Macon County, North Carolina

2019
Schedules of Values, Standards and Rules for Market Value

MACON COUNTY
BOARD OF COMMISSIONERS

James P. Tate, Chairman
Ronnie Beale, Vice Chairman
Karl Gillespie
Paul Higdon
Gary Shields

APPROVED

July 10, 2018

Signed: _____

Chairman, Macon County Board of Commissioners

Schedule of values, standards, and rules to be used in appraising real property in Macon County for the reappraisal that will be effective as of January 1, 2019, and used, when and where applicable, in the appraisal of property at its market value as of January 1, 2019, and from thereafter, as provided by law

INDEX

OUTBUILDING COST SCHEDULES

MACON COUNTY, NORTH CAROLINA

2019

COST DATA AND SCHEDULES

PRINCIPLES OF REAL PROPERTY APPRAISAL

FOREWORD

The ownership of land has always been one of the principal objectives of humanity. The desire for a home of one's own is a deep-rooted characteristic of American culture. To many people, property ownership represents financial stability and a sense of belonging to the community.

In the United States, property ownership is often referred to as a "bundle of rights". These rights are held to include possession, control, enjoyment, and the disposition of the real estate. However, the individual's ownership rights are subject to certain powers, or rights, held by the federal, state, and local governments. These limitations on ownership or real estate are for the general welfare of the community and include taxation, police power, eminent domain, and escheat.

This publication will concern itself with only the right of the government to taxation.

Taxation is a charge, by the government, on real estate to raise funds to meet the public needs of a community. In general, taxes are levied by various taxing bodies such as states, cities, villages, counties, or school districts, to raise revenue needed for the performance of various public functions, such as maintaining roads, schools, parks, police departments, county hospital, and mental institutions. the tax on real estate is one of the most encountered in most, if not all, states, laws regarding levy, assessment, and collection of the tax vary considerably.

In North Carolina, laws and procedural requirements are set forth in the machinery act of North Carolina.

N.C.G.S 105.283. UNIFORM ASSESSMENT STANDARD

"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."

Except as otherwise provided in this section, all property, real and personal, shall be assessed for taxation at its true value or use value as determined under G.S. 105-277.6, and taxes levied by all counties and municipalities shall be levied uniformly on assessments determined in accordance with this section.

Therefore, the machinery act should be considered as incorporated into and a part of this manual.
Various constitutional provisions, as well as the machinery act, require that taxation of property be equal and uniform, so that taxpayers owning tracts of substantially equal value will pay substantially the same amount of taxes. It therefore becomes imperative that standard guidelines and procedures for assessment be developed.

APPRAISING

Appraising is the establishment and use of systematized facts, principles, and methods, derived from experimentation, observation, and study of the real estate market to achieve an estimate of value. The accuracy or quality of that estimate is entirely dependent upon the appraiser's ability to exercise good reasoning and sound judgment in the use of these principles and methods.

VALUE

Value is an abstract word with many acceptable definitions. In a broad sense, value may be defined as the relationship between a covenant owner and the desire of a potential purchaser. It is the power of a good or service to command other goods or services in exchange. In terms of appraisal, value may be described as the present worth of future benefit arising from the ownership of real property.

For a property to have value in the real estate market, it must have four characteristics:

1. Utility: the capability to satisfy human needs and desires.

2. Scarcity: a demand that is greater than the supply.

3. Effective demand: the need or desires for possession or ownership Backed up by the financial means to satisfy that need.

Note: when the word demand is used in economics, effective demand is usually assumed.

4. Transferability: the transfer of rights of ownership from one person to another with relative ease.

KINDS OF VALUE

A given piece of real estate may have many different values at the same time, some of which are listed below:

Assessed value insured value
Book value
Condemnation value
Depreciated value
Market value
Mortgage value
Salvage value

FOR ASSESSMENT

The goal of an appraiser is market value. the market value of real estate is the highest price, in terms of money, which a property will bring in a competitive and open market, allowing a reasonable time to find a purchaser, who buys the property with knowledge of all the uses to which it is adapted and for which it is capable of being used.

Included in this definition are the following key points:

1. Market Value is the highest price a property will bring not the average price or the lowest price.

2. Payment must be made in cash or its equivalent.

3. Both buyer and seller must act without undue pressure.

4. A reasonable length of time must be allowed for the property to be exposed in the open market.

5. Both buyer and seller must be well-informed or well-advised.

6. The potential use of the property as well as its present use must be recognized.

MARKET VALUE VERSUS MARKET PRICE

Market price is an estimated price based on an analysis of comparable sales and other pertinent market data. Market price, on the other hand, is what a property actually sells for - it's selling price. Theoretically, the ideal market price would be the same as the market value; however, there are circumstances under which a property must be sold at below or above market value, such as when a seller is forced to sell quickly or when a sale is arranged between relatives. Thus, a market price can be taken as accurate evidence of market value only after considering the relationship of the buyer and the seller, the terms and conditions of the market and the effect of the passage of time since the sale was made.

MARKET VALUE VERSUS COST

It is also important to distinguish between market value and cost. One of the most common errors made in valuing property is the assumption that cost represents market value. Cost and market value may be equal, and often are, when the improvements on a property are new and represent the highest and the best use of the land.

However, more often, cost does not equal market value. For example, two homes are identical in every respect except that one is located on a street with heavy traffic and the other is on a quiet, residential street. The value of the former may be less than the latter, although the improvement cost of each may be exactly the same. Another example would be a situation in which the demand for homes greatly exceeds the available supply to such an extent that buyers actually pay more than the improvement cost of such homes in order to secure housing without long delay. In this instance, market value could easily exceed cost.

VALUE IN USE VERSUS 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. Overall, value is still determined by market value and not the value in use.

BASIC VALUE PRINCIPLES

Whether an appraisal specifically mentions them or not, there are always a number of economic principal at work which affect the value of real estate. The more important of these principles are defined below.

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.

In appraising a residential location, the determination of highest and best use may not involve just the income available in money. Amenities or owner satisfaction, such as an unusual view of the mountains, may be a key factor, and unusual 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. It should be noted here that the benefits referred highly speculative or potential benefits which are unlikely to occur.

SUBSTITUTION

This appraisal principle states that the maximum value of a property tends to be set by the cost of purchasing an equally desirable and valuable substitute property, assuming that no costly delay is encountered in making the substitution. For example, if there are two similar houses for sale in an area, the one with the lowest asking price would normally be purchased first.

SUPPLY AND DEMAND

This principle states that the value of a property will increase if the supply decreases and the demand either increases or remains constant - and vice versa. For example, the last lot to be sold in a residential area where the demand for homes is high would probably be worth more than the first lot that was sold in the area.

CONFORMITY

This principle holds that a stable and uniform value is realized if the use of land conforms to existing neighborhood standards. There should also be a reasonable degree of conformity along social and economic lines. In residential areas