watershed Regulations of this Ordinance, “building” shall mean any structure having a roof supported by columns or by walls, and intended for shelter, housing, or enclosure of persons, animals, or property. The connection of two (2) buildings by means of an open porch, breezeway, passageway, carport or other such open structure, with or without a roof, shall not be deemed to make them one (1) building. (Also see “Structure”)

### **Built-Upon Area**

Built-upon areas shall include that portion of a development project that is covered by impervious or partially impervious cover including buildings, pavement, gravel areas, recreation facilities, etc. (Note: Wooden slatted decks and the water area of a swimming pool are considered pervious.)

### **Chemical Storage Facility**

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

### **Cluster Development**

For purposes of the Water Supply Watershed Regulations of this Ordinance, “cluster development” shall mean the grouping of buildings in order to conserve land resources and provide for innovation in the design of the project. This term includes nonresidential development as well as single-family residential subdivision and multifamily developments that do not involve the subdivision of land. Any development with 10 percent (10%) or greater amount of open space.

### **Composting Facility**

A facility in which only stumps, limbs, leaves, grass, and untreated wood collected from land clearing or landscaping operations is deposited.

### **Critical Area**

The area adjacent to a water supply intake or reservoir where risk associated with pollution is greater than the remaining portions of the Watershed. The critical area is defined as:

- A. Extending either one-half (1/2) mile from the normal pool elevation of the reservoir in which the intake is located or to the ridge line of the watershed (whichever comes first); or
- B. One-half (1/2) mile upstream from the intake located directly in the stream or river (run of the river), or the ridge line of the watershed (whichever comes first).

### **Development, Flood Damage Prevention**

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, Water Supply Watershed**

For purposes of the Water Supply Watershed Regulations of this Ordinance, “development” shall mean any land disturbing activity which adds to or changes the amount of impervious or partially impervious cover on a land area or which otherwise decreases the infiltration of precipitation into the soil.

### **Development, Existing Water Supply Watershed**

For projects that do not require a State permit, existing development shall mean a project that, at a minimum, has established a vested right under North Carolina zoning law as of the effective date of the Water Supply Watershed regulations of this Ordinance based on at least one (1) of the following criteria:

- A. Substantial expenditures of resources (time, labor, money) based on a good faith reliance upon having received a valid local government approval to proceed with the project; or
- B. Having an outstanding valid building permit as authorized by the North Carolina General Statutes (GS 160D-344.1); or
- C. Having an approved site specific or phased development plan as authorized by the North Carolina General Statutes.

**Disposal**

As defined 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 may enter the environment or be emitted into the air or discharged into any waters, including ground waters.

**Dwelling Unit**

A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

**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.

**Erosion, Accelerated**

The increased rate and intensity of natural erosion caused by human made disturbances.

**Erosion, Natural**

The wearing away of the earth's surface by water, wind, and other natural agents under natural environmental conditions undisturbed by humans.

**Flood or Flooding**

A general and temporary condition of partial or complete inundation of normally dry land areas from:

- A. The overflow of inland or tidal waters; and/or,
- B. The unusual and rapid accumulation of runoff of surface waters from any source.

**Flood Boundary & Floodway Map (FBFM)**

An official map of Harnett County, issued by the Federal Emergency Management Agency, 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 Area**

The minimum area of the flood plain that, on the average, is likely to be flooded once every 100 years (i.e., that has a one percent (1%) chance of being flooded each year) as identified by the federal insurance administration on flood hazard area boundary maps dated September 18, 2006 or as amended.

**Flood Hazard Boundary Map (FHBM)**

An official map of Harnett County, issued by the Federal Emergency Management Agency, where the boundaries of the Special Flood Hazard Areas have been defined as Zone AE.

**Flood Insurance**

The insurance coverage provided under the National Flood Insurance Program.

**Flood Insurance Rate Map (FIRM)**

An official map of Harnett County, 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 hazard risk zones, and other flood data in a community issued by the Federal Emergency Management Agency. The Flood Insurance Study report includes Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), if published.

### **Flood Prone Area**

(See “Floodplain”)

### **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.

#### **Flood Zone, A**

An area inundated by 100 year flooding, for which no BFEs have been established.

#### **Flood Zone, AE**

An area inundated by 100-year flooding, for which BFEs have been determined.

#### **Flood Zone, AO**

An area inundated by 100-year flooding (usually sheet flow on sloping terrain), for which average depths have been determined; flood depths range from one (1) to three (3) feet.

#### **Flood Zone, X**

An area that is determined to be outside the 100- and 500-year floodplains.

#### **Flood Zone, X500**

An area inundated by 500-year flooding; an area inundated by 100-year flooding with average depths of less than one (1) foot or with drainage areas less than one (1) square mile; or an area protected by levees from 100-year flooding.

### **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**

Any type of permit that is required in conformance with the provisions of Section “Flood Damage Prevention”, Article X “Natural Resources” of this Ordinance, prior to the commencement of any development activity.

### **Floodplain Management**

The operation of an overall program of corrective and preventative 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 Regulations**

The regulations contained in Section “Flood Damage Prevention”, Article X “Natural Resources” of this Ordinance, any other Section of this Ordinance, local or State 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.

### **Floodway**

The channel of a river or other watercourse and the adjacent land areas that shall be reserved in order to discharge the base flood (100 year flood event) without cumulatively increasing the water surface elevation more than one (1) foot.

### **Freeboard**

The height added to the Base Flood Elevation (BFE) to account for watershed development as well as limitations of the engineering methodologies for the determination of flood elevations. The freeboard plus the Base Flood Elevation establishes the “Regulatory Flood Protection Elevation”.

### **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.

### **Hazardous Waste Management Facility**

A facility for the collection, storage, processing, treatment, recycling, recovery, or disposal of hazardous waste as defined in the North Carolina General Statutes.

### **Highest Adjacent Grade (HAG)**

The highest natural elevation of the ground surface, prior to construction, immediately next to the proposed walls of the structure.

### **Historic Structure**

Any structure that is:

- A. 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;
- B. 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;
- C. Individually listed on a local inventory of historic landmarks in communities with a Certified Local Government (CLG) Program); or
- D. Certified as contributing to the historical significance of a historic district designated by a community with a Certified Local Government (CLG) Program).

### **Industrial Development**

Any nonresidential development that requires an NPDES permit for an industrial discharge and/or requires the use or storage of any hazardous material for the purpose of manufacturing, assembling, finishing, cleaning, or developing any product or commodity.

### **Landfill**

A disposal facility or part of a disposal facility where waste is placed in or on land and which is not a land treatment facility, a surface impoundment, an injection well, a hazardous waste long-term storage facility, or a surface storage facility in accordance with NCGS 130A-290. For the purpose of the Water Supply Watershed regulations of this Ordinance this term does not include composting facilities.



**Landfill, Discharging**

A landfill which discharges treated leachate and which requires a National Pollution Discharge Elimination System (NPDES) permit.

**Lot**

A parcel of land occupied or to be occupied by a main building or group of main buildings and accessory building together with such yards, open spaces, lot width, and lot area is required.

**Lot, Existing (Lot of Record)**

A lot which is part of a subdivision, a plat of which has been recorded in the office of the Register of Deeds prior to the adoption of the Water Supply Watershed regulations of this Ordinance, or a lot described by metes and bounds, the description of which has been so recorded prior to the adoption of the Water Supply Watershed regulations of this Ordinance.

**Lowest Adjacent Grade (LAG)**

The elevation of the ground, sidewalk, or patio slab immediately next to the building, or deck support, after completion of the building. For Zones AE and AO, use the natural grade elevation prior to construction.

**Lowest Floor**

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 Section "Flood Damage Prevention", Article X "Natural Resources" of this Ordinance.

**Manufactured Home**

For purposes of the Flood Damage Prevention Regulations of this Ordinance, "manufactured home" shall mean 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**

For purposes of the Flood Damage Prevention Regulations of this Ordinance, "manufactured home park or subdivision" shall mean a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

**Manufactured Home Park or Subdivision, Existing**

For purposes of the Flood Damage Prevention regulations of this Ordinance, "existing manufactured home park or subdivision" shall mean 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) was completed before April 16, 1990.

**Market Value**

The building value, excluding the land value and that of any accessory structures or other improvements on the lot, established by independent certified appraisal, replacement cost depreciated by age of building and quality of construction (Actual Cash Value), or adjusted tax assessed values.

**Mean Sea Level**

For purposes of the NFIP, the National Geodetic Vertical Datum (NGVD) as corrected in 1929, the North American Vertical Datum (NAVD) as corrected in 1988, or other vertical control datum used as a reference for establishing various elevations within the floodplain, to which Base Flood Elevations (BFEs) shown on a FIRM are referenced. Refer to each FIRM panel to determine datum used.

### **New Construction**

Structures for which the “start of construction” commenced on or after April 16, 1990 and includes any subsequent improvements to such structures.

### **Nonconforming Building or Development**

Any legally existing building or development which fails to comply with the current provisions of Section “Flood Damage Prevention”, Article X “Natural Resources” of this Ordinance.

### **Nonconforming Lot of Record**

A lot described by a plat or a deed that was recorded prior to the effective date of the Water Supply Watershed regulations of this Ordinance (or its amendments) that does not meet the minimum lot size or other development requirements of Section “Water Supply Watershed”, Article X “Natural Resources” of this Ordinance.

### **Non-Encroachment Area**

The channel of a river or other watercourse and the adjacent land areas that shall 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.

### **Nonresidential Development**

All development other than residential development, agriculture, and silviculture.

### **Plat**

A map or plan of a parcel of land which is to be, or has been subdivided.

### **Post-FIRM**

Construction or other development which started on or after the effective date of the initial Flood Insurance Rate Map for the area.

### **Pre-FIRM**

Construction or other development which started before the effective date of the initial Flood Insurance Rate Map for the area.

### **Principally Above Ground**

At least 51 percent (51%) of the actual cash value of the structure is above ground.

### **Protected Area**

The area adjoining and up stream of the critical area of the Watershed IV (WS-IV). The boundaries of the protected area are defined as:

- A. Within five (5) miles of and draining to the normal pool elevation of the reservoir or to the ridge-line of the watershed; or
- B. Within 10 miles upstream and draining to the intake located directly in the stream or river or to the ridge-line of the watershed.

### **Public 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:

- A. Built on a single chassis;
- B. 400 square feet or less when measured at the largest horizontal projection;

- C. Designed to be self-propelled or permanently towable by a light duty truck; and,
- D. Not designed use as a permanent primary dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

**Reference Level**

The portion of a structure or other development that shall be compared to the regulatory flood protection elevation to determine regulatory compliance. For structures within Special Flood Hazard Areas designated as Zone A1-A30, AE, A, A99, or AO, the reference level is the top of the lowest floor or bottom of lowest attendant utility including ductwork, whichever is lower.

**Regulatory Flood Protection Elevation (RFPE)**

The elevation, in relation to mean sea level, to which the reference level of all structures and other development located within Special Flood Hazard Areas shall be protected. Where Base Flood Elevations (BFEs) have been determined, this elevation shall be the BFE plus two (2) feet of freeboard. 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 and Harnett County Flood Damage Prevention 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 the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

**Repetitive Loss**

Flood-related damages sustained by a structure on two (2) or more separate occasions during any 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 (25%) of the market value of the structure before the damage occurred.

**Residential Development**

Buildings for residence such as attached and detached single family dwellings, apartment complexes, condominiums, townhouses, cottages, and their associated outbuildings such as garages, storage buildings, gazebos, and customary home occupations.

**Riverine**

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

**Salvage or Junk Yard**

Any nonresidential property used for the storage, collection, and/or recycling of any type of equipment, and including but not limited to vehicles, appliances, and related machinery.

**Single Family Dwelling**

For purposes of the Water Supply Watershed Regulations of this Ordinance, “single family dwelling” shall mean a site built structure, a modular structure to NC Building Code requirements, or a manufactured home built to HUD requirements located on individual lots or within manufactured home parks.

**Solid Waste Disposal Facility**

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

**Solid Waste Disposal Site**

As defined in NCGS 130A-290(a)(36), any place at which solid wastes are disposed of by incineration, sanitary landfill, or any other method.

### **Special Flood Hazard Area (SFHA)**

The land in the floodplain subject to a one (1%) percent or greater chance of being flooded in any given year as determined in Subsection “Basis for Establishing the Areas of Special Flood Hazard” of Section “Flood Damage Prevention”, Article X “Natural Resources” of this Ordinance.

### **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 improvement was within 180 days of the permit date. The actual start means 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. 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. Permanent construction does not include:

- A. Land preparation, such as clearing, grading, and filling;
- B. The installation of streets and/or walkways;
- C. Excavation for a basement, footings, piers or foundations, or the erection of temporary forms; and/or
- D. 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.

### **Stormwater Control Measure**

For the purpose of this Ordinance, a stormwater control measure shall be any effort taken to aid in containing or controlling existing, planned, or future drainage at a site, including but not limited to retention ponds.

### **Street (Road)**

A right-of-way for vehicular traffic which affords the principal means of access to abutting properties.

### **Subdivider**

Any person, firm, or corporation who subdivides or develops any land deemed to be a subdivision as defined by this Ordinance.

### **Surface Water**

Surface water is present if the feature is shown on either the most recent version of the soil survey map prepared by the Natural Resources Conservation Service of the United States Department of Agriculture or the most recent version of the 1:24,000 scale (7.5 minute) quadrangle topographic maps prepared by the United States Geologic Survey (USGS).

### **Structure, Flood Damage Prevention**

For purposes of the Flood Damage Prevention Regulations of this Ordinance, “Structure” shall include but is not limited to a walled and roofed building, a manufactured home, or a gas or liquid storage tank that is principally above ground. For floodplain management purposes, principally above ground means that at least 51 percent (51%) of the actual cash value of the structure is above ground.

### **Structure, Water Supply Watershed**

Anything constructed or erected, including but not limited to buildings, which requires location on the land or attachment to something having permanent location on the land.

### **Substantial Damage**

Damage of any origin sustained by a structure during any one (1) year period whereby the cost of the restoring the structure to its condition before damaged would equal or exceed 50 percent (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 (1) year period for which the cost equals or exceeds 50 percent (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:

- A. Any correction of existing violations of State or Harnett County health, sanitary, or safety code specifications which have been identified by the Harnett County Building Code Administrator and which are the minimum necessary to assure safe living conditions; or
- B. Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

### **Toxic Substance**

Any substance or combination of substances (including disease causing agents), which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, has the potential to cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions or suppression in reproduction or growth), or physical deformities in such organisms or their off spring, or other adverse health effects.

### **Variance**

For purposes of the Water Supply Watershed Regulations of this Ordinance, "variance" shall mean a permission to develop or use property granted by the Watershed Review Board relaxing or waiving a water supply watershed management requirement adopted by the Environmental Management Commission that is incorporated into this Ordinance.

#### **Variance, Major**

For purposes of the Water Supply Watershed regulations of this Ordinance, "major variance" shall mean a variance from the minimum state wide water supply watershed protection rules that results in any one (1) or more of the following:

- A. The relaxation, by a factor of more than 10 percent (10%), of any management requirement that takes the form of a numerical standard; and/or
- B. Petitions to increase built upon percentage greater than 10 percent (10%).

#### **Variance, Minor**

For purposes of the Water Supply Watershed regulations of this Ordinance, "minor variance" shall mean petitions for the reduction of any standard by a factor of less than ten percent (10%), including residential density or built upon percentage.

### **Violation**

For purposes of the Flood Damage Prevention Regulations of this Ordinance, "violation" shall mean 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 Subsections "Administration" and "Provisions for Flood Hazard Reduction" of Section "Flood Damage Prevention", Article X "Natural Resources" of this Ordinance is presumed to be in violation until such time as that documentation is provided.

### **Water Dependent Structure**

Any structure for which the use requires access to, proximity to, or citing within surface waters to fulfill its basic purpose, such as boat ramps, boat houses, docks, and bulkheads. Ancillary facilities such as restaurants, outlets for boat supplies, parking lots, and commercial boat storage areas are not water dependent structures.

**Water Surface Elevation (WSE)**

The height, in relation to mean sea level (existing grade in case of Zone AO), of floods of various magnitudes and frequencies in the floodplains of riverine areas.

**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.

**Watershed**

The entire land area contributing surface drainage to a specific point (e.g. the water supply intake.)

**Watershed Administrator**

An official or designated person of Harnett County responsible for administration and enforcement of the Water Supply Watershed regulations of this Ordinance.

## **SECTION 7.0 CERTIFICATIONS**

### **7.1 General Certifications**

Certifications listed herein include the certification title only. The text of all certifications listed are available at the Planning Department Offices. This list is provided as a reference only and may not include all certifications required as part of development or subdivision submittals.

Certification of Ownership, Dedication, and Jurisdiction

Certificate of Survey and Accuracy

In accordance with the Manual of Practice for Land Surveying in North Carolina:

On the face of each map prepared for recordation there shall appear a certificate acknowledged before an officer authorized to take acknowledgments and executed by the person making the survey or map including deeds and any recorded data shown thereon. The certificate shall include a statement of error or closure calculated by latitudes and departures. Any lines on the map which were not actually surveyed shall be clearly indicated on the map and a statement included in the certificate revealing the source of information.

Certificate of Registration by Register of Deeds

Certificate of Notary

### **7.2 Subdivision Certifications**

Certification of Minor Subdivision Approval

Certification of Site Plan Approval by the Development Review Board

Certification of Preliminary Subdivision Approval by the Development Review Board

Certificate of Final Subdivision Approval by the Development Review Board

Certificate of Improvements Maintenance

Public Right-of-Way Plat Dedication Certification

### **7.3 Other Certifications**

Certification of Exempt Plat Approval

Certification of Site Plan Approval

Stormwater Certification

Duly adopted this 17th day of October, 2011.

HARNETT COUNTY BOARD OF COMMISSIONERS

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Timothy B. McNeill, Chairman

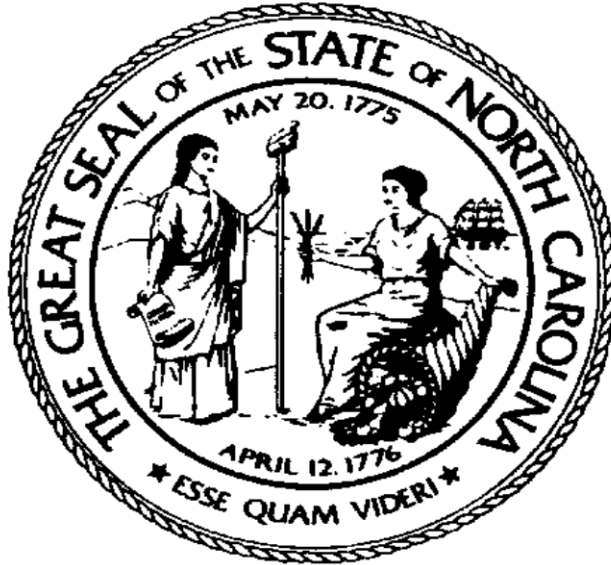
ATTEST:

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Margaret Gina Wheeler, Clerk to the Board



2022 USE-VALUE MANUAL  
FOR AGRICULTURAL, HORTICULTURAL  
AND  
FOREST LAND



April 2021

North Carolina Use-Value Advisory Board  
North Carolina Department of Revenue  
Raleigh, North Carolina

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## **Foreword**

When originally enacted in 1973, the objective of the present-use value program was to keep “the family farm in the hands of the farming family.” By the early 1970’s, North Carolina had become a prime site for industrial and commercial companies to relocate because of its plentiful and reliable work force. With this growth came other improvements to the State’s infrastructure to accommodate this growth, such as new and larger road systems, more residential subdivisions, and new industrial and commercial developments. The land on which to build these improvements came primarily from one source: farmland. As the demand for this land skyrocketed, so did its price as well as its assessed value, as counties changed from a fractional assessment to a market value system. Farmers who owned land near these sites soon could not afford the increase in property values and sought relief from the General Assembly.

In response, the General Assembly passed legislation known as the Present-Use Value program. As originally enacted, the basic tenets of this program were that only individuals who lived on the land for which they were applying could immediately qualify and that the land had to have a highest and best use as agriculture, horticulture or forest land. Land might also have qualified if the farmer owned it for seven years. Passage of this law eased the financial burden of most farmers and eliminated to some degree the “sticker shock” of the new property tax values. From that time until the mid-1980’s, the present-use value schedules were based on farmer-to-farmer sales, and quite often the market value schedules were very similar to the present use schedules, especially in the more rural areas.

Virtually every session of the General Assembly has seen new changes to the law, causing a constant rethinking as to how the law is to be administered. The mid-1980's saw several court cases that aided in this transformation. Among the legislative changes that resulted from these cases were the use of soil productivity to determine value, the use of a 9% capitalization rate, and the utilization of the "unit concept" to bring smaller tracts under the present use value guidelines.

Through the years the General Assembly has expanded the present-use value program to include new types of ownership such as business entities, tenants in common, trusts, and testamentary trusts. Legislation also expanded the definition of a relative. More recent legislation has established cash rents as the basis for determining present-use value for agricultural and horticultural land, while retaining the net income basis for determining present-use value for forestland.

This Use-Value Advisory Board Manual is published yearly to communicate the UVAB recommended present-use value rates and to explain the methodology used in establishing the recommended rates.

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Robert Ross, Utilization Forester, NCFS

# **USE-VALUE ADVISORY BOARD MANUAL**

Following are explanations of the major components of this manual.

## **I. Cash Rents**

Beginning in 1985, the basis for determining present-use value for agricultural land was based on the soil productivity for growing corn and soybeans. At that time, corn and soybeans were considered the predominant crops in the state. Over time, fewer and fewer acres went into the production of corn and soybeans and the land used for these crops tended to be lower quality. As a result, both the productivity and value of these crops plummeted, thus resulting in lower present-use values. A viable alternative was sought to replace corn and soybeans as the basis for present-use value. Following a 1998 study by North Carolina State University, cash rents for agricultural and horticultural land were determined to be the preferred alternative. Cash rents are a very good indicator of net income, which can be converted into a value using an appropriate capitalization rate.

The General Assembly passed legislation that established cash rents as the required method for determining the recommended present-use values for agricultural and horticultural land. The cash rents data from the NCSU study served as the basis for determining present-use value for the 2004-2007 UVAB manuals. However, starting in 2006, funding became available for the North Carolina Department of Agriculture to perform an extensive statewide cash rents survey on a yearly basis. The 2006 survey became the basis for the 2008 UVAB recommended values, and this process will

continue forward until changes dictate otherwise (i.e. the 2007 survey is used to establish the 2009 UVAB values, etc.).

Forestland does not lend itself well to cash rents analysis and continues to be valued using the net income from actual production.

## **II. Soil Types and Soil Classification**

The 1985 legislation divided the state using the six Major Land Resource Areas (MLRAs). Five different classes of productive soils and one non-productive soil class for each MLRA were determined. Each class was identified by its net income according to type: agriculture, horticulture and forestry. The net income was then divided by a 9% capitalization rate to determine the present-use value. For 2004 and forward, the following change has taken place. For agricultural and horticultural classifications, the five different soil classes have been reduced to three soil classes and one non-productive soil class. Forestland present-use value has kept the five soil classes and one non-productive soil class. The use of the six MLRAs has been retained.

The six MLRAs are as follows:

MLRA 130	Mountains
MLRA 133A	Upper Coastal Plain
MLRA 136	Piedmont
MLRA 137	Sandhills
MLRA 153A	Lower Coastal Plains
MLRA 153B	Tidewater



The soils are listed in this manual according to the MLRA in which they occur. They are then further broken down into their productivity for each of the three types of use: agriculture, horticulture and forestry. Every soil listed in each of the MLRAs is ranked by its productivity into four classes (with the exception of forestry which retained its previous six classes). The classes for agricultural and horticultural land are as follows:

CLASS I	Best Soils
CLASS II	Average Soils
CLASS III	Fair Soils
CLASS IV	Non-Productive Soils

It should be noted that, in some soil types, all the various slopes of that soil have the same productivity class for each of the usages, and therefore for the sake of brevity, the word “ALL” is listed to combine these soils. Each of the classes set up by the UVAB soils subcommittee corresponds to a cash rent income established by the most recent cash rents survey conducted by the North Carolina Department of Agriculture. This rent income is then capitalized by a rate established each year by the UVAB (see below). The criteria for establishing present-use value for forestry have remained basically unchanged from previous years due to the quantity and quality of information already available.

### **III. Capitalization Rate**

The capitalization rate mandated by the 1985 legislation for all types of present-use value land was 9%. The 1998 study by NCSU strongly indicated that a lower capitalization rate for agricultural and horticultural land was more in line with current sales and rental information. The 2002 legislation mandated a rate between 6%-7% for agricultural and horticultural land.

For the year 2004 and the subsequent years, the UVAB has set the capitalization rate at 6.5% for agricultural and horticultural land.

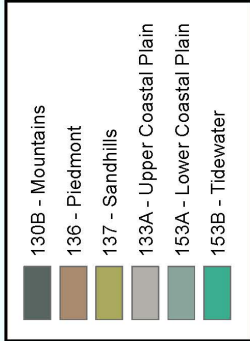
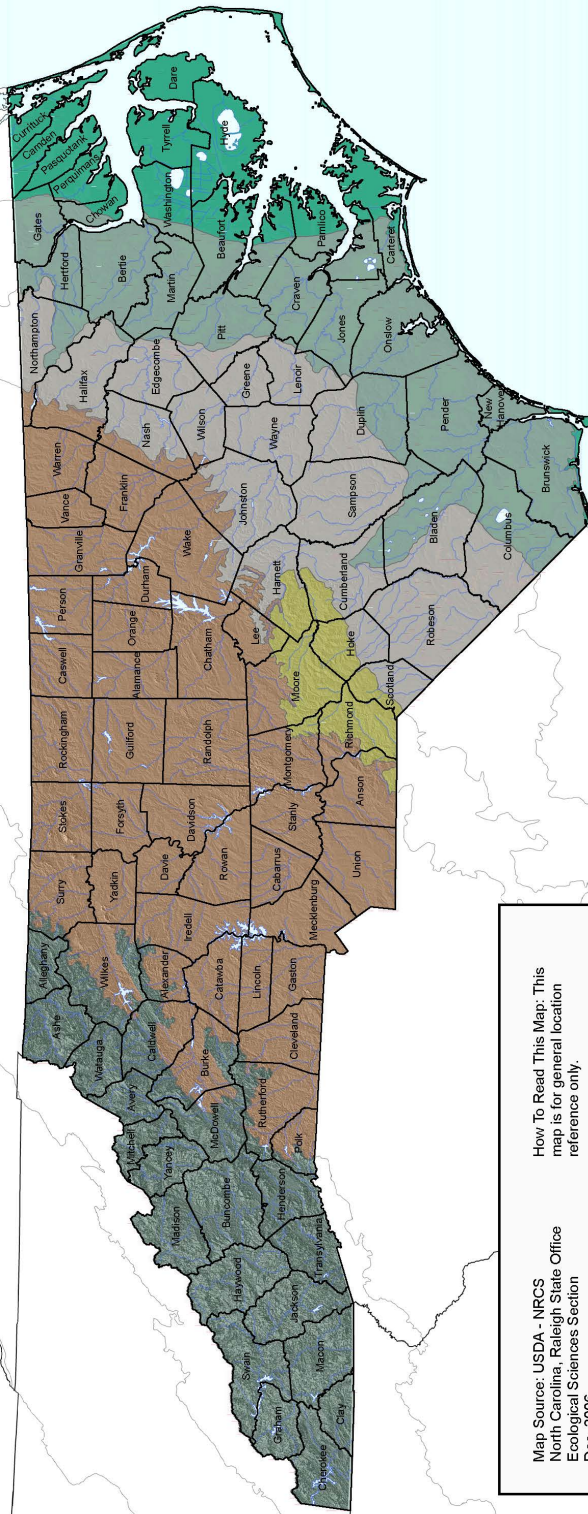
The capitalization rate for forestland continues to be fixed at 9% as mandated by the statutes.

#### **IV. Other Issues**

The value for the best agricultural land can be no higher than \$1,200 an acre for any MLRA.



# Major Land Resource Areas North Carolina



**Map Source:** USDA - NRCS  
North Carolina, Raleigh State Office  
Ecological Sciences Section  
Dec. 2006

**Data Source:** USDA - NRCS, NCDOT,  
and USGS base map layers.

**Map Location:**  
[h:\geodata\workspace\maps](http://geodata/workspace/maps)

**How To Read This Map:** This map is for general location reference only.

**Purpose:** This map displays the Major Land Resource Areas of the USDA - NRCS

0 25 50 100 Miles  
1:3,200,000  
Map Projection: Albers Equal Area  
Datum: NAD27

# PRESENT-USE VALUE SCHEDULES

## AGRICULTURAL RENTS

<b>MLRA</b>	<b>BEST</b>	<b>AVERAGE</b>	<b>FAIR</b>
130	90.30	54.30	35.50
133A	82.15	58.30	43.65
136	61.80	42.10	27.35
137	67.50	47.30	32.20
153A	77.10	56.10	42.20
153B	103.95	70.70	53.00

## AGRICULTURAL SCHEDULE

<b>MLRA</b>	<b>CLASS I</b>	<b>CLASS II</b>	<b>CLASS III</b>
130	\$1,200*	\$835	\$545
133A	\$1,200*	\$895	\$670
136	\$950	\$645	\$420
137	\$1,035	\$725	\$495
153A	\$1,185	\$860	\$645
153B	\$1,200*	\$1,085	\$815

--NOTE: All Class 4 or Non-Productive Land will be appraised at \$40.00 per acre.

--For the 2021 year, cash rents were capitalized at a rate of 6.5% to produce the Agricultural Schedule.

\* As required by statute, agricultural values cannot exceed \$1,200.

## HORTICULTURAL SCHEDULE

All horticultural crops requiring more than one growing season between planting or setting out and harvest, such as Christmas trees, ornamental shrubs and nursery stock, apple and peach orchards, grapes, blueberries, strawberries, sod and other similar horticultural crops should be classified as horticulture regardless of location in the state.

### HORTICULTURAL RENTS

<b>MLRA</b>	<b>BEST</b>	<b>AVERAGE</b>	<b>FAIR</b>
130	161.70	111.10	72.90
133A	99.10	68.40	52.25
136	89.20	58.05	40.15
137	84.35	56.85	37.70
153A	93.80	58.15	44.40
153B	122.40	92.80	84.35

### HORTICULTURAL SCHEDULE

<b>MLRA</b>	<b>CLASS I</b>	<b>CLASS II</b>	<b>CLASS III</b>
130	\$2,485	\$1,705	\$1,120
133A	\$1,520	\$1,050	\$800
136	\$1,370	\$890	\$615
137	\$1,295	\$870	\$580
153A	\$1,440	\$890	\$680
153B	\$1,880	\$1,425	\$1,295

--NOTE: All Class 4 or Non-Productive Land will be appraised at \$40.00 per acre.

--For the 2021 year, rents were increased cash rents were capitalized at a rate of 6.5% to produce the Horticultural Schedule.

### FORESTLAND NET PRESENT VALUES

<b>MLRA</b>	<b>Class I</b>	<b>Class II</b>	<b>Class III</b>	<b>Class IV</b>	<b>Class V</b>
130	\$32.87	\$20.61	\$7.88	\$4.20	\$4.02
133A	\$32.01	\$21.08	\$20.89	\$8.13	\$5.55
136	\$36.11	\$24.80	\$21.85	\$15.86	\$11.63
137	\$39.03	\$25.97	\$21.85	\$8.49	\$3.37
153A	\$32.01	\$21.08	\$20.89	\$8.13	\$5.55
153B	\$26.61	\$20.89	\$16.41	\$8.13	\$5.55

### FORESTLAND SCHEDULE

<b>MLRA</b>	<b>Class I</b>	<b>Class II</b>	<b>Class III</b>	<b>Class IV</b>	<b>Class V</b>
130	\$365	\$230	\$90	\$45	\$45
133A	\$355	\$235	\$230	\$90	\$60
136	\$400	\$275	\$245	\$175	\$130
137	\$430	\$290	\$245	\$95	\$40
153A	\$355	\$235	\$230	\$90	\$60
153B	\$295	\$230	\$180	\$90	\$65

--NOTE: All Class VI or Non-Productive Land will be appraised at \$40.00/Acre. Exception: For MLRA 130 use 80 % of the lowest valued productive land.

--Net Present Values were divided by a capitalization rate of 9.00% to produce the Forestland Schedule.

# **2009 Cash Rent Study**

## **INTRODUCTION**

The National Agricultural Statistics Service in cooperation with the North Carolina Department of Agricultural and Consumer Services collected cash rents data on the 2009 County Estimates Survey. North Carolina farmers were surveyed to obtain cash rent values per acre for three land types: Agricultural, horticultural, and Christmas tree land. Supporting funds for this project were provided by the North Carolina Legislature. Appreciation is expressed to all survey participants who provided the data on which this report is based.

## **THE SURVEY**

The survey was conducted by mail with telephone follow-up during September through February. Values relate to the data collection time period when the respondent completed the survey.

## **THE DATA**

This report includes the most current number of responses and average rental rate per acre. Producers were asked to provide their best estimate of cash rent values in their county by land quality. The data published here are simple averages of the best estimate of the cash rent value per acre. These averages are not official estimates of actual sales.

Reported data that did not represent agricultural usage were removed in order to give a more accurate reflection of agricultural rents and values. To ensure respondent confidentiality and provide more statistical reliability, counties and districts with fewer than 10 reports are not published individually, but are included in aggregate totals. Published values in this report should never be used as the only factor to establish rental arrangements.

Data were collected for three land types: Agricultural, horticultural, and Christmas tree land. Agricultural land includes land used to produce row crops such as soybeans, corn, peanuts, and small grains, pasture land, and hay. Agricultural land also includes any land on which livestock are grown. Horticultural land includes commercial production or growing of fruits or vegetables or nursery or floral products such as apple orchards, blueberries, cucumbers, tomatoes, potted plants, flowers, shrubs, sod, and turf grass. Christmas tree land includes any land to produce Christmas trees, including cut and balled Christmas trees.

2009 Average Cash Rents for Resource Area = 130 Mountains

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
ALLEGHANY	22	89.80	21	55.50	21	33.30												
ASHE	17	76.50	15	43.50	15	28.30							12	162.50				
AVERY																		
BUNCOMBE	37	100.70	31	53.90	27	33.80												
BURKE	25	55.20	22	33.20	19	26.60												
CALDWELL	13	35.40	11	23.20	10	16.70												
CHEROKEE	16	88.10	11	48.60	10	29.50												
CLAY	15	68.70	14	39.10	13	25.20												
GRAHAM																		
HAYWOOD	41	117.90	28	73.80	29	43.50												
HENDERSON	24	83.50	18	57.60	18	36.90												
JACKSON																		
MACDOWELL																		
MACON	11	73.20	12	43.30		40.50												
MADISON	26	116.50	22	63.20	23													
MITCHELL																		
POLK																		
SWAIN																		
TRANSYLVANIA	14	93.60																
WATAUGA	27	79.10	18	49.70	14	32.50							11	181.30				
WILKES	79	57.30	71	39.30	59	27.00												
YANCEY	17	117.90	13	72.30	13	48.85												
AREA TOTAL	422	82.10	349	49.40	317	32.30	78	147.00	47	101.10	41	66.30	69	153.60	47	93.60	38	61.30



2009 Average Cash Rents for Resource Area = 133A Upper Coastal Plain

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
BLADEN	36	63.10	32	49.20	25	33.80												
COLUMBUS	77	60.80	58	45.80	51	34.60												
CUMBERLAND	36	66.40	29	44.70	25	30.40												
DUPLIN	142	69.30	113	50.80	90	39.70												
EDGECOMBE	36	77.10	29	57.20	22	43.60												
GREENE	61	79.70	40	55.00	36	41.30												
HALIFAX	28	83.30	18	64.20	14	42.10												
HARNETT	58	74.50	52	51.70	39	36.40												
JOHNSTON	103	71.90	84	49.90	63	33.40	13	93.90	10	53.00								
LENOIR	60	81.60	45	58.70	33	42.10												
NASH	51	77.80	39	52.70	31	43.10												
NORTHAMPTON	23	102.60	17	73.80	13	57.30												
ROBESON	53	49.60	52	38.90	28	32.40												
SAMPSON	128	81.60	109	56.40	87	41.80	10	95.00										
SCOTLAND	10	44.50																
WAYNE	96	89.70	64	62.30	65	47.00												
WILSON	40	82.80	30	61.50	27	48.20												
AREA TOTAL	1038	74.70	819	53.00	655	39.70	61	90.10	46	62.20	35	47.50						

## 2009 Average Cash Rents for Resource Area = 136 Piedmont

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
ALAMANCE	63	52.30	51	32.90	50	20.70												
ALEXANDER	35	49.10	28	33.40	29	20.00												
ANSON	35	50.10	31	41.30	25	28.40												
BURKE	25	55.20	22	33.20	19	26.60												
CABARRUS	20	42.20	16	37.80	13	23.90												
CALDWELL	13	35.40	11	23.50	10	16.70												
CASWELL	54	49.90	41	30.90	44	19.20												
CATAWBA	32	39.20	29	28.60	31	19.20												
CHATHAM	47	48.80	48	34.70	37	23.10												
CLEVELAND	44	36.50	39	29.20	34	21.20												
DAVIDSON	50	45.60	43	32.90	40	21.40												
DAVIE	38	60.70	27	39.30	24	21.30												
DURHAM	15	36.50	12	27.50	13	21.50												
FORSYTH	26	63.60	16	48.80	18	23.30												
FRANKLIN	41	59.20	38	37.10	35	21.90												
GASTON	17	33.50	15	27.30	15	18.80												
GRANVILLE	58	53.00	45	31.60	43	17.80												
GUILFORD	46	41.20	39	27.00	34	17.60												
HALIFAX	28	83.30	18	64.20	14	42.10												
IREDELL	52	53.90	49	43.40	43	27.90												
JOHNSTON	103	71.90	84	49.90	63	33.40	13	93.90	10	53.00								
LEE	25	72.40	20	45.40	18	33.10												
LINCOLN	16	35.60	14	21.80	12	15.60												
MECKLENBURG	1	61.40																
MONTGOMERY	16	41.60	16	39.10	14	20.00												
MOORE	37	56.50	33	37.30	25	23.90												
NASH	51	77.80	39	52.70	31	43.10												
ORANGE	31	37.60	26	31.80	25	19.40												
PERSON	38	60.70	26	40.60	22	23.30												
POLK																		
RANDOLPH	96	48.20	81	33.80	73	21.90												
RICHMOND	21	32.60	15	23.30	18	19.30												
ROCKINGHAM	55	55.10	41	30.30	40	16.60												
ROWAN	47	48.80	36	34.70	33	23.50												
RUTHERFORD	21	37.40	16	27.60	14	19.30												
STANLY	34	52.50	30	40.30	29	27.90												
STOKES	54	74.20	39	47.10	34	28.10												
SURRY	73	83.00	57	53.90	53	35.30												
UNION	55	66.30	50	47.80	40	40.30												
VANCE	32	55.00	22	29.30	23	17.20												
WAKE	55	61.20	46	36.20	39	26.20												
WARREN	24	40.90	15	25.30	20	17.80												
WILKES	79	57.30	71	39.30	59	27.00												
YADKIN	79	67.00	60	47.80	58	31.50												
AREA TOTAL	1798	56.20	1468	38.30	1324	24.90	125	81.10	101	52.80	89	36.50	46	77.90	43	52.90	41	35.00

## 2009 Average Cash Rents for Resource Area = 137 Sandhills

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
HARNETT	58	74.50	52	51.70	39	36.40												
HOKE	17	56.50	11	45.00	11	29.10												
LEE	25	72.40	20	45.40	16	33.10												
MOORE	37	56.50	33	37.30	25	23.90												
RICHMOND	21	32.60	15	23.30	18	19.30												
SCOTLAND	10	44.50																
<b>AREA TOTAL</b>	<b>168</b>	<b>61.40</b>	<b>139</b>	<b>43.00</b>	<b>115</b>	<b>29.30</b>	<b>*</b>	<b>76.70</b>	<b>*</b>	<b>51.70</b>	<b>*</b>	<b>34.30</b>						

An \* indicates the data is published even though there are less than 10 reports.

2009 Average Cash Rents for Resource Area = 153A Lower Coastal Plain

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
BEAUFORT	30	83.70	23	52.00	21	37.10												
BERTIE	41	75.00	23	60.10	21	44.50												
BLADEN	36	63.10	32	49.20	25	33.80												
BRUNSWICK	23	44.40	15	38.00	13	30.00												
CARTERET																		
CHOWAN	20	87.00	13	58.90	12	51.70												
COLUMBUS	77	60.80	58	45.80	51	34.60												
CRAVEN	32	60.60	29	47.80	21	35.20												
DUPLIN	142	69.30	113	50.80	90	39.70												
EDGECOMBE	36	77.10	29	57.20	22	43.60												
GATES	13	81.20	11	62.30														
HERTFORD	15	73.00	11	49.60														
JONES	25	64.40	22	49.80	20	41.30												
MARTIN	46	80.70	33	53.20	29	40.50												
NEW HANOVER																		
ONSLOW	34	55.40	24	42.80	23	34.80												
PAMLICO	13	70.40	13	51.20	13	36.50												
PENDER	24	67.10	21	45.50	19	33.70												
PITT	45	73.70	39	56.20	33	40.50												
WASHINGTON	12	128.80	10	61.00														
AREA TOTAL	672	70.10	525	51.00	442	38.40	30	85.30	19	52.90	13	40.40						

2009 Average Cash Rents for Resource Area = 153B Tidewater

County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
BEAUFORT	30	83.70	23	52.00	21	37.10												
CAMDEN																		
CARTERET																		
CHOWAN	20	87.00	13	58.40	12	51.70												
CURRITUCK	10	88.00																
DARE																		
HYDE																		
PAMLICO	13	70.40	13	51.20	13	36.50												
PASQUOTANK	19	105.30	11	73.20	10	60.00												
PERQUIMANS	24	101.90	21	78.10	18	58.90												
TYRRELL	10	109.50																
WASHINGTON	12	128.80	10	61.00														
AREA TOTAL	163	94.50	117	64.30	111	48.20	12	111.30	*	84.40	*	76.70	114	121.50	93	75.30	80	49.40

An \* indicates the data is published even though there are less than 10 reports.

2009 Average Cash Rents - State Total																		
County	Agricultural High Productivity		Agricultural Medium Productivity		Agricultural Low Productivity		Horticultural High Productivity		Horticultural Medium Productivity		Horticultural Low Productivity		Christmas Trees High Productivity		Christmas Trees Medium Productivity		Christmas Trees Low Productivity	
	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average	No. of reports	Average
STATE TOTAL	3431	66.90	2743	45.60	2414	31.50	254	103.20	184	67.70	155	46.90	114	121.50	93	75.30	80	49.40

## Christmas Tree Guidelines

This information replaces a previous memorandum issued by our office dated December 12, 1989. The 1989 General Assembly enacted an “in-lieu of income” provision allowing land previously qualified as horticulture to continue to receive benefits of the present-use value program when the crop being produced changed from any horticultural product to Christmas trees. It also directed the Department of Revenue to establish a separate gross income requirement different from the \$1,000 gross income requirement for horticultural land, when the crop being grown was evergreens intended for use as Christmas trees. N.C.G.S. 105-289(a)(6) directs the Department of Revenue:

**“To establish requirements for horticultural land, used to produce evergreens intended for use as Christmas trees, in lieu of a gross income requirement until evergreens are harvested from the land, and to establish a gross income requirement for this type of horticultural land, that differs from the income requirement for other horticultural land, when evergreens are harvested from the land.”**

It should be noted that horticultural land used to produce evergreens intended for use as Christmas trees is the only use allowed benefit of the present-use value program without first having met a gross income requirement. The trade-off for this exception is a different gross income requirement in recognition of the potential for greater income than would normally be associated with other horticultural or agricultural commodities.

While the majority of Christmas tree production occurs in the western mountain counties (MLRA 130), surveys as far back as 1996 indicate that there are approximately 135 Christmas tree operations in non-mountain counties (MLRAs 136, 137, 133A, 153A & 153B). They include such counties in the piedmont and coastal plain as Craven, Halifax, Robeson, Wake, and Warren. For this reason we have prepared separate in-lieu of income requirements and gross income requirements for these two areas of the State. The different requirements recognize the difference in species, growing practices, markets, and resulting gross income potential.

After consulting with cooperative extension agents, the regional Christmas tree/horticultural specialist at the Western North Carolina Experimental Research Station, and various landowners/growers, we have determined the standards in the following attachments to be reasonable guidelines for compliance with G.S. 105-289(a)(6). Please note these requirements are subject to the whims of weather and other conditions that can have a significant impact. The combined effect of recent hurricanes, spring freezes, and ice storms across some parts of the State should be taken into consideration when appropriate within each county. As with other aspects of the present-use value program, owners of Christmas tree land should not be held accountable for conditions such as adverse weather or disease outbreak beyond their control.

We encourage every county to contact their local Cooperative Extension Service Office to obtain the appropriate local data and expertise to support particular situations in each county.

## **I. Gross Income Requirement for Christmas Trees**

For MLRA 130, the gross income requirement for horticultural land used to grow evergreens intended for use as Christmas trees is \$2,000 per acre.

For all other MLRAs, the gross income requirement for horticultural land used to grow evergreens intended for use as Christmas trees is \$1,500 per acre.

## **II. In-Lieu of Income Requirement**

### **MLRA 130 – Mountains**

The in-lieu of income requirement is for acreage in production but not yet undergoing harvest, and will be determined by sound management practices, best evidenced by the following:

1. Sites prepared by controlling problem weeds and saplings, taking soil samples, and applying fertilizer and/or lime as appropriate.
2. Generally, a 5' x 5' spacing producing approximately 1,750 potential trees per acre. Spacing must allow for adequate air movement around the trees. (There is very little 4' x 4' or 4.5' x 4.5' spacing. Some experimentation has occurred with 5' x 6' spacing, primarily aimed at producing a 6' tree in 5 years. All of the preceding examples should be acceptable.)
3. A program for insect and weed control.
4. Generally, an eight-to-ten year setting to harvest cycle. (Most leases are for 10 years, which allows for a replanting of non-established or dying seedlings up through the second year.)

The gross income requirement for acres undergoing Christmas tree harvest in the mountain region of North Carolina (MLRA 130) is \$2,000 per acre. Once Christmas trees are harvested from specific acreage, the requirement for those harvested acres will revert to the in-lieu of income requirement.

As an example, if the total amount of acres devoted to Christmas tree production is six acres, three of which are undergoing harvest and three of which have yet to reach maturity, the gross income requirement would be \$6,000.

**MLRA 136 – Piedmont, MLRA 137 – Sandhills, MLRA 133A – Upper Coastal Plain,  
MLRA 153A – Lower Coastal Plain, and MLRA 153B – Tidewater.**

The in-lieu of income requirement is for acreage in production but not yet undergoing harvest, and will be determined by sound management practices, best evidenced by the following:

1. Sites prepared by controlling problem weeds and saplings, taking soil samples, and applying fertilizer and/or lime as appropriate.
2. Generally, a 7' x 7' spacing producing approximately 900 potential trees per acre. Spacing must allow for adequate air movement around the trees. (There may be variations in the spacing dependent on the species being grown, most likely Virginia Pine, White Pine, Eastern Red Cedar, and Leyland Cypress. All reasonable spacing practices should be acceptable.)
3. A program for insect and weed control.
4. Generally a five-to-six year setting to harvest cycle. (Due to the species being grown, soil conditions and growing practices, most operations are capable of producing trees for market in the five-to-six year range. However, the combined effect of adverse weather and disease outbreak may force greater replanting of damaged trees thereby lengthening the current cycle beyond that considered typical.)

The gross income requirement for acres undergoing Christmas tree harvest in the non-mountain regions of North Carolina (MLRAs 136, 137, 133A, 153A, and 153B) is \$1,500 per acre. Once Christmas trees are harvested from specific acreage, the requirement for those harvested acres will revert to the in-lieu of income requirement.

As an example, if the total amount of acres devoted to Christmas tree production is six acres, three of which are undergoing harvest and three of which have yet to reach maturity, the gross income requirement would be \$4,500.



## **Procedure for Forestry Schedules**

The charge to the Forestry Group is to develop five net income per-acre ranges for each MLRA based on the ability of the soils to produce timber income. The task is confounded by variable species and stand type; management level, costs and opportunities; markets and stumpage prices; topographies; and landowner objectives across North Carolina.

In an attempt to develop realistic net income per acre in each MLRA, the Forestry Group considered the following items by area:

1. Soil productivity and indicator tree species (or stand type);
2. Average stand establishment and annual management costs;
3. Average rotation length and timber yield; and
4. Average timber stumpage prices.

Having selected the appropriate combinations above, the harvest value (gross income) from a managed rotation on a given soil productivity level can be calculated, netted of costs and amortized to arrive at the net income per acre per year soil expectation value. The ensuing discussion introduces users of this manual to the procedure, literature and software citations and decisions leading to the five forest land classes for each MLRA. Column numbers beside sub-headings refer to columns in the Forestry Net Present Values Table.

Soil Productivity/Indicator Species Selection (Col. 1). Soil productivity in forestry is measured by site index (SI). Site index is the height to which trees of a given species will grow on a given soil/site over a designed period of time (usually 50 or 25 years, depending on species, site or age

of site table). The Forestry Group identified key indicator species (or stand types) for each MLRA and then assigned site index ranges for the indicator species that captured the management opportunities for that region. The site index ranges became the productivity class basis for further calculations of timber yield and generally can be correlated to Natural Resource Conservation Service (NRCS) cubic foot per acre productivity classes for most stand types. By MLRA, the following site index ranges and species/stand types cover the overwhelming majority of soils/sites and management opportunities.

MLRA 153A, 153B, 137, 136, 133A:

<u>Species/Stand Type</u>	<u>SI Range (50 yr. basis)</u>
Loblolly pine	86-104
Loblolly pine	66-85
Loblolly pine	60-65
Mixed hardwoods	Mixed species and site indices on coves, river bottoms, bottomlands
Pond and/or longleaf pine	50-55
Upland hardwoods (MLRA 136)	40-68 (Upland oak)

MLRA 130:

<u>Species/Stand Type</u>	<u>SI Range (50 yr. basis)</u>
White pine	70-89
White pine	55-69
Shortleaf/mixed hardwoods	Mixed species/sites (SI 42-58 shortleaf)
Bottomland/cove hardwoods	Mixed species/site indices on coves and bottoms
Upland oak ridges	40-68

The site index ranges above, in most cases, can be correlated to individual soil series (and series' phases) according to NRCS cubic foot per acre productivity classes. An exception will be the cove, bottomland, river bottom, and other hardwood sites where topographic position must also be

considered. The Soils Group is responsible for assigning soil series to the appropriate class for agriculture, horticulture and forestry.

Stand Establishment and Annual Management Costs (Columns 2 and 3). Stand establishment costs include site preparation and tree planting costs. Costs vary from \$0 to over \$200 per acre depending on soils, species, and management objectives. No cost would be incurred for natural regeneration (as practiced for hardwoods) with costs increasing as pine plantations are intensively managed on highly productive sites. The second column in the Forestry Net Present Values Table contains average establishment costs for the past five years as reported by the N.C. Forest Service for site classes in each MLRA.

Annual management may include costs of pine release, timber stand improvement activities, prescribed burning, boundary line maintenance, consultant fees and other contractual services. Cost may vary from \$0 on typical floodplain or bottomland stands to as high as \$6 per acre per year on intensively managed pine plantations. Annual management costs in Forestry Net Present Values Table are the best estimates under average stand management regimes by site class.

Rotation Length and Timber Yields (Columns 4, 5, 6). Saw timber rotations are recommended on all sites in North Carolina. This decision is based on the market situation throughout the state, particularly the scarce markets for low quality and small-diameter pine and hardwood, which normally would be used for pulpwood. Timber thinnings are not available to most woodlot managers and, therefore, rotations are assumed to proceed unthinned until the optimum economic product mix is achieved.

Timber yields are based on the most current yield models developed at the N.C. State University College of Natural Resources for loblolly pine. (Hafley, Smith, and Buford, 1982) and natural hardwood stands (Gardner et al. 1982). White pine yields, mountain mixed stand yields, and upland oak yields are derived from U.S. Forest Service yield models developed by Vimmerstedt (1962) and McClure and Knight. Longleaf and pond pine yields are from Schumacher and Coile (1960).

**Timber Stumpage Prices (Columns 7 and 8).** Cost of forestry operations are derived from the past five-year regional data (provided by the NC Forest Service). For timber, stumpage prices (prices paid for standing timber to landowners) are derived over the same 5-year period from regional timber price data obtained from Timber Mart-South, Inc, or similar timber price reporting system.

Harvest Values (Column 9). Multiplication of timber yields (columns 5 and 6) times the respective timber stumpage prices (columns 7 and 8) gives the gross harvest value of one rotation.

Annualized Net Present Value (NPV) (Column 10). Harvest values (column 9) are discounted to present value at a 4 percent discount rate, which is consistent with rates used and documented by the U.S. Forest Service, forestry industry and forestry economists. This rate approximates the long-term measures of the opportunity cost of capital in the private sector of the U. S. economy (Row et al. 1981; Gunter and Haney, 1984). The respective establishment costs and the present value of annual management costs are subtracted from the present value of the income to obtain the net

present value of the timber stand. This is then amortized over the life of the rotation to arrive at the annualized net present value (or annual net income) figure.

## Forestry Net Present Values

*Indicator Species or Stand Types, Lengths of Rotation, Costs, Yields, Price and Annualized Net Present Value per Acre of Land by Site Index Ranges in Each Major Land Resource Area, North Carolina*

(1) Species/Stand Type	(2) Est. Cost	(3) Mgmt. Cost	(4) Rot. Lgth.	(5) Yield (MBF)	(6) Yield (cads)	(7) Price /mbf	(8) Price /cd	(9) Harvest Value	(10) Annualized NPV
UP LCP	(\$)	(\$)	(yrs)	(MBF)	(cads)	(\$)	(\$)	(\$)	(\$)
<b>MLRAs 153A and 133A</b>									
<b>LOWER &amp; UPPER CP</b>									
Mixed hardwoods	\$0.00	\$0.00	50	11.5	44	\$232.37	\$12.42	\$3,218.69	\$21.08
Loblolly pine (86-104)	\$367.80	\$3.00	30	12	14.4	\$222.80	\$33.54	\$3,156.58	\$32.01
Loblolly pine (66-85)	\$258.80	\$2.00	30	7	16.8	\$222.80	\$33.54	\$2,123.09	\$20.89
Loblolly pine (60-65)	\$130.80	\$1.00	40	4.8	12.7	\$222.80	\$33.54	\$1,495.41	\$8.13
Pond pine (50-55)	\$49.00	\$0.50	50	2.7	20	\$222.80	\$33.54	\$1,272.39	\$5.55
Longleaf pine	\$49.00	\$0.50	50	3.2	8	\$222.80	\$33.54	\$981.29	\$4.60
<b>MLRA 153B</b>									
<b>TIDEWATER</b>									
Mixed hardwoods	\$0.00	\$0.00	50	8.43	44	\$232.37	\$12.42	\$2,505.32	\$16.41
Loblolly pine (86-104)	\$461.30	\$3.00	30	12	14.4	\$222.80	\$33.54	\$3,156.58	\$26.61
Loblolly pine (66-85)	\$258.80	\$2.00	30	7	16.8	\$222.80	\$33.54	\$2,123.09	\$20.89
Loblolly pine (60-65)	\$130.80	\$1.00	40	4.8	12.7	\$222.80	\$33.54	\$1,495.41	\$8.13
Pond pine	\$49.00	\$0.50	50	2.7	20	\$222.80	\$33.54	\$1,272.39	\$5.55
<b>MLRA 137</b>									
<b>SANDHILLS</b>									
Mixed hardwoods	\$0.00	\$0.00	50	11.9	46	\$232.37	\$12.42	\$3,336.48	\$21.85
Loblolly pine (86-104)	\$258.80	\$3.00	30	12	15.6	\$222.80	\$33.54	\$3,196.83	\$39.03
Loblolly pine (66-85)	\$130.80	\$2.00	30	6.4	16.9	\$222.80	\$33.54	\$1,992.76	\$25.97
Loblolly pine (60-65)	\$55.00	\$1.00	50	7.2	7	\$222.80	\$33.54	\$1,838.94	\$8.49
Longleaf pine (50-55)	\$55.00	\$0.50	50	3.2	8	\$222.80	\$33.54	\$981.29	\$3.37

## Forestry Net Present Values

*Indicator Species or Stand Types, Lengths of Rotation, Costs, Yields, Price and Annualized Net Present Value per Acre of Land by Site Index Ranges in Each Major Land Resource Area, North Carolina*

(1) Species/Stand Type	(2) Est. Cost	(3) Mgmt. Cost	(4) Rot. Lgth.	(5) Yield (MBF)	(6) Yield (cfs)	(7) Price /mbf	(8) Price /cfs	(9) Harvest Value	(10) Annualized NPV
UP LCP	(\$)	(\$)	(yrs)	(MBF)	(cfs)	(\$)	(\$)	(\$)	(\$)
<b>MLRA 136</b>									
<b>PIEDMONT</b>									
Mixed hardwoods	\$0.00	\$0.00	50	11.9	46	\$232.37	\$12.42	\$3,336.48	\$21.85
Loblolly pine (86-104)	\$275.00	\$3.00	30	11.5	15.6	\$222.80	\$33.54	\$3,085.43	\$36.11
Loblolly pine (66-85)	\$151.00	\$2.00	30	6.4	16.9	\$222.80	\$33.54	\$1,992.76	\$24.80
Loblolly pine (60-65)	\$55.00	\$0.50	40	4.1	15	\$222.80	\$33.54	\$1,416.60	\$11.63
Upland hardwoods	\$0.00	\$0.00	50	6.05	32	\$222.80	\$33.54	\$2,421.26	\$15.86
<b>MLRA 130</b>									
<b>MOUNTAINS</b>									
Mixed hardwoods	\$0.00	\$0.00	50	10.95	0	\$287.29	\$15.96	\$3,145.86	\$20.61
White pine (70-89)	\$278.00	\$2.00	30	17.8	0	\$160.53	\$20.72	\$2,857.43	\$32.87
White pine (55-69)	\$180.00	\$1.00	35	8.5	0	\$160.53	\$20.72	\$1,364.51	\$7.88
Shortleaf/mixed hwd	\$0.00	\$0.00	60	6	0	\$159.40	\$20.72	\$956.42	\$4.02
Upland oak ridge (40-68)	\$0.00	\$0.00	70	5.32	0	\$287.29	\$15.96	\$1,528.40	\$4.20

MLRA 130 – Mountains

Map Unit Name	Agri	For	Hort
Alluvial land, wet	IV	II	IV
Arents, loamy	IV	II	IV
Arkaqua loam, 0 to 2 percent slopes, frequently flooded	IV	II	IV
Arkaqua loam, 0 to 2 percent slopes, occasionally flooded	II	III	II
Arkaqua loam, 0 to 2 percent slopes, rarely flooded	II	III	II
Ashe and Edneyville soils, 6 to 15 percent slopes	IV	I	III
Ashe and Edneyville soils, 15 to 25 percent slopes	IV	I	III
Ashe and Edneyville soils, 25 to 45 percent slopes	IV	I	IV
Ashe fine sandy loam, 6 to 15 percent slopes	IV	III	III
Ashe fine sandy loam, 10 to 25 percent slopes	IV	III	III
Ashe fine sandy loam, 15 to 25 percent slopes	IV	III	III
Ashe fine sandy loam, 25 to 45 percent slopes	IV	III	IV
Ashe gravelly fine sandy loam, 25 to 65 percent slopes	IV	III	IV
Ashe stony fine sandy loam, ALL	IV	III	IV
Ashe stony sandy loam, ALL	IV	III	IV
Ashe-Chestnut-Buladean complex, very stony, ALL	IV	III	IV
Ashe-Cleveland complex, stony, ALL	IV	IV	IV
Ashe-Cleveland-Rock outcrop complex, ALL	IV	IV	IV
Ashe-Rock outcrop complex, 15 to 70 percent slopes	IV	VI	IV
Augusta fine sandy loam, cool variant, 1 to 4 percent slopes (Delanco)	II	I	II
Balsam, ALL	IV	VI	IV
Balsam-Rubble land complex, windswept, ALL	IV	VI	IV
Balsam-Tanasee complex, extremely bouldery, ALL	IV	VI	IV
Bandana sandy loam, 0 to 3 percent slopes, occasionally flooded	II	II	II
Bandana-Ostin complex, 0 to 3 percent slopes, occasionally flooded	III	II	III
Biltmore, ALL	IV	II	IV
Braddock and Hayesville clay loams, eroded, ALL	III	I	III
Braddock clay loam, 2 to 6 percent slopes, eroded	II	I	III
Braddock clay loam, 2 to 8 percent slopes, eroded	II	I	III
Braddock clay loam, 6 to 15 percent slopes, eroded	II	I	III
Braddock clay loam, 8 to 15 percent slopes, eroded	II	I	III
Braddock clay loam, eroded, ALL OTHER	IV	I	III
Braddock clay loam, 15 to 30 percent slopes, eroded, stony	IV	I	IV
Braddock fine sandy loam, 15 to 30 percent slopes	III	I	III
Braddock gravelly loam, 2 to 8 percent slopes	I	I	I
Braddock gravelly loam, 8 to 15 percent slopes	II	I	I
Braddock loam, 2 to 8 percent slopes	I	I	I
Braddock loam, 8 to 15 percent slopes	II	I	I
Braddock-Urban land complex, ALL	IV	I	IV
Bradson gravelly loam, ALL	II	I	I
Brandywine stony soils, ALL	IV	IV	IV
Brasstown-Junaluska complex, 8 to 15 percent slopes	III	IV	III
Brasstown-Junaluska complex, 15 to 30 percent slopes	IV	IV	III
Brasstown-Junaluska complex, ALL OTHER	IV	IV	IV
Brevard fine sandy loam, 1 to 6 percent slopes, rarely flooded	I	I	I
Brevard loam, 2 to 6 percent slopes	I	I	I
Brevard loam, 6 to 10 percent slopes	II	I	I
Brevard loam, 7 to 15 percent slopes	II	I	I
Brevard loam, 10 to 25 percent slopes	IV	I	I
Brevard loam, 15 to 25 percent slopes	IV	I	I
Brevard loam, 25 to 45 percent slopes	IV	I	II
Brevard sandy loam, 8 to 15 percent slopes	II	I	I



MLRA 130 – Mountains

Map Unit Name	Agri	For	Hort
Brevard-Greenlee complex, extremely bouldery, ALL	IV	I	IV
Buladean-Chestnut complex, 15 to 30 percent slopes, stony	IV	I	III
Buladean-Chestnut complex, stony, ALL OTHER	IV	I	IV
Burton stony loam, ALL	IV	V	IV
Burton-Craggey complex, windswept, ALL	IV	VI	IV
Burton-Craggey-Rock outcrop complex, windswept, ALL	IV	VI	IV
Burton-Wayah complex, windswept, ALL	IV	VI	IV
Cashiers fine sandy loam, 2 to 8 percent slopes	II	I	I
Cashiers fine sandy loam, 8 to 15 percent slopes	II	I	II
Cashiers fine sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Cashiers fine sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Cashiers fine sandy loam, 50 to 95 percent slopes, stony	IV	I	IV
Cashiers gravelly fine sandy loam, 8 to 15 percent slopes	II	I	II
Cashiers gravelly fine sandy loam, 15 to 30 percent slopes	IV	I	II
Cashiers gravelly fine sandy loam, 30 to 50 percent slopes	IV	I	III
Cashiers gravelly fine sandy loam, 50 to 95 percent slopes	IV	I	IV
Cashiers sandy loam, 8 to 15 percent slopes, stony	II	I	II
Cashiers sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Cashiers sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Cashiers sandy loam, 50 to 95 percent slopes, stony	IV	I	IV
Cataska-Rock outcrop complex, 30 to 95 percent slopes	IV	VI	IV
Cataska-Sylco complex, 50 to 95 percent slopes	IV	VI	IV
Chandler and Fannin soils, 25 to 45 percent slopes	IV	I	IV
Chandler gravelly fine sandy loam, 8 to 15 percent slopes	IV	III	II
Chandler gravelly fine sandy loam, 15 to 30 percent slopes	IV	III	II
Chandler gravelly fine sandy loam, 30 to 50 percent slopes	IV	III	III
Chandler gravelly fine sandy loam, ALL OTHER	IV	III	IV
Chandler gravelly fine sandy loam, windswept, ALL	IV	VI	IV
Chandler loam, 2 to 8 percent slopes	III	III	II
Chandler loam, 8 to 15 percent slopes	IV	III	II
Chandler loam, 15 to 25 percent slopes	IV	III	III
Chandler loam, 25 to 65 percent slopes	IV	III	IV
Chandler silt loam, 10 to 25 percent slopes	IV	III	II
Chandler silt loam, 25 to 45 percent slopes	IV	III	III
Chandler stony loam, 45 to 70 percent slopes	IV	III	IV
Chandler stony silt loam, ALL	IV	III	IV
Chandler-Micaville complex, 8 to 15 percent slopes	IV	III	II
Chandler-Micaville complex, 15 to 30 percent slopes, stony	IV	III	II
Chandler-Micaville complex, 30 to 50 percent slopes, stony	IV	III	III
Chandler-Micaville complex, 50 to 95 percent slopes, stony	IV	III	IV
Cheoah channery loam, ALL	IV	I	IV
Cheoah channery loam, stony, ALL	IV	I	IV
Cheoah channery loam, windswept, stony	IV	VI	IV
Chester clay loam, 15 to 45 percent slopes, eroded (Evard)	IV	I	III
Chester fine sandy loam, 6 to 15 percent slopes (Evard)	II	I	I
Chester fine sandy loam, 15 to 25 percent slopes (Evard)	II	I	III
Chester fine sandy loam, 25 to 45 percent slopes (Evard)	IV	I	III
Chester loam, 2 to 6 percent slopes	II	I	I
Chester loam, 6 to 10 percent slopes	III	I	I
Chester loam, 10 to 25 percent slopes	IV	I	II
Chester loam, 25 to 45 percent slopes	IV	I	III
Chester stony loam, 10 to 15 percent slopes (Evard)	III	I	III

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Map Unit Name	Agri	For	Hort
Chester stony loam, (Evard), ALL OTHER	IV	I	IV
Chestnut and Edneyville soils, 15 to 25 percent slopes	IV	I	II
Chestnut and Edneyville soils, 25 to 50 percent slopes	IV	I	III
Chestnut gravelly loam, 50 to 80 percent slopes	IV	III	IV
Chestnut-Ashe complex, ALL	IV	III	IV
Chestnut-Buladean complex, 8 to 15 percent slopes, rocky	III	III	III
Chestnut-Buladean complex, stony, ALL	IV	III	IV
Chestnut-Cleveland-Rock outcrop complex, windswept, ALL	IV	VI	IV
Chestnut-Edneyville complex, 8 to 25 percent slopes, stony	IV	III	III
Chestnut-Edneyville complex, 25 to 60 percent slopes, stony	IV	III	IV
Chestnut-Edneyville complex, windswept, stony, ALL	IV	VI	IV
Chestoa-Ditney-Rock outcrop complex, 30 to 95 percent slopes, very bouldery	IV	VI	IV
Cleveland-Chestnut-Rock outcrop complex, windswept, ALL	IV	VI	IV
Cleveland-Rock outcrop complex, 8 to 90 percent slopes	IV	VI	IV
Clifffield-Cowee complex, 15 to 30 percent slopes, very stony	IV	V	IV
Clifffield-Fairview complex, 15 to 25 percent slopes	IV	V	IV
Clifffield-Pigeonroost complex, very stony, ALL	IV	V	IV
Clifffield-Rhodhiss complex, 25 to 60 percent slopes, very stony	IV	V	IV
Clifffield-Rock outcrop complex, 50 to 95 percent slopes	IV	VI	IV
Clifffield-Woolwine complex, 8 to 15 percent slopes	IV	V	IV
Clifton (Evard) stony loam, ALL	IV	I	IV
Clifton clay loam, 8 to 15 percent slopes, eroded	III	I	III
Clifton clay loam, 15 to 30 percent slopes, eroded	IV	I	III
Clifton clay loam, 30 to 50 percent slopes, eroded	IV	I	III
Clifton loam, 2 to 8 percent slopes	II	I	I
Clifton loam, 6 to 10 percent slopes	II	I	I
Clifton loam, 8 to 15 percent slopes	II	I	II
Clifton loam, 10 to 25 percent slopes	IV	I	II
Clifton loam, 15 to 25 percent slopes	IV	I	II
Clifton loam, 25 to 45 percent slopes	IV	I	III
Clifton stony loam, 15 to 45 percent slopes	IV	I	IV
Clingman-Craggey-Rock outcrop complex, windswept, 15 to 95 percent slopes, extremely bouldery	IV	VI	IV
Codorus, ALL	II	II	III
Colvard, ALL	I	II	III
Comus, ALL	I	II	III
Cowee gravelly loam, stony, ALL	IV	V	IV
Cowee-Evard-Urban land complex, 15 to 30 percent slopes	IV	III	IV
Cowee-Saluda complex, stony, ALL	IV	V	IV
Craggey-Rock outcrop complex, 40 to 90 percent slopes	IV	VI	IV
Craggey-Rock outcrop-Clingman complex, windswept, rubbly, ALL	IV	VI	IV
Crossnore-Jeffrey complex, very stony, ALL	IV	I	IV
Cullasaja cobbly fine sandy loam, 8 to 30 percent slopes, very bouldery	IV	II	IV
Cullasaja cobbly loam, extremely bouldery, ALL	IV	II	IV
Cullasaja very cobbly fine sandy loam, extremely bouldery, ALL	IV	II	IV
Cullasaja very cobbly loam, extremely bouldery, ALL	IV	II	IV
Cullasaja very cobbly sandy loam, extremely bouldery, ALL	IV	II	IV
Cullasaja-Tuckasegee complex, 8 to 15 percent slopes, stony	IV	II	II
Cullasaja-Tuckasegee complex, 15 to 30 percent slopes, stony	IV	II	II
Cullasaja-Tuckasegee complex, 30 to 50 percent slopes, stony	IV	II	III
Cullasaja-Tuckasegee complex, 50 to 90 percent slopes, stony	IV	II	IV
Cullasaja-Tuckasegee complex, 50 to 95 percent slopes, stony	IV	II	IV

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Map Unit Name	Agri	For	Hort
Cullasaja-Tusquitee complex, 10 to 45 percent slopes	IV	II	III
Cullowhee fine sandy loam, 0 to 2 percent slopes, occasionally flooded	II	II	II
Cullowhee, frequently flooded, ALL	IV	II	IV
Cullowhee-Nikwasi complex, 0 to 2 percent slopes, frequently flooded	IV	II	IV
Delanco (Dillard) loam, ALL	I	I	I
Delanco fine sandy loam, 2 to 6 percent slopes	II	I	I
Dellwood gravelly fine sandy loam, 0 to 5 percent slopes, frequently flooded	IV	II	IV
Dellwood, occasionally flooded, ALL	III	II	III
Dellwood-Reddies complex, 0 to 3 percent slopes, occasionally flooded	III	II	III
Dellwood-Urban land complex, 0 to 3 percent slopes, occasionally flooded	IV	II	IV
Dillard, ALL	I	I	I
Dillsboro clay loam, 2 to 8 percent slopes	I	I	I
Dillsboro clay loam, 8 to 15 percent slopes, rarely flooded	II	I	II
Dillsboro clay loam, 8 to 15 percent slopes, stony	III	I	II
Dillsboro clay loam, 15 to 30 percent slopes, stony	IV	I	II
Dillsboro loam, 2 to 8 percent slopes	I	I	I
Dillsboro loam, 8 to 15 percent slopes	II	I	II
Dillsboro-Urban land complex, 2 to 15 percent slopes	IV	I	IV
Ditney-Unicoi complex, very stony, ALL	IV	VI	IV
Ditney-Unicoi complex, 50 to 95 percent slopes, very rocky	IV	VI	IV
Ditney-Unicoi-Rock outcrop complex, ALL	IV	VI	IV
Edneytown gravelly sandy loam, 8 to 25 percent slopes	IV	I	III
Edneytown-Chestnut complex, 30 to 50 percent slopes, stony	IV	I	III
Edneytown-Chestnut complex, 50 to 80 percent slopes, stony	IV	I	IV
Edneytown-Pigeonroost complex, 8 to 15 percent slopes, stony	III	I	III
Edneytown-Pigeonroost complex, 15 to 30 percent slopes, stony	IV	I	III
Edneytown-Pigeonroost complex, 30 to 50 percent slopes, stony	IV	I	IV
Edneyville (Edneytown) fine sandy loam, 7 to 15 percent slopes	III	I	III
Edneyville (Edneytown) fine sandy loam, 15 to 25 percent slopes	IV	I	IV
Edneyville (Edneytown) fine sandy loam, 25 to 45 percent slopes	IV	I	IV
Edneyville loam, 15 to 25 percent slopes	IV	I	II
Edneyville loam, 25 to 45 percent slopes	IV	I	III
Edneyville stony loam, 45 to 70 percent slopes	IV	I	IV
Edneyville-Chestnut complex, 2 to 8 percent slopes, stony	III	I	III
Edneyville-Chestnut complex, 8 to 15 percent slopes, stony	IV	I	III
Edneyville-Chestnut complex, 10 to 25 percent slopes, stony	IV	I	III
Edneyville-Chestnut complex, 15 to 30 percent slopes, stony	IV	I	III
Edneyville-Chestnut complex, ALL OTHER	IV	I	IV
Edneyville-Chestnut-Urban land complex, ALL	IV	I	IV
Ellijay silty clay loam, 2 to 8 percent slopes, eroded	III	I	I
Ellijay silty clay loam, 8 to 15 percent slopes, eroded	IV	I	I
Ellijay silty clay loam, eroded, ALL OTHER	IV	I	II
Elsinboro loam, ALL	I	I	I
Eutrochrepts, mined, 30 to 50 percent slopes, very stony	IV	VI	IV
Evard and Saluda fine sandy loams, 25 to 60 percent slopes	IV	I	IV
Evard fine sandy loam, 7 to 15 percent slopes	III	I	II
Evard fine sandy loam, 15 to 25 percent slopes	IV	I	II
Evard fine sandy loam, 25 to 50 percent slopes	IV	I	III
Evard gravelly sandy loam, 6 to 15 percent slopes	III	I	II
Evard gravelly sandy loam, 15 to 25 percent slopes	IV	I	III
Evard loam, ALL	IV	I	IV
Evard soils, 15 to 25 percent slopes	IV	I	III

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Map Unit Name	Agri	For	Hort
Evard soils, ALL OTHER	IV	I	IV
Evard stony loam, 25 to 60 percent slopes	IV	I	IV
Evard-Cowee complex, 2 to 8 percent slopes	III	I	II
Evard-Cowee complex, 8 to 15 percent slopes	III	I	II
Evard-Cowee complex, 8 to 15 percent slopes, eroded	III	I	II
Evard-Cowee complex, 8 to 25 percent slopes, stony	IV	I	III
Evard-Cowee complex, ALL OTHER	IV	I	IV
Evard-Cowee-Urban land complex, ALL	IV	I	IV
Fannin fine sandy loam, 8 to 15 percent slopes	III	I	I
Fannin fine sandy loam, 15 to 30 percent slopes	IV	I	II
Fannin fine sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Fannin fine sandy loam, 30 to 50 percent slopes	IV	I	II
Fannin fine sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Fannin fine sandy loam, 50 to 95 percent slopes	IV	I	III
Fannin loam, 8 to 15 percent slopes	III	I	II
Fannin loam, 15 to 25 percent slopes	IV	I	III
Fannin loam, 25 to 45 percent slopes	IV	I	III
Fannin loam, 30 to 50 percent slopes, eroded	IV	I	III
Fannin loam, 45 to 70 percent slopes	IV	I	IV
Fannin sandy clay loam, 8 to 15 percent slopes, eroded	III	I	II
Fannin sandy clay loam, eroded, ALL OTHER	IV	I	III
Fannin silt loam, 6 to 10 percent slopes, eroded	III	I	II
Fannin silt loam, 7 to 15 percent slopes	III	I	II
Fannin silt loam, 10 to 25 percent slopes, eroded	IV	I	III
Fannin silt loam, 15 to 25 percent slopes	IV	I	III
Fannin silt loam, 25 to 45 percent slopes	IV	I	III
Fannin silty clay loam, 15 to 45 percent slopes, eroded	IV	I	IV
Fannin-Chestnut complex, 50 to 85 percent slopes, rocky	IV	I	IV
Fannin-Cowee complex, 15 to 30 percent slopes, stony	IV	I	III
Fannin-Cowee complex, stony, ALL OTHER	IV	I	IV
Fannin-Urban land complex, 2 to 15 percent slopes	IV	I	IV
Fletcher and Fannin soils, 6 to 15 percent slopes	III	I	II
Fletcher and Fannin soils, 15 to 25 percent slopes	IV	I	II
Fluvaquents-Udifluvents complex, occasionally flooded, ALL	III	II	IV
Fontaflora-Ostin complex	IV	II	IV
French fine sandy loam, 0 to 3 percent slopes, frequently flooded	IV	II	IV
Greenlee ALL	IV	I	IV
Greenlee-Ostin complex, 3 to 40 percent slopes, very stony	IV	I	IV
Greenlee-Tate complex, ALL	IV	I	IV
Greenlee-Tate-Ostin complex, 1 to 15 percent slopes, extremely stony	IV	I	IV
Gullied land	IV	VI	IV
Harmiller-Shinbone complex, 15 to 30 percent slopes, stony	IV	III	III
Harmiller-Shinbone complex, 30 to 50 percent slopes, stony	IV	III	III
Hatboro loam	IV	II	IV
Hayesville channery fine sandy loam, 8 to 15 percent slopes, very stony	IV	I	II
Hayesville channery fine sandy loam, 15 to 25 percent slopes, very stony	IV	I	III
Hayesville channery fine sandy loam, 25 to 60 percent slopes, very stony	IV	I	IV
Hayesville clay loam, 2 to 8 percent slopes, eroded	III	I	II
Hayesville clay loam, 6 to 15 percent slopes, eroded	IV	I	II
Hayesville clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Hayesville clay loam, 10 to 25 percent slopes, severely eroded	IV	I	III
Hayesville clay loam, 15 to 30 percent slopes, eroded	IV	I	III

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Map Unit Name	Agri	For	Hort
Hayesville fine sandy loam, 6 to 15 percent slopes	III	I	I
Hayesville fine sandy loam, 8 to 15 percent slopes	III	I	I
Hayesville fine sandy loam, 15 to 25 percent slopes	III	I	II
Hayesville fine sandy loam, 15 to 30 percent slopes	III	I	II
Hayesville fine sandy loam, 25 to 50 percent slopes	IV	I	III
Hayesville loam, 2 to 7 percent slopes	II	I	I
Hayesville loam, 2 to 8 percent slopes	II	I	I
Hayesville loam, 6 to 10 percent slopes	II	I	I
Hayesville loam, 6 to 15 percent slopes	III	I	I
Hayesville loam, 7 to 15 percent slopes	III	I	I
Hayesville loam, 8 to 15 percent slopes	III	I	I
Hayesville loam, 10 to 25 percent slopes	III	I	II
Hayesville loam, 15 to 25 percent slopes	III	I	II
Hayesville loam, 15 to 30 percent slopes	III	I	II
Hayesville sandy clay loam, 15 to 30 percent slopes, eroded	IV	I	III
Hayesville sandy clay loam, eroded, ALL OTHER	III	I	II
Hayesville-Evard complex, 15 to 25 percent slopes	III	I	II
Hayesville-Evard-Urban land complex, 15 to 25 percent slopes	IV	I	IV
Hayesville-Sauratown complex, 2 to 8 percent slopes	II	I	II
Hayesville-Sauratown complex, 8 to 15 percent slopes	III	I	II
Hayesville-Sauratown complex, 15 to 25 percent slopes	III	I	III
Hayesville-Sauratown complex, 25 to 60 percent slopes	IV	I	III
Hayesville-Urban land complex, ALL	IV	I	IV
Haywood stony loam, 15 to 25 percent slopes	IV	I	III
Haywood stony loam, 25 to 50 percent slopes	IV	I	IV
Hemphill, rarely flooded, ALL	IV	II	IV
Humaquepts, loamy, 2 to 8 percent slopes, stony	IV	II	IV
Hunt Dale clay loam, 8 to 15 percent slopes, stony	III	I	II
Hunt Dale clay loam, 15 to 30 percent slopes, stony	IV	I	II
Hunt Dale clay loam, 30 to 50 percent slopes, stony	IV	I	III
Hunt Dale silty clay loam, 15 to 30 percent slopes, stony	IV	I	II
Hunt Dale silty clay loam, 30 to 50 percent slopes, very stony	IV	I	III
Hunt Dale silty clay loam, 50 to 95 percent slopes, very stony	IV	I	IV
Iotla sandy loam, 0 to 2 percent slopes, occasionally flooded	II	II	III
Junaluska-Brasstown complex, 6 to 25 percent slopes	IV	IV	II
Junaluska-Brasstown complex, 15 to 30 percent slopes	IV	IV	III
Junaluska-Brasstown complex, 25 to 60 percent slopes	IV	IV	III
Junaluska-Brasstown complex, 30 to 50 percent slopes	IV	IV	IV
Junaluska-Tsali complex, ALL	IV	IV	IV
Keener-Lostcove complex, 15 to 30 percent slopes, very stony	IV	I	III
Keener-Lostcove complex, 30 to 50 percent slopes, very stony	IV	I	IV
Kinkora loam	IV	I	III
Lonon loam, 2 to 8 percent slopes	I	I	I
Lonon loam, 8 to 15 percent slopes	II	I	I
Lonon loam, 15 to 30 percent slopes	IV	I	II
Lonon-Northcove complex, 6 to 15 percent slopes	IV	I	III
Maymead fine sandy loam, ALL	IV	I	II
Maymead-Greenlee-Potomac complex, 3 to 25 percent slopes	IV	I	IV
Nikwasi, ALL	IV	II	IV
Northcove very cobbly loam, ALL	IV	I	IV
Northcove-Maymead complex, extremely stony, ALL	IV	I	IV
Oconaluftee channery loam, ALL	IV	VI	IV

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Map Unit Name	Agri	For	Hort
Oconaluftee channery loam, windswept, ALL	IV	VI	IV
Ostin, occasionally flooded, ALL	IV	II	IV
Pigeonroost-Edneytown complex, stony, ALL	IV	I	III
Pineola gravelly loam, 2 to 8 percent slopes	IV	I	II
Pineola gravelly loam, 8 to 15 percent slopes, stony	IV	I	II
Pineola gravelly loam, 15 to 30 percent slopes, stony	IV	I	III
Pits, ALL	IV	VI	IV
Plott fine sandy loam, 8 to 15 percent slopes, stony	III	I	II
Plott fine sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Plott fine sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Plott fine sandy loam, 50 to 95 percent slopes, stony	IV	I	IV
Plott loam, 15 to 30 percent slopes, stony	IV	I	II
Plott loam, 30 to 50 percent slopes, stony	IV	I	III
Plott loam, 50 to 95 percent slopes, stony	IV	I	IV
Ponzer muck, cool variant	IV	VI	IV
Porters gravelly loam, 8 to 15 percent slopes, stony	III	I	II
Porters gravelly loam, 15 to 30 percent slopes, stony	IV	I	II
Porters gravelly loam, 30 to 50 percent slopes, stony	IV	I	III
Porters gravelly loam, 50 to 80 percent slopes, stony	IV	I	IV
Porters loam, 25 to 45 percent slopes	IV	I	III
Porters loam, 25 to 80 percent slopes, stony	IV	I	IV
Porters loam, 30 to 50 percent slopes, stony	IV	I	IV
Porters loam, ALL OTHER	IV	I	II
Porters stony loam, 10 to 25 percent slopes	IV	I	II
Porters stony loam, 15 to 25 percent slopes	IV	I	II
Porters stony loam, 15 to 45 percent slopes	IV	I	II
Porters stony loam, 25 to 45 percent slopes	IV	I	III
Porters stony loam, ALL OTHER	IV	I	IV
Porters-Unaka complex, 8 to 15 percent slopes, stony	IV	I	II
Porters-Unaka complex, 15 to 30 percent slopes, stony	IV	I	II
Porters-Unaka complex, 30 to 50 percent slopes, stony	IV	I	III
Porters-Unaka complex, 50 to 95 percent slopes, rocky	IV	I	IV
Potomac, frequently flooded, ALL	IV	II	IV
Potomac-Iotla complex, 0 to 3 percent slopes, mounded, frequently flooded	IV	II	IV
Rabun loam, 6 to 25 percent slopes	IV	I	II
Rabun loam, 25 to 50 percent slopes	IV	I	III
Reddies, occasionally flooded	II	II	II
Reddies, frequently flooded, ALL	IV	II	IV
Rock outcrop	IV	VI	IV
Rock outcrop-Ashe complex, ALL	IV	VI	IV
Rock outcrop-Ashe-Cleveland complex, ALL	IV	VI	IV
Rock outcrop-Cataska complex, ALL	IV	VI	IV
Rock outcrop-Cleveland complex, ALL	IV	VI	IV
Rock outcrop-Cleveland complex, windswept, ALL	IV	VI	IV
Rock outcrop-Craggey complex, windswept, ALL	IV	VI	IV
Rosman, frequently flooded, ALL	IV	II	IV
Rosman, ALL OTHER	I	II	I
Rosman-Reddies complex, 0 to 3 percent slopes, occasionally flooded	I	II	I
Saunook gravelly loam, 2 to 8 percent slopes	I	I	I
Saunook gravelly loam, 8 to 15 percent slopes	I	I	I
Saunook gravelly loam, 8 to 15 percent slopes, stony	II	I	II
Saunook gravelly loam, 15 to 30 percent slopes	IV	I	II

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Map Unit Name	Agri	For	Hort
Saunook gravelly loam, 15 to 30 percent slopes, stony	IV	I	II
Saunook gravelly loam, 30 to 50 percent slopes, stony	IV	I	III
Saunook loam, 2 to 8 percent slopes	I	I	I
Saunook loam, 8 to 15 percent slopes	I	I	I
Saunook loam, 8 to 15 percent slopes, stony	II	I	II
Saunook loam, 15 to 30 percent slopes, stony	IV	I	II
Saunook loam, 15 to 30 percent slopes, very stony	IV	I	III
Saunook loam, 30 to 50 percent slopes, very stony	IV	I	IV
Saunook sandy loam, 2 to 8 percent slopes	I	I	I
Saunook sandy loam, 8 to 15 percent slopes, stony	II	I	II
Saunook silt loam, 2 to 8 percent slopes	I	I	I
Saunook silt loam, 8 to 15 percent slopes, stony	II	I	II
Saunook-Nikwasi complex, 2 to 15 percent slopes	IV	I	III
Saunook-Thunder complex, ALL	IV	I	III
Saunook-Urban land complex, 2 to 15 percent slopes	IV	I	IV
Sauratown channery fine sandy loam, 8 to 15 percent slopes	IV	V	III
Sauratown channery fine sandy loam, 8 to 15 percent slopes, very stony	IV	V	III
Sauratown channery fine sandy loam, ALL OTHER	IV	V	IV
Soco-Cataska-Rock outcrop complex, 50 to 95 percent slopes	IV	VI	IV
Soco-Ditney complex, 6 to 25 percent slopes, stony	IV	III	III
Soco-Ditney complex, 8 to 15 percent slopes, very stony	IV	III	III
Soco-Ditney complex, 15 to 30 percent slopes, very stony	IV	III	III
Soco-Ditney complex, ALL OTHER	IV	III	IV
Soco-Stecoah complex, 8 to 15 percent slopes, stony	IV	III	II
Soco-Stecoah complex, 15 to 30 percent slopes	IV	III	III
Soco-Stecoah complex, 15 to 30 percent slopes, stony	IV	III	III
Soco-Stecoah complex, ALL OTHER	IV	III	IV
Soco-Stecoah complex, windswept, 30 to 50 percent slopes	IV	VI	IV
Spivey cobbly loam, extremely bouldery, ALL	IV	I	IV
Spivey stony loam, 10 to 40 percent slopes	IV	I	IV
Spivey-Santeetlah complex, 8 to 15 percent slopes, stony	IV	I	III
Spivey-Santeetlah complex, 15 to 30 percent slopes, stony	IV	I	III
Spivey-Santeetlah complex, stony, ALL OTHER	IV	I	IV
Spivey-Whiteoak complex, ALL	IV	I	IV
Statler, rarely flooded, ALL	I	I	I
Stecoah-Soco complex, 15 to 30 percent slopes, stony	IV	I	III
Stecoah-Soco complex, 30 to 50 percent slopes, stony	IV	I	III
Stecoah-Soco complex, 50 to 80 percent slopes, stony	IV	I	IV
Stony colluvial land	IV	II	IV
Stony land	IV	VI	IV
Stony steep land	IV	VI	IV
Suncook loamy sand, ALL	IV	II	II
Sylco-Cataska complex, ALL	IV	IV	IV
Sylco-Rock outcrop complex, 50 to 95 percent slopes	IV	IV	IV
Sylco-Soco complex, 10 to 30 percent slopes, stony	IV	IV	IV
Sylva-Whiteside complex, ALL	IV	I	II
Talladega, ALL	IV	IV	IV
Tanasee-Balsam complex, ALL	IV	VI	IV
Tate fine sandy loam, 2 to 6 percent slopes	I	I	I
Tate fine sandy loam, 2 to 7 percent slopes	I	I	I
Tate fine sandy loam, 2 to 8 percent slopes	I	I	I
Tate fine sandy loam, 2 to 8 percent slopes, very stony	IV	I	II

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Map Unit Name	Agri	For	Hort
Tate fine sandy loam, 6 to 15 percent slopes	II	I	I
Tate fine sandy loam, 7 to 15 percent slopes	II	I	I
Tate fine sandy loam, 8 to 15 percent slopes	II	I	I
Tate fine sandy loam, 8 to 25 percent slopes	IV	I	II
Tate fine sandy loam, 15 to 25 percent slopes	IV	I	II
Tate gravelly loam, 8 to 15 percent slopes	II	I	I
Tate gravelly loam, 8 to 15 percent slopes, stony	II	I	II
Tate gravelly loam, 15 to 30 percent slopes, stony	IV	I	II
Tate loam, 2 to 6 percent slopes	I	I	I
Tate loam, 2 to 8 percent slopes	I	I	I
Tate loam, 6 to 10 percent slopes	II	I	I
Tate loam, 6 to 15 percent slopes	II	I	I
Tate loam, 8 to 15 percent slopes	II	I	I
Tate loam, 10 to 15 percent slopes	II	I	I
Tate loam, 15 to 25 percent slopes	IV	I	II
Tate loam, 15 to 30 percent slopes	IV	I	II
Tate-Cullowhee complex, 0 to 25 percent slopes	IV	I	II
Tate-French complex, 2 to 10 percent slopes	II	I	II
Tate-Greenlee complex, ALL	IV	I	IV
Thunder-Saunook complex, ALL	IV	II	IV
Toecane-Tusquitee complex, ALL	IV	II	III
Toxaway, ALL	IV	II	IV
Transylvania silt loam	I	II	II
Trimont gravelly loam, ALL	IV	I	IV
Tuckasegee-Cullasaja complex, 8 to 15 percent slopes, stony	IV	II	III
Tuckasegee-Cullasaja complex, 15 to 30 percent slopes, very stony	IV	II	IV
Tuckasegee-Cullasaja complex, 30 to 50 percent slopes, extremely stony	IV	II	IV
Tuckasegee-Whiteside complex, 2 to 8 percent slopes	I	II	I
Tuckasegee-Whiteside complex, 8 to 15 percent slopes	II	II	I
Tusquitee and Spivey stony soils, ALL	IV	I	IV
Tusquitee loam, 6 to 10 percent slopes	I	I	I
Tusquitee loam, 6 to 15 percent slopes	II	I	I
Tusquitee loam, 7 to 15 percent slopes	II	I	I
Tusquitee loam, 8 to 15 percent slopes	II	I	I
Tusquitee loam, 10 to 15 percent slopes	II	I	I
Tusquitee loam, 15 to 25 percent slopes	IV	I	II
Tusquitee stony loam, 25 to 45 percent slopes	IV	I	IV
Tusquitee stony loam, ALL OTHER	IV	I	III
Udfluvents, frequently flooded, ALL	IV	II	IV
Udorthents, loamy, ALL	IV	V	IV
Udorthents-Pits complex, mounded, 0 to 2 percent slopes, occasionally flooded	IV	V	IV
Udorthents-Urban land complex, ALL	IV	V	IV
Unaka-Porters complex, very rocky, ALL	IV	V	IV
Unaka-Rock outcrop complex, 50 to 95 percent slopes, very bouldery	IV	VI	IV
Unicoi-Rock outcrop complex, 30 to 95 percent slopes, extremely bouldery	IV	V	IV
Unison fine sandy loam, 2 to 8 percent slopes	I	I	I
Unison fine sandy loam, 8 to 15 percent slopes	II	I	I
Unison fine sandy loam, 15 to 25 percent slopes	IV	I	II
Unison loam, 2 to 8 percent slopes	I	I	I
Unison loam, 8 to 15 percent slopes	II	I	I
Unison loam, 15 to 30 percent slopes	IV	I	II
Urban land	IV	VI	II



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Map Unit Name	Agri	For	Hort
Watauga loam, 6 to 10 percent slopes	III	I	II
Watauga loam, 6 to 15 percent slopes	III	I	II
Watauga loam, 8 to 15 percent slopes	III	I	II
Watauga loam, ALL OTHER	IV	I	III
Watauga sandy loam, 8 to 15 percent slopes, stony	III	I	II
Watauga sandy loam, 15 to 30 percent slopes, stony	IV	I	II
Watauga sandy loam, 30 to 50 percent slopes, stony	IV	I	III
Watauga stony loam, 15 to 45 percent slopes	IV	I	IV
Wayah loam, windswept, eroded, stony, ALL	IV	VI	IV
Wayah sandy loam, stony, ALL	IV	V	IV
Wayah sandy loam, windswept, stony, ALL	IV	VI	IV
Wayah-Burton complex, 15 to 30 percent slopes, bouldery	IV	V	IV
Wayah-Burton complex, 30 to 50 percent slopes, bouldery	IV	V	IV
Wayah-Burton complex, 50 to 95 percent slopes, very rocky	IV	V	IV
Wayah-Burton complex, windswept, ALL	IV	V	IV
Whiteoak cobbly loam, 8 to 15 percent slopes, stony	II	I	II
Whiteoak cobbly loam, 15 to 30 percent slopes, stony	IV	I	III
Whiteoak fine sandy loam, 2 to 8 percent slopes	I	I	I
Whiteoak fine sandy loam, 8 to 15 percent slopes, stony	II	I	II
Whiteoak fine sandy loam, 15 to 30 percent slopes, very stony	IV	I	III
Whiteside-Tuckasegee complex, 2 to 8 percent slopes	I	I	I

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Map Unit Name	Agri	For	Hort
Alluvial land, wet	III	III	III
Alpin, ALL	IV	II	IV
Altavista, ALL	I	I	I
Altavista-Urban land complex, 0 to 3 percent slopes, rarely flooded	IV	I	IV
Augusta, ALL	I	I	I
Autryville loamy sand, ALL	III	II	III
Autryville, ALL OTHER	IV	II	IV
Autryville-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Aycock very fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Aycock, ALL OTHER	I	II	I
Ballahack fine sandy loam	I	I	I
Barclay very fine sandy loam	I	I	I
Bethera loam, 0 to 1 percent slopes	II	I	II
Bibb and Johnston soils, frequently flooded	IV	III	IV
Bibb, ALL	IV	III	IV
Blaney, ALL	IV	II	IV
Blanton, ALL	IV	V	IV
Bojac loamy fine sand, 0 to 3 percent slopes	III	II	III
Bonneau loamy fine sand, 0 to 4 percent slopes	II	II	II
Bonneau loamy sand, 0 to 4 percent slopes	II	II	II
Bonneau loamy sand, 0 to 6 percent slopes	II	II	II
Bonneau loamy sand, 6 to 12 percent slopes	III	II	III
Bonneau sand, 0 to 3 percent slopes	II	II	II
Butters fine sand, 0 to 2 percent slopes	II	II	II
Butters loamy sand, 0 to 2 percent slopes	II	II	II
Byars loam	II	I	II
Candor sand, 1 to 8 percent slopes	IV	V	IV
Candor sand, 8 to 15 percent slopes	IV	V	IV
Cape Fear loam	I	I	I
Caroline sandy loam, 0 to 2 percent slopes	II	II	II
Caroline sandy loam, 2 to 6 percent slopes	II	II	II
Centenary sand	IV	II	IV
Chastain and Bibb soils, 0 to 1 percent slopes, frequently flooded	IV	III	IV
Chastain silt loam, frequently flooded	IV	III	IV
Chewacla and Chastain soils, frequently flooded	IV	III	IV
Chewacla and Congaree loams, frequently flooded	III	III	III
Chewacla and Wehadkee soils, 0 to 1 percent slopes, frequently flooded	IV	III	IV
Chewacla loam	II	III	II
Chewacla loam, 0 to 1 percent slopes, occasionally flooded	II	III	II
Chewacla loam, frequently flooded	IV	III	IV
Chewacla silt loam	II	III	II
Chipley loamy sand (Pactolus)	IV	II	IV
Chipley sand, 0 to 2 percent slopes	IV	II	IV
Conetoe loamy sand, ALL	III	II	III
Congaree silt loam	I	III	I
Congaree silt loam, frequently flooded	I	III	I
Cowarts loamy sand, 2 to 6 percent slopes	II	I	II
Cowarts loamy sand, 6 to 10 percent slopes	III	I	III
Cowarts sandy loam, 6 to 12 percent slopes, eroded	IV	I	IV
Coxville loam	II	I	II
Coxville sandy loam	II	I	II
Craven fine sandy loam, 0 to 1 percent slopes	II	I	II

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Map Unit Name	Agri	For	Hort
Craven fine sandy loam, 1 to 4 percent slopes	II	I	II
Craven fine sandy loam, 4 to 10 percent slopes	III	I	III
Craven loam, 1 to 4 percent slopes	II	I	II
Craven sandy clay loam, 1 to 4 percent slopes, eroded	II	I	II
Craven sandy loam, 2 to 6 percent slopes, eroded	II	I	II
Craven sandy loam, 2 to 6 percent slopes, eroded (Gritney)	II	I	II
Craven sandy loam, 6 to 10 percent slopes, eroded (Gritney)	III	I	III
Craven-Urban land complex, 0 to 4 percent slopes	IV	I	IV
Croatan muck	I	V	I
Deloss loam	I	III	I
Dogue, ALL	II	I	II
Dothan loamy sand, 2 to 6 percent slopes	II	I	II
Dothan, ALL OTHER	I	I	I
Dragston loamy sand	I	III	I
Dunbar, ALL	II	I	II
Duplin, ALL	II	I	II
Duplin-Urban land complex, 0 to 5 percent slopes	IV	I	IV
Dystrochrepts, steep	IV	II	IV
Emporia, ALL	II	II	II
Emporia-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Emporia-Wedowee complex, 2 to 6 percent slopes	II	II	II
Eustis, ALL	IV	II	IV
Exum, ALL	I	II	I
Faceville fine sandy loam, ALL	II	II	II
Faceville loamy sand, 6 to 10 percent slopes, eroded	IV	II	IV
Faceville loamy sand, ALL OTHER	II	II	II
Faceville sandy loam, 0 to 2 percent slopes	II	II	II
Faceville sandy loam, 2 to 6 percent slopes	II	II	II
Faceville sandy loam, 2 to 6 percent slopes, eroded	III	II	III
Faceville sandy loam, 6 to 10 percent slopes, eroded	IV	II	IV
Faceville-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Foreston loamy sand, ALL	II	II	II
Fuquay, ALL	IV	II	IV
Gilead loamy sand, 0 to 2 percent slopes	III	II	III
Gilead loamy sand, 10 to 15 percent slopes	IV	II	IV
Gilead loamy sand, 2 to 6 percent slopes	IV	II	IV
Gilead loamy sand, 2 to 6 percent slopes, eroded	III	II	III
Gilead loamy sand, 6 to 10 percent slopes	IV	II	IV
Gilead loamy sand, 6 to 10 percent slopes, eroded	IV	II	IV
Gilead sandy loam, 2 to 8 percent slopes	III	II	III
Gilead sandy loam, 8 to 15 percent slopes	IV	II	IV
Goldsboro, ALL	I	I	I
Goldsboro-Urban land complex, ALL	IV	I	IV
Grantham, ALL	I	I	I
Grantham-Urban land complex	IV	I	IV
Grifton-Meggett complex, occasionally flooded	IV	I	IV
Gritney fine sandy loam, 2 to 6 percent slopes	II	II	II
Gritney fine sandy loam, 2 to 7 percent slopes	II	II	II
Gritney fine sandy loam, 4 to 8 percent slopes	III	II	III
Gritney fine sandy loam, 5 to 12 percent slopes, eroded	IV	II	IV
Gritney fine sandy loam, 6 to 10 percent slopes	III	II	III
Gritney fine sandy loam, 7 to 15 percent slopes	IV	II	IV

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Map Unit Name	Agri	For	Hort
Gritney fine sandy loam, 10 to 15 percent slopes	IV	II	IV
Gritney loamy fine sand, 2 to 7 percent slopes	II	II	II
Gritney sandy clay loam, ALL	III	II	III
Gritney sandy loam, 2 to 5 percent slopes, eroded	III	II	III
Gritney sandy loam, 2 to 6 percent slopes	II	II	II
Gritney sandy loam, 5 to 12 percent slopes, eroded	IV	II	IV
Gritney sandy loam, 6 to 10 percent slopes	III	II	III
Gritney-Urban land complex, 2 to 12 percent slopes	IV	II	IV
Hoffman loamy sand, 6 to 10 percent slopes, eroded (Gilead)	IV	II	IV
Hoffman loamy sand, 10 to 20 percent slopes (Gilead)	III	II	III
Johns, ALL	II	I	II
Johnston, ALL	IV	III	IV
Kalmia loamy sand, 0 to 2 percent slopes	II	II	II
Kalmia loamy sand, 0 to 3 percent slopes	II	II	II
Kalmia loamy sand, 2 to 6 percent slopes	II	II	II
Kalmia loamy sand, 10 to 15 percent slopes	III	II	III
Kalmia loamy sand, 15 to 25 percent slopes	IV	II	IV
Kenansville, ALL	III	II	III
Kinston, ALL	IV	III	IV
Kureb sand, 1 to 8 percent slopes	IV	V	IV
Lakeland, ALL	IV	V	IV
Leaf loam	III	I	III
Lenoir loam	III	I	III
Leon sand, ALL	IV	V	IV
Liddell very fine sandy loam	I	I	I
Lillington-Turbeville complex, 8 to 15 percent slopes	III	II	III
Lucy loamy sand	II	II	II
Lumbee, ALL	II	I	II
Lynchburg, ALL	I	I	I
Lynchburg-Urban land complex	IV	I	IV
Lynn Haven and Torhunta soils	II	II	II
Mantachie soils, local alluvium	II	III	II
Marlboro, ALL	II	II	II
Marlboro-Cecil complex, 2 to 8 percent slopes	II	II	II
Marvyn and Gritney soils. 6 to 15 percent slopes	IV	I	IV
Marvyn loamy sand, 6 to 12 percent slopes	IV	I	IV
Maxton loamy sand, 0 to 2 percent slopes	II	II	II
McCull loam	III	II	III
McQueen loam, 1 to 6 percent slopes	II	II	II
Meggett, ALL	IV	I	IV
Muckalee, ALL	IV	III	IV
Myatt very fine sandy loam	II	I	II
Nahunta, ALL	I	I	I
Nankin ,ALL	II	II	II
Nixonton very fine sandy loam	I	I	I
Norfolk and Faceville soils, 6 to 10 percent slopes	II	II	II
Norfolk loamy fine sand, ALL	I	II	I
Norfolk loamy sand, 0 to 2 percent slopes	I	II	I
Norfolk loamy sand, 2 to 6 percent slopes	I	II	I
Norfolk loamy sand, 2 to 6 percent slopes, eroded	II	II	II
Norfolk loamy sand, 6 to 10 percent slopes	II	II	II
Norfolk loamy sand, 6 to 10 percent slopes, eroded	III	II	III

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Map Unit Name	Agri	For	Hort
Norfolk sandy loam, 0 to 2 percent slopes	I	II	I
Norfolk sandy loam, 2 to 6 percent slopes	I	II	I
Norfolk sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Norfolk sandy loam, 6 to 10 percent slopes	II	II	II
Norfolk, Georgeville, and Faceville soils, 2 to 8 percent slopes	II	II	II
Norfolk-Urban land complex, 0 to 3 percent slopes	IV	II	IV
Norfolk-Wedowee complex, 2 to 6 percent slopes	II	II	II
Ocilla, ALL	III	II	III
Okenee loam (Paxville)	II	III	II
Orangeburg loamy sand, eroded, ALL	II	II	II
Orangeburg loamy sand, ALL OTHER	I	II	I
Pactolus, ALL	IV	II	IV
Pamlico muck	III	V	III
Pantego, ALL	I	I	I
Paxville fine sandy loam	II	III	II
Paxville loam	II	III	II
Peawick, ALL	II	II	II
Pits-Tarboro complex	IV	VI	IV
Plummer and Osier soils	IV	I	IV
Plummer, ALL	IV	V	IV
Pocalla loamy sand, 0 to 3 percent slopes	III	II	III
Polawana loamy sand, frequently flooded	IV	III	IV
Ponzer muck, siliceous subsoil variant	I	V	I
Portsmouth, ALL	I	I	I
Rains, ALL	I	I	I
Rains-Toisnot complex, 0 to 2 percent slopes	IV	I	IV
Rains-Urban land complex, ALL	IV	I	IV
Rimini sand	IV	V	IV
Riverview loam, 0 to 1 percent slopes, occasionally flooded	I	III	I
Roanoke and Wahee loams	II	III	II
Roanoke, ALL	II	III	II
Roanoke-Urban land complex	IV	III	IV
Ruston loamy sand, ALL	III	II	III
Ruston sandy loam, 2 to 6 percent slopes, eroded	IV	II	IV
Rutlege loamy sand	IV	V	IV
Seabrook loamy sand, rarely flooded	IV	II	IV
Smoothed sandy land	IV	VI	IV
St. Lucie sand (Kureb)	IV	V	IV
Stallings, ALL	II	II	II
State, ALL	I	I	I
Swamp	IV	III	IV
Tarboro, ALL	IV	II	IV
Toisnot, ALL	IV	II	IV
Tomahawk sand	III	II	III
Tomotley, ALL	I	I	I
Torhunta and Lynn Haven soils	II	I	II
Torhunta, ALL	I	I	I
Trebloc loam	I	I	I
Troup sand	IV	II	IV
Turbeville fine sandy loam, 2 to 6 percent slopes	I	II	I
Turbeville gravelly sandy loam, 2 to 8 percent slopes	II	II	II
Turbeville loamy sand, 0 to 2 percent slopes	I	II	I

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Map Unit Name	Agri	For	Hort
Turbeville loamy sand, 2 to 6 percent slopes	I	II	I
Turbeville sandy clay loam, 2 to 6 percent slopes, eroded	II	II	II
Turbeville sandy loam, 0 to 2 percent slopes	I	II	I
Turbeville sandy loam, 2 to 6 percent slopes	I	II	I
Turbeville sandy loam, 2 to 8 percent slopes	I	II	I
Turbeville sandy loam, 6 to 12 percent slopes	II	II	II
Turbeville-Urban land complex, 0 to 8 percent slopes	IV	II	IV
Uchee, ALL	III	V	III
Udorthents, loamy	IV	VI	IV
Urban land	IV	VI	IV
Varina, ALL	II	II	II
Vaocluse loamy sand, 10 to 15 percent slopes	IV	II	IV
Vaocluse loamy sand, 10 to 15 percent slopes, eroded	IV	II	IV
Vaocluse loamy sand, 2 to 6 percent slopes	III	II	III
Vaocluse loamy sand, 2 to 6 percent slopes, eroded	III	II	III
Vaocluse loamy sand, 6 to 10 percent slopes	III	II	III
Vaocluse loamy sand, 6 to 10 percent slopes, eroded	III	II	III
Wagram fine sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 0 to 2 percent slopes	II	II	II
Wagram loamy sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 2 to 6 percent slopes	II	II	II
Wagram loamy sand, 6 to 10 percent slopes	III	II	III
Wagram loamy sand, 10 to 15 percent slopes	III	II	III
Wagram sand, thick surface, 0 to 6 percent slopes	II	II	II
Wagram sand, thick surface, 6 to 10 percent slopes	III	II	III
Wagram sand, thick surface, 10 to 15 percent slopes	III	II	III
Wagram-Troup sands, 0 to 4 percent slopes	IV	II	IV
Wagram-Urban land complex, ALL	IV	II	IV
Wahee, ALL	I	I	I
Wakulla, ALL	IV	V	IV
Wehadkee and Chewacla loams	IV	III	IV
Wehadkee, ALL	IV	III	IV
Wehadkee-Chastain association, frequently flooded	IV	III	IV
Weston loamy sand	III	I	III
Wickham fine sandy loam, 6 to 15 percent slopes, rarely flooded	II	I	II
Wickham fine sandy loam, ALL OTHER	I	I	I
Wickham loamy sandy, ALL	I	I	I
Wickham sandy loam, 0 to 4 percent slopes	I	I	I
Wickham sandy loam, 2 to 6 percent slopes, eroded	II	I	II
Wickham-Urban land complex, 1 to 6 percent slopes	IV	I	IV
Wilbanks loam, frequently flooded	IV	III	IV
Wilbanks silt loam	IV	III	IV
Winton fine sandy loam, ALL	IV	I	IV
Woodington loamy sand	II	II	II

## MLRA136 – Piedmont

Map Unit Name	Agri	For	Hort
Ailey-Appling complex, 2 to 8 percent slopes	II	II	II
Ailey-Appling complex, 8 to 15 percent slopes, bouldery	IV	II	III
Alamance silt loam, gently sloping phase	II	II	II
Alamance variant gravelly loam, ALL	IV	II	II
Altavista fine sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Altavista fine sandy loam, 7 to 10 percent slopes	II	I	I
Altavista fine sandy loam, 0 to 2 percent slopes occasionally flooded	I	I	II
Altavista fine sandy loam, ALL OTHER	I	I	I
Altavista fine sandy loam, clayey variant	I	I	I
Altavista loam, 0 to 3 percent slopes, rarely flooded	I	I	I
Altavista sandy loam, ALL	I	I	I
Altavista silt loam, ALL	I	I	I
Appling coarse sandy loam, eroded gently sloping phase	II	II	II
Appling coarse sandy loam, eroded sloping phase	II	II	II
Appling coarse sandy loam, ALL OTHER	II	II	I
Appling fine sandy loam, 2 to 6 percent slopes	II	II	I
Appling fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Appling fine sandy loam, 2 to 7 percent slopes	II	II	I
Appling fine sandy loam, 2 to 7 percent slopes, eroded	II	II	II
Appling fine sandy loam, 6 to 10 percent slopes	II	II	I
Appling fine sandy loam, 6 to 10 percent slopes, eroded	II	II	II
Appling fine sandy loam, 7 to 10 percent slopes(Wedowee)	II	II	I
Appling fine sandy loam, 7 to 10 percent slopes, eroded (Wedowee)	II	II	II
Appling fine sandy loam, 10 to 14 percent slopes (Wedowee)	III	II	II
Appling fine sandy loam, 10 to 14 percent slopes, eroded (Wedowee)	III	II	II
Appling fine sandy loam, (Wedowee), ALL OTHER	IV	II	II
Appling gravelly sandy loam, 2 to 6 percent slopes	II	II	I
Appling gravelly sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Appling gravelly sandy loam, 6 to 10 percent slopes	II	II	I
Appling gravelly sandy loam, 6 to 10 percent slopes, eroded	II	II	II
Appling loamy sand, 2 to 6 percent slopes	II	II	I
Appling sandy clay loam, 6 to 10 percent slopes, severely eroded	III	II	II
Appling sandy clay loam, 10 to 15 percent slopes, severely eroded	IV	II	II
Appling sandy clay loam, severely eroded sloping phase	III	II	III
Appling sandy loam, 1 to 6 percent slopes	II	II	I
Appling sandy loam, 2 to 6 percent slopes	II	II	I
Appling sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Appling sandy loam, 2 to 8 percent slopes	II	II	I
Appling sandy loam, 6 to 10 percent slopes	II	II	I
Appling sandy loam, 6 to 10 percent slopes, eroded	II	II	II
Appling sandy loam, 6 to 12 percent slopes	II	II	II
Appling sandy loam, 8 to 15 percent slopes	II	II	II
Appling sandy loam, 10 to 15 percent slopes	III	II	II
Appling sandy loam, 10 to 15 percent slopes, eroded	III	II	II
Appling sandy loam, 10 to 25 percent slopes, eroded (Wedowee)	IV	II	II
Appling sandy loam, 15 to 25 percent slopes (Wedowee)	IV	II	II
Appling sandy loam, 15 to 25 percent slopes, eroded (Wedowee)	IV	II	II
Appling sandy loam, eroded gently sloping phase	II	II	II
Appling sandy loam, eroded sloping phase	II	II	II
Appling sandy loam, eroded strongly sloping phase	III	II	II
Appling sandy loam, gently sloping phase	II	II	I
Appling sandy loam, moderately steep phase (Wedowee)	III	II	II

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Map Unit Name	Agri	For	Hort
Appling sandy loam, sloping phase	II	II	II
Appling sandy loam, strongly sloping phase	II	II	II
Appling-Marlboro complex, 1 to 6 percent slopes	II	II	II
Appling-Urban land complex, ALL	IV	II	IV
Armenia, ALL	IV	III	III
Ashlar-Rock outcrop complex, ALL	IV	V	IV
Augusta, ALL	III	I	II
Ayersville gravelly loam, ALL	IV	V	II
Badin channery loam, 8 to 15 percent slopes	III	II	II
Badin channery silt loam, 2 to 8 percent slopes	III	II	II
Badin channery silt loam, 8 to 15 percent slopes	III	II	II
Badin channery silt loam, ALL OTHER	IV	II	II
Badin channery silty clay loam, eroded, ALL	III	II	II
Badin silty clay loam, 2 to 8 percent slopes, moderately eroded	III	II	II
Badin silty clay loam, 8 to 15 percent slopes, moderately eroded	IV	II	II
Badin-Goldston complex, 2 to 8 percent slopes	III	II	II
Badin-Goldston complex, 8 to 15 percent slopes	IV	II	III
Badin-Goldston complex, 15 to 25 percent slopes	IV	II	IV
Badin-Nanford complex, 15 to 30 percent slopes	IV	II	IV
Badin-Tarrus complex, 2 to 8 percent slopes	II	II	I
Badin-Tarrus complex, 2 to 8 percent slopes, moderately eroded	III	II	I
Badin-Tarrus complex, 8 to 15 percent slopes	III	II	II
Badin-Tarrus complex, 8 to 15 percent slopes, moderately eroded	IV	II	II
Badin-Tarrus complex, 15 to 25 percent slopes	IV	II	II
Badin-Tarrus complex, 25 to 45 percent slopes	IV	II	IV
Badin-Urban land complex, ALL	IV	II	IV
Banister loam, 1 to 6 percent slopes, rarely flooded	II	I	I
Bethlehem gravelly sandy loam, 2 to 8 percent slopes	III	II	II
Bethlehem gravelly sandy loam, 8 to 15 percent slopes	IV	II	II
Bethlehem-Hibriten complex, 6 to 15 percent slopes	IV	II	III
Bethlehem-Urban land complex, 2 to 15 percent slopes	IV	II	IV
Buncombe, ALL	IV	III	IV
Callison-Lignum complex, 2 to 6 percent slopes	III	II	II
Callison-Misenheimer complex, 6 to 10 percent slopes	III	II	II
Carbonton-Brickhaven complex, ALL	IV	II	IV
Cartecay and Chewacla soils	II	III	III
Cecil clay loam, 2 to 6 percent slopes, eroded	III	II	II
Cecil clay loam, 2 to 6 percent slopes, severely eroded	III	II	II
Cecil clay loam, 2 to 7 percent slopes, severely eroded	III	II	II
Cecil clay loam, 2 to 8 percent slopes, eroded	III	II	II
Cecil clay loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil clay loam, 6 to 10 percent slopes, severely eroded	IV	II	II
Cecil clay loam, ALL OTHER	IV	II	II
Cecil fine sandy loam, 2 to 6 percent slopes	II	II	I
Cecil fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Cecil fine sandy loam, 2 to 7 percent slopes	II	II	I
Cecil fine sandy loam, 2 to 7 percent slopes, eroded	II	II	II
Cecil fine sandy loam, 2 to 8 percent slopes	II	II	I
Cecil fine sandy loam, 6 to 10 percent slopes	III	II	II
Cecil fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil fine sandy loam, 7 to 10 percent slopes (Pacolet)	III	II	II
Cecil fine sandy loam, 7 to 10 percent slopes, eroded (Pacolet)	III	II	II



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Map Unit Name	Agri	For	Hort
Cecil fine sandy loam, 8 to 15 percent slopes	III	II	II
Cecil fine sandy loam, 10 to 14 percent slopes (Pacolet)	III	II	II
Cecil fine sandy loam, 10 to 14 percent slopes, eroded (Pacolet)	III	II	II
Cecil fine sandy loam, 10 to 15 percent slopes	III	II	II
Cecil fine sandy loam, 10 to 15 percent slopes (Pacolet)	III	II	II
Cecil fine sandy loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	II
Cecil fine sandy loam, 14 to 25 percent slopes (Pacolet)	IV	II	II
Cecil fine sandy loam, 14 to 25 percent slopes, eroded (Pacolet)	IV	II	II
Cecil fine sandy loam, 25 to 40 percent slopes (Pacolet)	IV	II	III
Cecil fine sandy loam, 25 to 40 percent slopes, eroded (Pacolet)	IV	II	III
Cecil fine sandy loam, eroded gently sloping phase	II	II	II
Cecil fine sandy loam, eroded sloping phase	II	II	II
Cecil fine sandy loam, eroded strongly sloping phase	III	II	II
Cecil fine sandy loam, gently sloping phase	II	II	I
Cecil fine sandy loam, moderately steep phase	III	II	II
Cecil fine sandy loam, sloping phase	III	II	II
Cecil fine sandy loam, strongly sloping phase	III	II	II
Cecil gravelly fine sandy loam, 2 to 6 percent slopes	II	II	I
Cecil gravelly fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Cecil gravelly fine sandy loam, 2 to 7 percent slopes	II	II	I
Cecil gravelly fine sandy loam, 2 to 7 percent slopes, eroded	III	II	II
Cecil gravelly fine sandy loam, 6 to 10 percent slopes	III	II	II
Cecil gravelly fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil gravelly fine sandy loam, 7 to 10 percent slopes	III	II	II
Cecil gravelly fine sandy loam, 7 to 10 percent slopes, eroded (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, 10 to 14 percent slopes (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, 10 to 14 percent slopes, eroded (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, 10 to 15 percent slopes	III	II	II
Cecil gravelly fine sandy loam, 10 to 15 percent, eroded (Pacolet)	III	II	II
Cecil gravelly fine sandy loam, ALL OTHER	IV	II	II
Cecil gravelly sandy clay loam, 2 to 8 percent slopes, eroded	III	II	II
Cecil gravelly sandy clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Cecil gravelly sandy loam, 2 to 6 percent slopes	II	II	I
Cecil gravelly sandy loam, 2 to 6 percent slopes, eroded	II	II	I
Cecil gravelly sandy loam, 6 to 10 percent slopes	III	II	II
Cecil gravelly sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil gravelly sandy loam, 10 to 15 percent slopes	IV	II	IV
Cecil loam, 2 to 6 percent slopes	II	II	I
Cecil loam, ALL OTHER	III	II	II
Cecil sandy clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Cecil sandy clay loam, 8 to 15 percent slopes, moderately eroded	IV	II	II
Cecil sandy clay loam, ALL OTHER	III	II	II
Cecil sandy loam, 2 to 6 percent slopes	II	II	I
Cecil sandy loam, 2 to 6 percent slopes, eroded	III	II	II
Cecil sandy loam, 2 to 8 percent slopes	II	II	I
Cecil sandy loam, 2 to 8 percent slopes, eroded	III	II	II
Cecil sandy loam, 6 to 10 percent slopes	III	II	I
Cecil sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Cecil sandy loam, 8 to 15 percent slopes	III	II	II
Cecil sandy loam, 8 to 15 percent slopes, eroded	IV	II	II
Cecil sandy loam, 10 to 15 percent slopes	III	II	II
Cecil sandy loam, 10 to 15 percent slopes, eroded	III	II	II

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Map Unit Name	Agri	For	Hort
Cecil sandy loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	II
Cecil sandy loam, 15 to 45 percent slopes (Pacolet)	IV	II	II
Cecil sandy loam, eroded gently sloping phase	III	II	II
Cecil sandy loam, eroded sloping phase	III	II	II
Cecil sandy loam, gently sloping phase	II	II	I
Cecil sandy loam, sloping phase	III	II	I
Cecil soils, (Pacolet), ALL	IV	II	II
Cecil stony fine sandy loam, (Uwharrie), ALL	IV	II	II
Cecil-Urban land complex, ALL	IV	II	IV
Chastain silty clay loam	IV	III	III
Chenneby silt loam, 0 to 2 percent slopes, frequently flooded	III	III	III
Chewacla and Chastain soils, 0 to 2 percent slopes, frequently flooded	IV	III	III
Chewacla and Wehadkee, ALL	IV	III	III
Chewacla silt loam, frequently flooded	III	III	III
Chewacla, ALL OTHER	II	III	III
Cid, ALL	III	II	II
Cid-Lignum complex, 1 to 6 percent slopes	II	II	II
Cid-Misenheimer complex, 0 to 4 percent slopes	III	II	II
Cid-Urban land complex, 1 to 5 percent slopes	IV	II	IV
Meadowfield-Fairview complex, 15 to 25 percent slopes	IV	IV	IV
Meadowfield-Rhodhiss complex, 25 to 60 percent slopes, very stony	IV	IV	IV
Meadowfield-Woolwine complex, 8 to 15 percent slopes	IV	IV	IV
Claycreek fine sandy loam, 0 to 2 percent slopes	III	I	II
Colfax sandy loam, ALL	III	II	II
Colvard sandy loam, 0 to 3 percent slopes, occasionally flooded	I	III	III
Colfax silt loam	III	II	II
Congaree, frequently flooded	II	III	III
Congaree, ALL OTHER	I	III	III
Coronaca clay loam, ALL	II	II	I
Coronaca-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Creedmoor coarse sandy loam, ALL	III	I	II
Creedmoor fine sandy loam, 8 to 15 percent slopes	IV	I	II
Creedmoor fine sandy loam, ALL OTHER	III	I	II
Creedmoor loam, 2 to 8 percent slopes	III	I	II
Creedmoor sandy loam, 10 to 15 percent slopes	IV	I	II
Creedmoor sandy loam, 10 to 20 percent slopes	IV	I	II
Creedmoor sandy loam, ALL OTHER	III	I	II
Creedmoor silt loam, ALL	III	I	II
Cullen clay loam, ALL	II	II	II
Cullen-Wynott complex, 15 to 35 percent slopes	IV	II	III
Cut and fill land	IV	VI	IV
Davidson clay, severely eroded strongly sloping phase	III	I	II
Davidson sandy clay loam, 15 to 25 percent slopes	III	I	I
Davidson, ALL OTHER	II	I	I
Dillard fine sandy loam, 2 to 8 percent slopes, rarely flooded	I	III	I
Dogue, ALL	II	I	I
Dogue-Roanoke complex, 0 to 6 percent slopes, rarely flooded	II	I	III
Durham coarse sandy loam, gently sloping phase	II	I	I
Durham coarse sandy loam, sloping phase	III	I	I
Durham loamy sand, 6 to 10 percent slopes, eroded	III	I	I
Durham loamy sand, ALL OTHER	II	I	I
Durham sandy loam, eroded sloping phase	II	I	I

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Map Unit Name	Agri	For	Hort
Durham sandy loam, ALL OTHER	III	I	I
Efland silt loam, eroded gently sloping phase (Badin)	II	II	II
Efland silt loam, eroded sloping phase (Badin)	III	II	II
Efland silt loam, gently sloping phase (Badin)	II	II	II
Efland silt loam, sloping phase (Badin)	II	II	II
Efland silt loam, strongly sloping phase (Badin)	III	II	II
Efland silty clay loam severely eroded strongly sloping phase (Badin)	III	II	II
Efland silty clay loam, severely eroded sloping phase (Badin)	III	II	II
Enon clay loam, 2 to 6 percent slopes, eroded	III	II	II
Enon clay loam, 6 to 10 percent slopes, eroded	III	II	II
Enon clay loam, 10 to 15 percent slopes, eroded	IV	II	II
Enon clay loam, severely eroded sloping phase	III	II	II
Enon clay loam, severely eroded strongly sloping phase	IV	II	II
Enon cobbly loam, 2 to 8 percent slopes	II	II	II
Enon cobbly loam, 8 to 15 percent slopes	III	II	II
Enon complex, gullied	IV	II	IV
Enon fine sandy loam, 2 to 15 percent slopes, very stony	IV	II	II
Enon fine sandy loam, 2 to 6 percent slopes	II	II	II
Enon fine sandy loam, 2 to 6 percent slopes, eroded	III	II	II
Enon fine sandy loam, 2 to 8 percent slopes	II	II	II
Enon fine sandy loam, 6 to 10 percent slopes	III	II	II
Enon fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Enon fine sandy loam, 8 to 15 percent slopes	III	II	II
Enon fine sandy loam, 10 to 15 percent slopes	III	II	II
Enon fine sandy loam, 10 to 15 percent slopes, eroded	III	II	II
Enon fine sandy loam, eroded gently sloping phase	II	II	II
Enon fine sandy loam, eroded sloping phase	III	II	II
Enon fine sandy loam, gently sloping phase	II	II	II
Enon fine sandy loam, sloping phase	III	II	II
Enon gravelly loam, 2 to 8 percent slopes	II	II	II
Enon gravelly loam, 8 to 15 percent slopes	III	II	II
Enon loam, 2 to 6 percent slopes	II	II	II
Enon loam, 6 to 10 percent slopes	II	II	II
Enon loam, 6 to 12 percent slopes	III	II	II
Enon loam, eroded gently sloping phase	II	II	II
Enon loam, eroded sloping phase	III	II	II
Enon loam, eroded strongly sloping phase	III	II	II
Enon loam, gently sloping phase	II	II	II
Enon loam, sloping phase	III	II	II
Enon loam, strongly sloping phase	III	II	II
Enon sandy loam, 2 to 8 percent slopes	II	II	II
Enon sandy loam, 8 to 15 percent slopes	III	II	II
Enon very cobbly loam, very stony, ALL	IV	II	IV
Enon very stony loam, ALL	IV	II	IV
Enon-Mayodan complex, 15 to 35 percent slopes, very stony	IV	II	III
Enon-Urban land complex, ALL	IV	II	IV
Enon-Wynott complex, 2 to 8 percent slopes	II	II	II
Enon-Wynott complex, 4 to 15 percent slopes, very bouldery	IV	II	IV
Fairview sandy clay loam, 2 to 8 percent slopes, moderately eroded	II	II	II
Fairview sandy clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Fairview sandy clay loam, 15 to 25 percent slopes, moderately eroded	IV	II	II
Fairview-Urban land complex, ALL	IV	II	IV

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Map Unit Name	Agri	For	Hort
Fluvaquents-Udifluvents complex, 0 to 3 percent slopes, mounded, occasionally flooded	IV	VI	IV
Gaston clay loam, 2 to 8 percent slopes, eroded	II	II	II
Gaston clay loam, 8 to 15 percent slopes, eroded	III	II	II
Gaston loam, 15 to 25 percent slopes	III	II	II
Gaston sandy clay loam, 2 to 8 percent slopes, eroded	II	II	II
Gaston sandy clay loam, 8 to 15 percent slopes, eroded	III	II	II
Georgeville clay loam, 2 to 6 percent slopes, eroded	II	I	II
Georgeville clay loam, 2 to 8 percent slopes, eroded	II	I	II
Georgeville clay loam, 8 to 15 percent slopes, eroded	III	I	II
Georgeville gravelly loam, 2 to 6 percent slopes	II	I	I
Georgeville gravelly loam, 2 to 8 percent slopes, stony	III	I	II
Georgeville gravelly loam, 6 to 10 percent slopes	II	I	I
Georgeville gravelly loam, 10 to 25 percent slopes	IV	I	II
Georgeville gravelly silt loam, 2 to 8 percent slopes	II	I	I
Georgeville gravelly silt loam, 8 to 15 percent slopes	III	I	II
Georgeville loam, 2 to 6 percent slopes	II	I	I
Georgeville loam, 2 to 8 percent slopes	II	I	I
Georgeville loam, 6 to 10 percent slopes	II	I	I
Georgeville loam, 8 to 15 percent slopes	III	I	I
Georgeville loam, ALL OTHER	IV	I	II
Georgeville silt loam, 2 to 6 percent slopes	II	I	I
Georgeville silt loam, 2 to 6 percent slopes, eroded	III	I	II
Georgeville silt loam, 2 to 8 percent slopes	II	I	I
Georgeville silt loam, 2 to 10 percent slopes, eroded	III	I	II
Georgeville silt loam, 4 to 15 percent slopes, extremely stony	IV	I	IV
Georgeville silt loam, 6 to 10 percent slopes	II	I	I
Georgeville silt loam, 6 to 10 percent slopes, eroded	III	I	II
Georgeville silt loam, 8 to 15 percent slopes	III	I	I
Georgeville silt loam, 10 to 15 percent slopes	III	I	I
Georgeville silt loam, 10 to 15 percent slopes, eroded	III	I	II
Georgeville silt loam, 10 to 25 percent slopes	IV	I	II
Georgeville silt loam, 15 to 45 percent slopes, extremely bouldery	IV	I	IV
Georgeville silt loam, eroded gently sloping phase	II	I	II
Georgeville silt loam, eroded sloping phase	III	I	II
Georgeville silt loam, eroded strongly sloping phase	III	I	II
Georgeville silt loam, gently sloping phase	II	I	I
Georgeville silt loam, moderately steep phase	III	I	II
Georgeville silt loam, sloping phase	II	I	I
Georgeville silt loam, strongly sloping phase	III	I	I
Georgeville silty clay loam, 2 to 6 percent slopes, moderately eroded	II	I	II
Georgeville silty clay loam, 2 to 8 percent slopes	II	I	II
Georgeville silty clay loam, 2 to 8 percent slopes, eroded	II	I	II
Georgeville silty clay loam, 2 to 8 percent slopes, moderately eroded	II	I	II
Georgeville silty clay loam, 6 to 10 percent slopes, moderately eroded	III	I	II
Georgeville silty clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Georgeville silty clay loam, 8 to 15 percent slopes, moderately eroded	IV	I	II
Georgeville silty clay loam, severely eroded gently sloping phase	III	I	II
Georgeville silty clay loam, severely eroded moderately steep phase	IV	I	III
Georgeville silty clay loam, severely eroded sloping phase	III	I	III
Georgeville silty clay loam, severely eroded strongly sloping phase	IV	I	III
Georgeville-Badin complex, ALL	IV	I	II
Georgeville-Montonia complex, very stony ALL	IV	I	III

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Map Unit Name	Agri	For	Hort
Georgeville-Urban land complex, ALL	IV	I	IV
Goldston, ALL	IV	II	III
Goldston-Badin complex, ALL	IV	II	III
Granville gravelly sandy loam, 2 to 8 percent slopes	II	II	I
Granville sandy loam, 2 to 6 percent slopes	II	II	I
Granville sandy loam, 2 to 6 percent slopes, eroded	II	II	I
Granville sandy loam, 2 to 8 percent slopes	II	II	I
Granville sandy loam, 6 to 10 percent slopes	III	II	I
Granville sandy loam, 6 to 10 percent slopes, eroded	III	II	I
Granville sandy loam, 10 to 15 percent slopes	IV	II	I
Grover, ALL	IV	II	III
Gullied land, ALL	IV	VI	IV
Halewood stony sandy loam, (Edneyville), ALL	IV	III	II
Hatboro sandy loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV
Hayesville and Cecil clay loams, 7 to 14 percent slopes, severely eroded (Cecil and Cecil)	II	II	II
Hayesville and Cecil clay loams, 7 to 14 percent slopes, severely eroded (Cecil and Cecil)	III	II	II
Hayesville and Cecil clay loams, 14 to 25 percent slopes, severely eroded (Pacolet and Pacolet)	IV	II	II
Hayesville and Cecil fine sandy loam, eroded, ALL	IV	II	II
Helena clay loam, severely eroded sloping phase	IV	II	II
Helena coarse sandy loam, sloping phase	IV	II	II
Helena coarse sandy loam, ALL OTHER	III	II	II
Helena fine sandy loam, 2 to 8 percent slopes	III	II	II
Helena sandy loam, 10 to 15 percent slopes	IV	II	II
Helena sandy loam, ALL OTHER	III	II	II
Helena-Sedgefield sandy loams, ALL	III	II	II
Helena-Urban land complex, ALL	IV	II	IV
Helena-Worsham complex, 1 to 6 percent slopes	IV	II	III
Herndon loam, 2 to 6 percent slopes	II	II	I
Herndon loam, 6 to 10 percent slopes	II	II	I
Herndon silt loam, 2 to 6 percent slopes	II	II	I
Herndon silt loam, 2 to 6 percent slopes, eroded	II	II	II
Herndon silt loam, 2 to 8 percent slopes	II	II	I
Herndon silt loam, 6 to 10 percent slopes	III	II	I
Herndon silt loam, 6 to 10 percent slopes, eroded	III	II	II
Herndon silt loam, 8 to 15 percent slopes	III	II	I
Herndon silt loam, 10 to 15 percent slopes, eroded	III	II	II
Herndon silt loam, 15 to 25 percent slopes	III	II	I
Herndon silt loam, eroded gently sloping phase	II	II	II
Herndon silt loam, eroded sloping phase	III	II	II
Herndon silt loam, eroded strongly sloping phase	III	II	II
Herndon silt loam, gently sloping phase	II	II	I
Herndon silt loam, moderately steep phase	III	II	I
Herndon silt loam, sloping phase	II	II	I
Herndon silt loam, strongly sloping phase	III	II	I
Herndon silty clay loam, ALL	IV	II	II
Herndon stony silt loam, 2 to 10 percent slopes	III	II	II
Hibriten very cobbly sandy loam, ALL	IV	V	III
Hiwassee clay loam, 8 to 15 percent slopes, eroded	III	II	II
Hiwassee clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Hiwassee clay loam, 10 to 15 percent slopes, eroded	III	II	II

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Map Unit Name	Agri	For	Hort
Hiwassee clay loam, 15 to 30 percent slopes, moderately eroded	IV	II	II
Hiwassee clay loam, ALL OTHER	II	II	II
Hiwassee gravelly loam, 2 to 8 percent slopes	II	II	I
Hiwassee gravelly loam, 8 to 15 percent slopes	II	II	II
Hiwassee loam, 2 to 6 percent slopes	II	II	I
Hiwassee loam, 2 to 6 percent slopes, eroded	II	II	II
Hiwassee loam, 2 to 7 percent slopes, eroded	II	II	II
Hiwassee loam, 2 to 8 percent slopes	II	II	I
Hiwassee loam, 6 to 10 percent slopes	II	II	I
Hiwassee loam, 6 to 10 percent slopes, eroded	II	II	II
Hiwassee loam, 8 to 15 percent slopes	II	II	I
Hiwassee loam, 10 to 15 percent slopes	II	II	I
Hiwassee loam, 10 to 15 percent slopes, eroded	III	II	II
Hiwassee loam, 15 to 25 percent slopes	IV	II	II
Hornsboro, ALL	I	I	I
Hulett, ALL	IV	II	II
Hulett-Saw complex, 4 to 15 percent slopes, very rocky	IV	II	III
Hulett-Urban Land complex, 2 to 8 percent slopes	IV	II	IV
Iotla sandy loam, 0 to 2 percent slopes, occasionally flooded	II	III	III
Iredell clay loam, 2 to 6 percent slopes	III	II	III
Iredell fine sandy loam, 10 to 14 percent slopes (Wilkes)	IV	II	III
Iredell fine sandy loam, 10 to 14 percent slopes, eroded (Wilkes)	IV	II	III
Iredell fine sandy loam, ALL OTHER	III	II	III
Iredell gravelly loam, 1 to 4 percent slopes	III	II	III
Iredell loam, ALL	III	II	III
Iredell sandy loam, ALL	III	II	III
Iredell very stony loam, gently sloping phase (Enon)	IV	II	IV
Iredell-Urban land complex, ALL	IV	II	IV
Iredell-Urban land-Picture complex, 0 to 10 percent slopes	IV	II	IV
Kirksey silt loam, ALL	II	II	II
Kirksey-Cid complex, 2 to 6 percent slopes	III	II	II
Leaksville silt loam, 0 to 4 percent slopes	III	III	III
Leaksville-Urban land complex, 0 to 4 percent slopes	IV	III	IV
Leveled clayey land	IV	VI	IV
Lignum gravelly silt loam, 2 to 8 percent slopes	II	III	II
Lignum loam, 2 to 6 percent slopes	II	III	II
Lignum silt loam, 7 to 12 percent slopes	III	III	II
Lignum silt loam, ALL OTHER	II	III	II
Lloyd clay loam, 2 to 6 percent slopes, severely eroded (Gaston)	II	II	II
Lloyd clay loam, 2 to 10 percent slopes, severely eroded (Pacolet)	II	II	II
Lloyd clay loam, 6 to 10 percent slopes, severely eroded (Gaston)	II	II	II
Lloyd clay loam, 10 to 14 percent slopes, severely eroded (Pacolet)	III	II	III
Lloyd clay loam, 10 to 15 percent slopes, severely eroded (Gaston)	III	II	III
Lloyd clay loam, 14 to 25 percent slopes, severely eroded (Pacolet)	IV	II	IV
Lloyd clay loam, 15 to 25 percent slopes, severely eroded (Gaston)	IV	II	IV
Lloyd clay loam, severely eroded gently sloping phase (Gaston)	II	II	II
Lloyd clay loam, severely eroded sloping phase (Gaston)	II	II	II
Lloyd clay loam, severely eroded strongly sloping phase (Gaston)	III	II	III
Lloyd clay loam, severely eroded, moderately steep phase (Cecil)	IV	II	III
Lloyd fine sandy loam, 2 to 6 percent slopes (Cecil)	II	II	II
Lloyd fine sandy loam, 2 to 6 percent slopes, eroded (Cecil)	II	II	II
Lloyd fine sandy loam, 6 to 10 percent slopes (Cecil)	III	II	II

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Map Unit Name	Agri	For	Hort
Lloyd fine sandy loam, 6 to 10 percent slopes, eroded (Cecil)	III	II	II
Lloyd fine sandy loam, 10 to 15 percent slopes (Pacolet)	II	II	II
Lloyd fine sandy loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	II
Lloyd fine sandy loam, 15 to 25 percent slopes (Pacolet)	IV	II	II
Lloyd fine sandy loam, 15 to 25 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 2 to 6 percent slopes (Gaston)	II	II	I
Lloyd loam, 2 to 6 percent slopes, eroded (Davidson)	II	II	II
Lloyd loam, 2 to 6 percent slopes, eroded (Gaston)	II	II	I
Lloyd loam, 2 to 7 percent slopes (Pacolet)	II	II	I
Lloyd loam, 2 to 7 percent slopes, eroded (Pacolet)	II	II	II
Lloyd loam, 6 to 10 percent slopes (Cecil)	III	II	II
Lloyd loam, 6 to 10 percent slopes, eroded (Cecil)	III	II	II
Lloyd loam, 6 to 10 percent slopes, eroded (Davidson)	II	II	II
Lloyd loam, 7 to 10 percent slopes (Pacolet)	III	II	II
Lloyd loam, 7 to 10 percent slopes, eroded (Pacolet)	III	II	II
Lloyd loam, 10 to 14 percent slopes (Pacolet)	IV	II	II
Lloyd loam, 10 to 14 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 10 to 15 percent slopes (Cecil)	IV	II	II
Lloyd loam, 10 to 15 percent slopes, eroded (Davidson)	II	II	III
Lloyd loam, 10 to 15 percent slopes, eroded (Pacolet)	III	II	III
Lloyd loam, 14 to 25 percent slopes (Pacolet)	IV	II	II
Lloyd loam, 14 to 25 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 15 to 25 percent slopes (Pacolet)	IV	II	II
Lloyd loam, 15 to 25 percent slopes, eroded (Pacolet)	IV	II	III
Lloyd loam, 25 to 40 percent slopes (Pacolet)	IV	II	IV
Lloyd loam, eroded gently sloping phase (Gaston)	III	II	II
Lloyd loam, eroded sloping phase (Cecil)	III	II	II
Lloyd loam, eroded strongly sloping phase (Cecil)	IV	II	II
Lloyd loam, gently sloping phase (Gaston)	II	II	I
Lloyd loam, level phase (Gaston)	II	II	I
Lloyd loam, moderately steep phase (Cecil)	II	II	II
Lloyd loam, sloping phase (Cecil)	II	II	II
Lloyd loam, strongly sloping phase (Cecil)	IV	II	II
Local alluvial land, ALL	IV	III	III
Louisa fine sandy loam, 25 to 45 percent slopes	IV	II	III
Louisa sandy loam, 25 to 45 percent slopes	IV	II	III
Louisburg and Louisa soils, 25 to 55 percent slopes	IV	II	II
Louisburg and Louisa soils, ALL OTHER	IV	II	III
Louisburg coarse sandy loam, ALL	IV	II	II
Louisburg loamy coarse sand, ALL	IV	II	IV
Louisburg loamy sand, 2 to 6 percent slopes	III	II	II
Louisburg loamy sand, 6 to 10 percent slopes	III	II	II
Louisburg loamy sand, 6 to 15 percent slopes	IV	II	II
Louisburg loamy sand, 10 to 15 percent slopes	IV	II	II
Louisburg loamy sand, 15 to 45 percent slopes	IV	II	III
Louisburg sandy loam, ALL	IV	II	II
Louisburg-Wedowee complex, 15 to 25 percent slopes	IV	II	II
Louisburg-Wedowee complex, ALL OTHER	III	II	II
Made land	IV	VI	IV
Madison clay loam, 2 to 6 percent slopes, eroded	III	II	II
Madison clay loam, 6 to 10 percent slopes, eroded	III	II	II
Madison clay loam, eroded, ALL OTHER	IV	II	II

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Map Unit Name	Agri	For	Hort
Madison complex, gullied	IV	II	IV
Madison fine sandy loam, 2 to 6 percent slopes	II	II	II
Madison fine sandy loam, 2 to 7 percent slopes	II	II	II
Madison fine sandy loam, 2 to 7 percent slopes, eroded	II	II	II
Madison fine sandy loam, 6 to 10 percent slopes	III	II	II
Madison fine sandy loam, 7 to 10 percent slopes	III	II	II
Madison fine sandy loam, 7 to 10 percent slopes, eroded	III	II	II
Madison fine sandy loam, 10 to 14 percent slopes	III	II	II
Madison fine sandy loam, 10 to 14 percent slopes, eroded	IV	II	II
Madison fine sandy loam, 10 to 15 percent slopes	III	II	II
Madison fine sandy loam, 14 to 25 percent slopes	IV	II	II
Madison fine sandy loam, 15 to 45 percent slopes	IV	II	II
Madison gravelly fine sandy loam, 2 to 6 percent slopes	II	II	II
Madison gravelly fine sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Madison gravelly fine sandy loam, 6 to 10 percent slopes	III	II	II
Madison gravelly fine sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Madison gravelly fine sandy loam, 7 to 10 percent slopes	III	II	II
Madison gravelly fine sandy loam, 10 to 14 percent slopes	III	II	II
Madison gravelly fine sandy loam, 10 to 15 percent slopes	III	II	II
Madison gravelly fine sandy loam, ALL OTHER	IV	II	II
Madison gravelly sandy clay loam, 2 to 8 percent slopes, moderately eroded	III	II	II
Madison gravelly sandy clay loam, 8 to 15 percent slopes, moderately eroded	IV	II	II
Madison gravelly sandy loam, 10 to 25 percent slopes, eroded	IV	II	II
Madison gravelly sandy loam, ALL OTHER	III	II	II
Madison sandy clay loam, 2 to 8 percent slopes, eroded	III	II	II
Madison sandy clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Madison sandy clay loam, 15 to 25 percent slopes, eroded	IV	II	II
Madison sandy loam, 2 to 6 percent slopes	II	II	II
Madison sandy loam, 2 to 6 percent slopes, eroded	II	II	II
Madison sandy loam, 6 to 10 percent slopes	II	II	II
Madison sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Madison sandy loam, 8 to 15 percent slopes	III	II	II
Madison sandy loam, 10 to 15 percent slopes	III	II	II
Madison sandy loam, ALL OTHER	IV	II	II
Madison-Bethlehem complex, 2 to 8 percent slopes, stony, moderately eroded	III	II	II
Madison-Bethlehem complex, 8 to 15 percent slopes, very stony, moderately eroded	IV	II	III
Madison-Bethlehem-Urban Land complex, 2 to 8 percent slopes	IV	II	IV
Madison-Udorthents complex, 2 to 15 percent slopes, gullied	IV	II	IV
Madison-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Mantachie soils	III	III	II
Masada fine sandy loam, ALL	I	II	I
Masada gravelly sandy clay loam, eroded, ALL	II	II	I
Masada loam, 2 to 8 percent slopes	I	II	I
Masada loam, 8 to 15 percent slopes	II	II	I
Masada sandy clay loam, eroded ALL	II	II	I
Masada sandy loam, 2 to 8 percent slopes	I	II	I
Masada sandy loam, 8 to 15 percent slopes	II	II	I
Masada sandy loam, 15 to 25 percent slopes	IV	II	II
Masada-Urban land complex, 2 to 15 percent slopes	IV	II	IV
Mayodan fine sandy loam, 2 to 6 percent slopes	II	I	I
Mayodan fine sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Mayodan fine sandy loam, 2 to 7 percent slopes	II	I	I



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Map Unit Name	Agri	For	Hort
Mayodan fine sandy loam, 2 to 8 percent slopes	II	I	I
Mayodan fine sandy loam, 6 to 10 percent slopes	III	I	I
Mayodan fine sandy loam, 7 to 10 percent slopes	III	I	I
Mayodan fine sandy loam, 7 to 10 percent slopes, eroded	III	I	I
Mayodan fine sandy loam, 8 to 15 percent slopes	III	I	I
Mayodan fine sandy loam, 10 to 14 percent slopes	III	I	I
Mayodan fine sandy loam, 10 to 14 percent slopes, eroded	III	I	II
Mayodan fine sandy loam, ALL OTHER	IV	I	II
Mayodan gravelly sandy loam, 2 to 6 percent slopes	II	I	I
Mayodan gravelly sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Mayodan gravelly sandy loam, 2 to 8 percent slopes	II	I	I
Mayodan gravelly sandy loam, 6 to 10 percent slopes	III	I	I
Mayodan gravelly sandy loam, 6 to 10 percent slopes, eroded	IV	I	I
Mayodan gravelly sandy loam, 8 to 15 percent slopes	III	I	II
Mayodan gravelly sandy loam, 10 to 15 percent slopes	III	I	II
Mayodan gravelly sandy loam, 15 to 25 percent slopes	IV	I	II
Mayodan sandy clay loam, 2 to 8 percent slopes, eroded	II	I	II
Mayodan sandy clay loam, 8 to 15 percent slopes, eroded	III	I	II
Mayodan sandy clay loam, 15 to 25 percent slopes, eroded	IV	I	II
Mayodan sandy loam, 2 to 6 percent slopes	II	I	I
Mayodan sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Mayodan sandy loam, 2 to 8 percent slopes	II	I	I
Mayodan sandy loam, 6 to 10 percent slopes	III	I	I
Mayodan sandy loam, 6 to 10 percent slopes, eroded	III	I	I
Mayodan sandy loam, 8 to 15 percent slopes	III	I	II
Mayodan sandy loam, 10 to 15 percent slopes	III	I	II
Mayodan sandy loam, 10 to 15 percent slopes, eroded	IV	I	II
Mayodan sandy loam, 15 to 25 percent slopes	IV	I	II
Mayodan sandy loam, 15 to 25 percent slopes, stony	IV	I	IV
Mayodan silt loam, 2 to 8 percent slopes	II	I	I
Mayodan silt loam, 8 to 15 percent slopes	III	I	II
Mayodan silt loam, 15 to 25 percent slopes	IV	I	II
Mayodan silt loam, 25 to 45 percent slopes	IV	I	III
Mayodan silt loam, thin, ALL	III	I	II
Mayodan silty clay loam, 2 to 8 percent slopes, eroded	III	I	II
Mayodan silty clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Mayodan-Brickhaven complex, 15 to 30 percent slopes	IV	I	III
Mayodan-Exway complex, eroded, ALL	III	I	II
Mayodan-Pinkston complex, 25 to 45 percent slopes	IV	I	III
Mayodan-Urban land complex, ALL	IV	I	IV
McQueen loam, 1 to 6 percent slopes	II	II	II
Mecklenburg clay loam, 2 to 8 percent slopes, eroded	II	II	II
Mecklenburg clay loam, 2 to 8 percent slopes, moderately eroded	II	II	II
Mecklenburg clay loam, 6 to 15 percent slopes, severely eroded	IV	II	II
Mecklenburg clay loam, 8 to 15 percent slopes, eroded	III	II	II
Mecklenburg clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Mecklenburg clay loam, severely eroded sloping phase	IV	II	II
Mecklenburg fine sandy loam, 2 to 6 percent slopes	II	II	I
Mecklenburg fine sandy loam, 2 to 8 percent slopes	II	II	II
Mecklenburg fine sandy loam, 8 to 15 percent slopes	III	II	II
Mecklenburg loam, 2 to 6 percent slopes	II	II	I
Mecklenburg loam, 2 to 6 percent slopes, eroded	II	II	II

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Map Unit Name	Agri	For	Hort
Mecklenburg loam, 2 to 7 percent slopes, eroded	II	II	II
Mecklenburg loam, 2 to 8 percent slopes	II	II	I
Mecklenburg loam, 6 to 10 percent slopes	II	II	II
Mecklenburg loam, 6 to 10 percent slopes, eroded	II	II	II
Mecklenburg loam, 7 to 14 percent slopes, eroded	III	II	II
Mecklenburg loam, 8 to 15 percent slopes	III	II	II
Mecklenburg loam, 10 to 15 percent slopes, eroded	III	II	II
Mecklenburg loam, ALL OTHER	IV	II	II
Mecklenburg loam, dark surface variant, 2 to 6 percent slopes	II	II	I
Mecklenburg loam, dark surface variant, 6 to 10 percent slopes	II	II	II
Mecklenburg loam, dark surface variant, 10 to 15 percent slopes	III	II	II
Mecklenburg loam, eroded gently sloping phase	II	II	II
Mecklenburg loam, eroded sloping phase	II	II	II
Mecklenburg loam, eroded strongly sloping phase	III	II	II
Mecklenburg sandy clay loam, eroded, ALL	III	II	II
Mecklenburg-Urban land complex, ALL	IV	II	IV
Miscellaneous water	IV	VI	IV
Misenheimer channery silt loam, 0 to 4 percent slopes	IV	V	III
Misenheimer-Callison complex, 0 to 3 percent slopes	IV	V	III
Misenheimer-Cid complex, 0 to 3 percent slopes	IV	V	III
Misenheimer-Kirksey complex, 0 to 5 percent slopes	IV	V	III
Mixed alluvial land, ALL	IV	III	III
Mocksville sandy loam, 2 to 8 percent slopes	II	II	II
Mocksville sandy loam, 8 to 15 percent slopes	III	II	II
Mocksville sandy loam, 15 to 45 percent slopes	IV	II	III
Moderately gullied land, ALL	IV	VI	IV
Monacan and Arents soils	I	III	IV
Monacan loam	I	III	III
Montonia very channery silt loam, 25 to 60 percent slopes, very stony	IV	V	IV
Mooshaunee-Hallison complex, 2 to 8 percent slopes	III	II	II
Mooshaunee-Hallison complex, 8 to 15 percent slopes	IV	II	III
Mooshaunee-Hallison complex, 15 to 25 percent slopes	IV	II	IV
Mooshaunee-Hallison complex, ALL OTHER	IV	II	IV
Nanford gravelly fine sandy loam, 8 to 15 percent slopes	III	II	II
Nanford silt loam, 2 to 6 percent slopes	II	II	I
Nanford silt loam, 2 to 8 percent slopes	II	II	I
Nanford silt loam, 8 to 15 percent slopes	III	II	II
Nanford silty clay loam, 2 to 6 percent slopes, moderately eroded	III	II	II
Nanford-Badin complex, 6 to 10 percent slopes	III	II	II
Nanford-Badin complex, 10 to 15 percent slopes	IV	II	II
Nanford-Emporia complex, 2 to 8 percent slopes	II	II	I
Nason gravelly loam, 2 to 6 percent slopes	III	II	I
Nason gravelly loam, 6 to 10 percent slopes	III	II	II
Nason gravelly loam, 10 to 25 percent slopes	IV	II	II
Nason gravelly loam, 25 to 50 percent slopes	IV	II	III
Nason gravelly silt loam, 2 to 8 percent slopes	II	II	I
Nason gravelly silt loam, 8 to 15 percent slopes	III	II	II
Nason loam, 2 to 6 percent slopes	II	II	I
Nason loam, 6 to 10 percent slopes	III	II	I
Nason silt loam, 2 to 6 percent slopes	II	II	I
Nason silt loam, 2 to 8 percent slopes	II	II	I
Nason silt loam, 6 to 12 percent slopes	III	II	I

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Map Unit Name	Agri	For	Hort
Nason silt loam, 8 to 15 percent slopes	III	II	I
Nason silt loam, 10 to 15 percent slopes	III	II	I
Nason silt loam, 15 to 25 percent slopes	IV	II	II
Nason stony silt loam, 10 to 15 percent slopes (Uwharrie)	IV	II	IV
Oakboro silt loam, ALL	III	III	III
Orange gravelly loam, 2 to 7 percent slopes	II	II	II
Orange loam, 0 to 2 percent slopes	II	II	II
Orange silt loam, 0 to 3 percent slopes	II	II	II
Orange silt loam, eroded gently sloping moderately well drained variant	III	II	II
Orange silt loam, eroded gently sloping phase	III	II	II
Orange silt loam, eroded sloping moderately well drained variant	III	II	II
Orange silt loam, gently sloping moderately well drained variant	III	II	II
Orange silt loam, gently sloping phase	II	II	II
Orange silt loam, nearly level phase	II	II	II
Orange silt loam, sloping moderately well drained variant	III	II	II
Pacolet clay loam, 2 to 6 percent slopes, eroded	II	II	II
Pacolet clay loam, 2 to 8 percent slopes, moderately eroded	II	II	II
Pacolet clay loam, 6 to 10 percent slopes, eroded	III	II	II
Pacolet clay loam, 6 to 10 percent slopes, severely eroded	III	II	II
Pacolet clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Pacolet clay loam, 10 to 15 percent slopes, eroded	III	II	II
Pacolet clay loam, 15 to 45 percent slopes, eroded	IV	II	II
Pacolet complex, 10 to 25 percent slopes, severely eroded	IV	II	III
Pacolet fine sandy loam, 2 to 6 percent slopes	II	II	I
Pacolet fine sandy loam, 6 to 10 percent slopes	III	II	I
Pacolet fine sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet fine sandy loam, 10 to 15 percent slopes	III	II	II
Pacolet fine sandy loam, ALL OTHER	IV	II	II
Pacolet gravelly fine sandy loam, 2 to 6 percent slopes	II	II	I
Pacolet gravelly fine sandy loam, 6 to 10 percent slopes	III	II	II
Pacolet gravelly fine sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet gravelly fine sandy loam, 15 to 25 percent slopes	IV	II	II
Pacolet gravelly sandy clay loam, 15 to 30 percent slopes, eroded	IV	II	II
Pacolet gravelly sandy loam, 2 to 8 percent slopes	II	II	I
Pacolet gravelly sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet gravelly sandy loam, ALL OTHER	IV	II	II
Pacolet loam, 10 to 15 percent slopes	III	II	II
Pacolet loam, 15 to 25 percent slopes	IV	II	II
Pacolet sandy clay loam, 2 to 6 percent slopes, eroded	II	II	II
Pacolet sandy clay loam, 2 to 6 percent slopes, moderately eroded	II	II	II
Pacolet sandy clay loam, 2 to 8 percent slopes, eroded	II	II	II
Pacolet sandy clay loam, 6 to 10 percent slopes, moderately eroded	III	II	II
Pacolet sandy clay loam, 8 to 15 percent slopes, eroded	III	II	II
Pacolet sandy clay loam, 8 to 15 percent slopes, moderately eroded	III	II	II
Pacolet sandy clay loam, 10 to 15 percent slopes, moderately eroded	III	II	II
Pacolet sandy clay loam, ALL OTHER	IV	II	II
Pacolet sandy loam, 2 to 6 percent slopes	II	II	I
Pacolet sandy loam, 2 to 8 percent slopes	II	II	I
Pacolet sandy loam, 6 to 10 percent slopes	III	II	II
Pacolet sandy loam, 8 to 15 percent slopes	III	II	II
Pacolet sandy loam, 10 to 15 percent slopes	III	II	II
Pacolet sandy loam, ALL OTHER	IV	II	II

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Map Unit Name	Agri	For	Hort
Pacolet soils, 10 to 25 percent slopes	IV	II	III
Pacolet-Bethlehem complex, 2 to 8 percent slopes, eroded	III	II	II
Pacolet-Bethlehem complex, 2 to 8 percent slopes, moderately eroded	III	II	II
Pacolet-Bethlehem complex, ALL OTHER	IV	II	II
Pacolet-Bethlehem complex, 15 to 25 percent slopes, stony	IV	II	III
Pacolet-Bethlehem-Urban Land complex, ALL	IV	II	IV
Pacolet-Madison-Urban land complex, ALL	IV	II	IV
Pacolet-Saw complex, 2 to 8 percent slopes, eroded	III	II	II
Pacolet-Saw complex, 2 to 8 percent slopes, moderately eroded	III	II	II
Pacolet-Saw complex, ALL OTHER	IV	II	II
Pacolet-Udorthents complex, gullied, ALL	IV	II	IV
Pacolet-Urban land complex, ALL	IV	II	IV
Pacolet-Wilkes complex, 8 to 15 percent slopes	III	II	II
Pacolet-Wilkes complex, 15 to 25 percent slopes	IV	II	II
Picture loam, 0 to 3 percent slopes	IV	II	III
Pinkston, ALL	IV	II	III
Pinoka, ALL	IV	II	III
Pinoka-Carbonton complex, 2 to 8 percent slopes	IV	II	III
Pits, ALL	IV	VI	IV
Poindexter and Zion sandy loams, 2 to 8 percent slopes	III	II	II
Poindexter and Zion sandy loams, 8 to 15 percent slopes	IV	II	II
Poindexter and Zion sandy loams, ALL OTHER	IV	II	III
Poindexter fine sandy loam, 25 to 60 percent slopes	IV	II	III
Poindexter loam, 2 to 8 percent slopes	III	II	II
Poindexter loam, 8 to 15 percent slopes	IV	II	II
Poindexter loam, 15 to 45 percent slopes	IV	II	III
Poindexter-Mocksville complex, 2 to 8 percent slopes	IV	II	II
Poindexter-Mocksville complex, 8 to 15 percent slopes	IV	II	II
Poindexter-Mocksville complex, ALL OTHER	IV	II	III
Poindexter-Zion-Urban land complex, 2 to 15 percent slopes	IV	II	IV
Polkton-White Store complex, 2 to 8 percent slopes, severely eroded	III	II	III
Polkton-White Store complex, ALL OTHER	IV	II	III
Quarry, ALL	IV	VI	IV
Rhodhiss, ALL	IV	II	II
Rhodhiss-Bannertown complex, 25 to 50 percent slopes	IV	II	III
Rion fine sandy loam, 2 to 8 percent slopes	III	II	II
Rion fine sandy loam, 8 to 15 percent slopes	IV	II	II
Rion fine sandy loam, 15 to 25 percent slopes	IV	II	II
Rion fine sandy loam, 25 to 60 percent slopes	IV	II	III
Rion loamy sand, 8 to 15 percent slopes	IV	II	II
Rion loamy sand, 15 to 25 percent slopes	IV	II	III
Rion sandy loam, 2 to 8 percent slopes	III	II	II
Rion sandy loam, 8 to 15 percent slopes	III	II	II
Rion sandy loam, 15 to 25 percent slopes	IV	II	II
Rion sandy loam, 15 to 30 percent slopes	IV	II	II
Rion sandy loam, ALL OTHER	IV	II	III
Rion, Pacolet, and Wateree soils, 25 to 60 percent slopes	IV	II	IV
Rion-Ashlar complex, 15 to 35 percent slopes, stony	IV	II	III
Rion-Ashlar complex, 25 to 60 percent slopes, rocky	IV	II	IV
Rion-Ashlar-Rock outcrop complex, 45 to 70 percent slopes	IV	II	IV
Rion-Cliffside complex, 25 to 60 percent slopes, very stony	IV	II	IV
Rion-Hibriten complex, 25 to 45 percent slopes, very stony	IV	II	IV

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Map Unit Name	Agri	For	Hort
Rion-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Rion-Wateree-Wedowee complex, 8 to 15 percent slopes	IV	II	III
Rion-Wedowee complex, ALL	III	II	II
Rion-Wedowee-Ashlar complex, ALL	IV	II	III
Riverview and Buncombe soils, 0 to 3 percent slopes, frequently flooded	II	III	III
Riverview and Toccoa soils, 0 to 4 percent slopes, occasionally flooded	II	III	III
Riverview, frequently flooded, ALL	II	III	III
Riverview, occasionally flooded, ALL	I	III	III
Roanoke, ALL	II	III	III
Roanoke-Wahee complex, 0 to 3 percent slopes, occasionally flooded	II	III	III
Rock outcrop	IV	VI	IV
Rock outcrop-Ashlar complex, 2 to 15 percent slopes	IV	VI	IV
Rock outcrop-Wake complex, ALL	IV	VI	IV
Sauratown channery fine sandy loam, 25 to 60 percent slopes, very stony	IV	IV	IV
Saw-Pacolet complex, ALL	IV	II	II
Saw-Wake Complex, very rocky, ALL	IV	II	IV
Secrest-Cid complex, 0 to 3 percent slopes	III	II	II
Sedgefield fine sandy loam, 1 to 4 percent slopes	II	II	II
Sedgefield fine sandy loam, 1 to 6 percent slopes	III	II	II
Sedgefield sandy loam, 1 to 6 percent slopes	III	II	II
Sedgefield sandy loam, 2 to 8 percent slopes	III	II	II
Severely gullied land, ALL	IV	VI	IV
Shellbluff loam, 0 to 2 percent slopes, occasionally flooded	II	III	III
Shellbluff silt loam, 0 to 2 percent slopes, frequently flooded	IV	III	III
Skyuka clay loam, 2 to 8 percent slopes, eroded	II	I	II
Skyuka loam, 2 to 8 percent slopes	I	I	II
Spray loam, 0 to 5 percent slopes	IV	II	III
Spray-Urban land complex, 0 to 5 percent slopes	IV	II	IV
Starr loam, ALL	II	I	III
State, ALL	I	I	I
Stoneville loam, 2 to 8 percent slopes	II	II	I
Stoneville loam, 8 to 15 percent slopes	III	II	I
Stoneville loam, 15 to 25 percent slopes	IV	II	II
Stoneville-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Stony land	IV	VI	IV
Swamp	IV	III	IV
Tallapoosa fine sandy loam, ALL	IV	II	III
Tarrus gravelly silt loam, 2 to 8 percent slopes	II	II	I
Tarrus-Georgeville complex, 8 to 15 percent slopes	II	II	I
Tatum and Nason channery silt loams, 15 to 25 percent slopes	IV	II	II
Tatum channery silt loam, ALL	III	II	I
Tatum channery silty clay loam, ALL	III	II	II
Tatum gravelly loam, 2 to 8 percent slopes	II	II	I
Tatum gravelly loam, 8 to 15 percent slopes	III	II	I
Tatum gravelly loam, ALL OTHER	IV	II	II
Tatum gravelly silt loam, 2 to 8 percent slopes	II	II	I
Tatum gravelly silt loam, 8 to 15 percent slopes	III	II	I
Tatum gravelly silt loam, ALL OTHER	IV	II	II
Tatum gravelly silty clay loam, eroded, ALL	III	II	II
Tatum loam, 2 to 6 percent slopes	II	II	I
Tatum loam, 10 to 15 percent slopes	III	II	II
Tatum loam, ALL OTHER	IV	II	II

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Map Unit Name	Agri	For	Hort
Tatum silt loam, 2 to 8 percent slopes	II	II	I
Tatum silt loam, 8 to 15 percent slopes	III	II	I
Tatum silt loam, ALL OTHER	IV	II	II
Tatum silty clay loam, eroded, ALL	III	II	II
Tatum-Badin complex, 2 to 8 percent slopes	III	II	I
Tatum-Badin complex, 2 to 8 percent slopes, eroded	III	II	II
Tatum-Badin complex, 8 to 15 percent slopes	III	II	II
Tatum-Montonia complex, 15 to 30 percent slopes	IV	II	II
Tatum-Montonia complex, ALL OTHER	III	II	II
Tatum-Urban land complex, 2 to 8 percent slopes	IV	II	IV
Tetotum fine sandy loam, 1 to 4 percent slopes	I	I	I
Tetotum silt loam, 0 to 3 percent slopes	I	I	I
Tirzah silt loam, eroded gently sloping phase (Tatum)	III	II	I
Tirzah silt loam, eroded sloping phase (Tatum)	II	II	I
Tirzah silt loam, eroded strongly sloping phase (Tatum)	III	II	II
Tirzah silt loam, gently sloping phase (Stoneville)	II	II	II
Tirzah silt loam, sloping phase (Stoneville)	III	II	II
Tirzah silt loam, strongly sloping phase (Stoneville)	III	II	II
Tirzah silty clay loam, severely eroded gently sloping phase (Tatum)	III	II	II
Tirzah silty clay loam, severely eroded sloping phase (Tatum)	III	II	II
Tirzah silty clay loam, severely eroded strongly sloping phase (Tatum)	IV	II	II
Toast sandy loam, 2 to 8 percent slopes	II	I	I
Toast sandy loam, 8 to 15 percent slopes	III	I	II
Toccoa, ALL	I	III	III
Turbeville fine sandy loam, 0 to 3 percent slopes	I	II	I
Udorthents, ALL	IV	VI	IV
Udorthents-Pits complex, mounded, 0 to 2 percent slopes, occasionally flooded	IV	VI	IV
Udorthents-Urban land complex, ALL	IV	VI	IV
Urban land, ALL	IV	VI	IV
Urban land-Arents complex, occasionally flooded	IV	III	IV
Urban land-Iredell-Creedmoor complex, 2 to 10 percent slopes	IV	II	IV
Urban land-Masada complex, 2 to 15 percent slopes	IV	II	IV
Uwharrie clay loam, 2 to 8 percent slopes, eroded	III	II	III
Uwharrie clay loam, 8 to 15 percent slopes, eroded	IV	II	III
Uwharrie loam, 15 to 25 percent slopes	IV	II	III
Uwharrie loam, very stony, ALL	IV	II	III
Uwharrie silt loam, 2 to 8 percent slopes	II	II	I
Uwharrie silty clay loam, 2 to 8 percent slopes, eroded	III	II	II
Uwharrie silty clay loam, 2 to 8 percent slopes, moderately eroded	III	II	II
Uwharrie silty clay loam, 8 to 15 percent slopes, eroded	IV	II	II
Uwharrie stony loam, ALL	IV	II	III
Uwharrie stony loam, very bouldery, ALL	IV	II	IV
Uwharrie-Badin complex, ALL	IV	II	III
Uwharrie-Tatum complex, 8 to 15 percent slopes	III	II	III
Uwharrie-Tatum complex, 8 to 15 percent slopes, moderately eroded	IV	II	III
Uwharrie-Urban Land, 2 to 8 percent slopes	IV	II	IV
Vance clay loam, severely eroded sloping phase	IV	II	II
Vance coarse sandy loam, 2 to 8 percent slopes	II	II	II
Vance coarse sandy loam, eroded gently sloping phase	III	II	II
Vance coarse sandy loam, eroded sloping phase	III	II	II
Vance coarse sandy loam, gently sloping phase	II	II	II

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Map Unit Name	Agri	For	Hort
Vance sandy clay loam, ALL	III	II	II
Vance sandy loam, 2 to 6 percent slopes	II	II	II
Vance sandy loam, 2 to 6 percent slopes, eroded	III	II	II
Vance sandy loam, 2 to 8 percent slopes	II	II	II
Vance sandy loam, 6 to 10 percent slopes	III	II	II
Vance sandy loam, 6 to 10 percent slopes, eroded	III	II	II
Vance sandy loam, 8 to 15 percent slopes	III	II	II
Vance sandy loam, 10 to 15 percent slopes	III	II	II
Vance sandy loam, eroded gently sloping phase	III	II	II
Vance sandy loam, eroded moderately sloping phase	III	II	II
Vance sandy loam, eroded strongly sloping phase	IV	II	II
Vance sandy loam, gently sloping phase	II	II	II
Vance-Urban land complex, 2 to 10 percent slopes	IV	II	IV
Wadesboro clay loam, 2 to 8 percent slopes, moderately eroded	II	I	II
Wadesboro clay loam, 8 to 15 percent slopes, moderately eroded	III	I	II
Wadesboro fine sandy loam, 2 to 7 percent slopes (Mayodan)	II	I	II
Wadesboro fine sandy loam, 2 to 7 percent slopes, eroded (Mayodan)	II	I	II
Wadesboro fine sandy loam, 7 to 10 percent slopes (Mayodan)	III	I	II
Wadesboro fine sandy loam, 7 to 10 percent slopes, eroded (Mayodan)	III	I	II
Wadesboro fine sandy loam, 10 to 14 percent slopes (Mayodan)	III	I	II
Wadesboro fine sandy loam, 10 to 14 percent slopes, eroded (Mayodan)	IV	I	II
Wadesboro fine sandy loam, 14 to 30 percent slopes (Mayodan)	IV	I	II
Wahee, ALL	II	III	I
Wake soils, ALL	IV	II	III
Wake-Saw-Wedowee complex, 2 to 8 percent slopes, rocky	IV	II	III
Wake-Wateree complex, 15 to 30 percent slopes, very rocky	IV	II	III
Wake-Wateree-Wedowee complex, 8 to 15 percent slopes, rocky	IV	II	III
Warne and Roanoke fine sandy loams (Dogue)	IV	III	II
Wateree fine sandy loam, ALL	IV	II	II
Wateree-Rion complex, 40 to 95 percent slopes	IV	II	III
Wateree-Rion-Wedowee complex, 15 to 30 percent slopes	IV	II	III
Wedowee coarse sandy loam, 2 to 6 percent slopes	II	I	I
Wedowee coarse sandy loam, 6 to 10 percent slopes	III	I	II
Wedowee loam, 2 to 8 percent slopes	II	I	I
Wedowee loam, 8 to 15 percent slopes	III	I	II
Wedowee loam, 15 to 25 percent slopes	IV	I	II
Wedowee sandy clay loam, 8 to 15 percent slopes, eroded	IV	I	II
Wedowee sandy loam, 2 to 10 percent slopes, extremely bouldery	IV	I	IV
Wedowee sandy loam, 2 to 15 percent slopes, bouldery	IV	I	III
Wedowee sandy loam, 2 to 6 percent slopes	II	I	I
Wedowee sandy loam, 2 to 6 percent slopes, eroded	II	I	II
Wedowee sandy loam, 2 to 8 percent slopes	II	I	I
Wedowee sandy loam, 6 to 10 percent slopes	III	I	II
Wedowee sandy loam, 6 to 10 percent slopes, eroded	III	I	II
Wedowee sandy loam, 6 to 15 percent slopes	III	I	II
Wedowee sandy loam, 8 to 15 percent slopes	III	I	II
Wedowee sandy loam, 10 to 15 percent slopes	III	I	II
Wedowee sandy loam, 10 to 15 percent slopes, eroded	III	I	II
Wedowee sandy loam, 10 to 25 percent slopes	III	I	II
Wedowee sandy loam, 15 to 25 percent slopes	IV	I	II
Wedowee sandy loam, 15 to 35 percent slopes, bouldery	IV	I	III
Wedowee sandy loam, 15 to 40 percent slopes	IV	I	II

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Map Unit Name	Agri	For	Hort
Wedowee-Louisburg complex, 2 to 6 percent slopes	II	I	II
Wedowee-Louisburg complex, ALL OTHER	III	I	III
Wedowee-Urban land-Udorthents complex, 2 to 10 percent slopes	IV	I	IV
Wehadkee and Bibb soils	IV	III	III
Wehadkee, ALL	IV	III	III
White Store clay loam, ALL	IV	II	III
White Store fine sandy loam, moderately eroded, ALL	IV	II	III
White Store loam, 8 to 15 percent slopes	IV	II	III
White Store loam, ALL OTHER	III	II	III
White Store sandy loam, 2 to 6 percent slopes	III	II	III
White Store sandy loam, ALL OTHER	IV	II	III
White Store silt loam, 8 to 15 percent slopes	IV	II	III
White Store silt loam, ALL OTHER	III	II	III
White Store-Polkton complex, ALL	IV	II	III
White Store-Urban land complex, ALL	IV	II	IV
Wickham fine sandy loam, 0 to 3 percent slopes, rarely flooded	I	I	I
Wickham fine sandy loam, 2 to 6 percent slopes	I	I	I
Wickham fine sandy loam, 2 to 6 percent slopes, eroded	II	I	I
Wickham fine sandy loam, 2 to 7 percent slopes, eroded	II	I	I
Wickham fine sandy loam, 2 to 8 percent slopes	II	I	I
Wickham fine sandy loam, 6 to 10 percent slopes	II	I	I
Wickham fine sandy loam, 6 to 10 percent slopes, eroded	III	I	II
Wickham fine sandy loam, 7 to 14 percent slopes, eroded	III	I	II
Wickham fine sandy loam, 10 to 15 percent slopes	III	I	II
Wickham sandy loam, ALL	I	I	I
Wilkes, ALL	IV	II	III
Wilkes-Poindexter-Wynott complex, ALL	IV	II	III
Wilkes-Urban land complex, 8 to 15 percent slopes	IV	II	IV
Winnsboro fine sandy loam, 2 to 8 percent slopes	II	II	I
Winnsboro loam, 2 to 8 percent slopes	III	II	I
Winnsboro loam, 8 to 15 percent slopes	IV	II	II
Winnsboro-Wilkes complex, 2 to 8 percent slopes	III	II	II
Winnsboro-Wilkes complex, ALL OTHER	IV	II	III
Woolwine-Fairview complex, 2 to 8 percent slopes, moderately eroded	III	II	II
Woolwine-Fairview complex, moderately eroded, ALL OTHER	IV	II	II
Woolwine-Fairview-Urban land complex, ALL	IV	II	IV
Worsham, ALL	IV	III	III
Wynott cobbly loam, 2 to 10 percent slopes, extremely stony	IV	II	IV
Wynott loam, 2 to 8 percent slopes	III	II	II
Wynott-Enon complex, 2 to 8 percent slopes	II	II	II
Wynott-Enon complex, 2 to 8 percent slopes, moderately eroded	II	II	II
Wynott-Enon complex, 8 to 15 percent slopes	II	II	II
Wynott-Enon complex, 8 to 15 percent slopes, moderately eroded	III	II	II
Wynott-Enon complex, 15 to 25 percent slopes	IV	II	II
Wynott-Enon complex, extremely bouldery, ALL	IV	II	IV
Wynott-Wilkes-Poindexter complex, 2 to 8 percent slopes	IV	II	II
Wynott-Winnsboro complex, 2 to 8 percent slopes	II	II	II
Wynott-Winnsboro complex, 8 to 15 percent slopes	II	II	II
Wynott-Winnsboro complex, 15 to 25 percent slopes	IV	II	II
Zion gravelly loam, 2 to 8 percent slopes	III	II	II
Zion gravelly loam, 8 to 15 percent slopes	IV	II	II
Zion-Enon complex, 2 to 8 percent slopes	III	II	III



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Map Unit Name	Agri	For	Hort
Zion-Enon complex, 8 to 15 percent slopes	IV	II	II
Zion-Mocksville complex, 25 to 45 percent slopes	IV	II	III
Zion-Wilkes complex, 8 to 15 percent slopes	IV	II	II
Zion-Winnsboro-Mocksville complex, ALL	IV	II	II

MLRA137 – Sandhills

Map Unit Name	Agri	For	Hort
Ailey gravelly loamy sand, 8 to 15 percent slopes	III	V	III
Ailey gravelly loamy sand, 15 to 25 percent slopes	IV	V	IV
Ailey loamy sand, ALL	III	V	III
Ailey sand, moderately wet, 0 to 6 percent slopes	II	V	II
Ailey-Urban land complex, ALL	IV	V	IV
Bibb loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV
Blaney loamy sand, 2 to 8 percent slopes	II	II	II
Blaney loamy sand, 8 to 15 percent slopes	III	II	III
Blaney-Urban land complex, ALL	IV	II	IV
Bragg sandy loam, 1 to 4 percent slopes	IV	V	IV
Candor and Wakulla soils, 8 to 15 percent slopes	IV	V	IV
Candor sand, ALL	IV	V	IV
Candor-Urban land complex, 2 to 12 percent slopes	IV	V	IV
Dothan gravelly loamy sand, 0 to 6 percent slopes	I	II	I
Dothan loamy sand, ALL	I	II	I
Emporia loamy sand, ALL	II	II	II
Faceville sandy clay loam, 2 to 6 percent slopes, eroded	II	II	II
Fuquay, ALL	II	II	II
Fuquay-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Gilead loamy sand, ALL	II	II	II
Johns fine sandy loam, 0 to 2 percent slopes	I	I	I
Johnston, ALL	IV	III	IV
Kalmia sandy loam, wet substratum, 0 to 2 percent slopes	I	II	I
Kenansville loamy sand, 0 to 4 percent slopes	II	I	II
Lakeland, ALL	IV	V	IV
Lakeland-Urban land complex, 1 to 8 percent slopes	IV	V	IV
Lillington gravelly sandy loam, 2 to 8 percent slopes	III	II	III
Lillington gravelly sandy loam, 8 to 15 percent slopes	IV	II	IV
Lillington gravelly sandy loam, 15 to 25 percent slopes	IV	II	IV
Pactolus sand, 0 to 3 percent slopes	IV	II	IV
Paxville fine sandy loam, 0 to 2 percent slopes	I	III	I
Pelion loamy sand, 0 to 2 percent slopes	II	II	II
Pelion loamy sand, 1 to 4 percent slopes	IV	II	IV
Pelion loamy sand, 2 to 8 percent slopes	III	II	III
Pelion loamy sand, 8 to 15 percent slopes	IV	II	IV
Pelion-Urban land complex, ALL	IV	II	IV
Pelion-Urban land complex, 8 to 15 percent slopes	IV	II	IV
Pocalla loamy sand, 0 to 6 percent slopes	II	II	II
Rains fine sandy loam, 0 to 2 percent slopes	III	I	III
Tetotum silt loam, 0 to 3 percent slopes, rarely flooded	I	I	I
Udorthents, ALL	IV	VI	IV
Urban land, ALL	IV	VI	IV
Vaocluse gravelly loamy sand, 2 to 8 percent slopes	III	II	III
Vaocluse gravelly loamy sand, 8 to 15 percent slopes	IV	II	IV
Vaocluse gravelly loamy sand, 15 to 25 percent slopes	IV	II	IV
Vaocluse gravelly sandy loam, ALL	III	II	III
Vaocluse gravelly sandy loam, 8 to 15 percent slopes	III	II	III
Vaocluse gravelly sandy loam, 15 to 25 percent slopes	III	II	III
Vaocluse loamy sand, 2 to 8 percent slopes	II	II	II
Vaocluse loamy sand, 8 to 15 percent slopes	III	II	III
Vaocluse loamy sand, 15 to 25 percent slopes	IV	II	IV
Vaocluse very gravelly loamy sand, ALL	IV	II	IV

MLRA137 – Sandhills

Map Unit Name	Agri	For	Hort
Vaucluse-Gilead loamy sands, 15 to 25 percent slopes	IV	II	IV
Vaucluse-Urban land complex, ALL	IV	II	IV
Wakulla and Candor soils, 0 to 8 percent slopes	IV	V	IV
Wakulla sand, ALL	IV	V	IV
Wakulla-Candor-Urban land complex, 0 to 10 percent slopes	IV	V	IV
Wehadkee fine sandy loam	IV	III	IV
Wehadkee loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV

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Map Unit Name	Agri	For	Hort
Alaga, ALL	IV	II	IV
Alpin, ALL	IV	II	IV
Altavista, ALL	I	I	I
Altavista-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Arapahoe fine sandy loam	II	I	II
Augusta, ALL	II	I	II
Autryville fine sand, 1 to 4 percent slopes	IV	II	IV
Autryville, ALL OTHER	III	II	III
Aycock, ALL ERODED	II	I	II
Aycock, ALL OTHER	I	I	I
Ballahack loam, 0 to 2 percent slopes, occasionally flooded	I	I	I
Bayboro, ALL	I	I	I
Baymeade and Marvyn soils, 6 to 12 percent slopes	IV	V	IV
Baymeade fine sand, ALL	IV	V	IV
Baymeade-Urban land complex, 0 to 6 percent slopes	IV	V	IV
Bethera, ALL	II	I	II
Bibb and Johnston loams, frequently flooded	IV	III	IV
Bibb, ALL	IV	III	IV
Bladen, ALL	III	I	III
Blanton, ALL	IV	V	IV
Bohicket, ALL	IV	VI	IV
Bonneau loamy fine sand, 0 to 6 percent slopes	II	II	II
Bonneau loamy sand, 0 to 4 percent slopes	II	II	II
Bonneau loamy sand, 0 to 6 percent slopes	II	II	II
Bonneau loamy sand, 6 to 10 percent slopes	III	II	III
Bonneau loamy sand, 6 to 12 percent slopes	III	II	III
Borrow pits	IV	VI	IV
Bragg, ALL	IV	VI	IV
Brookman loam, frequently flooded	IV	III	IV
Butters loamy fine sand, 0 to 3 percent slopes	III	II	III
Byars loam	II	III	II
Cainhoy, ALL	IV	V	IV
Cape Fear loam, ALL	I	I	I
Caroline fine sandy loam, ALL	II	II	II
Carteret, ALL	IV	VI	IV
Centenary fine sand	IV	II	IV
Chastain and Chenneby soils, frequently flooded	IV	III	IV
Chastain silt loam, frequently flooded	IV	III	IV
Chewacla and Chastain soils, frequently flooded	IV	III	IV
Chewacla loam, frequently flooded	IV	III	IV
Chipley sand	IV	II	IV
Chowan silt loam	IV	III	IV
Conetoe, ALL	III	II	III
Congaree silt loam, 0 to 4 percent slopes, occasionally flooded	I	III	I
Corolla fine sand	IV	VI	IV
Coxville, ALL	II	I	II
Craven clay loam, 4 to 12 percent slopes, eroded	IV	I	IV
Craven fine sandy loam, 0 to 1 percent slopes	II	I	II
Craven fine sandy loam, 1 to 4 percent slopes	II	I	II
Craven fine sandy loam, 1 to 6 percent slopes, eroded	III	I	III
Craven fine sandy loam, 4 to 8 percent slopes	III	I	III
Craven fine sandy loam, 4 to 8 percent slopes, eroded	IV	I	IV

MLRA153A – Lower Coastal Plain

Map Unit Name	Agri	For	Hort
Craven fine sandy loam, 6 to 10 percent slopes	IV	I	IV
Craven fine sandy loam, 8 to 12 percent slopes, eroded	IV	I	IV
Craven loam, 1 to 4 percent slopes	II	I	II
Craven loam, 1 to 4 percent slopes, eroded	III	I	III
Craven silt loam, 1 to 4 percent slopes	II	I	II
Craven very fine sandy loam, 1 to 4 percent slopes	II	I	II
Craven very fine sandy loam, 4 to 8 percent slopes	IV	I	IV
Craven-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Croatan muck, frequently flooded	III	V	III
Croatan muck, ALL OTHER	II	V	II
Dogue sandy loam, 0 to 2 percent slopes	II	I	II
Dogue sandy loam, 2 to 6 percent slopes	III	I	III
Dogue sandy loam, 6 to 12 percent slopes	IV	I	IV
Dorovan, ALL	IV	V	IV
Duckston fine sand	IV	VI	IV
Echaw, ALL	IV	V	IV
Exum fine sandy loam, 0 to 1 percent slopes	I	II	I
Exum fine sandy loam, 1 to 6 percent slopes	II	II	II
Exum loam, 0 to 2 percent slopes	I	II	I
Exum silt loam, 0 to 2 percent slopes	I	II	I
Exum very fine sandy loam, 0 to 2 percent slopes	I	II	I
Exum very fine sandy loam, 2 to 5 percent slopes	II	II	II
Exum-Urban land complex, 0 to 2 percent slopes	IV	II	IV
Foreston loamy fine sand, ALL	II	II	II
Goldsboro sandy loam, 1 to 6 percent slopes	I	I	I
Goldsboro, ALL OTHER	I	I	I
Goldsboro-Urban land complex, ALL	IV	I	IV
Grantham, ALL	I	I	I
Grifton, ALL	II	I	II
Hobonny muck	IV	VI	IV
Icaria fine sandy loam, ALL	II	I	II
Invershiel-Pender complex, 0 to 2 percent slopes	I	II	I
Johns, ALL	II	I	II
Johnston and Pamlico soils, 0 to 1 percent slopes, frequently flooded	IV	III	IV
Johnston soils	IV	III	IV
Kalmia, ALL	II	II	II
Kenansville, ALL	III	II	III
Kinston loam, frequently flooded	IV	III	IV
Kureb, ALL	IV	V	IV
Lafitte muck	IV	VI	IV
Lakeland sand, 0 to 6 percent slopes	IV	V	IV
Leaf, ALL	III	I	III
Lenoir, ALL	III	I	III
Leon, ALL	IV	V	III
Leon-Urban land complex	IV	V	IV
Liddell silt loam	II	I	II
Lucy loamy sand, 0 to 6 percent slopes	II	II	II
Lumbee, ALL	II	I	II
Lynchburg, ALL	II	I	II
Lynchburg-Urban land complex	IV	I	IV
Lynn Haven sand	IV	II	IV
Mandarin, ALL	IV	V	IV

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Map Unit Name	Agri	For	Hort
Mandarin-Urban land complex	IV	V	IV
Marvyn and Craven soils, 6 to 12 percent slopes	IV	I	IV
Marvyn, ALL	IV	I	IV
Masada sandy loam, 0 to 4 percent slopes	I	II	I
Masontown, ALL	IV	III	IV
Masontown mucky fine sandy loam and Muckalee sandy loam, frequently flooded	IV	III	IV
Meggett fine sandy loam, frequently flooded	IV	III	IV
Meggett, ALL OTHER	III	I	III
Mine pits	IV	VI	IV
Muckalee loam, ALL	IV	III	IV
Murville, ALL	IV	V	IV
Nahunta, ALL	I	I	I
Nakina fine sandy loam	I	I	I
Nawney loam, 0 to 2 percent slopes, frequently flooded	IV	III	IV
Newhan, ALL	IV	VI	IV
Newhan-Corolla complex, 0 to 30 percent slopes	IV	VI	IV
Newhan-Corolla-Urban land complex, 0 to 30 percent slopes	IV	VI	IV
Noboco fine sandy loam, 0 to 2 percent slopes	I	I	I
Noboco fine sandy loam, 2 to 6 percent slopes	II	I	II
Norfolk, ALL	II	II	II
Norfolk-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Ocilla loamy fine sand, 0 to 4 percent slopes	IV	II	IV
Olustee loamy sand, sandy subsoil variant (Murville)	IV	II	IV
Onslow, ALL	II	II	II
Osier loamy sand, loamy substratum	IV	I	IV
Pactolus, ALL	IV	II	IV
Pamlico muck, frequently flooded	IV	V	IV
Pamlico muck, ALL OTHER	III	V	III
Pantego, ALL	I	I	I
Paxville sandy loam	II	III	II
Pender fine sandy loam	II	I	II
Pender-Urban land complex	IV	I	IV
Pits, ALL	IV	VI	IV
Pocalla loamy sand, 0 to 6 percent slopes	III	II	III
Rains, ALL	I	I	I
Rains-Urban land complex	IV	I	IV
Rimini sand 1 to 6 percent slopes	IV	V	IV
Roanoke, frequently flooded	IV	III	IV
Roanoke, ALL OTHER	II	III	II
Rumford, ALL	III	II	III
Rutlege mucky loamy fine sand	IV	V	IV
Seabrook, ALL	IV	II	IV
Seabrook-Urban land complex	IV	II	IV
Stallings, ALL	II	II	II
State fine sandy loam, 0 to 2 percent slopes	I	I	I
State fine sandy loam, 2 to 6 percent slopes	II	I	II
State loamy sand, 0 to 2 percent slopes	I	I	I
Stockade fine sandy loam	I	I	I
Suffolk loamy sand, 10 to 30 percent slopes	I	II	I
Swamp	IV	III	IV
Tarboro, ALL	IV	II	IV
Tarboro-Urban land complex, 0 to 6 percent slopes	IV	II	IV

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Map Unit Name	Agri	For	Hort
Tomahawk fine sand, 0 to 3 percent slopes	IV	II	IV
Tomahawk loamy fine sand	IV	II	IV
Tomahawk loamy fine sand	IV	II	IV
Tomahawk loamy sand, 0 to 3 percent slopes	III	II	III
Tomotley, ALL	I	I	I
Torhunta, ALL	II	I	II
Torhunta-Urban land complex	IV	I	IV
Tuckerman fine sandy loam	II	II	II
Udorthents, ALL	IV	VI	IV
Udults, steep	IV	VI	IV
Umbric Ochraqualfs	IV	VI	IV
Urban land	IV	VI	IV
Valhalla fine sand, 0 to 6 percent slopes	III	II	III
Wagram loamy fine sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 6 to 10 percent slopes	III	II	III
Wagram loamy sand, 0 to 6 percent slopes	II	II	II
Wagram loamy sand, 10 to 15 percent slopes	IV	II	IV
Wahee, ALL	II	I	II
Wando fine sand, 0 to 6 percent slopes	IV	II	IV
Wando-Urban land complex, 0 to 6 percent slopes	IV	II	IV
Wakulla sand, ALL	IV	V	IV
Wasda muck	I	I	I
Wehadkee silt loam	IV	III	IV
Wickham fine sandy loam, 0 to 2 percent slopes	I	I	I
Wickham fine sandy loam, 2 to 6 percent slopes	II	I	II
Wickham fine sandy loam, 6 to 10 percent slopes	II	I	II
Wickham loamy sand, 1 to 6 percent slopes	II	I	II
Wickham sandy loam, 0 to 2 percent slopes	I	I	I
Wickham sandy loam, 0 to 6 percent slopes	II	I	II
Wickham sandy loam, 0 to 6 percent slopes, rarely flooded	II	I	II
Wickham sandy loam, 2 to 6 percent slopes	II	I	II
Wickham-Urban land complex, 2 to 10 percent slopes	IV	I	IV
Wilbanks, ALL	IV	III	IV
Winton, ALL	IV	I	IV
Woodington, ALL	II	II	II
Wrightsboro fine sandy loam 0 to 2 percent slopes	I	I	I
Yaupon silty clay loam, 0 to 3 percent slopes	III	VI	III

MLRA153B – Tidewater Area

Map Unit Name	Agri	For	Hort
Acredale silt loam, 0 to 2 percent slopes, rarely flooded	I	I	I
Altavista ,ALL	I	I	I
Altavista-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Arapahoe, ALL	I	I	I
Argent, ALL	II	I	II
Augusta ,ALL	II	I	II
Augusta-Urban land complex	IV	I	IV
Backbay mucky peat, 0 to 1 percent slopes, very frequently flooded	IV	VI	IV
Ballahack fine sandy loam, occasionally flooded	I	I	I
Barclay very fine sandy loam	I	I	I
Bayboro, ALL	I	I	I
Baymeade ,ALL	IV	V	IV
Baymeade-Urban land complex 1 to 6 percent slopes	IV	V	IV
Beaches, ALL	IV	VI	IV
Beaches-Newhan association	IV	VI	IV
Beaches-Newhan complex, ALL	IV	VI	IV
Belhaven muck, 0 to 2 percent slopes, frequently flooded	IV	V	IV
Belhaven muck, ALL OTHER	II	V	II
Bertie ,ALL	II	I	II
Bibb soils	IV	III	IV
Bladen ,ALL	III	I	III
Bohicket silty clay loam	IV	VI	IV
Bojac, ALL	III	II	III
Bolling loamy fine sand, 0 to 3 percent slopes, rarely flooded	II	I	II
Borrow pits	IV	VI	IV
Brookman loam, 0 to 2 percent slopes, rarely flooded	II	I	II
Brookman mucky loam, frequently flooded	IV	III	IV
Brookman mucky silt loam	I	I	I
Cape Fear, ALL	I	I	I
Carteret, ALL	IV	VI	IV
Chapanoke silt loam, ALL	I	I	I
Charleston loamy fine sand	III	II	III
Chowan, ALL	IV	III	IV
Conaby muck, ALL	II	I	II
Conetoe, ALL	III	II	III
Corolla, ALL	IV	VI	IV
Corolla-Duckston complex, ALL	IV	VI	IV
Corolla-Urban land complex	IV	VI	IV
Currituck, ALL	IV	VI	IV
Dare muck	IV	V	IV
Deloss fine sandy loam	I	III	I
Deloss mucky loam, frequently flooded	IV	III	IV
Delway muck, 0 to 1 percent slopes, very frequently flooded	IV	VI	IV
Dogue, ALL	II	I	II
Dorovan, ALL	IV	V	IV
Dragston, ALL	II	I	II
Duckston, ALL	IV	VI	IV
Duckston-Corolla complex, 0 to 6 percent slopes, rarely flooded	IV	VI	IV
Dune land, ALL	IV	VI	IV
Dune land-Newhan complex, 2 to 40 percent slopes	IV	VI	IV
Elkton, ALL	II	I	II
Engelhard loamy very fine sand, 0 to 2 percent slopes, frequently flooded	IV	III	IV



MLRA153B – Tidewater Area

Map Unit Name	Agri	For	Hort
Engelhard loamy very fine sand, 0 to 2 percent slopes, rarely flooded	II	III	II
Fallsington fine sandy loam	IV	I	IV
Fork fine sandy loam, 0 to 2 percent slopes, rarely flooded	I	I	I
Fork loamy fine sand	II	I	II
Fortescue, ALL	I	III	I
Fripp fine sand, 2 to 30 percent slopes	IV	VI	IV
Galestown loamy fine sand	IV	II	IV
Gullrock muck, 0 to 2 percent slopes, rarely flooded	II	I	II
Hobonny muck, 0 to 1 percent slopes, frequently flooded	IV	VI	IV
Hobucken, ALL	IV	VI	IV
Hyde, ALL	I	I	I
Hydland silt loam, 0 to 2 percent slopes, rarely flooded	I	I	I
Icaria loamy fine sand, 0 to 2 percent slopes, rarely flooded	II	I	II
Johns loamy sand, 0 to 2 percent slopes	II	I	II
Klej loamy fine sand	IV	II	IV
Kureb sand 1 to 8 percent slopes	IV	V	IV
Kureb-Urban land complex 1 to 8 percent slopes	IV	V	IV
Lafitte muck, ALL	IV	VI	IV
Lakeland sand 1 to 8 percent slopes	IV	V	IV
Leaf silt loam	III	I	III
Lenoir, ALL	III	I	III
Leon fine sand, 0 to 2 percent slopes, rarely flooded	IV	V	III
Leon sand	IV	V	III
Longshoal mucky peat, 0 to 1 percent slopes, very frequently flooded	IV	VI	IV
Lynn Haven, ALL	IV	II	IV
Made land and dumps	IV	VI	IV
Masontown mucky fine sandy loam	IV	III	IV
Matapeake fine and very fine sandy loams	I	II	I
Mattapex, ALL	II	I	II
Munden, ALL	II	I	II
Newhan, ALL	IV	VI	IV
Newhan-Beaches complex,	IV	VI	IV
Newhan-Corolla complex, ALL	IV	VI	IV
Newhan-Corolla-Urban land complex, 0 to 30 percent slopes	IV	VI	IV
Newhan-Urban land complex, ALL	IV	VI	IV
Newholland mucky loamy sand, 0 to 2 percent slopes, frequently flooded	IV	V	IV
Newholland mucky loamy sand, 0 to 2 percent slopes, rarely flooded	I	V	I
Nimmo, ALL	II	I	II
Nixonton very fine sandy loam	I	I	I
Osier fine sand, ALL	IV	I	IV
Othello, ALL	I	II	I
Ousley fine sand, ALL	IV	V	IV
Pactolus fine sand	IV	II	IV
Pasquotank, ALL	I	I	I
Paxville mucky fine sandy loam	II	III	II
Perquimans, ALL	I	I	I
Pettigrew muck, ALL	II	I	II
Pits, mine	IV	VI	IV
Pocomoke, ALL	II	I	II
Ponzer, ALL	II	V	II
Portsmouth, ALL	I	I	I
Psamments, 0 to 6 percent slopes	IV	VI	IV

MLRA153B – Tidewater Area

Map Unit Name	Agri	For	Hort
Pungo muck, ALL	III	V	III
Roanoke, ALL	II	I	II
Roper muck, ALL	I	I	I
Sassafras loamy fine sand	II	I	II
Scuppernong muck, ALL	II	V	II
Seabrook, ALL	IV	II	IV
Seabrook-Urban land complex	IV	II	IV
Seagate fine sand	IV	II	IV
Seagate-Urban land complex	IV	II	IV
State fine sandy loam, ALL	I	I	I
State loamy fine sand, ALL	II	I	II
State sandy loam, ALL	I	I	I
State-Urban land complex, 0 to 2 percent slopes	IV	I	IV
Stockade loamy fine sand	I	III	I
Stockade mucky loam, ALL	IV	III	IV
Stono, ALL	I	I	I
Tarboro sand, ALL	IV	II	IV
Tidal marsh	IV	VI	IV
Tomotley fine sandy loam, ALL	I	I	I
Udorthents, ALL	IV	VI	IV
Urban land ALL	IV	VI	IV
Wahee, ALL	II	I	II
Wakulla sand, ALL	IV	V	IV
Wando, ALL	IV	II	IV
Wasda muck ALL	I	I	I
Weeksville loam, 0 to 2 percent slopes, frequently flooded	IV	I	IV
Weeksville, ALL OTHER	I	I	I
Wickham loamy sand, 0 to 4 percent slopes	II	I	II
Woodstown fine sandy loam	I	I	I
Wysocking very fine sandy loam, 0 to 3 percent slopes, rarely flooded	I	III	I
Yaupon fine sandy loam, 0 to 3 percent slopes	III	VI	III
Yeopim loam, 0 to 2 percent slopes	I	I	I
Yeopim loam, 2 to 6 percent slopes	II	I	II
Yeopim silt loam, ALL	I	I	I
Yonges, ALL	I	I	I

# Standard on Mass Appraisal of Real Property

Approved July 2017

## **International Association of Assessing Officers**

This standard replaces the January 2012 *Standard on Mass Appraisal of Real Property* and is a complete revision. The 2012 *Standard on Mass Appraisal of Real Property* was a partial revision that replaced the 2002 standard. The 2002 standard combined and replaced the 1983 *Standard on the Application of the Three Approaches to Value in Mass Appraisal*, the 1984 *Standard on Mass Appraisal*, and the 1988 *Standard on Urban Land Valuation*. IAAO assessment standards represent a consensus in the assessing profession and have been adopted by the Executive Board of IAAO. The objective of IAAO standards is to provide a systematic means by which concerned assessing officers can improve and standardize the operation of their offices. IAAO standards are advisory in nature and the use of, or compliance with, such standards is purely voluntary. If any portion of these standards is found to be in conflict with the *Uniform Standards of Professional Appraisal Practice (USPAP)* or state laws, *USPAP* and state laws shall govern.

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# Standard on Mass Appraisal of Real Property

## 1. Scope

This standard defines requirements for the mass appraisal of real property. The primary focus is on mass appraisal for ad valorem tax purposes. However, the principles defined here should also be relevant to CAMAs (CAMAs) (or automated valuation models) used for other purposes, such as mortgage portfolio management. The standard primarily addresses the needs of the assessor, assessment oversight agencies, and taxpayers.

This standard addresses mass appraisal procedures by which the fee simple interest in property can be appraised at market value, including mass appraisal application of the three traditional approaches to value (cost, sales comparison, and income). Single-property appraisals, partial interest appraisals, and appraisals made on an other-than-market-value basis are outside the scope of this standard. Nor does this standard provide guidance on determining assessed values that differ from market value because of statutory constraints such as use value, classification, or assessment increase limitations.

Mass appraisal requires complete and accurate data, effective valuation models, and proper management of resources. Section 2 introduces mass appraisal. Section 3 focuses on the collection and maintenance of property data. Section 4 summarizes the primary considerations in valuation methods, including the role of the three approaches to value in the mass appraisal of various types of property. Section 5 addresses model testing and quality assurance. Section 6 discusses certain managerial considerations: staff levels, data processing support, contracting for reappraisals, benefit-cost issues, and space requirements. Section 7 discusses reference materials.

## 2. Introduction

Market value for assessment purposes is generally determined through the application of mass appraisal techniques. Mass appraisal is the process of valuing a group of properties as of a given date and using common data, standardized methods, and statistical testing. To determine a parcel's value, assessing officers must rely upon valuation equations, tables, and schedules developed through mathematical analysis of market data. Values for individual parcels should not be based solely on the sale price of a property; rather, valuation schedules and models should be consistently applied to property data that are correct, complete, and up-to-date.

Properly administered, the development, construction, and use of a CAMA system results in a valuation system characterized by accuracy, uniformity, equity, reliability, and low per-parcel costs. Except for unique properties, individual analyses and appraisals of properties are not practical for ad valorem tax purposes.

## 3. Collecting and Maintaining Property Data

The accuracy of values depends first and foremost on the completeness and accuracy of property characteristics and market data. Assessors will want to ensure that their CAMA systems provide for the collection and maintenance of relevant land, improvement, and location features. These data must also be accurately and consistently collected. The CAMA system must also provide for the storage and processing of relevant sales, cost, and income and expense data.

### 3.1 Overview

Uniform and accurate valuation of property requires correct, complete, and up-to-date property data. Assessing offices must establish effective procedures for collecting and maintaining property data (i.e., property ownership, location, size, use, physical characteristics, sales price, rents, costs, and operating expenses). Such data are also used for performance audits, defense of appeals, public relations, and management information. The following sections recommend procedures for collecting these data.

### 3.2 Geographic Data

Assessors should maintain accurate, up-to-date cadastral maps (also known as assessment maps, tax maps, parcel boundary maps, and property ownership maps) covering the entire jurisdiction with a unique identification number for each parcel. Such cadastral maps allow assessing officers to identify and locate all parcels, both in the field and in the office. Maps become especially valuable in the mass appraisal process when a geographic information system (GIS) is used. A GIS permits graphic displays of sale prices, assessed values, inspection dates, work assignments, land uses, and much more. In addition, a GIS permits high-level analysis of nearby sales, neighborhoods, and market trends; when linked to a CAMA system, the results can be very useful. For additional information on cadastral maps, parcel identification systems, and GIS, see the *Standard on Manual Cadastral Maps and Parcel Identifiers* (IAAO 2016b), *Standard on Digital Cadastral Maps and Parcel Identifiers* (IAAO 2015), *Procedures and Standards for a Multipurpose Cadastre* (National Research Council 1983), and *GIS Guidelines for Assessors* (URISA and IAAO 1999).

### 3.3 Property Characteristics Data

The assessor should collect and maintain property characteristics data sufficient for classification, valuation, and other purposes. Accurate valuation of real property by any method requires descriptions of land and building characteristics.

#### 3.3.1 Selection of Property Characteristics Data

Property characteristics to be collected and maintained should be based on the following:

- Factors that influence the market in the locale in question
- Requirements of the valuation methods that will be employed
- Requirements of classification and property tax policy
- Requirements of other governmental and private users
- Marginal benefits and costs of collecting and maintaining each property characteristic

Determining what data on property characteristics to collect and maintain for a CAMA system is a crucial decision with long-term consequences. A pilot program is one means of evaluating the benefits and costs of collecting and maintaining a particular set of property characteristics (see Gloudemans and Almy 2011, 46–49). In addition, much can be learned from studying the data used in successful CAMAs in other jurisdictions. Data collection and maintenance are usually the costliest aspects of a CAMA. Collecting data that are of little

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importance in the assessment process should be avoided unless another governmental or private need is clearly demonstrated.

The quantity and quality of existing data should be reviewed. If the data are sparse and unreliable, a major recanvass will be necessary. Data that have been confirmed to be reliable should be used whenever possible. New valuation programs or enhancements requiring major recanvass activity or conversions to new coding formats should be viewed with suspicion when the existing database already contains most major property characteristics and is of generally good quality.

The following property characteristics are usually important in predicting residential property values:

### *Improvement Data*

- Living area
- Construction quality or key components thereof (foundation, exterior wall type, and the like)
- Effective age or condition
- Building design or style
- Secondary areas including basements, garages, covered porches, and balconies
- Building features such as bathrooms and central air-conditioning
- Significant detached structures including guest houses, boat houses, and barns

### *Land Data*

- Lot size
- Available utilities (sewer, water, electricity)

### *Location Data*

- Market area
- Submarket area or neighborhood
- Site amenities, especially view and golf course or water frontage
- External nuisances, (e.g., heavy traffic, airport noise, or proximity to commercial uses).

For a discussion of property characteristics important for various commercial property types, see *Fundamentals of Mass Appraisal* (Gloude-mans and Almy 2011, chapter 9).

## 3.3.2 Data Collection

Collecting property characteristics data is a critical and expensive phase of reappraisal. A successful data collection program requires clear and standard coding and careful monitoring through a quality control program. The development and use of a data collection manual is essential to achieving accurate and consistent data collection. The data collection program should result in complete and accurate data.

### 3.3.2.1 Initial Data Collection

A physical inspection is necessary to obtain initial property characteristics data. This inspection can be performed either by appraisers or by specially trained data collectors. In a joint approach, experienced appraisers make key subjective decisions, such as the assignment of construction quality class or grade, and data collectors gather all other details. Depending on the data required, an interior inspection might be necessary. At a minimum, a comprehensive exterior inspection should be conducted. Measurement is an important part of data collection.

### 3.3.2.2 Data Collection Format

Data should be collected in a prescribed format designed to facilitate both the collecting of data in the field and the entry of the data into the computer system.

A logical arrangement of the collection format makes data collection easier. For example, all items requiring an interior inspection should be grouped together. The coding of data should be as objective as possible, with measurements, counts, and check-off items used in preference to items requiring subjective evaluations (such as “number of plumbing fixtures” versus “adequacy of plumbing: poor, average, good”). With respect to check-off items, the available codes should be exhaustive and mutually exclusive, so that exactly one code logically pertains to each observable variation of a building feature (such as structure or roof type). The data collection format should promote consistency among data collectors, be clear and easy to use, and be adaptable to virtually all types of construction. Specialized data collection formats may be necessary to collect information on agricultural property, timberland, commercial and industrial parcels, and other property types.

### 3.3.2.3 Data Collection Manuals

A clear, thorough, and precise data collection manual is essential and should be developed, updated, and maintained. The written manual should explain how to collect and record each data item. Pictures, examples, and illustrations are particularly helpful. The manual should be simple yet complete. Data collection staff should be trained in the use of the manual and related updates to maintain consistency. The manual should include guidelines for personal conduct during field inspections, and if interior data are required, the manual should outline procedures to be followed when the property owner has denied access or when entry might be risky.

### 3.3.2.4 Data Accuracy Standards

The following standards of accuracy for data collection are recommended.

- Continuous or area measurement data, such as living area and exterior wall height, should be accurate within 1 foot (rounded to the nearest foot) of the true dimensions or within 5 percent of the area. (One foot equates to approximately 30 centimeters in the metric system.) If areas, dimensions, or volumes must be estimated, the property record should note the instances in which quantities are estimated.
- For each objective, categorical, or binary data field to be collected or verified, at least 95 percent of the coded entries should be accurate. Objective, categorical, or binary data characteristics include such attributes as exterior wall material, number of full bathrooms, and waterfront view. As an example, if a data collector captures 10 objective, categorical, or binary data items for 100 properties, at least 950 of the 1,000 total entries should be correct.
- For each subjective categorical data field collected or verified, data should be coded correctly at least 90 percent of the time. Subjective categorical data characteristics include data items such as quality grade, physical condition, and architectural style.
- Regardless of specific accuracy requirements, consistent measurement is important. Standards including national, local and regional practices exist to support consistent measurement. The standard of measurement should be documented as part of the process. (American Institute of Architects 1995; Marshall & Swift Valuation Service 2017; International Property Measurement Standards Coalition n.d.; Building Owners and Managers Association International 2017)

### 3.3.2.5 Data Collection Quality Control

A quality control program is necessary to ensure that data accuracy standards are achieved and maintained. Independent quality control inspections should occur immediately after the data collection phase begins and may be performed by jurisdiction staff, project consultants,

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auditing firms, or oversight agencies. The inspections should review random samples of finished work for completeness and accuracy and keep tabulations of items coded correctly or incorrectly, so that statistical tests can be used to determine whether accuracy standards have been achieved. Stratification by geographic area, property type, or individual data collector can help detect patterns of data error. Data that fail to meet quality control standards should be recollected.

The accuracy of subjective data should be judged primarily by conformity with written specifications and examples in the data collection manual. The data reviewer should substantiate subjective data corrections with pictures or field notes.

### 3.3.3 Data Entry

To avoid duplication of effort, the data collection form should be able to serve as the data entry form. Data entry should be routinely audited to ensure accuracy.

Data entry accuracy should be as close to 100 percent as possible and should be supported by a full set of range and consistency edits. These are error or warning messages generated in response to invalid or unusual data items. Examples of data errors include missing data codes and invalid characters. Warning messages should also be generated when data values exceed normal ranges (e.g., more than eight rooms in a 1,200-square-foot residence). The warnings should appear as the data are entered. When feasible, action on the warnings should take place during data entry. Field data entry devices provide the ability to edit data as it is entered and also eliminate data transcription errors.

### 3.3.4 Maintaining Property Characteristics Data

Property characteristics data should be continually updated in response to changes brought about by new construction, new parcels, remodeling, demolition, and destruction. There are several ways of updating data. The most efficient method involves building permits. Ideally, strictly enforced local ordinances require building permits for all significant construction activity, and the assessor's office receives copies of the permits. This method allows the assessor to identify properties whose characteristics are likely to change, to inspect such parcels on a timely basis (preferably as close to the assessment date as possible), and to update the files accordingly.

Another method is aerial photography, which also can be helpful in identifying new or previously unrecorded construction and land use. Some jurisdictions use self-reporting, in which property owners review the assessor's records and submit additions or corrections. Information derived from multiple listing sources and other third-party vendors can also be used to validate property records.

Periodic field inspections can help ensure that property characteristics data are complete and accurate. Assuming that most new construction activity is identified through building permits or other ongoing procedures, a physical review including an on-site verification of property characteristics should be conducted at least every 4 to 6 years. Reinspections should include partial remeasurement of the two most complex sides of improvements and a walk around the improvement to identify additions and deletions. Photographs taken at previous physical inspections can help identify changes.

### 3.3.5 Alternative to Periodic On-site Inspections

Provided that initial physical inspections are timely completed and that an effective system of building permits or other methods of routinely identifying physical changes is in place, jurisdictions may employ a set of digital imaging technology tools to supplement field reinspections

with a computer-assisted office review. These imaging tools should include the following:

- Current high-resolution street-view images (at a sub-inch pixel resolution that enables quality grade and physical condition to be verified)
- Orthophoto images (minimum 6-inch pixel resolution in urban/suburban and 12-inch resolution in rural areas, updated every 2 years in rapid-growth areas or 6–10 years in slow-growth areas)
- Low-level oblique images capable of being used for measurement verification (four cardinal directions, minimum 6-inch pixel resolution in urban/suburban and 12-inch pixel resolution in rural areas, updated every 2 years in rapid-growth areas or 6–10 years in slow-growth areas).

These tool sets may incorporate change detection techniques that compare building dimension data (footprints) in the CAMA system to georeferenced imagery or remote sensing data from sources (such as LiDAR [light detection and ranging]) and identify potential CAMA sketch discrepancies for further investigation.

Assessment jurisdictions and oversight agencies must ensure that images meet expected quality standards. Standards required for vendor-supplied images should be spelled out in the Request for Proposal (RFP) and contract for services, and images should be checked for compliance with specified requirements. For general guidance on preparing RFPs and contracting for vendor-supplied services, see the *Standard on Contracting for Assessment Services* [IAAO 2008].

In addition, appraisers should visit assigned areas on an annual basis to observe changes in neighborhood condition, trends, and property characteristics. An on-site physical review is recommended when significant construction changes are detected, a property is sold, or an area is affected by catastrophic damage. Building permits should be regularly monitored and properties that have significant change should be inspected when work is complete.

## 3.4 Sale Data

States and provinces should seek mandatory disclosure laws to ensure comprehensiveness of sale data files. Regardless of the availability of such statutes, a file of sale data must be maintained, and sales must be properly reviewed and validated. Sale data are required in all applications of the sales comparison approach, in the development of land values and market-based depreciation schedules in the cost approach, and in the derivation of capitalization rates or discount rates in the income approach. Refer to *Mass Appraisal of Real Property* (Gloude-mans 1999, chapter 2) or *Fundamentals of Mass Appraisal* (Gloude-mans and Almy 2011 chapter 2) for guidelines on the acquisition and processing of sale data.

## 3.5 Income and Expense Data

Income and expense data must be collected for income-producing property and reviewed by qualified appraisers to ensure their accuracy and usability for valuation analysis (see Section 4.4.). Refer to *Mass Appraisal of Real Property* (Gloude-mans 1999, chapter 2) or *Fundamentals of Mass Appraisal* (Gloude-mans and Almy 2011, chapter 2) for guidelines addressing the collection and processing of income and expense data.

## 3.6 Cost and Depreciation Data

Current cost and depreciation data adjusted to the local market are required for the cost approach (see Section 4.2). Cost and depreciation manuals and schedules can be purchased from commercial services or created in-house. See *Mass Appraisal of Real Property* (Gloude-mans 1999, chapter 4) or *Fundamentals of Mass Appraisal* (Gloude-mans and Almy 2011, 180–193) for guidelines on creating manuals and schedules.

## 4. Valuation

Mass appraisal analysis begins with assigning properties to use classes or strata based on highest and best use, which normally equates to current use. Some statutes require that property be valued for ad valorem tax purposes at current use regardless of highest and best use. Zoning and other land use controls normally dictate highest and best use of vacant land. In the absence of such restrictions, the assessor must determine the highest and best use of the land by analyzing the four components—legally permissible, physically possible, appropriately supported, and financially feasible—thereby resulting in the highest value. Special attention may be required for properties in transition, interim or nonconforming uses, multiple uses, and excess land.

### 4.1 Valuation Models

Any appraisal, whether single-property appraisal or mass appraisal, uses a model, that is, a representation in words or an equation of the relationship between value and variables representing factors of supply and demand. Mass appraisal models attempt to represent the market for a specific type of property in a specified area. Mass appraisers must first specify the model, that is, identify the supply and demand factors and property features that influence value, for example, square feet of living area. Then they must calibrate the model, that is, determine the adjustments or coefficients that best represent the value contribution of the variables chosen, for example, the dollar amount the market places on each square foot of living area. Careful and extensive market analysis is required for both specification and calibration of a model that estimates values accurately. Mass appraisal models apply to all three approaches to value: the cost approach, the sales comparison approach, and the income approach.

Valuation models are developed for defined property groups. For residential properties, geographic stratification is appropriate when the value of property attributes varies significantly among areas and each area is large enough to provide adequate sales. It is particularly effective when housing types and styles are relatively uniform within areas. Separate models are developed for each market area (also known as economic or model areas). Subareas or neighborhoods can serve as variables in the models and can also be used in land value tables and selection of comparable sales. (See *Mass Appraisal of Real Property* [Gloude-mans 1999, 118–120] or *Fundamentals of Mass Appraisal* [Gloude-mans and Almy 2011, 139–143] for guidelines on stratification.) Smaller jurisdictions may find it sufficient to develop a single residential model.

Commercial and income-producing properties should be stratified by property type. In general, separate models should be developed for apartment, warehouse/industrial, office, and retail properties. Large jurisdictions may be able to stratify apartment properties further by type or area or to develop multiple models for other income properties with adequate data.

### 4.2 The Cost Approach

The cost approach is applicable to virtually all improved parcels and, if used properly, can produce accurate valuations. The cost approach is more reliable for newer structures of standard materials, design, and workmanship. It produces an estimate of the value of the fee simple interest in a property.

Reliable cost data are imperative in any successful application of the cost approach. The data must be complete, typical, and current. Current construction costs should be based on the cost of replacing a structure with one of equal utility, using current materials, design, and building standards. In addition to specific property types, cost models should

include the cost of individual construction components and building items in order to adjust for features that differ from base specifications. These costs should be incorporated into a construction cost manual and related computer software. The software can perform the valuation function, and the manual, in addition to providing documentation, can be used when nonautomated calculations are required.

Construction cost schedules can be developed in-house, based on a systematic study of local construction costs, obtained from firms specializing in such information, or custom-generated by a contractor. Cost schedules should be verified for accuracy by applying them to recently constructed improvements of known cost. Construction costs also should be updated before each assessment cycle.

The most difficult aspects of the cost approach are estimates of land value and accrued depreciation. These estimates must be based on non-cost data (primarily sales) and can involve considerable subjectivity. Land values used in the cost approach must be current and consistent. Often, they must be extracted from sales of improved property because sales of vacant land are scarce. Section 4.5 provides standards for land valuation in mass appraisal.

Depreciation schedules can be extracted from sales data in several ways. See *Mass Appraisal of Real Property* (Gloude-mans 1999, chapter 4) or *Fundamentals of Mass Appraisal* (Gloude-mans and Almy 2011, 189–192).

### 4.3 The Sales Comparison Approach

The sales comparison approach estimates the value of a subject property by statistically analyzing the sale prices of similar properties. This approach is usually the preferred approach for estimating values for residential and other property types with adequate sales.

Applications of the sales comparison approach include direct market models and comparable sales algorithms (see *Mass Appraisal of Real Property* [Gloude-mans 1999, chapters 3 and 4], *Fundamentals of Mass Appraisal* [Gloude-mans and Almy 2011, chapters 4 and 6], and the *Standard on Automated Valuation Models (AVMs)* [IAAO 2003]). Comparable sales algorithms are most akin to single-property appraisal applications of the sales comparison approach. They have the advantages of being familiar and easily explained and can compensate for less well-specified or calibrated models, because the models are used only to make adjustments to the selected comparables. They can be problematic if the selected comparables are not well validated or representative of market value. Because they predict market value directly, direct market models depend more heavily on careful model specification and calibration. Their advantages include efficiency and consistency, because the same model is directly applied against all properties in the model area.

Users of comparable sales algorithms should be aware that sales ratio statistics will be biased if sales used in the ratio study are used as comparables for themselves in model development. This problem can be avoided by (1) not using sales as comparables for themselves in modeling or (2) using holdout or later sales in ratio studies.

### 4.4 The Income Approach

In general, for income-producing properties, the income approach is the preferred valuation approach when reliable income and expense data are available, along with well-supported income multipliers, overall rates, and required rates of return on investment. Successful application of the income approach requires the collection, maintenance, and careful analysis of income and expense data.

Mass appraisal applications of the income approach begin with collecting and processing income and expense data. (These data should be expressed on an appropriate per-unit basis, such as per square foot or per apartment unit.) Appraisers should then compute normal or typical gross incomes, vacancy rates, net incomes, and expense ratios for various homogeneous strata of properties. These figures can be used to judge the reasonableness of reported data for individual parcels and to estimate income and expense figures for parcels with unreported data. Actual or



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reported figures can be used as long as they reflect typical figures (or typical figures can be used for all properties).

Alternatively, models for estimating gross or net income and expense ratios can be developed by using actual income and expense data from a sample of properties and calibrated by using multiple regression analysis. For an introduction to income modeling, see *Mass Appraisal of Real Property* (Gloude-mans 1999, chapter 3) or *Fundamentals of Mass Appraisal* (Gloude-mans and Almy 2011, chapter 9). The developed income figures can be capitalized into estimates of value in a number of ways. The most direct method involves the application of gross income multipliers, which express the ratio of market value to gross income. At a more refined level, net income multipliers or their reciprocals, overall capitalization rates, can be developed and applied. Provided there are adequate sales, these multipliers and rates should be extracted from a comparison of actual or estimated incomes with sale prices (older income and sales data should be adjusted to the valuation date as appropriate). Income multipliers and overall rates developed in this manner tend to provide reliable, consistent, and readily supported valuations when good sales and income data are available. When adequate sales are not available, relevant publications and local market participants can be consulted.

### 4.5 Land Valuation

State or local laws may require the value of an improved parcel to be separated into land and improvement components. When the sales comparison or income approach is used, an independent estimate of land value can be made and subtracted from the total property value to obtain a residual improvement value. Some computerized valuation techniques provide a separation of total value into land and building components.

Land values should be reviewed annually. At least once every 4 to 6 years the properties should be physically inspected and revalued. The sales comparison approach is the primary approach to land valuation and is always preferred when sufficient sales are available. In the absence of adequate sales, other techniques that can be used in land appraisal include allocation, abstraction, anticipated use, capitalization of ground rents, and land residual capitalization. (See *Mass Appraisal of Real Property* [Gloude-mans 1999, chapter 3] or *Fundamentals of Mass Appraisal* [Gloude-mans and Almy 2011, 178–180].)

### 4.6 Considerations by Property Type

The appropriateness of each valuation approach varies with the type of property under consideration. Table 1 ranks the relative usefulness of the three approaches in the mass appraisal of major types of properties. The table assumes that there are no major statutory barriers to using all three approaches or to obtaining cost, sales, and income data. Although relying only on the single best approach for a given type of property can have advantages in terms of efficiency and consistency, the use of two or more approaches provides helpful cross-checks and flexibility and can thus produce greater accuracy, particularly for less typical properties.

**Table 1.** Rank of typical usefulness of the three approaches to value in the mass appraisal of major types of property

Type of Property	Cost Approach	Sales Comparison Approach	Income Approach
Single-family residential	2	1	3
Multifamily residential	3	1,2	1,2
Commercial	3	2	1
Industrial	1,2	3	1,2
Nonagricultural land	–	1	2
Agricultural <sup>a</sup>	–	2	1
Special-purpose <sup>b</sup>	1	2,3	2,3

<sup>a</sup> Includes farm, ranch, and forest properties.

<sup>b</sup> Includes institutional, governmental, and recreation properties.

#### 4.6.1 Single-Family Residential Property

The sales comparison approach is the best approach for single-family residential property, including condominiums. Automated versions of this approach are highly efficient and generally accurate for the majority of these properties. The cost approach is a good supplemental approach and should serve as the primary approach when the sales data available are inadequate. The income approach is usually inappropriate for mass appraisal of single-family residential properties, because most of these properties are not rented.

#### 4.6.2 Manufactured Housing

Manufactured or *mobile* homes can be valued in a number of ways depending on the local market and ownership status. Often mobile homes are purchased separately and situated on a rented space in a mobile home park. In this case the best strategy is to model the mobile homes separately from the land. At other times mobile homes are situated on individual lots and bought and sold similar to stick-built homes. Particularly in rural areas they may be intermixed with stick-built homes. In these cases, they can be modeled in a manner similar to that for other residential properties and included in the same models, as long as the model includes variables to distinguish them and recognize any relevant differences from other homes (e.g., mobile homes may appreciate at a rate different from that for stick-built homes).

#### 4.6.3 Multifamily Residential Property

The sales comparison and income approaches are preferred in valuing multifamily residential property when sufficient sales and income data are available. Multiple regression analysis (MRA) and related techniques have been successfully used in valuing this property type. Where adequate sales are available, direct sales models can be used. MRA also can be used to calibrate different portions of the income approach, including the estimation of market rents and development of income multipliers or capitalization rates. As with other residential property, the cost approach is useful in providing supplemental valuations and can serve as the primary approach when good sales and income data are not available.

#### 4.6.4 Commercial and Industrial Property

The income approach is the most appropriate method in valuing commercial and industrial property if sufficient income data are available. Direct sales comparison models can be equally effective in large jurisdictions with sufficient sales. When a sufficient supply of sales data and income data is not available, the cost approach should be

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applied. However, values generated should be checked against available sales data. Cost factors, land values, and depreciation schedules must be kept current through periodic review.

### 4.6.5 Nonagricultural Land

The sales comparison approach is preferred for valuing nonagricultural land. Application of the sales comparison approach to vacant land involves the collection of sales data, the posting of sales data on maps, the calculation of standard unit values (such as value per square foot, per front foot, or per parcel) by area and type of land use, and the development of land valuation maps or computer-generated tables in which the pattern of values is displayed. When vacant land sales are not available or are few, additional benchmarks can be obtained by subtracting the replacement cost less depreciation of improvements from the sale prices of improved parcels. The success of this technique requires reliable cost data and tends to work best for relatively new improvements, for which depreciation is minimal.

Another approach is a *hybrid* model decomposable into land and building values. Although these models can be calibrated from improved sales alone, separation of value between land and buildings is more reliable when both vacant and improved sales are available.

### 4.6.6 Agricultural Property

If adequate sales data are available and agricultural property is to be appraised at market value, the sales comparison approach is preferred. However, most states and provinces provide for the valuation of agricultural land at use value, making the sales comparison approach inappropriate for land for which market value exceeds use value. Thus, it is often imperative to obtain good income data and to use the income approach for agricultural land. Land rents are often available, sometimes permitting the development and application of overall capitalization rates. Many states and provinces have soil maps that assign land to different productivity classes for which typical rents can be developed. Cost tables can be used to value agricultural buildings.

### 4.6.7 Special-Purpose Property

The cost approach tends to be most appropriate in the appraisal of special-purpose properties, because of the distinctive nature of such properties and the general absence of adequate sales or income data.

## 4.7 Value Reconciliation

When more than one approach or model is used for a given property group, the appraiser must determine which to use or emphasize. Often this can be done by comparing ratio study statistics. Although there are advantages to being consistent, sometimes an alternative approach or method is more reliable for special situations and atypical properties. CAMA systems should allow users to document the approach or method being used for each property.

## 4.8 Frequency of Reappraisals

Section 4.2.2 of the *Standard on Property Tax Policy* (IAAO 2010) states that current market value implies annual assessment of all property. Annual assessment does not necessarily mean, however, that each property must be re-examined each year. Instead, models can be recalibrated, or market adjustment factors derived from ratio studies or other market analyses applied based on criteria such as property type, location, size, and age.

Analysis of ratio study data can suggest groups or strata of properties in greatest need of physical review. In general, market adjustments can be highly effective in maintaining equity when appraisals are uniform within strata and recalibration can provide even greater accuracy. However, only physical reviews can correct data errors and, as stated in

Sections 3.3.4 and 3.3.5, property characteristics data should be reviewed and updated at least every 4 to 6 years. This can be accomplished in at least three ways:

- Reinspecting all property at periodic intervals (i.e., every 4 to 6 years)
- Reinspecting properties on a cyclical basis (e.g., one-fourth or one-sixth each year)
- Reinspecting properties on a priority basis as indicated by ratio studies or other considerations while still ensuring that all properties are examined at least every sixth year

## 5. Model Testing, Quality Assurance, and Value Defense

Mass appraisal allows for model testing and quality assurance measures that provide feedback on the reliability of valuation models and the overall accuracy of estimated values. Modelers and assessors must be familiar with these diagnostics so they can evaluate valuation performance properly and make improvements where needed.

### 5.1 Model Diagnostics

Modeling software contains various statistical measures that provide feedback on model performance and accuracy. MRA software contains multiple sets of diagnostic tools, some of which relate to the overall predictive accuracy of the model and some of which relate to the relative importance and statistical reliability of individual variables in the model. Modelers must understand these measures and ensure that final models not only make appraisal sense but also are statistically sound.

### 5.2 Sales Ratio Analyses

Regardless of how values were generated, sales ratio studies provide objective, bottom-line indicators of assessment performance. The IAAO literature contains extensive discussions of this important topic, and the *Standard on Ratio Studies* (2013) provides guidance for conducting a proper study. It also presents standards for key ratio statistics relating to the two primary aspects of assessment performance: level and uniformity. The following discussion summarizes these standards and describes how the assessor can use sales ratio metrics to help ensure accurate, uniform values.

#### 5.2.1 Assessment Level

Assessment level relates to the overall or general level of assessment of a jurisdiction and various property classes, strata, and groups within the jurisdiction. Each group must be assessed at market value as required by professional standards and applicable statutes, rules, and related requirements. The three common measures of central tendency in ratio studies are the median, mean, and weighted mean. The *Standard on Ratio Studies* (2013) stipulates that the median ratio should be between 0.90 and 1.10 and provides criteria for determining whether it can be concluded that the standard has not been achieved for a property group. Current, up-to-date valuation models, schedules, and tables help ensure that assessment levels meet required standards, and values can be statistically adjusted between full reappraisals or model recalibrations to ensure compliance.

#### 5.2.2 Assessment Uniformity

Assessment uniformity relates to the consistency and equity of values. Uniformity has several aspects, the first of which relates to consistency in assessment levels between property groups. It is important to ensure, for example, that residential and commercial properties are appraised at similar percentages of market value (regardless of the legal assessment ratios that may then be applied) and that residential assessment levels are consistent among neighborhoods, construction classes, age groups, and size groups. Consistency among property groups can be evaluated by comparing measures of central tendency calculated for each group.

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Various graphs can also be used for this purpose. The *Standard on Ratio Studies* (IAAO 2013) stipulates that the level of appraisal for each major group of properties should be within 5 percent of the overall level for the jurisdiction and provides criteria for determining whether it can be concluded from ratio data that the standard has not been met.

Another aspect of uniformity relates to the consistency of assessment levels within property groups. There are several such measures, the preeminent of which is the coefficient of dispersion (COD), which represents the average percentage deviation from the median ratio. The lower the COD, the more uniform the ratios within the property group. In addition, uniformity can be viewed spatially by plotting sales ratios on thematic maps.

The *Standard on Ratio Studies* (IAAO 2013) provides the following standards for the COD:

- Single-family homes and condominiums: CODs of 5 to 10 for newer or fairly similar residences and 5 to 15 for older or more heterogeneous areas
- Income-producing properties: CODs of 5 to 15 in larger, urban areas and 5 to 20 in other areas
- Vacant land: CODs of 5 to 20 in urban areas and 5 to 25 in rural or seasonal recreation areas
- Rural residential, seasonal, and manufactured homes: CODs of 5 to 20.

The entire appraisal staff must be aware of and monitor compliance with these standards and take corrective action where necessary. Poor uniformity within a property group is usually indicative of data problems or deficient valuation procedures or tables and cannot be corrected by application of market adjustment factors.

A final aspect of assessment uniformity relates to equity between low- and high-value properties. Although there are statistical subtleties that can bias evaluation of price-related uniformity, the IAAO literature (see particularly *Fundamentals of Mass Appraisal* [Gloudeans and Almy 2011, 385–392 and Appendix B] and the *Standard on Ratio Studies* [IAAO 2013]) provides guidance and relevant measures, namely, the price-related differential (PRD) and coefficient of price-related bias (PRB).

The PRD provides a simple gauge of price-related bias. The *Standard on Ratio Studies* (IAAO 2013) calls for PRDs of 0.98 to 1.03. PRDs below 0.98 tend to indicate assessment progressivity, the condition in which assessment ratios increase with price. PRDs above 1.03 tend to indicate assessment regressivity, in which assessment ratios decline with price.

The PRB indicates the percentage by which assessment ratios change whenever values double or are halved. For example, a PRB of  $-0.03$  would mean that assessment levels fall by 3 percent when value doubles. The *Standard on Ratio Studies* calls for PRBs of  $-0.05$  to  $+0.05$  and regards PRBs outside the range of  $-0.10$  to  $+0.10$  as unacceptable.

Because price is observable only for sale properties, there is no easy correction for the PRB, which is usually due to problems in valuation models and schedules. Sometimes other ratio study diagnostics will provide clues. For example, high ratios for lower construction classes may indicate that base rates should be reduced for those classes, which should in turn improve assessment ratios for low-value properties.

### 5.3 Holdout Samples

Holdout samples are validated sales that are not used in valuation but instead are used to test valuation performance. Holdout samples should be randomly selected with a view to obtaining an adequate sample while ensuring that the number of sales available for valuation will provide

reliable results for the range of properties that must be valued (holdout samples of 10 to 20 percent are typical). If too few sales are available, later sales can be validated and used for the same purpose. (For a method of using sales both to develop and test valuation models, see "The Use of Cross-validation in CAMA Modeling to Get the Most Out of Sales" (Jensen 2011).)

Since they were not used in valuation, holdout samples can provide more objective measures of valuation performance. This can be particularly important when values are not based on a common algorithm as cost and MRA models are. Manually assigning land values, for example, might produce sales ratio statistics that appear excellent but are not representative of broader performance for both sold and unsold properties. Comparable sales models that value a sold property using the sale of a property as a comparable for itself can produce quite different results when tested on a holdout group.

When a new valuation approach or technique is used for the first time, holdout sales can be helpful in validating use of the new method. In general, however, holdout samples are unnecessary as long as valuation models are based on common algorithms and schedules and the value assigned to a sale property is not a function of its price. Properly validated later sales can provide follow-up performance indicators without compromising the number of sales available for valuation.

### 5.4 Documentation

Valuation procedures and models should be documented. Appraisal staff should have at least a general understanding of how the models work and the various rates and adjustments made by the models. Cost manuals should be current and contain the rates and adjustments used to value improvements by the cost approach. Similarly, land values should be supported by tables of rates and adjustments for features such as water frontage, traffic, and other relevant influences. MRA models and other sales comparison algorithms should document final equations and should be reproducible, so that rerunning the model produces the same value. Schedules of rental rates, vacancy rates, expense ratios, income multipliers, and capitalization rates should document how values based on the income approach were derived.

It can be particularly helpful to prepare a manual, booklet, or report for each major property type that provides a narrative summary of the valuation approach and methodology and contains at least the more common rates and adjustments. Examples of how values were computed for sample properties can be particularly helpful. The manuals serve as a resource for current staff and can be helpful in training new staff or explaining the valuation process to other interested parties. Once prepared, the documents should be updated when valuation schedules change or methods and calculation procedures are revised.

### 5.5 Value Defense

The assessment office staff must have confidence in the appraisals and be able to explain and defend them. This confidence begins with application of reliable appraisal techniques, generation of appropriate valuation reports, and review of preliminary values. It may be helpful to have reports that list each parcel, its characteristics, and its calculated value. Parcels with unusual characteristics, extreme values, or extreme changes in values should be identified for subsequent individual review. Equally important, summary reports should show average values, value changes, and ratio study statistics for various strata of properties. These should be reviewed to ensure the overall consistency of values for various types of property and various locations. (See the *Uniform Standards of Professional Appraisal Practice*, Standards Rule 6-7, for reporting requirements for mass appraisals [The Appraisal Foundation 2012–2013].)

The staff should also be prepared to support individual valuations as required, preferably through comparable sales. At a minimum, staff should be able to produce a property record and explain the basic

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approach (cost, sales comparison, or income) used to estimate the value of the property. A property owner should never be told simply that “the computer” or “the system” produced the appraisal. In general, the staff should tailor the explanation to the taxpayer’s knowledge and expertise. Equations converted to tabular form can be used to explain the basis for valuation. In all cases, the assessment office staff should be able to produce sales or appraisals of similar properties in order to support (or at least explain) the valuation of the property in question. Comparable sales can be obtained from reports that list sales by such features as type of property, area, size, and age. Alternatively, interactive programs can be obtained or developed that identify and display the most comparable properties.

Assessors should notify property owners of their valuations in sufficient time for property owners to discuss their appraisals with the assessor and appeal the value if they choose to do so (see the *Standard on Public Relations* [IAAO 2011]). Statutes should provide for a formal appeals process beyond the assessor’s level (see the *Standard on Assessment Appeal* [IAAO 2016a]).

## 6. Managerial and Space Considerations

### 6.1 Overview

Mass appraisal requires staff, technical, and other resources. This section discusses certain key managerial and facilities considerations.

### 6.2 Staffing and Space

A successful in-house appraisal program requires trained staff and adequate facilities in which to work and meet with the public.

#### 6.2.1 Staffing

Staff should comprise persons skilled in general administration, supervision, appraisal, mapping, data processing, ~~and secretarial~~ and clerical functions. Typical staffing sizes and patterns for jurisdictions of various sizes are illustrated in *Fundamentals of Mass Appraisal* (Gloude-mans and Almy 2011, 22–25). Staffing needs can vary significantly based on factors such as frequency of reassessments.

#### 6.2.2 Space Considerations

The following minimum space standards are suggested for managerial, supervisory, and support staff:

- *Chief assessing officer (e.g., Assessor, director)*—a private office, enclosed by walls or windows extending to the ceiling, of 200 square feet (18 to 19 square meters)
- *Management position (e.g., chief deputy assessor, head of a division in a large jurisdiction, and so on)*—a private office, enclosed by walls or windows extending to the ceiling, of 170 square feet (15 to 16 square meters)
- *Supervisory position (head of a section, unit, or team of appraisers, mappers, analysts, technicians, or clerks)*—a private office or partitioned space of 150 square feet (14 square meters)
- *Appraisers and technical staff*—private offices or at least partitioned, quiet work areas of 50 to 100 square feet (5 to 10 square meters), not including aisle and file space, with a desk and chair
- *Support staff*—adequate workspace, open or partitioned, to promote intended work functions and access.

In addition, there should be adequate space for

- File storage and access
- Training and meetings

- Mapping and drafting
- Public service areas
- Printing and photocopy equipment
- Library facilities.

### 6.3 Data Processing Support

CAMAs require considerable data processing support.

#### 6.3.1 Hardware

The hardware should be powerful enough to support applications of the cost, sales comparison, and income approaches, as well as data maintenance and other routine operations. Data downloading, mass calculations, GIS applications, and Web support tend to be the most computer-intensive operations. Processing speed and efficiency requirements should be established before hardware acquisition. Computer equipment can be purchased, leased, rented, or shared with other jurisdictions. If the purchase option is chosen, the equipment should be easy to upgrade to take advantage of technological developments without purchasing an entirely new system.

#### 6.3.2 Software

CAMA software can be developed internally, adapted from software developed by other public agencies, or purchased (in whole or in part) from private vendors. (Inevitably there will be some tailoring needed to adapt externally developed software to the requirements of the user’s environment.) Each alternative has advantages and disadvantages. The software should be designed so that it can be easily modified; it should also be well documented, at both the appraiser/user and programmer levels.

CAMA software works in conjunction with various general-purpose software, typically including word processing, spreadsheet, statistical, and GIS programs. These programs and applications must be able to share data and work together cohesively.

Security measures should exist to prevent unauthorized use and to provide backup in the event of accidental loss or destruction of data.

#### 6.3.2.1 Custom Software

Custom software is designed to perform specific tasks, identified by the jurisdiction, and can be specifically tailored to the user’s requirements. The data screens and processing logic can often be customized to reflect actual or desired practices, and the prompts and help information can be tailored to reflect local terminology and convention.

After completing the purchase or license requirements, the jurisdiction should retain access to the program source code, so other programmers are able to modify the program to reflect changing requirements.

The major disadvantages of custom software are the time and expense of writing, testing, and updating. Particular attention must be paid to ensuring that user requirements are clearly conveyed to programmers and reflected in the end product, which should not be accepted until proper testing has been completed. Future modifications to programs, even those of a minor nature, can involve system administrator approval and can be a time-consuming, costly, and rigorous job. (See *Standard on Contracting for Assessment Services* [IAAO 2008].)

#### 6.3.2.2 Generic Software

An alternative to custom software is generic software, of which there are two major types: vertical software, which is written for a specific industry, and horizontal software, which is written for particular applications regardless of industry. Examples of the latter include database, spreadsheet, word processing, and statistical software. Although the actual instruction code within these programs cannot be modified, they typically permit the user to create a variety of customized

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templates, files, and documents that can be processed. These are often referred to as commercial off-the-shelf software (COTS) packages.

Generic vertical software usually requires modification to fit a jurisdiction's specific needs. In considering generic software, the assessor should determine

- System requirements
- The extent to which the software meets the agency's needs
- A timetable for implementation
- How modifications will be accomplished
- The level of vendor support
- Whether the source code can be obtained.

(See Standard on Contracting for Assessment Services [IAAO 2008].)

Horizontal generic software is more flexible, permitting the user to define file structures, relational table layout, input and output procedures, including form or format, and reports. Assessment offices with expertise in such software (which does not imply a knowledge of programming) can adapt it for

- Property (data) file maintenance
- Market research and analysis
- Valuation modeling and processing
- Many other aspects of assessment operations.

Horizontal generic software is inexpensive and flexible. However, it requires considerable customization to adapt it to local requirements. Provisions should be made for a sustainable process that is not overly dependent on a single person or resource.

### 6.4 Contracting for Appraisal Services

Reappraisal contracts can include mapping, data collection, data processing, and other services, as well as valuation. They offer the potential of acquiring professional skills and resources quickly. These skills and resources often are not available internally. Contracting for these services not only can allow the jurisdiction to maintain a modest staff and to budget for reappraisal on a periodic basis, but also makes the assessor less likely to develop in-house expertise. (See the *Standard on Contracting for Assessment Services* [IAAO 2008].)

### 6.5 Benefit-Cost Considerations

#### 6.5.1 Overview

The object of mass appraisal is to produce equitable valuations at low costs. Improvements in equity often require increased expenditures.

Benefit-cost analysis in mass appraisal involves two major issues: policy and administration.

#### 6.5.2 Policy Issues

An assessment jurisdiction requires a certain expenditure level simply to inventory, list, and value properties. Beyond that point, additional expenditures make possible rapid improvements in equity initially, but marginal improvements in equity diminish as expenditures increase. At a minimum, jurisdictions should budget to meet statutory requirements and the performance standards contained in the *Standard on Ratio Studies* (IAAO 2013) and summarized in Section 5.2.

#### 6.5.3 Administrative Issues

Maximizing equity per dollar of expenditure is the primary responsibility of assessment administration. To maximize productivity, the assessor and managerial staff must effectively plan, budget, organize, and control operations and provide leadership. This must be accomplished within the

office's legal, fiscal, economic, and social environment and constraints (Eckert, Gloudemans, and Kenyon 1990, chapter 16).

## 7. Reference Materials

Reference materials are needed in an assessment office to promote compliance with laws and regulations, uniformity in operations and procedures, and adherence to generally accepted assessment principles and practices.

### 7.1 Standards of Practice

The standards of practice may incorporate or be contained in laws, regulations, policy memoranda, procedural manuals, appraisal manuals and schedules, standard treatises on property appraisal and taxation (see section 6.2). Written standards of practice should address areas such as personal conduct, collection of property data, coding of information for data processing. The amount of detail will vary with the nature of the operation and the size of the office.

### 7.2 Professional Library

Every assessment office should have access to a comprehensive professional library that contains the information staff needs. A resource library may be digital or physical and should include the following:

- Property tax laws and regulations
- IAAO standards
- Historical resources
- Current periodicals
- Manuals and schedules
- Equipment manuals and software documentation.

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## **IAAO Code of Ethics and Standards of Professional Conduct**

*Adopted by the IAAO Executive Board, November 14, 2015.*

### **Preamble**

*As a matter of fundamental principle, IAAO members should adhere to the highest ethical standards. Public trust in our performance is the foundation of our credibility. Assessment professionals support IAAO because they trust us to be good stewards of their resources, to uphold rigorous standards of conduct and to serve as a catalyst for excellence in the assessment profession.*

*Nonprofit organizations must earn this trust every day. It is up to all members of the IAAO – Executive Board members, committee members, volunteers, staff and the general membership – to demonstrate their ongoing commitment to the core values of integrity, honesty, fairness, openness, respect and responsibility.*

*The purpose of this Code of Ethics and Standards of Professional Conduct is to establish guidelines for assessing officials and all members of the International Association of Assessing Officers (IAAO) and set forth standards by which to judge an IAAO member whose conduct is in question. Members shall conduct themselves in a professional manner that reflects favorably upon themselves, the organization, the appraisal profession, and the property tax system, and avoid any action that could discredit themselves or these entities.*

*Adherence to the IAAO Constitution, Bylaws, Procedural Rules and Code of Ethics is the minimum standard of expected behavior. We must do more, however, than simply obey the rules. We must embrace the spirit of the governing documents, and go beyond stated requirements, making sure that what we do is matched by what the membership perceives and expects. Transparency, openness and responsiveness to member's concerns must be integral to our behavior.*

### **Statement of Values**

*The Code of Ethics of the International Association of Assessing Officers is built on a foundation of widely shared values. These values include our:*

- *Commitment to the improvement of the property tax system worldwide;*
- *Accountability to the public good;*
- *Commitment to excellence in assessment administration beyond property tax law;*
- *Respect for the worth and dignity of all individuals;*
- *Promotion of inclusiveness, fairness and diversity;*
- *Obligation to organizational transparency, integrity, and honesty in all professional activities;*
- *Practice of responsible stewardship of resources;*
- *Dedication to excellence, and maintenance of the public trust;*



*The values are reflected in the following Code of Ethics of the International Association of Assessing Officers.*

## ***Definitions***

For definitions of terms relating to appraisal practice, refer to the definitions section of the Uniform Standards of Professional Appraisal Practice (USPAP).

## **Exceptions**

If compliance with or adherence to any Canon or Ethical Rule set forth in the IAAO *Code of Ethics and Standards of Professional Conduct* would constitute a violation of the law of any jurisdiction, such Canon or Ethical Rule shall be void and of no force or effect in such jurisdiction.

In stating each individual Canon or Ethical Rule, no attempt has been made to enumerate all of the various circumstances and conditions that will excuse an IAAO member from strict observance; however, the IAAO recognizes that illness, acts of God, and various other events beyond the control of an IAAO member may make it inequitable to insist upon a strict observance in a particular case. When an IAAO member, in the exercise of reasonable care, commits a violation due to illness, acts of God, or other circumstances beyond his or her control, it is expected that the Ethics Committee will act in a manner that will avoid an inequitable result.

Inasmuch as there are other remedies under applicable federal, state/provincial, and local laws, nothing in this *Code* shall apply to the conduct of a member toward his or her employees and other workers in the member's workplace, including, but not limited to, employment discrimination and harassment.

## **Canon 1: (Professional Duties)**

**Members shall conduct their professional duties and any activities as a member of IAAO in a manner that reflects credit upon themselves, their profession and the organization.**

### **Ethical Rules**

ER 1-1 It is unethical for members to conduct their professional duties in a manner that could reasonably be expected to create the appearance of impropriety.

ER 1-2 It is unethical for members to accept an appraisal or assessment-related assignment which they are not qualified to perform.

ER 1-3 It is unethical for members to knowingly violate applicable laws and regulations in the performance of their duties or to apply such laws and regulations in an inequitable manner

ER 1-4 It is unethical for members to refuse (by intent or omission) to make available all public records in their custody for public review, unless access to such records is specifically limited or





prohibited by law, or the information has been obtained on a confidential basis and the law permits such information to be treated confidentially. Assessing officers must make every reasonable effort to inform the public about their rights and responsibilities under the law and the property tax system.

ER 1-5 It is unethical for members to refuse to cooperate with public officials to improve the efficiency and effectiveness of the property tax in particular and public administration in general.

ER 1-6 It is unethical to engage in misconduct of any kind that leads to a conviction for a crime involving fraud, dishonesty, false statements, or moral turpitude.

ER 1-7 It is unethical to perform any appraisal, assessment, or consulting service that is not in compliance with the IAAO governing documents or the *Uniform Standards of Professional Appraisal Practice*.

## **Canon 2: (Truthfulness)**

**Members shall not make public statements (written or oral) that are untrue or tend to mislead or deceive the public in the course of performing their professional duties.**

### **Ethical Rules**

ER 2-1 It is unethical to provide inaccurate, untruthful, or misleading information to solicit assessment-related assignments or to use misleading claims or promises of relief that could lead to loss of confidence in appraisal or assessment professionals by the public.

ER 2-2 It is unethical to claim an IAAO professional designation unless authorized, whether the claim is verbal or written, or to claim qualifications that are not factual or may be misleading.

ER 2-3 It is unethical to fail to recognize the source(s) of any materials quoted or cited in writings or speeches.

## **Canon 3: (Conflict of Interest)**

**Members shall not engage in any activities in which they have, or may reasonably be considered by the public as having, a conflict of interest.**

### **Ethical Rules**

ER 3-1 It is unethical for members to accept an appraisal or assessment-related assignment that can reasonably be construed as being in conflict with their responsibility to their jurisdiction, employer, or client, or in which they have an unrevealed personal interest or bias.



ER 3-2 It is unethical to accept an assignment or responsibility in which there is a personal interest without full disclosure of that interest.

ER 3-3 It is unethical to accept an assignment or participate in an activity where a conflict of interest exists and could be perceived as a bias, or impair objectivity.

## **Canon 4: (Support of IAAO)**

**Members shall abide by and support the provisions of the IAAO Constitution, Bylaws, and Procedural Rules.**

### **Ethical Rules**

ER 4-1 It is unethical for an IAAO member to:

(a) Knowingly to make false statements or submit misleading information when completing a membership application, or to refrain from promptly submitting any significant information in the possession of such member when requested to do so as part of an IAAO membership application.

(b) Knowingly to submit misleading information to the duly authorized Ethics Committee or subcommittee; to refrain from promptly submitting any significant information in the possession of the member as requested by the committee or subcommittee; to refuse to appear for a personal interview or participate in an interview conducted by telephone as scheduled by the committee or subcommittee; or to refuse to answer promptly all relevant questions concerning an appraisal or assessment-related assignment or related testimony being investigated by the committee or subcommittee.

(c) Fail or refuse to submit promptly to an authorized IAAO committee a written appraisal report or file memorandum containing data, reasoning, and conclusions, or to fail or refuse to permit an authorized committee to review an appraisal report, assessment-related assignment, or file memorandum when requested to do so by a person or persons authorized to review such material.

(d) Fail or refuse to submit promptly any significant information in the possession of a member concerning the status of litigation related to an ethics matter when requested to do so by the chair of the Ethics Committee; or knowingly to submit misleading information to the chair of the Ethics Committee concerning the status of litigation.

ER 4-2 It is unethical to fail to comply with the terms of a summons issued by the Ethics Committee.



ER 4-3 It is unethical to refuse to cooperate fully with the IAAO Executive Board, Ethics Committee and the staff of IAAO in all matters related to the enforcement of this *Code*, as set forth in the Ethics Committee's Rules and Procedures, as amended from time to time.

ER 4-4 It is unethical to violate the IAAO Constitution, Bylaws, or Procedural Rules.

ER 4-5 Any member who has submitted misleading information to the Ethics Committee or does not comply with the terms of these Canons may be subject to ethical charges by the Committee.

## **Canon 5: (Professional Duties)**

**Members shall comply with the requirements of the *Uniform Standards of Professional Appraisal Practice*.**

### **Ethical Rules**

ER 5-1 It is unethical to knowingly fail to observe the requirements of the *Uniform Standards of Professional Appraisal Practice*. Members residing outside the United States must follow appraisal standards that govern appraisers within their jurisdiction.

# UNIFORM STANDARDS OF PROFESSIONAL APPRAISAL PRACTICE 2018-2019 EDITION

APPRAISAL STANDARDS BOARD

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THE APPRAISAL FOUNDATION

*Authorized by Congress as the Source of Appraisal Standards and Appraiser Qualifications*

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## **Standard 5: MASS APPRAISAL, DEVELOPMENT**

**In developing a mass appraisal, an appraiser must be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce and communicate credible mass appraisals.**

Comment: STANDARD 5 applies to all mass appraisals of real or personal property regardless of the purpose or use of such appraisals.<sup>53</sup> STANDARD 5 is directed toward the substantive aspects of developing credible analyses, opinions, and conclusions in the mass appraisal of properties. The reporting and jurisdictional exceptions applicable to public mass appraisals prepared for ad valorem taxation do not apply to mass appraisals prepared for other purposes.

A mass appraisal includes:

1. Identifying properties to be appraised;
2. Defining market area of consistent behavior that applies to properties
3. Identifying characteristics (supply and demand) that affect the creation of value in that market area;
4. Developing a model structure that reflects the relationship among the characteristics affecting value in the market area;
5. Calibrating the model structure to determine the contribution of the individual characteristics affecting value;
6. Applying the conclusions reflected in the model to the characteristics of the property(ies) being appraised; and
7. Reviewing the mass appraisal results.

The JURISDICTIONAL EXCEPTION RULE may apply to several sections of STANDARD 5 because ad valorem tax administration is subject to various state, county, and municipal laws.

### **STANDARDS RULE 5-1**

**In developing a mass appraisal, an appraiser must:**

- (a) Be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce a credible mass appraisal;**

Comment: Mass appraisal provides for a systematic approach and uniform application of appraisal methods and techniques to obtain estimates of value that allow for statistical review and analysis of results.

This requirement recognizes that the principle of change continues to affect the manner in which appraisers perform mass appraisals. Changes and developments in the real property and personal property fields have a substantial impact on the appraisal profession.

To keep abreast of these changes and developments, the appraisal profession is constantly reviewing and revising appraisal methods and techniques and devising new methods and techniques to meet new circumstances. For this reason, it is not sufficient for appraisers to simply maintain the skills and the knowledge they possess when they become appraisers. Each appraiser must continuously improve his or her skills to remain proficient in mass appraisal.

- (b) Not commit a substantial error of omission or commission that significantly affects a mass appraisal; and**

<sup>53</sup> See Advisory Opinion 32, *Ad Valorem Property Tax Appraisal and Mass Appraisal Assignments*

Comment: An appraiser must use sufficient care to avoid errors that would significantly affect his or her opinions and conclusions. Diligence is required to identify and analyze the factors, conditions, data, and other information that would have a significant effect on the credibility of the assignment results.

**(c) Not render a mass appraisal in a careless or negligent manner.**

Comment: Perfection is impossible to attain, and competence does not require perfection. However, an appraiser must not render appraisal services in a careless or negligent manner. This Standards Rule requires an appraiser to use due diligence and due care.

**STANDARDS RULE 5-2**

**In developing a mass appraisal, an appraiser must:**

**(a) Identify the client and other intended users;<sup>54</sup>**

Comment: It is the appraiser's responsibility to identify the client and other intended users. In a valorem mass appraisal, the assessor, or party responsible for certification of the assessment or tax roll is required to apply the relevant law or statute and identify the client, and other intended user (if any).

**(b) Identify the intended use of the appraisal;<sup>55</sup>**

Comment: An appraiser must not allow the intended use of an assignment or a client's objectives to cause the assignment results to be biased.

**(c) Identify the type and definition of value, and, if the value opinion to be developed is market value, ascertain whether the value is to be the most probable price:**

- (i) In terms of cash; or**
- (ii) In terms of financial arrangements equivalent to cash; or**
- (iii) In such other terms as may be precisely defined; and**
- (iv) If the opinion of value is based on non-market financing with unusual conditions or incentives, the terms of such financing must be clearly identified and the appraiser's opinion of their contributions to or negative influence on value must be developed by analysis of relevant market data;**

**(d) Identify the effective date of the appraisal;<sup>56</sup>**

**(e) Identify the characteristics of the properties that are relevant to the type and definition of value and intended use,<sup>57</sup> including:**

- (i) The group with which a property is identified according to similar market influence;**
- (ii) The appropriate market area and time frame relative to the property being valued; and**
- (iii) Their location and physical, legal, and economic characteristics;**

<sup>54</sup> See Advisory Opinion 36, *Identification and Disclosure of Client, Intended Use, and Intended Users*

<sup>55</sup> See Advisory Opinion 36, *Identification and Disclosure of Client, Intended Use, and Intended Users*

<sup>56</sup> See Advisory Opinion 34, *Retrospective and Prospective Value Opinions*

<sup>57</sup> See Advisory Opinion 23, *Identifying the Relevant Characteristics of the Subject Property of a Real Property Appraisal Assignment, if applicable*

Comment: The properties must be identified in general terms, and each individual property in the universe must be identified, with the information on its identify stored or referenced in its property record.

When appraising proposed improvements, an appraiser must examine and have available for future examination, plans, specifications, or other documentation sufficient to identify the extent and character of the proposed improvement.<sup>58</sup>

Ordinary, proposed improvements are not appraised for ad valorem tax purposes. Appraisers, however, are sometimes asked to provide opinions of value of proposed improvements so that developers can estimate future property tax burdens. Sometimes units in condominiums and planned unit developments are sold with an interest in un-built community property, the pro rata value of which, if any, must be considered in the analysis of sales data.

**(f) Identify the characteristics of the market that are relevant to the purpose and intended use of the mass appraisal including:**

- (i) Location of the market area;**
- (ii) Physical, legal, and economic attributes;**
- (iii) Time frame of market activity; and**
- (iv) Property interests reflected in the market;**

**(g) In appraising real property or personal property:**

- (i) Identify the appropriate market area and time frame relative to the property being valued;**
- (ii) When the subject is real property, identify and consider any personal property, trade fixtures, or intangibles that are not real property but are included in the appraisal;**
- (iii) When the subject is personal property, identify and consider any real property or intangibles that are not personal property but are included in the appraisal;**
- (iv) Identify known easements, restrictions, encumbrances, leases, reservations, covenants, contracts, declarations, special assessments, ordinances, of other items of similar nature; and**
- (v) Identify and analyze whether an appraised fractional interest, physical segment or partial holding contributes pro rata to the value of the whole;**

Comment: The above requirements do not obligate the appraiser to value the whole when the subject of the appraisal is a fractional interest, physical segment, or a partial holding. However, if the value of the whole is not identified, the appraisal must clearly reflect that the value of the property being appraised cannot be used to develop the value opinion of the whole by mathematical extension.

**(h) Analyze the relevant economic conditions at the time of valuation, including market acceptability of the property and supply, demand, scarcity, or rarity;**

**(i) Identify any extraordinary assumptions and any hypothetical conditions necessary in the assignment; and**

<sup>58</sup> See Advisory Opinion 17, *Appraisals of Real Property with Proposed Improvements, if applicable*

Comment: An extraordinary assumption may be used in an assignment only if;

- It is required to properly develop credible opinions and conclusions;
- The appraiser has a reasonable basis for the extraordinary assumption;
- Use of the extraordinary assumption results in a credible analysis; and
- The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumption.

A hypothetical condition may be used in an assignment only if:

- Use of the hypothetical condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison
- Use of the hypothetical condition results in a credible analysis; and
- The appraiser complies with the disclosure requirements set forth in the USPAP for hypothetical conditions.

**(j) Determine the scope of work necessary to produce credible assignment results in accordance with the SCOPE OF WORK RULE.<sup>59</sup>**

**STANDARDS RULE 5-3**

**When necessary for credible assignment results, an appraiser must:**

**(a) In appraising real property, identify and analyze the affect on use and value of the following factors: existing land use regulations, reasonably probable modifications of such regulations, economic supply and demand, the physical adaptability of the real estate, neighborhood trends, and highest and best use of the real state; and**

Comment: This requirement sets forth a list of factors that affect use and value. In considering neighborhood trends, an appraiser must avoid stereotyped or biased assumptions relating to race, age, color, gender, or national origin or an assumption that race, ethnic, or religious homogeneity is necessary to maximize value in a neighborhood. Further, an appraiser must avoid making an unsupported assumption or premise about neighborhood decline, effective age, and remaining life. In considering highest and best use, an appraiser must develop the concept to the extent required for a proper solution to the appraisal problem.

**(b) In appraising personal property, identify and analyze the effects on use and value of industry trends, value-in-use, and trade level of personal property. Where applicable, analyze the current use and alternative uses to encompass what is profitable, legal, and physically possible, as relevant to the type and definition of value and intended use of the appraisal. Personal property has several measurable marketplaces; therefore, the appraiser must define and analyze the appropriate market consistent with the type and definition of value.**

Comment: The appraiser must recognize that there are distinct levels of trade and each may generate its own data. For example, a property may have a different value at a wholesale level of trade, a retail level of trade, or under various auction conditions. Therefore, the appraiser must analyze the subject property within the correct market context.

<sup>59</sup> See advisory Opinion 28, *Scope of Work Decision, Performance, and Disclosure*, and Advisory Opinion 29, *An Acceptable Scope of Work*



## **STANDARDS RULES 5-4**

**In developing a mass appraisal, an appraiser must:**

- (a) Identify the appropriate procedures and market information required to perform the appraisal, including all physical, functional, and external market factors as they may affect the appraisal;**

Comment: Such efforts customarily include the development of standardized data collection forms, procedures, and training materials that are used uniformly on the universe or properties under consideration.

- (b) Employ recognized techniques for specifying property valuation models; and**

Comment: The formal development of a model in a statement or equation is called model specification. Mass appraisers must develop mathematical models that, with reasonable accuracy, represent the relationship between property value and supply and demand factors, as represented by quantitative and qualitative property characteristics. The models may be specified using the cost, sales comparison, or income approaches to value. The specification format may be tabular, mathematical, linear, nonlinear, or any other structure suitable for representing the observable property characteristics. Appropriate approaches must be used in appraising a class of properties. The concept of recognized techniques applies to both real and personal property valuation models.

- (c) Employ recognized techniques for calibrating mass appraisal models.**

Comment: Calibration refers to the process of analyzing sets of property and market data to determine the specific parameters of a model. The table entries in a cost manual are examples of calibrated parameters, as well as the coefficients in a linear or nonlinear model. Models must be calibrated using recognized techniques, including, but not limited to, multiple linear regression, nonlinear regression, and adaptive estimation.

## **STANDARDS RULE 5-5**

**In developing a mass appraisal, when necessary for credible assignment results, an appraiser must:**

- (a) Collect, verify, and analyze such data as are necessary and appropriate to develop:**

- (i) The cost new of the improvements;**
- (ii) Depreciation;**
- (iii) Value of the land by sales of comparable properties;**
- (iv) Value of property by sales of comparable properties;**
- (v) Value by capitalization of income or potential earnings (i.e., rentals, expenses, interest rates, capitalization rates, and vacancy data);**

Comment: This Standard Rule requires appraisers engaged in mass appraisal to take reasonable steps to ensure that the quantity and quality of the factual data that are collected are sufficient to produce credible appraisals. For example, in real property, where applicable and feasible, systems for routinely collecting and maintaining ownership, geographic, sales, income and expense, cost, and property characteristics data must be established. Geographic data must be contained in as complete a set of cadastral maps as possible, compiled according to current standards of detail and accuracy. Sales data must be collected, confirmed, screened, adjusted, and filed according to current standards of practice. The sales file must contain, for each sale, property characteristics data that are contemporaneous with the date of sale. Property characteristics data must be appropriate and relevant to the mass appraisal models being used. The property characteristics data file must contain data contemporaneous with the date of appraisal including historical data on sales, where appropriate and available. The data collection program must incorporate a

quality control program, including checks and audits of the data to ensure current and consistent records.

- (b) Base estimates of capitalization rates and projections of future rental rates and/or potential earnings capacity, expenses, interest rates, and vacancy rates on reasonable and appropriate evidence;<sup>60</sup>**

Comment: This requirement calls for an appraiser, in developing income and expense statements and cash flow projections, to weigh historical information and trends, current market factors affecting such trends, and reasonably anticipated events, such as competition from developments either planned or under construction.

- (c) Identify and, as applicable, analyze terms and conditions of any available leases; and**

- (d) Identify the need for and extent of any physical inspection.<sup>61</sup>**

#### **STANDARDS RULE 5-6**

**When necessary for credible assignment results in applying a calibrated mass appraisal model an appraiser must:**

- (a) Value improved parcels by recognized methods or techniques based on the cost approach, the sales comparison approach, and income approach;**
- (b) Value sites by recognized methods or techniques; such techniques include but are not limited to the sale comparison approach, allocation method, abstraction method, capitalization of ground rent, and land residual technique;**
- (c) When developing the value of a leased fee estate or a leasehold estate, analyze the effect on value, if any, of the terms and conditions of the lease;**

Comment: In ad valorem taxation the appraiser may be required by rules or law to appraise the property as if in fee simple, as though unencumbered by existing leases. In such cases, market rent would be used in the appraisal, ignoring the effect of the individual, actual contract rents.

- (d) Analyze the effect on value, if any, of the assemblage of the various parcels, divided interests, or component parts of a property; the value of the whole must be developed by adding together the individual values of the various parcels, divided interests, or component parts; and**

Comment: When the value of the whole has been established and the appraiser seeks to value a part, the value of any such part must be tested by reference to appropriate market data and supported by an appropriate analysis of such data.

- (e) When analyzing anticipated public or private improvements, located on or off the site, analyze the effect on value, if any, of such anticipated improvements to the extent they are reflected in market actions.**

<sup>60</sup> See Advisory Opinion 33, *Discounted Cash Flow Analysis*

<sup>61</sup> See Advisory Opinion 2, *Inspection of Subject Property*

**STANDARDS RULE 5-7**

**In reconciling a mass appraisal, an appraiser must:**

- (a) Reconcile the quality and quantity of data available and analyzed within the approaches used and the applicability and relevance of the approaches, methods and techniques used; and**
- (b) Employ recognized mass appraisal testing procedures and techniques to ensure that standards of accuracy are maintained**

Comment: It is implicit in mass appraisal that, even when properly specified and calibrated mass appraisal models are used, some individual value conclusions will not meet standards or reasonableness, consistency, and accuracy. However, appraisers engaged in mass appraisal have a professional responsibility to ensure that, on an overall basis, models produce value conclusions that meet attainable standards of accuracy. This responsibility requires appraisers to evaluate the performance of models, using techniques that may include but are not limited to, goodness-of-fit statistics, and model performance statistics such as appraisal-to-sale ratio studies, evaluation of holdout samples, or analysis of residuals

## Standard 6: MASS APPRAISAL, REPORTING

**In reporting the results of a mass appraisal, an appraiser must communicate each analysis, opinion, and conclusion in a manner that is not misleading.**

Comment: STANDARD 6 addresses the content and level of information required in a report that communicates the results of a mass appraisal.

STANDARD 6 does not dictate the form, format, or style of mass appraisal reports. The form, format, and style of a report are functions of the needs of intended users and appraisers. The substantive content of a report determines its compliance.

### **STANDARDS RULE 6-1**

**Each written report of a mass appraisal must:**

- (a) Clearly and accurately set forth the appraisal in a manner that will not be misleading;**
- (b) Contain sufficient information to enable the intended users of the appraisal to understand the report properly; and**

Comment: Documentation for a mass appraisal for ad valorem taxation may be in the form of (1) property records, (2) sales ratios and other statistical studies, (3) appraisal manuals and documentation, (4) market studies, (5) model building documentation, (6) regulations, (7) statutes, and (8) other acceptable forms.

- (c) Clearly and accurately disclose all assumptions, extraordinary assumptions, hypothetical conditions, and limiting conditions used in the assignment.**

Comment: The report must clearly and conspicuously:

- State all extraordinary assumptions and hypothetical conditions; and
- State that their use might have affected the assignment results

### **STANDARDS RULES 6-2**

**Each written report of a mass appraisal must:**

- (a) State the identity of the client, unless the client has specifically requested otherwise; state the identity of any intended users by name or type; <sup>62</sup>**

Comment: An appraiser must use care when identifying the client to avoid violations of the Confidentiality section of the ETHICS RULE. If a client requests that the client's identity be withheld from the report, the appraiser may comply with this request. In these instances, the appraiser must document the identity of the client in the work file and must state in the report that the identity of the client has been withheld at the client's request.

- (b) State the intended use of the appraisal; <sup>63</sup>**
- (c) Disclose any assumptions or limiting conditions that result in the deviation from recognized methods and techniques or that affect analysis, opinions, and conclusions;**

<sup>62</sup> See Advisory Opinion 36, *Identification and Discloser of Client, Intended Use, and Intended Users*.

<sup>63</sup> See Advisory Opinion 36, *Identification and Discloser of Client, Intended Use, and Intended Users*.

**(d) State the effective date of the appraisal and the date of the report;**

Comment: In ad valorem taxation the effective date of the appraisal may be prescribed by law. If no effective date is prescribed by law, the effective date of the appraisal, if not stated, is presumed to be contemporaneous with the data and appraisal conclusions.

The effective date of the appraisal establishes the context for the value opinion, while the date of the reports indicates whether the perspective of the appraiser on the market and property as of the effective date of the appraisal was prospective, current, or retrospective.<sup>64</sup>

**(e) State the type and definition of value and cite the source of the definition;**

Comment: Stating the type and definition of value also requires any comments needed to clearly indicate to intended users how the definition is being applied.<sup>65</sup>

When reporting an opinion of market value, state whether the opinion of value is:

- In terms of cash or of financing terms equivalent to cash; or
- Based on non-market financing with unusual conditions or incentives.

When an opinion of market value is not in terms of cash or based on financing terms equivalent to cash, summarize the terms of such financing and explain their contributions to or negative influence on value.

**(f) State the properties appraised including the property rights;**

Comment: The report documents the sources for location, describing and listing the property. When applicable, include references to legal descriptions, addresses, parcel identifiers, photos, and building sketches. In mass appraisal this information is often included in property records. When the property rights to be appraised are specified in a statute or court ruling, the law must be referenced.

**(g) Summarize the scope of work used to develop the appraisal;<sup>66</sup> exclusion of the sales comparison approach, cost approach, or income approach must be explained;**

Comment: Because intended users' reliance on an appraisal may be affected by the scope of work, the report must enable them to be properly informed and not misled. Sufficient information includes disclosure of research and analyses performed and might also include disclosure of research and analyses not performed.

When any portion of the work involves significant mass appraisal assistance, the appraiser must describe the extent of that assistance. The signing appraiser must also state the name(s) of those providing the significant mass appraisal assistance in the certification, in accordance with Standard Rule 6-3.<sup>67</sup>

64 See Advisory Opinion 34, *Retrospective and Prospective Value Opinions*.

65 See Advisory Opinion 34, *Retrospective and Prospective Value Opinions*.

66 See Advisory Opinion 28, *Scope of Work Decision, Performance and Disclosure* and Advisory Opinion 29, *An Acceptable Scope of Work*.

67 See Advisory Opinion 31, *Assignments Involving More than One Appraiser*.

- (h) Summarize and support the model specification(s) considered, data requirements, and the model(s) chosen;**

Comment: The appraiser must provide sufficient information to enable the client and intended users to have confidence that the process and procedures used conform to accepted methods and result in credible value conclusions. In the case of mass appraisal for as valorem taxation, stability and accuracy are important to the credibility of value opinions. The report must include a summary of the rationale for each model, the calibration techniques to be used, and performance measures to be used.

- (i) Summarize the procedure for collecting, validating, and reporting data;**

Comment: The report must summarize the sources of data and the data collection and validation processes. References to detailed data collection manuals or electronic records must be made, as appropriate, including where they may be found for inspection.

- (j) Summarize calibration methods considered and chosen, including the mathematical form of the final model(s); summarize how value conclusions were reviewed; and, if necessary, state the availability and location of individual value conclusions;**

- (k) When an opinion of highest and best use, or the appropriate market or market level was developed, summarize how that opinion was determined;**

Comment: The mass appraisal report must reference case law, statute, or public policy that describes highest and best use requirements. When actual use is the requirement, the report must discuss how use-value opinions were developed. The appraiser's reasoning in support of the highest and best use opinion must be provided in the depth and detail required by its significance to the appraisal.

- (l) Identify the appraisal performance test used and the performance measures attained;**

- (m) Summarize the reconciliation performed, in accordance with Standards Rule 5-7; and**

- (n) Include a signed certification in accordance with Standards Rule 6-3.**

### **STANDARDS RULE 6-3**

**Each written mass appraisal report must contain a signed certification that is similar in content to the following form:**

**I certify that, to the best of my knowledge and belief:**

- **The statements of fact contained in this report are true and correct**
- **The reported analysis, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analysis, opinions, and conclusions.**
- **I have no (or the specified) present or prospective interest in the property that is the subject of this report, and I have no (or the specified) personal interest with respect to the parties involved.**
- **I have performed no (or the specified) services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.**
- **I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.**
- **My engagement in this assignment was not contingent upon developing or reporting predetermined results.**

- **My compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of his appraisal.**
- **My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the *Uniform Standards of Professional Appraisal Practice*.**
- **I have (or have not) made a personal inspection of the properties that are the subject of this report. (If more than one person signs the report, this certification must clearly specify which individuals did and which individuals did not make a personal inspection of the appraised property.)<sup>68</sup>**
- **No one provided significant mass appraisal assistance to the person signing this certification. (If there are exceptions, the name of each individual providing significant mass appraisal assistance must be stated.)**

Comment: The above certification is not intended to disturb an elected or appointed assessor's work plans or oaths of office. A signed certification is an integral part of the appraisal report. An appraiser, who signs any part of the mass appraisal report, including a letter of transmittal, must also sign this certification.

In an assignment that includes only assignment results developed by the real property appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all elements of the certification, for the assignment results, and for the contents of the appraisal report. In an assignment that includes personal property assignment results not developed by the real property appraiser(s), any real property appraiser(s) who signs a certification accepts full responsibility for the real property elements of the certification, for the real property assignment results, and for the real property contents of the appraisal report.

In an assignment that includes only assignment results developed by the personal property appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all elements of the certification, for the assignment results, and for the contents of the appraisal report. In an assignment that includes real property assignment results not developed by the personal property appraiser(s), any personal property appraiser(s) who signs a certification accepts full responsibility for the personal property elements of the certification, for the personal property assignment results, and for the personal property contents of the appraisal report.

When a signing appraiser(s) has relied on work done by appraisers and others who do not sign the certification, the signing appraiser is responsible for the decision to rely on their work. The signing appraiser(s) is required to have a reasonable basis for believing that those individuals performing the work are competent. The signing appraiser(s) also must have no reason to doubt that the work of those individuals is credible.

The names of individuals providing significant mass appraisal assistance who do not sign a certification must be stated in the certification. It is not required that the description of their assistance be contained in the certification, but disclosure of their assistance is required in accordance with the Standards Rule 6-2(g).<sup>69</sup>

<sup>68</sup> See Advisory Opinion 2, *Inspection of Subject Property*.

<sup>69</sup> See Advisory Opinion 31, *Assignments Involving More than One Appraiser*.

## NEW CONSTRUCTION PERCENTAGE OF COMPLETION GUIDE

This guide is to be used in estimating the percentage of completion of both residential and commercial buildings under construction.

### PERCENT COMPLETION GUIDE

<u>CONSTRUCTION TYPE</u>		<u>PER ITEM</u>		<u>ACCUMULATIVE</u>
<b>Foundation</b>		7%		7%
<b>Frame</b>		21%		28%
*Floor	6%			
*Walls	8%			
*Roof	7%			
<b>Exterior Windows &amp; Doors</b>		2%		30%
<b>Roof Cover</b>		4%		34%
<b>Plumbing (rough-in)</b>		5%		39%
<b>Electrical/Mechanical (rough-in)</b>		11%		50%
<b>Insulation</b>		1%		51%
<b>Exterior</b>		7%		58%
<b>Interior Wall/Ceiling</b>		10%		68%
<b>Built-in Cabinets/Trim/Doors</b>		13%		81%
<b>Plumbing - Fixtures</b>		6%		87%
<b>Floor Covers</b>		4%		91%
<b>Built-in Appliances</b>		3%		94%
<b>Light Fixtures &amp; finish Hardware</b>		2%		96%
<b>Painting &amp; Decorating</b>		4%		100%
		Total	100%	



**WEIGHTS AND MEASURES**

Tables of Weights and Measures and Other Information That May Be Helpful to the Assessor/Appraiser.

<b>Metric Measure</b>		
Millimeter	=	0.001 meter
Centimeter	=	0.01 meter
Decimeter	=	0.1 meter
Meter	=	39.3685 inches
Kilometer	=	1000 meters
Kilometer	=	.062137 miles
Meter	=	1.0935 yards
Meter	=	3.2807 feet
1 Foot	=	0.30480 meter
1 Foot	=	3.04 centimeters
1 Inch	=	2.54 centimeters
<b>Linear Measure</b>		
1 Foot	=	12 inches
1 Yard	=	3 feet-36 inches
1 Rod	=	5½ yards-16½ feet
1 Furlong	=	40 rods-220 yards-660 feet
1 Mile	=	8 furlongs-320 rods-1,760 yards-5,280 feet
<b>Surveyor's Linear Measure</b>		
1 Link	=	7.92 inches
1 Rod	=	25 links
1 Chain	=	4 rods-100 links-66 feet
1 Furlong	=	10 chains
1 Mile	=	8 furlong-80 chains
<b>Square Measure</b>		
1 Square Foot	=	144 square inches
1 Square Yard	=	9 square feet-1,296 square inches
1 Square Rod	=	1 pole/perch-30¼ square yards-272¼ square feet
1 Rood	=	40 square rods
1 Acre	=	160 square rods-4,840 square yards-43,560 square ft
1 Square Mile	=	640 acres
<b>Surveyor's Square Measure</b>		
1 Square Rod	=	625 square links
1 Square Chain	=	16 square rods
1 Acre	=	10 square chains
1 Square Mile	=	640 acres
<b>Cubic Measure</b>		
1 Cubic Foot	=	1,728 cubic inches-7,481 gallons
1 Cubic Yard	=	27 cubic feet
1 Cord Foot	=	16 cubic feet
1 Cord of Wood	=	8 cord-128 cubic feet
1 Perch of Masonry	=	24¾ cubic feet
1 Bushel	=	1.2445 cubic feet

# Schedule of Values

# Harnett County 2022

Angles And Arcs Measure		
1 Minute	=	60 seconds
1 Degree	=	60 minutes
1 Right Angle	=	90 degrees-1 quadrant
1 Circumference	=	360 degrees-4 quadrants
Board Measure		
1 Board Foot	=	Length in feet x width in feet x thickness in inches

Measurement In General Use		
1 Link	=	7.92 inches
1 foot	=	12 inches
1 yard	=	3 feet or 36 inches
1 rod	=	16½ feet, 5½ yards or 25 links
1 surveyor's chain	=	66 feet, or 4 rods, or 100 links
1 furlong	=	660 feet, or 40 rods
1 mile	=	8 furlongs, 320 rods, 80 chains, or 5,280 feet
1 square rod	=	272¼ square feet or 30¼ square yards
1 acre contains	=	43,560 square feet
1 acre contains	=	160 square rods
1 span	=	9 inches
1 hand	=	(horse measurement) 4 inches
1 knot	=	(nautical) 6,080.27 feet
1 fathom	=	(nautical) 6 feet
1 stone	=	14 pounds
1 square acre	=	Approximately 208.7 feet on each side
1 acre	=	Approx 8 rods by 20 rods, or any two combinations of rods whose product is 160

## SIMPLE FORMULA CONVERTING SQUARE FEET TO ACRES

Multiply by 23 and point off 6 places (This method is not exact but is useful for rough calculations)

Example: 1500 feet x 2050 feet = 3,075,000 square feet x 23 = 70.73 acres

## BOARD MEASURE

Multiply thickness in inches by width in inches, divide product by 12 and multiply result by the length in feet. The result is board measure content.

Conversion factors for converting lineal feet of lumber into board feet.

Example: 50 –2 inches x 10 inches 20 feet long

50 x 20 feet = 1000 lineal feet

2 inches x 10 inches = 20 square inches divided by 12 =

1.667 board feet x 1000 lineal feet equals 1,667 board feet

**Table For The Conversion Of Lineal Feet Into Board Feet**

2 inches x 4 inches	(1 lineal foot)	.667 board feet
3 inches x 4 inches	(1 lineal foot)	1.000 board feet
2 inches x 6 inches	(1 lineal foot)	1.000 board feet
2 inches x 8 inches	(1 lineal foot)	1.333 board feet
2 inches x 10 inches	(1 lineal foot)	1.667 board feet
2 inches x 12 inches	(1 lineal foot)	2.000 board feet
2 inches x 14 inches	(1 lineal foot)	2.333 board feet
2 inches x 16 inches	(1 lineal foot)	2.667 board feet
3 inches x 6 inches	(1 lineal foot)	1.500 board feet
4 inches x 6 inches	(1 lineal foot)	2.000 board feet
4 inches x 8 inches	(1 lineal foot)	2.667 board feet
4 inches x 10 inches	(1 lineal foot)	3.333 board feet
4 inches x 12 inches	(1 lineal foot)	4.000 board feet
6 inches x 6 inches	(1 lineal foot)	3.000 board feet
6 inches x 8 inches	(1 lineal foot)	4.000 board feet
10 inches x 12 inches	(1 lineal foot)	10.000 board feet
12 inches x 12 inches	(1 lineal foot)	12.000 board feet

**PRINCIPLES**

PLANE FIGURE – A plane surface bounded by either straight or curved lines and having no thickness.

SOLID – A body, such as a barrel, building, etc.

SQUARE MEASURE – Area calculation requiring only two dimensions, length and width.

CUBIC MEASURE – Cubic or cubage means volume and gives size in terms of its bulk. Calculation requires 3 dimensions, length x width x depth or height or thickness.

**MEASURES AND THEIR EQUIVALENTS**

A gallon of water (U.S. Standard) weighs 8 1/3 pounds and contains 231 cubic inches.

A cubic foot of water contains 7½ gallons, 1,728 cubic inches and weighs 62½ pounds.

Doubling the diameter of a pipe increases its capacity four times.

To find the pressure in pounds per square inch of a column of water, multiply the height of the column in feet by .434.

To find the capacity of tanks any size, given the dimensions of a cylinder in inches, to find its capacity in U.S. gallons: square the diameter, multiply by the length and by .0034 (Note: See table of tank capacities.)

Rectangular tanks multiply the length by the width by the depth (All in inches) and divide the result by 231. The answer is the capacity in gallons.

31½ gallons equals one barrel.

# Schedule of Values

# Harnett County 2022

B.T.U. (British Thermal Unit) is the amount of the heat required to raise one pound of water one degree Fahrenheit.

A ton of refrigeration is measured by the displacement of the amount of heat required to melt a ton of ice in 24 hours. One motor horsepower of an electrically powered unit is normally required to produce one ton of refrigeration. 12,000 B.T.U. equals one tone.

Kilowatts multiplied by 1.3405 equal horsepower.

## WEIGHTS & MEASURES

1 cubic inch of Cast Iron weighs	0.26 pounds
1 cubic inch Wrought Iron weighs	0.28 pounds
1 cubic inch Water weighs	0.036 pounds
1 inch of Water weighs	62.321 pounds
1 United States gallon weighs	8.33 pounds
1 Imperial gallon weighs	10.00 pounds
1 United States gallon equals	231.01 cubic inches
1 Imperial gallon equals	277.274 cubic inches
1 cubic foot of Water equals	7.48 U.S. gallons
1 gallon of water weighs	8.34 pounds
1 gallon equals	.1337 cubic feet
1 gallon equals	.1074 bushels
1 cubic foot equals	.8032 bushels
1 barrel (oil) equals	42 gallons
1 barrel (water) equals	31.5 gallons

Pressure in pounds per square inch of column of water equals .434 times the height of the column in feet.

## AREAS

Square foot area of surface equals square of one side multiplied by factors shown.

Regular Shaped	Number of Sides	Factor
Equilateral Triangle	3	.433
Pentagon	5	1.721
Hexagon	6	2.598
Heptagon	7	3.634
Octagon	8	4.828
Nonagon	9	6.182
Decagon	10	7.694
Undecagon	11	9.366
Dodecagon	12	11.196

# Schedule of Values

# Harnett County 2022

TABLES – For Use in Area and Content Capacity Computations

Capacity of Circular Tanks – Per Foot of Height in Gallons & Bushels

Diameter in Feet	Circum.	Square Foot Area	Gallons	Bushels	Barrels (Oil) (Oil-42 gals. Ea.)
3	9.42	7.07	53	6	1.26
4	12.57	12.57	94	10	2.24
5	15.71	19.63	147	16	3.5
6	18.85	28.27	212	23	5.0
7	21.99	38.48	288	31	6.8
8	25.13	50.27	376	42	9.0
9	28.27	63.62	477	51	11.3
10	31.42	78.54	587	63	14.0
11	34.56	95.03	711	76	16.9
12	37.69	113.10	846	91	20.2
13	40.84	132.73	993	107	23.7
14	43.98	153.94	1,151	124	27.4
15	47.12	176.72	1,322	142	31.5
16	50.26	201.06	1,504	162	35.8
17	53.41	226.98	1,698	182	40.4
18	56.55	254.47	1,903	204	45.3
19	59.69	283.53	2,121	228	50.5
20	62.83	314.16	2,350	252	56.0
21	65.97	346.36	2,591	278	61.7
22	69.12	380.13	2,843	305	67.7
23	72.26	415.48	3,108	334	74.0
24	75.40	452.39	3,384	364	80.6
25	78.54	490.87	3,672	394	87.4
26	81.68	530.93	3,971	427	94.6
27	84.82	572.56	4,283	460	102.0
28	87.97	615.75	4,606	495	109.7
29	91.11	660.52	4,941	531	117.6
30	94.25	706.86	5,287	568	125.8
31	97.39	754.77	5,646	606	134.4
32	100.53	804.25	6,016	646	143.2
33	103.67	855.30	6,398	687	152.3
34	106.81	907.92	6,791	730	161.6
35	109.96	962.11	7,197	773	171.3
36	113.10	1,017.88	7,614	818	181.3
37	116.24	1,075.21	8,043	864	191.5
38	119.38	1,134.11	8,483	911	202.0
39	122.52	1,194.59	8,936	960	212.7
40	125.66	1,256.64	9,400	1,010	223.8

To find the capacity in barrels (oil) = Diameter squared x height.

To find the capacity in gallons = Diameter squared x 5.8748 x height  
(Diameter & height in feet).

**AREAS AND MEASUREMENTS**

To find the circumference of a circle, multiply the diameter by 3.1416.

To find the diameter, multiply circumference by 0.3183 or divide circumference by 3.1416.

To find the radius, multiply circumference by 0.15915.

To find the side of an inscribed square, multiply the diameter by 0.07071 or multiply the circumference by 0.2551.

To find the side of an equal square, multiply the diameter by 0.8863 or multiply the circumference by 0.2821.

Square: A side multiplied by 1.1142 equals the diameter of its circumscribing circle.

A side multiplied by 4.443 equals the circumference of its circumscribing circle.

A side multiplied by 1.126 equals the diameter of an equal circle.

A side multiplied by 3.547 equals circumference of an equal circle.

To find the area of a circle, multiply the circumference by one-quarter of the diameter or multiply the square of the diameter by 0.7854 or multiply the square of the circumference by 0.07958 or multiply the square of one-half of the diameter by 3.1416.

To find the surface of a sphere or globe, multiply the diameter by the circumference or multiply the square of the diameter by 3.1416 or multiply four times the square of the radius by 3.1416.

To find tank capacities, diameter square x .0034 = gallons per inch of height – Base 42 gallons per barrel.

To find area of a triangle – multiply base by  $\frac{1}{2}$  perpendicular height.

To find area of an ellipse – product of both diameters x .7854.

To find area of a parallelogram – base x altitude.

To find cu. inches in a ball – multiply cube of diameter by .5236.

To find cubic contents of a cone – multiply area of base by one-third the altitude.

Area of rectangle equals length multiplied by width.

Surface of frustum of cone or pyramid equals sum of circumference of both ends x  $\frac{1}{2}$  slant height plus area both ends.

Contents of frustum of cone or pyramid: multiply area of two ends and get square root – add the two areas and time  $\frac{1}{3}$  altitude.

**CONVERSION TABLES**

To convert bushels to ton, multiply number of bushels by 60 and divide the product by 2000 (average maximum weight of commodities 60 pounds per bushel.)

To convert gallons to bushels, divide gallons by 9.35. Answer in bushels.

To convert cubic measure into bushels, multiply by 0.8035.

To find capacity of cylindrical tanks standing on end: To find the capacity in cubic feet of a round tank or cistern, multiply the square of the average diameter by the depth and multiply the product by .785.

**STRUCTURAL COMPONENTS****DESIGN**

One of the most significant factors influencing quality classification and cost of Construction is design. The design of a house relates not only to the degree of functional efficiency attained in layout, but also to its overall appearance. In this sense, appearance means the refinement of exterior elevations, interior finish, and perimeter shape. The degree of refinement is usually evident in the complexity of foundation and roof outlines, plus the elaborateness of finishing materials and attention given to details.

Lower quality houses will generally be simple rectangular shaped structures with straight lines on all four walls, and a higher ratio of floor area per lineal foot of exterior wall. Higher quality structures will generally have an irregular foundation outline and a lower ratio of floor area per lineal foot of exterior wall. In other words, the design of a higher quality house substitute's esthetics for efficiency (economy of construction) but does not sacrifice functional utility. In fact, the integration of areas given to living, dining, food preparation, sleeping, hygiene and storage into a functional or logical whole can best be accomplished when design is not restricted by a rectangular or "boxed" perimeter shape.

An irregular perimeter or foundation outline generally denotes higher quality construction, because replacement cost is increased by a greater amount of exterior wall area plus special floor and roof framing.

**ELECTRICAL**

In new construction, the typical electrical service consists of 120-240 volt; 3 wire, 200 amp circuit breaker systems for houses with electric heat and 150 amp services for houses with gas heat. Minimum Property Standards requires one wall switch per room with a minimum of 6' between convenience outlets. 220 volt service is required for electric ranges and clothes dryers, whereas 110 volt service is required for convenience outlets. The majority of residential wiring is done with Romex, a non-metallic sheathed cable. More expensive homes have BX or steel armored cable. Conduit wiring is seldom found in residential construction. Older homes may be wired with Knob & Tube or porcelain insulators. Houses with old style fuse boxes, Knob & Tube wiring, or 60 amp service are generally of low quality or will soon need rewiring.



**EXTERIOR WALLS**

Exterior wall construction represents one of the most significant components of a residential building. It normally accounts for 25% to 35% of replacement cost new and consists of (1) The Basic Structure – wood framed houses usually have 2" X 4" studs placed directly over floor joists on 16" centers - a 2" X 4" sole plate secures the studs at floor level and a 4" X 4" ceiling plate ties the studs together at the ceiling line (2) Exterior Finish- consists of sheathing, the visible exterior wall cover, trim and painting. The materials used in the basic structure and exterior wall finish will determine the type of construction, i.e., wood framed - brick veneer, etc. (3) Interior Facing & Finish - new construction is generally 1/2" to 5/8" dry wall, taped & painted; older houses may have lath and plaster; 2" to 3 1/2" batt insulation is normally placed between the studs behind the drywall. (4) Window & Door Openings - the size and number of openings will have a significant influence on replacement cost.

**FLOOR STRUCTURE & FINISH**

Conventional wood floor construction consists of the sill plates, girders, floor joists, bridging, sub floor and finished flooring. The sill plate is the first wood member of a frame structure; and is usually a horizontally laid 2" X 6" board secured to the foundation by 1/2" X 16" anchor bolts. A girder is the main horizontal interior supporting member of the floor structure. It may be steel or wood, but a 3-ply 2" X 10" frame girder is typical. Minimum Property Standards call for no less than 2" X 8" floor joists on 16" centers with a maximum span of 13 1/2'; and 2" X 10" floor joists on 16" centers if span is between 13 1/2' and 16'. Better quality construction will have 1" X 3" cross bridging every 8' to 10' span. However, 2" X 6" or 2" X 8" block-bridging is typical of fair and average quality construction. However, diagonally laid 1" X 5" tongue & groove boards are found in some older homes and in high quality new construction. Basically, the finished flooring of a house will be either pine or hardwood. Generally, the kitchen will have an inlaid linoleum cover and the bath will have ceramic or vinyl tile. Wall to wall carpets may be laid over a hardwood finished floor or over 5/8" pressboard (particleboard).

**FOUNDATION**

The foundation of a residence with conventional wood floor construction consists of the footings, foundation wall and interior piers. A solid perimeter foundation wall is generally constructed with 8" concrete blocks; brick-to grade construction has 12" blocks to grade level with the balance being 8" block allowing a 4" brick to rest on the outer edge of the 12" block. Interior piers are generally of the same materials as the foundation wall. Footings are poured concrete and must be a minimum of 8" deep and 3" wider (on each side) than the foundation wall.

With concrete slab floor construction, the floor, foundation walls and footings are poured monolithically. In such, case, there are no framing members for the floor structure.

Obviously, the footings and lower levels of the foundation wall cannot be seen. Therefore, unless you are informed of structural weakness or see evidence of excessive settlement, you must assume that the foundation has been properly constructed.

## **INTERIOR FINISH**

Interior construction and finish, as a whole can account for 10% to 30% of replacement cost new, depending on the elaborateness of trim, number and sizes of closets, kitchen cabinets, special wall finishes, etc.

Interior partitions are generally wood framed with 2" X 4" studs on 16" centers. The most common basic interior facing is 1/2" or 5/8" drywall, taped and painted. Older houses often have walls and ceilings finished with plaster on wood or gypsum lath. However, due to the wide use and acceptance of drywall in most quality levels, plaster does not necessarily increase value in proportion to cost. The exception occurs in the luxury or mansion type house where plaster is consistent in cost and quality with the entire structure.

The type and quality of materials available for finishing the interior of a house varies greatly. However, the basic wall and ceiling finish will generally conform to the grade of materials and quality of workmanship evidenced by exterior wall finish and design. Special attention should be given to the amount and quality of kitchen cabinets, closets and the finish of special areas such as the bath and den.

## **MECHANICAL - CENTRAL AIR CONDITIONING**

The majority of residential central air-conditioning is done with either "split" refrigerated systems, ranging from one to five- ton capacity. The combination heating/ cooling or package unit utilizes the same duct work with gas heating and electric cooling. This is a central system for original construction and generally results in some savings (per system capacity) in construction costs.

The split system is usually added to an existing forced warm-air furnace. The fan coil is normally installed in the top of the furnace and the condensing unit (with compressor and condenser in the same cabinet) is located outside the house. The efficiency of this system is equal to that of the package system, although cost may be somewhat higher if it is added after original construction.

The heat-pump is an electric powered combination heating and cooling unit which consists of a compressor, condenser, throttle valve and evaporator. It operates on the principle that fluids under high pressure evaporate at a higher temperature

than fluids under low pressure. The heat transfer medium is heated under low pressure in the evaporator then transferred by the compressor to the high- pressure condenser where the heat is given off and blown through a duct system in the house. The cooling system is activated by thermostatically reversing a four-way valve which reverses the cycle of the unit. The heat pump is somewhat more expensive than the comparable gas-electric package unit described above, and generally requires electric resistance heaters to provide supplementary heat during periods when the temperature drops below 25°F.

The variation in models, sizes and capacities of central air-conditioning systems is virtually boundless. The only sure way to determine the type, size and capacity of a system is to note the model number and brand name and call the dealer. Generally speaking, however, the horse power of the compressor motor is approximately equal to the ton capacity of the cooling unit. Using the same duct work as the forced air heating system, central air-conditioning may run 20° to 30° more if separate duct work is required.

## **PLUMBING**

A standard complement of plumbing for a fair or average quality house consists of one 2 to 3-fixture bath with shower over tub, one flat rim kitchen sink with two compartments and one 40- gallon gas or 52- gallon electric water heater. Plumbing represents a relatively fixed cost in building construction. Some nominal additional cost for laterals would be incurred in the larger house, but this would be hardly noticeable in the overall price per square foot. It is pointed out that colored fixtures cost approximately 5 % more than white fixtures. The kitchen sink and each bathroom should be vented with a metal stack extending through the roof. It is also important to determine whether waste is disposed of by public sewer or individual septic system.

## **ROOF**

There are generally six types or styles of roof structures used in residential construction. The typical roof structure consists of 2" X 6" rafters placed on 16" centers and secured at the peak by a 2" X 8" ridge board. Sheathing is typically 3/8" to 1/2" plywood covered with felt under-lament and 235 lb. composition shingles. Ceiling joists, which are often considered part of the composite roof structure, should be at least 2" X 6" on 16" centers with a maximum span of 14'. The rafters and ceiling joists are attached to the 4" X 4" ceiling plates at the line of the exterior wall. The span of a roof is the distance between the outer edges of the ceiling plates, typically the width of the house. The rise of the roof is the distance from the level of the ceiling plates to the top of the ridge. The Run of a rafter is the horizontal distance from the outside of the ceiling plate to the right-angle intersection of the ridge. The slope of a roof is expressed in terms of the rise of the roof in inches per foot of run of rafters. The slope of a roof is typically 5/12 but should not be less than 4/12. Generally better- quality construction will

be reflected by steeper pitched roofs with more overhangs at the eaves. Pitch is the ratio of the rise of the roof to the span. Therefore, to find the rise of the roof in inches per foot of run of rafters (slope), multiply pitch by 24.

With exception of a trussed frame, 2" X 4" rafters do not meet Basic Standards. With a residential truss roof, rafters and ceiling joists are placed on 24" centers and are constructed with 2" X 4" boards, however, the engineering design of the truss creates structural capacity similar to a conventionally framed roof and results in a savings in construction cost.

## TERMS AND DEFINITIONS

### ARCHITECTURAL TERMS

<b>Apartment hotel</b>	a building designed for non-transient residential use, divided into dwelling units similar to an apartment house, but having such hotel apartment hotel accommodations as room furnishings, lounges, public dining room, maid service, etc.
<b>Apartment house</b>	a multi-family residence containing three or more non-transient residential living units and generally providing them with a number of common facilities and services.
<b>Attic</b>	An unfinished or semi-finished portion of a building lying between the highest finished story and the roof and wholly within the roof framing.
<b>Basement</b>	a building story which is wholly or partly below the grade level.
<b>Bay</b>	(1) a horizontal area division of a building usually defined as the space between columns or division walls. (2) an internal recess formed by causing a wall to project beyond its general line.
<b>Bay window</b>	a window, or group of continuous windows, projecting from the main wall of a building.
<b>Beam</b>	a long structural load-bearing member which is placed horizontally or nearly so and which is supported at both ends or, infrequently, at intervals along its length.
<b>Beam, spandrel</b>	a wall beam supporting the wall, above, as well as the floor.
<b>Building</b>	any structure partially or wholly above ground which is designed to afford shelter to persons, animals, or goods. See also <i>construction</i> .
<b>Building, fireproof</b>	a building in which all parts carrying loads or resisting stresses and all exterior and interior walls, floors, and staircases are made of incombustible materials, and in which all metallic structural members are encased in materials which remain rigid at the highest probable temperature in case its contents are burned, or which provide ample insulation from such a temperature.
<b>Building, loft</b>	a building having three or more stories with few or no interior bearing walls and designed for storage, wholesaling, or light industrial purposes.

<b>Building, single-purpose</b>	a building designed for a specific purpose, which cannot be used for another purpose without substantial alterations; e.g., a theater or church.
<b>Bungalow</b>	a one-story dwelling unit which is somewhat more pretentious than a cottage.
<b>Column</b>	a structurally isolated vertical member which is at least 8 to 10 times as long as its least lateral dimension and which is designed to carry loads. Compare <i>pier</i> .
<b>Conduit</b>	a tube, pipe, or small artificial tunnel used to enclose wires or pipes or to convey water or other fluids.
<b>Construction, brick</b>	a type of construction in which the exterior walls are bearing walls (q.v.) made of solid brick or brick and tile masonry.
<b>Construction, brick veneer</b>	a type of construction in which the exterior walls are one-layer brick curtain walls backed by a wood frame.
<b>Construction, fireproof</b>	<i>see fireproof building.</i>
<b>Construction, mill</b>	a type of construction in which the exterior walls are substantial masonry bearing walls, in which the structural members are of heavy timber, and which is further characterized by an open design and by other safeguards against fire hazards. Sometimes called "slow-burning construction."
<b>Construction, reinforced</b>	a type of construction in which the principal structural members, such
<b>Concrete</b>	as the floors, columns, beams, etc., are made of concrete poured around isolated steel bars or steel meshwork in such manner that the two materials act together in resisting forces.
<b>Construction, steel frame</b>	a type of construction in which there is a framework of steel structural members for the support of all loads and the resistance of all stresses.
<b>Construction, wood frame</b>	a type of construction in which there is a framework of wooden structural members for the support of all loads and the resistance of all stresses. Loosely called "frame construction."
<b>Coping</b>	a special capping at the top of a wall, serving principally as a watershed.
<b>Cornice</b>	a projecting element at the top of a wall, serving principally as a decoration or as part of the coping (q.v.).

<b>Cottage</b>	a one story to two story dwelling unit of small size and humble character.
<b>Course</b>	a uniform horizontal layer of brick, stone, terra cotta, shingles, or some other structural material extending continuously around a building or along a wall.
<b>Court</b>	an open space bordered on two or more sides by the walls of a single building, or of two or more buildings, and by a lot line or a yard on any side not so bordered.
<b>Dormer</b>	(1) a relatively small structure projecting from a sloping roof. (2) a window set upright in the face of such a structure.
<b>Dwelling</b>	any building or portion thereof designed or occupied in whole or in part as a place of residence.
<b>Dwelling, attached</b>	a multi-family dwelling in which the dwelling units are separated vertically by means of common or party walls. See <i>terrace</i> .
<b>Dwelling, double</b>	a two-family dwelling in which the dwelling units are separated vertically, by means of a common or party wall. Synonymous with "semi-detached dwelling."
<b>Dwelling, duplex</b>	a two-family dwelling in which the two dwelling units are separated horizontally with a private street entrance for each; i.e., a two-family flat.
<b>Dwelling, Multi-family</b>	a building designed as a place of residence for more than two families or households; e.g., an apartment house or tenement.
<b>Dwelling, row</b>	any one of a series of similar single family, two family, or multi-family dwellings having one or more contiguous common or party walls. Compare <i>terrace; dwelling, double</i> .
<b>Dwelling unit</b>	any room or group of rooms designed as the living quarters of one family or household, equipped with cooking and toilet facilities, and having an independent entrance from a public hall or from the outside.
<b>Eaves</b>	the portion of a sloping roof which projects beyond the outside walls of a building.
<b>Elevation</b>	a drawing which represents a projection of any one of the vertical sides or vertical cross-sections of a building or of any other object. Compare plan.
<b>Façade</b>	the face of a building.

<b>Firewall</b>	a wall of fire-resisting material erected between two parts of a building to prevent the spread of fire from one part to the other.
<b>Flashing</b>	small metal strips used to prevent leaking of roofs around chimneys, dormers, hips, and valleys.
<b>Flat</b>	(1) any one floor of a building two or more stories high, each floor of which constitutes a single dwelling unit and has a private street entrance. (2) the building containing two or more such floors. Compare <i>dwelling</i> , <i>duplex</i> .
<b>Footing</b>	a spreading base to a wall, column, or other supporting member, which serves to widen the ground area to which structural loads are transmitted.
<b>Foundation</b>	the structural members below grade level, or below the first tier of beams above grade level, which transmit the load of a superstructure to the ground.
<b>Gable</b>	(1) the triangular portion of a wall between the slopes of a double-sloping (i.e., gable) roof. (2) the whole of the wall containing such a triangular portion. (3) a portion of a building extending from the remainder of the building and covered with a gable roof.
<b>Girder</b>	a large or principal beam (q.v.) used to support concentrated loads at isolated points along its length. (Girders usually support the beams and structure above).
<b>Header</b>	(1) a structural member which is laid perpendicularly to a parallel series of similar members and against which the latter members abut. (2) a brick or other piece of masonry which is laid in a wall in such manner that its longest dimension extends along the thickness of the wall. Contrast <i>stretcher</i> .
<b>Hip</b>	(1) a sloping line along which two roof surfaces meet to form an external angle of more than 180 degrees. (2) a hip rafter (q.v.) Compare <i>ridge</i> ; <i>valley</i> .
<b>Hotel</b>	a building designed for transient or semi-transient residential use, divided into furnished single rooms and suites, and having such accommodations as lounges, public dining rooms and maid service, etc
<b>Hotel, apartment</b>	see <i>apartment hotel</i> .
<b>Joist</b>	one of a series of small parallel beams laid on edge and used to support floor and ceiling loads, and usually supported in turn by larger beams and girders.



<b>Lintel</b>	a beam over a wall opening, such as a door or windows, designed to carry the load of the wall over such opening.
<b>Loft</b>	a non-partitioned or relatively open upper story of a building, designed for storage, Wholesaling, or light manufacturing. See also <i>loft building</i> .
<b>Louver (or louvre)</b>	a ventilator containing slats which are placed lengthwise across the ventilator opening, each slat being slanted in such manner as to overlap the next lower slat and to permit ventilation but exclude rain.
<b>Marquee</b>	a flat roof-like structure which shelters a doorway, which has no floor beneath it, and which is usually supported wholly from the walls or the building.
<b>Mezzanine</b>	a low story formed by placing a floor between what would ordinarily be the floor and ceiling of a high story, <i>Note:</i> the mezzanine floor frequently has a smaller area than other floors and, if present at all, is usually between the first and second stories.
<b>Millwork</b>	all of the wooden portions of a building, whether frame construction or otherwise, which are customarily purchased in finished form from a planing mill, such as doors, windows, trim, balusters, etc.
<b>Overhang</b>	a finished portion of a building having full story height which extends beyond the foundation wall line if part of the ground story, or beyond the exterior walls of the ground story if part of any higher story.
<b>Overhead structure</b>	similar to overhang above ground story, such as O.H. bridge or passage, O.H. walk, O.H. Addition.
<b>Partition</b>	see <i>wall, partition</i> .
<b>Pier</b>	(1) a thick, solid mass of masonry which is fully or partially isolated from a structural standpoint and which is designed to transmit vertical loads to the earth. (2) a structure projecting from land into water for use in loading and unloading vessels. Compare column.
<b>Pilaster</b>	a flat-faced pillar projecting somewhat from, but engaged in, the wall of a building and used for decorative purposes or to help support truss and girder loads or both.
<b>Pile</b>	a heavy timber, metallic, or masonry pillar forced into the earth to form a foundation member.

<b>Pitch</b>	the slope of any structural member, such as a roof or rafter, usually expressed as a simple fraction representing the rise per lateral foot.
<b>Plan</b>	a drawing representing a projection of any one of the floors or horizontal cross-sections of a building or of the horizontal plane of any other object or area. Compare elevation.
<b>Purlin</b>	a beam running along the underside of a sloping roof surface and at right angles to the rafters, used to support the common rafters, and usually supported in turn by larger structural members, such as trusses or girders (usually run along length of building).
<b>Rafter</b>	a structural member placed, as a rule, in a sloping position and used as the supporting element for the structural material forming the plane of the roof. See also purlin.
<b>Rafter, hip</b>	a rafter placed in an inclined position to support the edges of two sloping roof surfaces which meet to form an external angle of more than 180 degrees.
<b>Rafter, valley</b>	a rafter placed in an inclined position to support the edges of two sloping roof surfaces which meet to form an external angle of less than 180 degrees.
<b>Ramp</b>	an inclined walk or passage connecting two different floor levels and used in lieu of steps.
<b>Residence</b>	see <i>dwelling</i> .
<b>Ridge</b>	a horizontal line along which the upper edges of two roof surfaces meet to form an external angle of more than 180 degrees. Compare <i>hip</i> ; <i>valley</i> .
<b>Rise</b>	(1) in general, any vertical distance. (2) specifically, the rise of a roof being the distance between the top of an exterior wall and the peak of the roof; the rise of a stair being the distance from tread to tread.
<b>Roof</b>	the top portion of a structure. Types of roofs include double pitch, flat, gable, gambrel, hip, lean-to, single pitch.
<b>Roof, curb (or curbed)</b>	a roof with a ridge at the center and a double slope on each of its two sides.
<b>Roof, flat drainage.</b>	a roof which is flat or sloped only enough to provide proper

<b>Roof, gable</b>	a double-sloped roof having a cross section similar in general to the shape of the inverted letter "V".
<b>Roof, gambrel</b>	a ridged roof with two slopes on each side, the lower having a steeper pitch.
<b>Roof, hip (or hipped)</b>	(1) in general, any roof having one or more hips (q.v.) (2) usually, a roof with four sloping sides meeting along four hips or along four hips and a ridge. Compare <i>roof, pyramid</i> .
<b>Roof, lean-to</b>	(1) a roof having a single sloping side which is supported at the upper edge by the wall of an attached building or of a larger and higher portion of the same building (preferred). (2) any roof with a single slope. Compare <i>roof, flat</i> ,
<b>Roof, mansard</b>	a special type of curb roof (q.v.) in which the pitch of the upper part of each of the four equally sloping sides is small or negligible and that of the lower part is very great; a series of dormers projects from the lower part.
<b>Roof, monitor</b>	a type of gable roof commonly found on industrial buildings - having a small raised portion along the ridge, with openings for the admission of light and air.
<b>Roof, pyramid</b>	a hip roof having four sloping triangular sides, usually of equal pitch, meeting together at the peak.
<b>Roof, ridged</b>	a roof having one or more ridges (q.v.).
<b>Roof, saw tooth</b>	a roof with a series of parallel sloping surfaces interspersed between a series of vertical surfaces which rise from the lower edges of such sloping surfaces and which contain windows for the admission of light and air.
<b>Roof, single pitch</b>	any roof with a single slope, other than a lean-to roof.
<b>Sash</b>	the wooden or metal framework in which the glass of a door or window is set.
<b>Sheathing</b>	the covering, usually of rough lumber, placed immediately over studding or rafters.
<b>Sill</b>	(1) the lower horizontal part of a door-case (the threshold) or of a window. (2) the lowest horizontal structural member of a frame building, upon which the superstructure is supported.
<b>Sleeper</b>	a structural member laid horizontally on the ground or upon a masonry base as a support to a floor or other superstructures.

<b>Specifications</b>	a detailed description of the dimensions, materials, quantities, structural procedures, etc. applicable to a projected or completed piece of construction.
<b>Story</b>	that portion of a building enclosed by a floor, a ceiling, and the exterior walls.
<b>Story, ground</b>	the first story lying wholly above the ground level. Synonymous with "first story."
<b>Story, half (or one-half)</b>	(1) for buildings with a mansard or gambrel roof, a finished portion of a building which lies above the wall plate or cornice and which has a usable floor area substantially less than that of the next lower story. (2) for all other buildings, a finished portion of a building which is above one or more full stories, which is wholly or partly within the roof frame and which has one or more exterior walls substantially lower than the full height of the story.
<b>Story, one</b>	a building having no finished story above the ground story.
<b>Stretcher</b>	a brick or other piece of masonry which is laid lengthwise in a wall. contrast header.
<b>Strut</b>	any structural member, which holds apart two <b>or</b> more other members by counteracting a pressure, which tends to bring them together. Contrast tie.
<b>Stud</b>	one of a series of small slender structural members placed vertically and used as the supporting element of exterior or interior walls. (Plural: studs or studding)
<b>Sub floor</b>	the flooring laid directly on top of the floor joists, but beneath the finish floor.
<b>Tenement</b>	a building, usually of obsolete nature, designed primarily for non- transient residential use and divided into three or more dwelling units having common stairs, halls, and street entrances, and sometimes-common bath and toilet rooms. Compare <i>apartment house; flat; terrace</i> .
<b>Terrace</b>	(1) an unroofed level area covered with grass or masonry or both raised above the surrounding ground level, and having a vertical or sloping front. (2) a multi-family dwelling in which the dwelling units are separated vertically by means of common or party walls. Compare <i>dwelling, row; dwelling, double</i> .
<b>Terra cotta</b>	a hard-baked ceramic clay molded into decorative tiles, bricks, etc., and used particularly for facing and trim on buildings.

<b>Tie</b>	any structural member, which binds together two or more members by counteracting a stress which tends to draw them apart. Contrast <i>strut</i> .
<b>Trim</b>	(1) the wooden portions of a plastered room, such as the doors, windows, wainscoting, and molding, or the corresponding portions of a room finished otherwise than with plaster. (2) the contrasting elements on the exterior of a building which serve no structural purpose, but are intended to enhance its appearance, e.g., the cornice. (3) occasionally, the hardware of a house, such as locks, hinges, doorknobs, etc.
<b>Truss</b>	a combination of structural pieces fastened together into a rigid open member which is supported at both ends and upon which loads are superimposed. Compare <i>girder</i> .
<b>Valley</b>	a sloping line along which two roof surfaces meet to form an external angle of less than 180 degrees. Compare <i>hip</i> ; <i>ridge</i> .
<b>Veneer</b>	a thin ornamental or protective facing which does not add appreciably to the strength of the body to which it is attached.
<b>Wainscot (or wainscoting)</b>	(1) a wooden facing on the lower portion of a contrasting interior wall. (2) by extension, a facing of marble tile, or the like, on the lower portion of interior walls.
<b>Wall</b>	a vertical structure serving to enclose, support, divide; such as one of the vertical enclosing sides of a building or room.
<b>Wall, bearing</b>	a wall designed primarily to withstand vertical pressure in addition to its own weight.
<b>Wall, common</b>	a wall owned by one or two parties and jointly used by both, one or both of whom is entitled to such use under the provisions of ownership.
<b>Wall, curtain</b>	a non-bearing wall which is supported by columns, beams, or other structural members, and whose primary function is to enclose space.
<b>Wall, fire</b>	<i>see firewall</i>
<b>Wall, partition</b>	an interior bearing or non-bearing wall which separates portions of a story. Synonymous <i>with partition</i> .
<b>Wall, party</b>	a wall jointly used by two parties under easement agreement and erected at or upon a line separating two parcels of land held under different ownership.

<b>Wall, retaining</b>	a wall designed primarily to withstand lateral pressures of earth or other filling or backing deposited behind it after construction.
<b>Window, bay</b>	see <i>bay window</i> .
<b>Window, dormer</b>	see dormer.
<b>Wing</b>	a subordinate part of a building extending from the main part, or any one of two or more substantially co-ordinate parts of a building which extend out from one or more common junctions.

### **DATA PROCESSING TERMS**

<b>BAUD</b>	unit of signaling speed equal to the number of discrete conditions or signal events per second.
<b>Binary</b>	a characteristic or property involving a selection, choice, or condition in which there are two possibilities, such as the number representation with a radix of two.
<b>Bits</b>	the smallest unit of information in the binary number system. An abbreviation of binary digits. Normally, a bit refers to one "on", while a no bit means zero "off".
<b>Block</b>	a group of machine words considered or transported as a unit. In flowcharts, each block represents a logical unit of programming.
<b>Bytes</b>	a sequence of adjacent binary digits operated upon as a unit; a unit of computer storage capacity equal to eight binary bits.
<b>Calculator</b>	a keyboard machine for the automatic performance of arithmetic operations.
<b>CAMA</b>	Computer-Assisted Mass Appraisal - Utilizing data processing to compare parcels, calculate values, and maintain property characteristics to increase efficiency and accuracy in the appraisal process.
<b>Columns binary</b>	pertaining to the binary representation of data on punched cards in which adjacent positions in a column correspond to adjacent bits of data; each column in a 12-row card may be used to represent 12 consecutive bits of 36-bit word.
<b>Computer</b>	a computational device distinguished by its high speed, programmable operation, and large memory.

<b>Computer program</b>	a series of instructions, in a form acceptable to the computer, prepared so as to achieve a certain result.
<b>CPU</b>	central Processing Unit - The heart of the computing system, which contains the arithmetic, logical and control circuits necessary for the interpretation, execution of a program and controls the functioning of the entire system.
<b>CRT</b>	see <i>video display terminal</i> .
<b>Data base</b>	a minimally redundant stored collection of data. A collection of data maintained by a computer.
<b>Data Base Management</b>	A combination of hardware and software that controls and processes all requests for data in data bases.
<b>Data element</b>	the smallest unit of data stored on some medium to which a reference or none may be assigned.
<b>Data entry</b>	the process of placing information into machine-readable form.
<b>Data path</b>	the input-processing-output flow followed by data (often repeatedly) during normal computer operations.
<b>Data processing</b>	performing operations on machine-readable data, either with or without the use of a computer.
<b>Data structure</b>	the particular form in which data are to be treated by the computer program: whether as whole numbers, decimal fractions, or alphabetic characters, and whether as single pieces of information or as related sets or arrays of data.
<b>Data verification</b>	checking the accuracy of data that has been placed into a data processing system.
<b>Direct access</b>	an addressing scheme or random access storage medium that permits direct addressing of data locations.
<b>Disk file</b>	a means for storing data on a magnetic disk or platter.
<b>Encode</b>	to apply a set of rules specifying the manner in which data may be represented such that a subsequent decoding is possible.
<b>Feedback</b>	the process of returning portions of the output of a machine, process, or system for use as input in a further operation.
<b>Flowchart</b>	a graphical representation of the definition, analysis, or solution of a problem using symbols to represent operations, data flow, and equipment.

<b>Hard copy</b>	output that appears on paper.
<b>Hardware</b>	the physical equipment in a data processing system.
<b>Indexed sequential</b>	a file in which records are organized sequentially with indexes that permit quick access to individual records as well as rapid sequential processing.
<b>Kilobytes</b>	(kilo = 1000, bytes = characters) byte: A form of saying a character - numerical, letter, or symbol, in machine-readable form. Data processing personnel measure the size of records by bytes, instead of number of characters. Exactly, a kilobyte (KB or K) has 1,024 "characters".
<b>Library</b>	a collection of standard proven computer routines, usually kept on a library tape or random access file, by which problems or portions of problems may be solved.
<b>Master file</b>	a file of records containing a cumulative history or the results of accumulation; updated in each file processing cycle, and carried forward to the next cycle.
<b>Megabyte</b>	(1 million bytes) This unit is quite large and is usually used to measure the volume of a file, a disc, etc.
<b>Memory</b>	the part of the computer that stores the program, holds intermediate results, and various constant data. Same as <i>storage</i> ,
<b>Modem</b>	a contraction of "Modulator Demodulator." Its function is to interface with data processing devices and convert data to a form compatible for sending and receiving on transmission facilities.
<b>MRA</b>	Multivariate Regression Analysis - Also called the least squares method, is a mathematical method for producing a model for a dependent variable as a linear function of independent factors. As an example - the predicted sales price (dependent variable) is a function of independent factors such as Square Feet, Style, Neighborhood, etc.
<b>Multiplexor</b>	a computer hardware device used as a screening agent to the main computer. It polls all the messages from all terminals and transmits one by one to the main computer. It also dispatches "messages" to receiving ends ... it can be compared to the secretary of a big boss!
<b>Multiprocessing</b>	systems software that enables several CPU's to be connected together to provide faster, more reliable computing.
<b>Multiprogramming</b>	systems software that enables the computer to run several programs simultaneously.



<b>On-line</b>	peripheral equipment or devices in direct communication with the central processing unit, and from which information reflecting current activity is introduced into the data processing system as soon as it occurs.
<b>Operating system</b>	the systems software that manages all other software in the computer (also known as an executive or monitor).
<b>Operator's instructions</b>	these are sets of operation instructions, which tell the operator what to do to get the jobs done on the computer. The instructions are designed for two types of operators: <ol style="list-style-type: none"><li>1. Computer operators - run the computer, execute a job, mount a tape, etc.</li><li>2. Use operators - run different applications such as payroll, CAMA. The instructions tell them how to add a new record, delete a word, on a terminal or using cards.</li></ol>
<b>Output</b>	information that has been processed by the computer.
<b>Peripheral equipment</b>	units that work in conjunction with the computer, but are not part of the computer itself, such as tape reader, card reader, magnetic tape feed, high-speed printer, typewriter, etc.
<b>Printer</b>	hardware for outputting on paper.
<b>Program</b>	the instructions that enable a computer to process data.
<b>Programming Language</b>	a system for coding instructions for computer processing.
<b>Punched cards</b>	a storage medium similar to index cards.
<b>Random access</b>	for device or media, the accessing of data by address rather than by sequence.
<b>Record</b>	a collection of related items of data treated as a unit.
<b>Sequence</b>	an arrangement of items of data according to a specified set of rules.
<b>Sequential processing</b>	the procedure of processing data records in the same order that they occur.
<b>Sequential storage</b>	storing of data in sequential order.
<b>Software</b>	the programs and routines used to extend the capabilities of computers, such as compilers, assemblers, routines, and subroutines. Also, all documents associated with a computer, e.g., manuals, circuit diagrams.
<b>Source</b>	that which provides information to be entered into the computer.
<b>Source document</b>	a form containing raw data for entry into the computer.

<b>Source file</b>	a computer program in high-level language code.
<b>Standard deviation</b>	a statistical measure of the variation of a characteristic about its average value. Standard deviation is the square root of the variance of a characteristic about its average observed value. Variance is the sum of the squared deviations of each observed value from the average, divided by one less than the number of observations. For normally distributed observations, approximately 70% of the observations will fall within one standard deviation of the mean or average value.
<b>Storage</b>	the retention of information in the computer system.
<b>Summary report</b>	output that displays only the end product of processing in a concise format.
<b>System software</b>	computer software that provides overall housekeeping functions for the computer.
<b>Systems design</b>	the development of a computer system (hardware and software) to suit a particular application, by using the program development cycle.
<b>Terminal</b>	a device in a system or communication network at which point data can either enter or leave the system.
<b>Transaction file</b>	a file containing transient data to be processed in combination with a master file.
<b>Turn-around document</b>	a document or form prepared as output at one stage of the data processing cycle, and sent to a customer or other user with the intention of having it returned and used as input at a later stage.
<b>Unit record</b>	a record in which all data concerning each item in a transaction is punched into one card.
<b>Variable</b>	a quantity that, when identified by a symbolic name, can assume any of a given set of values.
<b>Verify</b>	To determine whether a transcription of data or other operation has been accomplished accurately. To check the results of key punching.
<b>Video display terminal</b>	hardware for output on a television-style picture tube (cathode-ray tube or CRT).
<b>Word</b>	a set of characters that occupies one storage location and is treated by the computer circuits as a unit and transported as such.

## REAL ESTATE APPRAISAL TERMS

<b>Abstract</b>	a computer-printed report of appraised and/or assessed values for each parcel of real property in a given taxing district; generally sequenced geographically.
<b>Accrued depreciation</b>	<i>see depreciation.</i>
<b>Actual age</b>	the number of years elapsed since the original construction, as of the effective valuation date. Compare with <i>effective age</i> .
<b>Ad valorem tax</b>	in reference to property, a tax based upon the value of the property.
<b>Aesthetic value</b>	a value, intangible in nature, which is attributable to the pleasing appearance of a property.
<b>Agricultural property</b>	land and improvements devoted to or best adaptable for the production of crops, fruits, and timber, and the raising of livestock.
<b>Air rights</b>	the right to the use of a certain specified space within the boundaries of a parcel of land and above a specified elevation.
<b>Alley influence</b>	the enhancement to the value of a property rising out of the presence of an abutting alley; most generally applicable to commercial properties.
<b>Amenities</b>	in reference to property, the intangible benefits arising out of owner- ship; <i>amenity value</i> refers to the enhancement of value attributable to such amenities.
<b>Appraisal</b>	an estimate, usually in written form, of the value of a specifically described property as of a specified date; may be used synonymously with <i>valuation or appraised value</i> .
<b>Appraisal schedules</b>	any standardized schedules and tables used in conjunction with a revaluation program, such as replacement cost pricing schedules, depreciation tables, land depth tables, etc.
<b>Appraised value</b>	<i>see appraisal.</i>
<b>Appraiser</b>	one who estimates value. More specifically, one who possesses the expertise to execute or direct the execution of an appraisal.
<b>Assessed value</b>	<i>see assessment.</i>
<b>Assessing</b>	the act of valuing a property for the purpose of establishing a tax base.

<b>Assessment</b>	the value of taxable property to which the tax rate is to be applied in order to compute the amount of taxes; may be used synonymously with <i>assessed value</i> , <i>taxable value</i> , and <i>tax base</i> .
<b>Assessment district</b>	an assessor's jurisdiction; it may or may not be an entire tax district.
<b>Assessment period</b>	the period of time during which the assessment of all properties within a given assessment district must be completed; the period between tax lien dates.
<b>Assessment ratio</b>	the ratio of assessed value to a particular standard of value, generally the appraised value. A percentage to be applied to the appraised value in order to derive the assessed value.
<b>Assessment roll</b>	the official listing of all properties within a given taxing jurisdiction by ownership, description, and location showing the corresponding assessed values for each; also referred to as <i>tax list</i> , <i>tax book</i> , <i>tax duplicate</i> , and <i>tax roll</i> .
<b>Assessor</b>	the administrator charged with the assessment of property for ad valorem taxes; his precise duties differ from state to state depending upon state statutes.
<b>Asthetic value</b>	a value, intangible in nature, which is attributable to the pleasing appearance of a property.
<b>Average deviation</b>	in a distribution of values, the average amount of deviation of all the values from the mean value, equal to the total amount of deviation from the mean divided by the number of deviations. As applied to an assessment-to-sale ratio distribution, the average amount which all the ratios within the distribution deviate from the mean ratio.
<b>Base price</b>	a value or unit rate established for a certain specified model, and subject to adjustments to account for variations between that particular model and the subject property under appraisal.
<b>Blighted area</b>	a declining area characterized by marked structural deterioration and/or environmental deficiencies.
<b>Board of Equalization</b>	a non-jurisdictional board charged with the responsibility of reviewing assessments across properties and taxing districts and to assure that said properties and districts are assessed at a uniform level, either raising or lowering assessments accordingly; also referred to as <i>Board of Appeals</i> , and <i>Board of Review</i> .

<b>Building residual technique</b>	a building valuation technique which requires the value of the land to be a known factor; the value of the buildings can then be indicated by capitalizing the residual net income remaining after deducting the portion attributable to the land.
<b>Capitalization</b>	a mathematical procedure for converting the net income which a property is capable of producing into an indication of its current value. See <i>income approach</i> .
<b>CDU rating</b>	a composite rating of the overall condition, desirability, and usefulness of a structure as developed by the Cole-Layer-Trumble Company and used nationally as a simple, direct, and uniform method of estimating accrued depreciation.
<b>Central business district</b>	the center of a city - in which the primary commercial, governmental, and recreational activities are concentrated.
<b>Certified assessment Evaluator</b>	a professional designation (C.A.E.) conferred upon qualifying assessors by the International Association of Assessing Officers (IAAO).
<b>Classified property tax</b>	an ad valorem property tax under which the assessment ratio varies for different property classes.
<b>Component part-in-place Method</b>	the application of the unit-in-place method to unit groupings or construction components. See <i>unit-in-place method</i> .
<b>Corner influence</b>	the enhancement to the value of a property due to its corner location; most generally applicable to commercial properties.
<b>Cost approach</b>	one of the three traditional approaches to determination of the value of a property; arrived at by estimating the value of the land, the replacement or reproduction cost new of the improvement, and the amount of accrued depreciation to the improvement. The estimated land value is then added to the estimated depreciated value of the improvements to arrive at the estimated property value. Also referred to as the "cost-to-market approach" to indicate that the value estimates are derived from market data abstraction and analysis.
<b>Cost factor</b>	a factor or multiplier applied to a replacement or reproduction cost to account for variations in location and time, as well as for other elements of construction costs not otherwise considered.
<b>Cubic content</b>	the cubic volume of a building within the outer surface of the exterior walls and roof and the upper surface of the lowest floor.

<b>Deed</b>	a written instrument, which conveys an interest in real property. A <i>quitclaim deed</i> conveys the interest described therein without warranty of title. A <i>trust deed</i> conveys interest described therein to a trustee. A <i>warranty deed</i> conveys the interest described therein with the provisions that the freehold is guaranteed by the grantor, his heirs, or successors.
<b>Depreciation</b>	loss in value from all causes; may be further classified as <i>physical</i> , referring to the loss of value caused by physical deterioration; <i>functional</i> , referring to the loss of value caused by obsolescence inherent in the property itself; and economic, referring to the loss of value caused by factors extraneous to the property. <i>Accrued</i> depreciation refers to the actual depreciation existing in a particular property as of a specified date. <i>Normal</i> depreciation refers to that amount of accrued depreciation one would normally expect to find in buildings of certain construction, design, quality, and age.
<b>Depreciation allowance</b>	a loss of value expressed in terms of a percentage of replacement or reproduction cost new.
<b>Depth factor</b>	a factor or multiplier applied to a unit land value to adjust the value in order to account for variations in depth from an adopted standard depth.
<b>Depth table</b>	a table of depth factors.
<b>Design factor</b>	a factor or multiplier applied to a computed replacement cost as an adjustment to account for cost variations attributable to the particular design of the subject property which were not accounted for in the particular pricing schedule used.
<b>Deterioration</b>	impairment of structural condition evidenced by the wear and tear caused by physical use and the action of the elements, also referred to as <i>physical depreciation</i> .
<b>Economic depreciation</b>	<i>See depreciation.</i>
<b>Economic life</b>	the life expectancy of a property during which it can be expected to be profitably utilized.
<b>Economic obsolescence</b>	obsolescence caused by factors extraneous to the property. Also referred to as <i>economic depreciation</i> .
<b>Economic rent</b>	the rent which a property can be expected to bring in the open market as opposed to <i>contract rent</i> or the rent the property is actually realizing at a given time.

<b>Effective age</b>	an age assigned to a structure based upon its condition as of the effective valuation date; it may be greater or less than the structure's actual age. Compare with <i>actual age</i> .
<b>Effective depth</b>	in reference to property valuation, that depth, expressed in feet, upon which the selection of the depth factor is based.
<b>Effective frontage</b>	in reference to property valuation, that total frontage, expressed in lineal feet, to which the unit land value is applied, it may or may not be the same as the actual frontage.
<b>Effective gross income</b>	the estimated gross income of a property less an appropriate allowance for vacancies and credit losses.
<b>Effective valuation Date</b>	in reference to a revaluation program, the date as of which the value estimate is applicable.
<b>Encroachment</b>	the displacement of an existing use by another use.
<b>Environmental deficiency</b>	a neighborhood condition such as adverse land uses, congestion, poorly designed streets, etc., operating to cause economic obsolescence and, when coupled with excessive structural deterioration, blight.
<b>Equalization Program</b>	a mass appraisal (or reappraisal) of all property within a given taxing jurisdiction with the goal of equalizing values in order to assure that each taxpayer is bearing only his fair share of the tax load; may be used synonymously with a <i>revaluation program</i> .
<b>Equity</b>	in reference to property taxes, a condition in which the tax load is distributed fairly or <i>equitably</i> ; opposite of <i>inequity</i> which refers to a condition characterized by an unfair or unequitable distribution of the tax burden. <i>Inequity</i> is a natural product of changing economic conditions, which can only be effectively cured by periodic equalization programs. In reference to value, it is that value of the property remaining after deducting all liens and charges against it.
<b>Excessive frontage</b>	frontage, which because of the particular utility of the lot does not serve to add value to the lot.
<b>Exempt property</b>	see <i>tax exemption</i> .
<b>Fee appraisal</b>	see <i>mass appraisal</i> .
<b>Field crew</b>	the total professional staff assigned to a specific appraisal project, including listers, reviewers, staff appraisers, and clerical and administrative supporting personnel.

<b>Functional depreciation</b>	<i>see depreciation.</i>
<b>Functional Obsolescence</b>	obsolescence caused by factors inherent in the property itself. Also referred to as <i>functional depreciation</i> .
<b>Functional utility</b>	the composite effect of a property's usefulness and desirability upon its marketability.
<b>Grade</b>	the classification of an improvement based upon certain construction specifications, and quality of materials and workmanship.
<b>Grade factor</b>	a factor or multiplier applied to a base grade level for the purpose of interpolating between grades or establishing an intermediate grade.
<b>Grantee</b>	a person to whom property is transferred and property rights are granted by deed, trust instrument, or other similar documents. Compare with <i>grantor</i> .
<b>Grantor</b>	a person who transfers property or grants property rights by deed, trust instrument, or other similar documents. Compare with <i>grantee</i> .
<b>Gross area</b>	the total floor area of a building measured from the exterior of the walls.
<b>Gross income</b>	the scheduled annual income produced by the operation of a business or by the property itself.
<b>Gross income Multiplier</b>	a multiplier representing the relationship between the gross income of a property and its estimated value.
<b>Gross sales</b>	the total amount of invoiced sales before making any deductions for returns, allowances, etc.
<b>Ground lease</b>	a document entitling the lessee certain specified rights relating to the use of the land.
<b>Ground rent</b>	net rent from a ground lease; that portion of the total rent which is attributable to the land only.
<b>Improved land</b>	land developed for use by the erection of buildings and other improvements.
<b>Income approach</b>	one of the three traditional approaches to determination of value; measures the present worth of the future benefits of a property by the capitalization of its net income stream over its remaining economic life. The approach involves making an estimate of the potential net income the property may be



	expected to yield, and capitalizing that income into an indication of value.
<b>Income property</b>	a property primarily used to produce a monetary income.
<b>Industrial park</b>	a subdivision designed and developed to accommodate specific types of industry.
<b>Industrial property</b>	land, improvements, and/or machinery used or adaptable for use in the production of goods either for materials, or by changing other materials and products.i.e. assembling, processing and manufacturing ...as well as the supporting auxiliary facilities thereof.
<b>Inequity</b>	see <i>equity</i> .
<b>Influence factor</b>	a factor serving to either devalue or enhance the value of a particular parcel of land, or portions thereof, relative to the norm for which the base unit values were established; generally expressed in terms of a percentage adjustment.
<b>Institutional Property</b>	land and improvements used in conjunction with providing public services and generally owned and operated by the government or other nonprofit organizations ... hospitals, schools, prisons, etc. Such property is generally held exempt from paying property taxes.
<b>Interest rate</b>	the rate of return from an investment.
<b>Land classification</b>	the classification of land based upon its capabilities for use; and/or production.
<b>Land contract</b>	a purchase contract wherein the grantee takes possession of the property with the grantor retaining the deed to the property until the terms of the contract are met as specified.
<b>Land residual technique</b>	a land valuation technique which requires the value of the buildings to be known; the value of the land can then be indicated by capitalizing the residual net income remaining after deducting the portion attributable to the building(s).
<b>Landscaping</b>	natural features such as lawns, shrubs and trees added to a plot of ground or modified in such a way as to make it more attractive.
<b>Land use restrictions</b>	legal restrictions regulating the use to which land may be put.
<b>Land value maps</b>	a map used in conjunction with mass appraising; generally drawn at a small scale, and showing comparative unit land values on a block to block basis.

<b>Lease, Lessee, Lessor</b>	a written contract by which one party (lessor) gives to another party (lessee) the possession and use of a specified property, for a specified time, and under specified terms and conditions
<b>Leasehold</b>	a property held under the terms of a lease.
<b>Leasehold Improvements</b>	additions, renovations, and similar improvements made to a leased property by the lessee.
<b>Leasehold Value</b>	the value of a leasehold, the difference between the contract rent and the currently established economic or market rent.
<b>Legal description</b>	a description of a parcel of land which serves to identify the parcel in a manner sanctioned by law.
<b>Lister</b>	a field inspector or data collector whose principle duty is to collect and record property data (not an appraiser).
<b>Market data Approach</b>	one of the three traditional approaches to determination of the value of a property; arrived at by compiling data on recently sold property which are comparable to the subject property and adjusting their selling prices to account for variations in time, location, and property characteristics between the comparables and the subject property.
<b>Market value</b>	the price an informed and intelligent buyer, fully aware of the existence of competing properties, and not compelled to act, would be justified in paying for a particular property.
<b>Mass appraisal</b>	appraisal of property on a mass scale - such as an entire community, generally for ad valorem tax purposes, using standardized appraisal techniques and procedures to accomplish uniform equitable valuation with a minimum of detail, within a limited time period, and at a limited cost ... as opposed to a <i>fee appraisal</i> which is generally used to refer to a rather extensive, detailed appraisal of a single property or singularly used properties for a specified purpose.
<b>Member Appraisal Institute</b>	a professional designation (M.A.I.) conferred upon qualifying real estate appraisers by the American Institute of Real Estate Appraisers.
<b>Mineral rights</b>	the right to extract subterranean deposits such as oil, gas, coal, and minerals, as specified in the grant.
<b>Minimum rental</b>	that portion of the rent in a percentage lease which is fixed.

<b>Model method</b>	a method of computing the replacement or the reproduction cost of an improvement by applying the cost of a specified model and adjusting the cost to account for specified variations between the subject improvement and the model.
<b>Modernization</b>	the corrective action taken to update a property so that it may conform with current standards.
<b>Mortgage, Mortgagee Mortgagor</b>	a legal document by which the owner of a property (mortgagor) pledges the property to a creditor (mortgagee) as security for the payment of a debt.
<b>Neighborhood</b>	a geographical area exhibiting a high degree of homogeneity in residential amenities, land use, economic and social trends, and housing characteristics.
<b>Neighborhood trend</b>	three stages in the life cycle of a neighborhood "the <i>improving stage</i> characterized by development and growth; the <i>static stage</i> characterized by a leveling off of values; and the <i>declining stage</i> characterized by infiltration and decay.
<b>Net income</b>	the income remaining from the effective gross income after deducting all operating expenses related to the cost of ownership.
<b>Net lease</b>	a lease wherein the lessee assumes to pay all applicable operating expenses related to the cost of ownership; also referred to as <i>net net</i> , or <i>net net net lease</i> .
<b>Net sales</b>	gross sales less returns and allowances.
<b>Net sales area</b>	the actual floor area used for merchandising, excluding storage rooms, utility and equipment rooms, etc.
<b>Non-conforming use</b>	a use which, because of modified or new zoning ordinances, no longer conforms to current use regulations, but which is nevertheless upheld to be legal so long as certain conditions are adhered to.
<b>Observed depreciation</b>	that loss in value which is discernable through physical observation by comparing the subject property with a comparable property either new or capable of rendering maximum utility.
<b>Obsolescence</b>	a diminishing of a property's desirability and usefulness brought about by either functional inadequacies and over-adequacies inherent in the property itself, or adverse economic factors external to the property. Refer to <i>functional depreciation and economic depreciation</i> .

<b>Operating expenses</b>	the fixed expenses, operating costs, and reserves for replacements which are required to produce net income before depreciation, and which are to be deducted from effective gross income in order to arrive at net income.
<b>Average income</b>	rental received in addition to the minimum contract rental, based upon a specified percentage of a tenant's business receipts.
<b>Overall rate</b>	a capitalization rate representing the relationship of the net income (before recapture) of a property to its value as a single rate; it necessarily contains, in their proper proportions, the elements of both the land and the building capitalization rates.
<b>Over assessed</b>	a condition wherein a property is assessed proportionately higher than comparable properties.
<b>Parcel</b>	piece of land held in one ownership,
<b>Percentage lease</b>	a type of lease in which the rental is stipulated to be a percentage of the tenant's gross or net sales, whichever specified.
<b>Permanent parcel number</b>	an identification number which is assigned to a parcel of land to uniquely identify that parcel from any other parcel within a given taxing jurisdiction.
<b>Personal property</b>	property, which is not permanently affixed to and a part of the real estate, as specified by state statutes.
<b>Physical depreciation</b>	<i>see depreciation.</i>
<b>Preferential assessment</b>	an assessing system which provides preferential treatment in the form of reduced rates to a particular class of property; such as a system providing for farm properties to be assessed in accordance to their value in use as opposed to their value in the open market.
<b>Property class</b>	a division of like properties generally defined by statutes and generally based upon their present use. The basis for establishing assessment ratios in a classified property assessment system. See <i>classified property tax</i> .
<b>Property inspection</b>	a physical inspection of a property for the purpose of collecting and/or reviewing property data.
<b>Property record card</b>	a document specially designed to record and process specified property data; may serve as a source document, a processing form, and/or a permanent property record.

<b>Public utility property</b>	properties devoted to the production of commodities or services for public consumption under the control of governmental agencies such as the Public Utility Commission.
<b>Quantity survey Method</b>	a method of computing the replacement or the reproduction cost of an improvement by applying unit costs to the actual or estimated material and labor quantities and adding an allowance for overhead, profit, and all other indirect construction costs.
<b>Real estate</b>	the physical land and appurtenances affixed thereto; often used synonymously with <i>real property</i> .
<b>Real property</b>	all the interests, benefits, and rights enjoyed by the ownership of the real estate.
<b>Reassessment</b>	the revaluation of all properties within a given jurisdiction for the purpose of establishing a new tax base.
<b>Rent</b>	the amount paid for the use of a capital good. See <i>economic rent</i> .
<b>Replacement cost</b>	the current cost of reproducing an improvement of equal utility to the subject property; it may or may not be the cost of reproducing a replica property. Compare with <i>reproduction cost</i> .
<b>Reproduction cost</b>	the current cost of reproducing a replica property. Compare with <i>replacement cost</i> .
<b>Reserve for replacements</b>	a reserve established to cover renewal and replacements of fixed assets.
<b>Residential property</b>	vacant or improved land devoted to or available for use primarily as a place to live.
<b>Revaluation program</b>	see <i>equalization program</i> .
<b>Sales ratio study</b>	a statistical analysis of the distribution of assessment or appraisal-to-sale ratios of a sample of recent sales, made for the purpose of drawing inferences regarding the entire population of parcels from which the sample was abstracted.
<b>Salvage value</b>	the price one would be justified in paying for an item of property to be removed from the premises and used elsewhere.
<b>Site development costs</b>	all costs incurred in the preparation of a site for use.
<b>Soil productivity</b>	the capacity of a soil to produce crops.

<b>Sound value</b>	the depreciated value of an improvement.
<b>Sound value estimate</b>	an estimate of the depreciated value of an improvement made directly by comparing it to improvements of comparable condition, desirability, and usefulness without first estimating its replacement cost new.
<b>Standard depth</b>	that lot depth selected as the norm against which other lots are to be compared; generally the most typical depth.
<b>Sublease</b>	see <i>lease</i> ; the lessee in a prior lease simply becomes a lessor in a sublease.
<b>Tax bill</b>	an itemized statement showing the amount of taxes owed for certain property described therein and traceable to the party(s) legally liable for payment thereof.
<b>Tax book</b>	<i>see assessment roll.</i>
<b>Tax district</b>	a political subdivision over which a governmental unit has authority to levy a tax.
<b>Tax duplicate</b>	<i>see assessment roll.</i>
<b>Tax exemption</b>	either total or partial freedom from tax; total exemption such as that granted to governmental, educational, charitable, religious, and similar nonprofit organizations, and partial exemption such as that granted on homesteads, etc.
<b>Tax levy</b>	in reference to property taxes, the total revenue, which is to be realized, by the tax.
<b>Tax list</b>	<i>see assessment roll.</i>
<b>Tax mapping</b>	the creation of accurate representations of property boundary lines at appropriate scales to provide a graphic inventory of parcels for use in accounting, appraising and assessing; such maps show dimensions and the relative size and location of each tract with respect to other tracts.
<b>Tax notice</b>	a written notification to a property owner of the assessed value of certain properties described therein; often mandated by law to be given to each property owner following a revaluation.
<b>Tax rate</b>	the rate - generally expressed in dollars per hundred or dollars per thousand (mills) - which is to be applied against the tax base (assessed value) to compute the amount of taxes. The tax rate is derived by dividing the total tax levy, by the total assessed value of the taxing district.

<b>Tax roll</b>	<i>see assessment roll.</i>
<b>Tillable land</b>	land suitable for growing annual crops.
<b>Under assessed</b>	a condition wherein a property is assessed proportionately lower than computable properties.
<b>Uniformity</b>	as applied to assessing, a condition wherein all properties are assessed at the same ratio to market value, or other standard of value depending upon the particular assessing practices followed.
<b>Unimproved land</b>	vacant land; a parcel for which there is no improvement value.
<b>Unit cost or price</b>	the price or cost of one item of a quantity of similar items.
<b>Unit-in-place method</b>	a method of computing the replacement or reproduction cost of an improvement by applying established unit-in-place rates, developed to include the cost of materials, equipment, labor, overhead and profit, to the various construction units.
<b>Use density</b>	the number of buildings in a particular use per unit of area, such as a density of so many apartment units per acre.
<b>Use value</b>	the actual value of a commodity to a specific owner, as opposed to its value in exchange or market value.
<b>Vacancy</b>	an un-rented unit of rental property.
<b>Vacant land</b>	unimproved land; a parcel for which there is no improvement value.
<b>Valuation</b>	<i>see appraisal.</i>
<b>View</b>	the scene as viewed from a property.
<b>Water frontage</b>	land abutting on a body of water.
<b>Woodland</b>	land which is fairly densely covered with trees.
<b>Zoning regulations</b>	governmental restrictions relating to the use of land.

## **STATISTICAL TERMS**

<b>Aggregate ratio</b>	as applied to real estate, the ratio of the total assessed value to the total selling price.
<b>Average deviation</b>	in a distribution of values, the average amount of deviation of all the values from the mean value equal to the total amount of deviation from the mean divided by the number of deviations.

<b>Cells</b>	the basic units making up a stratified sample; each sale representing a distinct group within the total universe.
<b>Coefficient</b>	a value prefixed as a multiplier to a variable or an unknown quantity.
<b>Coefficient of dispersion</b>	as applied to an assessment-to-sale ratio distribution, a measure of dispersion in a given distribution equal to the average deviation of the ratios from the mean ratio divided by the mean ratio.
<b>Frequency distribution</b>	a display of the frequency with which each value in a given distribution occurs, or in a <i>grouped frequency distribution</i> , a display of the frequency with which the values within various intervals, or value groupings, occur.
<b>Mean</b>	a measure of central tendency equal to the sum of the values divided by the number. Also referred to as <i>arithmetic average or arithmetic mean</i> .
<b>Median</b>	a measure of central tendency equal to that point in a distribution above which 50% of the values fall and below which 50% of the values fall. The 50th percentile. The 2nd quartile.
<b>Mode</b>	a measure of central tendency equal to that value occurring most frequently in a given distribution. In a grouped frequency distribution, the mode is equal to the mid point of the interval with the greatest frequency.
<b>Normal distribution</b>	a distribution in which all the values are distributed symmetrically about the mean value, with 68.26% of the values falling between +/- 1 standard deviation, 95.44% between +/- 2 standard deviations, and 99.74% between +/- 3 standard deviations.
<b>Percentile rank</b>	the relative position of a value in a distribution of values expressed in percentage terms; for instance, as applied to an assessment-to-sale ratio distribution, a ratio with a percentile rank of 83 would indicate that 83% of the ratios were lower and 17% of the ratios were higher than that particular ratio.
<b>Precision</b>	as applied to real estate, it refers to the closeness of estimated value to actual selling price on an aggregate basis.
<b>Price related differential</b>	as applied to real estate, an analytical measure of the vertical uniformity of values in a given distribution calculated by dividing the mean ratio by the aggregate ratio; a ratio of more than 1 being generally indicative of the relative undervaluation of high priced properties as compared to the less valuable properties, whereas a ratio of less than 1 would indicate the converse relationship.



<b>Quartile</b>	positions in a distribution at 25 percentile intervals; the <i>first quartile</i> being equal to the 25th percentile, the <i>second quartile</i> being equal to the 50th percentile or the median, and the <i>third quartile</i> being equal to the 75th percentile.
<b>Regression analysis</b>	a statistical technique for making statements as to the degree of linear association between a criterion (dependent) variable and one or more predictor (independent) variables; a simple linear regression having one independent variable, and multiple linear regression having more than one independent variable.
<b>Range</b>	the difference between the highest and the lowest value in a distribution.
<b>Ratio</b>	a fixed relationship between two similar things expressed in terms of the number of times the first contains the second; the quotient of one quantity divided by another quantity of the same type, generally expressed as a fraction.
<b>Sample</b>	<p>as applied to real estate, a set of parcels taken from a given universe which is used to make inferences about values for the universe.</p> <p><i>A probability sample</i> is a sample in which each parcel in the universe is given equal chance of being included. Also referred to as random <i>sample</i>.</p> <p><i>A non-probability sample</i> is a sample in which each parcel in the universe being chosen by other criteria is not given an equal chance of being included. Essentially all assessment-to-sale ratio studies are non-probability samples.</p>
<b>Sample size</b>	as applied to real estate, the number of parcels needed from a universe to achieve a desired level of precision, given the total number of parcels in the universe and the standard deviation thereof.
<b>Standard deviation</b>	a measure of dispersion, variability or scatter of values in a given distribution equal to the square root of the arithmetic mean of the squares of the deviations from the mean.
<b>Standard error of the mean</b>	a measure of the statistical variability of the mean equal to the standard deviation of the distribution divided by the square root of the sample size.
<b>Stratified sampling</b>	the selection of sample parcels from distinct groups within the total universe based upon the known sizes and characteristics of these distinct groups.
<b>Universe</b>	as applied to real estate, all the parcels of a given type in the group under study, i.e., all the parcels of a given neighborhood, district, etc. Also referred to as <i>population</i> .

## **CLASSIFICATION OF REAL AND TANGIBLE PERSONAL PROPERTY**

In general, machinery and equipment used primarily as part of a manufacturing process (process equipment) is taken as Personal Property. Machinery and equipment which is part of the land or building improvement is taken as Real Property.

# Schedule of Values

# Harnett County 2022

DESCRIPTION	REAL	PERSONAL
AIR CONDITIONING- BUILDING	XX	
AIR CONDITIONING- MANUFACTURING/PRODUCT		XX
AIR CONDITIONG- WINDOW UNITS		XX
AIRPLANES		XX
ALARM SYSTEMS (SECURITY OR FIRE) & WIRING		XX
ASPHALT PLANTS		XX
ATM- ALL EQUIP/ & SELF STANDING BOOTHS		XX
AUTO EXHAUST SYSTEMS FOR BUILDING	XX	
AUTO EXHAUST FOR EQUIPMENT		XX
AWNINGS		XX
BALERS (PAPER, CARDBOARD, ETC)		XX
BANK TELLER LOCKERS- MOVEABLE OR BUILT-IN		XX
BAR AND BAR EQUIPMENT- MOVEABLE OR BUILT-IN		XX
BARNS		XX
BILLBOARDS		XX
BOAT AND MOTORS- ALL		XX
BOILER- FOR SERVICE OF BUILDING	XX	
BOWLING ALLEY LANES		XX
BROADCASTING EQUIPMENT		XX
C-I-P EQUIPMENT		XX
CABINETS		XX
CABLE TV DISTRIBUTION SYSTEMS		XX
CABLE TV EQUIPMENT & WIRING		XX
CABLE TV SUBSCRIBER CONNECTIONS		XX
CAMERA EQUIPMENT		XX
CANOPIES-FABRIC, VINYL, PLASTIC		XX
CANOPIES- GENERAL	XX	
CANOPY LIGHTING	XX	
CAR WASH- ALL EQUIPMENT, FILTERS & TANKS		XX
CARPET-INSTALLED	XX	
CATWALKS		XX
CEMENT PLANTS		XX
CHAIRS- ALL TYPES		XX
CLOSED CIRCUIT TV		XX
COLD STORAGE- EQUIPMENT, ROOMS, PARTITIONS		XX

# Schedule of Values

# Harnett County 2022

DESCRIPTION	REAL	PERSONAL
COMPRESSED AIR OR GAS SYSTEMS (OTHER THAN BLDG HEAT)		XX
COMPUTER ROOM A/C		XX
COMPUTER ROOM RAISED FLOOR		XX
COMPUTER SCANNING EQUIPMENT		XX
COMPUTERS AND DATA LINES		XX
CONCRETE PLANTS		XX
CONSTRUCTION AND GRADING EQUIPMENT		XX
CONTROL SYSTEMS- BUILDING AND EQUIPMENT		XX
CONVEYOR & MATERIAL HANDLING SYSTEM		XX
COOLERS- WALK-IN OR SELF STANDING		XX
COOLING TOWERS- PRIMARY USE FOR BUILDING	XX	
COOLING TOWERS- PRIMARY USE IN MANUFACTURING		XX
COUNTERS/RECEPTION DESKS- MOVEABLE OR BUILT-IN		XX
DAIRY PROCESSING PLANTS- ALL PROCESS ITEMS, BINS, TANKS		XX
DANCE FLOORS		XX
DATA PROCESSING EQUIPMENT- ALL ITEMS		XX
DELI EQUIPMENT		XX
DESK- ALL		XX
DIAGNOSTIC CENTER EQUIPMENT- MOVEABLE OR BUILT-IN		XX
DISPLAY CASES- MOVEABLE OR BUILT-IN		XX
DOCK LEVELERS		XX
DRAPES & CURTAINS, BLINDS, ETC		XX
DRINKING FOUNTAINS		XX
DRIVE-THRU WINDOWS- ALL		XX
DRYING SYSTEMS- PROCESS OR PRODUCT		XX
DUMPSTERS		XX
DUST CATCHERS, CONTROL SYSTEMS, ETC		XX
ELECTRONIC CONTROL SYSTEMS		XX
ELEVATORS	XX	
ESCALATORS	XX	
FARM EQUIPMENT- ALL		XX
FENCING- INSIDE		XX
FENCING- OUTSIDE	XX	
FLAGPOLE		XX
FOUNDATIONS FOR MACHINERY AND EQUIP		

# Schedule of Values

# Harnett County 2022

DESCRIPTION	REAL	PERSONAL
FREIGHT CHARGES		XX
FUELS- NOT FOR SALE (LIST AS SUPPLIES)		XX
FURNACES- STEEL MILL PROCESS, ETC		XX
FURNITURE AND FIXTURES		XX
GAZEBOS	XX	
GOLF COURSE AND IMPROVEMENTS (DRAINAGE/IRRIGATION)	XX	
GRAIN BINS		XX
GREENHOUSE BENCHES, HEATING SYSTEM, ETC		XX
GREENHOUSES- STRUCTURE IF PERM. AFFIXED	XX	
HEATING SYSTEMS, PROCESS		XX
HOPPERS- METAL BIN TYPE		XX
HOSPITAL SYSTEMS, EQUIPMENT & PIPING		XX
HOT AIR BALLOONS		XX
HOTEL.MOTEL TELEVISIONS & WIRING		XX
HUMIDIFIERS- PROCESS		XX
INCINERATORS- EQUIPMENT AND/OR MOVEABLE		XX
INDUSTRIAL PIPING- PROCESS		XX
INSTALLATION COST		XX
IRRIGATION EQUIPMENT		XX
KILN HEATING SYSTEM		XX
KILNS- METAL TUNNEL OR MOVEABLE		XX
LABORATORY EQUIPMENT		XX
LAGOONS/SETTLING PONDS	XX	
LAUNDRY BINS		XX
LAW & PROFESSIONAL LIBRARIES		XX
LEASED EQUIPMENT- LESSOR OR LESSEE POSSESSION		XX
LEASEHOLD IMPROVEMENTS (LIST IN DETAIL YEARLY)		
LIFTS-OTHR THAN ELEVATOR		XX
LIGHTING- PORTABLE, MOVEABLE, SPECIAL		XX
LIGHTING- YARD LIGHTING	XX	
MACHINERY AND EQUIPMENT		XX
MILK HANDLING- MILKING, COOLING, PIPING, STORAGE		XX
MINERAL RIGHTS	XX	
MIRRORS (OTHER THAN BATHROOM)		XX
MONITORING SYSTEMS BUILDING OR EQUIPMENT		XX
NEWSPAPER STANDS		XX
NIGHT DEPOSITORY		XX
OFFICE EQUIPMENT- ALL		XX
OFFICE SUPPLIES (LIST AS SUPPLIES)	XX	
OIL COMPANY EQUIPMENT- PUMPS, SUPPLIES, ETC	XX	
OVENS- PROCESSING.MANUFACTURING	XX	
OVERHEAD CONVEYOR SYSTEM	XX	

# Schedule of Values

# Harnett County 2022

DESCRIPTION	REAL	PERSONAL
PACKAGE AND LABELING EQUIPMENT		XX
PAGING SYSYSTEMS		XX
PAINT SPRAY BOOTHS		XX
PAINTING- NO ADDED VALUE		
PARTITIONS		XX
PAVING	XX	
PIPING SYSTEMS- PROCESS PIPING		XX
PLAYGROUND EQUIPMENT- ALL		XX
PNEUMATIC TUBE SYSTEMS		XX
PORTABLE BUILDINGS		XX
POWER GENERATORS SYSTEM (AUXILLARY, EMERGENCY, ETC)		XX
POWER TRANSFORMERS- EQUIPMENT		XX
PUBLIC ADDRESS SYSTEM (INTERCOM, MUSIC, ETC)		XX
RAILROAD SIDINGS (OTHER THAN RAILROAD OWNERS)	XX	
REFRIGERATION SYSTEM- COMPRESSORS, ETC		XX
REPAIRS- BUILDING	XX	
REPAIRS- EQUIPMENT (50% COST)		XX
RESTAURANT FURNITURE (INCLUDE ATTACHED FLOOR OR BLDG)		XX
RESTAURANT/KITCHEN EQUIPMENT, VENT HOODS, SINKS, ETC (COMMERCIAL)		XX
RETURNABLE CONTAINERS		XX
ROLL-UP DOORS (INSIDE WALL)		XX
ROLL-UP DOORS (OUTSIDE WALL)	XX	
ROOFING	XX	
ROOM DIVIDERS/PARTITIONS- MOVEABLE OR BUILT-IN		XX
ROOMS SELF CONTAINED OR SPECIAL PUPOSE (WALLS, CEILING, FLOOR)		XX
SAFES WALL OR SELF-STANDING		XX
SALES/USE TAX		XX
SATELLITE DISHES (ALL WIRING & INSTALLATION TO TV & EQUIPMENT)		XX
SCALE HOUSES (UNLESS MOVEABLE)	XX	
SCALES		XX
SECURITY SYSTEMS		XX
SERVICE STATIONS EQUIPMENT- PUMPS, TANKS, LIFTS, & RELATED		XX
SEWER SYSTEMS	XX	
SHELVING		XX
SIGNS ALL TYPES INCLUDING ATTACHED TO BUILDING		XX
SINKS- BATHROOM	XX	
SINKS- KITCHEN AREA		XX

# Schedule of Values

# Harnett County 2022

DESCRIPTION	REAL	PERSONAL
SOFTWARE- CAPITALIZED		XX
SOLAR PANELS		XX
SOUND SYSTEMS & PROJECTION EQUIPMENT		XX
SPARE PARTS-LIST AS SUPPLIES		XX
SPEAKERS- BUILT-IN OR FREESTANDING		XX
SPRAY BOOTHS		XX
SPRINKLER SYSTEM- ATTACHED TO PRODUCTS STORAGE RACKS		XX
SPRINKLER SYSTEM- BUILDING	XX	
SUPPLIES (OFFICE & OTHER)		XX
SWIMMING POOLS	XX	
TANKS (ALL ABOVE & BELOW GROUND)		XX
TELEPHONE SYSTEMS & WIRING- PRIVATE		XX
THEATRE SCREENS- INDOOR		XX
THEATRE SCREENS- OUTDOOR	XX	
THEATRE SEATS		XX
TOOLING, DIES, MOLDS		XX
TOWERS- MICROWAVE, EQUIPMENT, WIRING & FOUNDATION		XX
TOWERS- TV, RADIO, CATV, TWO-WAY RADIO, WIRING & FDN		XX
TRANSPORTATION COST-ALL		XX
TUNNELS-UNLESS PART OF PROCESS SYSTEM	XX	
UPGRADES TO EQUIPMENT		XX
VACUUM SYSTEM, PROCESS		XX
VAULT	XX	
VAULT DOOR, INNER GATES, VENTS, & EQUIPMENT		XX
VENDING MACHINES		XX
VENT FANS		XX
VENTILATION SYSTEMS- GENERAL BUILDING	XX	
VENTILATION SYSTEMS- NEEDED FOR MANUFACTUREING, PROCESS		XX
VIDEO TAPES/MOVIES/REEL MOVIES		XX
WALLCOVERING	XX	
WALLS- PARTITIONS, MOVEABLE 7 ROOM DIVIDERS		XX
WATER COOLERS-ALL		XX
WATER LINES- FOR PROCESS ABOVE OR BELOW GROUND		XX
WATER SYSTEM- RESIDENTIAL OR GENERAL BUILDING	XX	
WATER TANKS & SYSTEM- FOR PROCESS EQUIPMENT		XX
WHIRLPOOL/JACUZZI/HOT TUBS		XX
WIRING- POWER WIRING FOR MACHINERY AND EQUIPM		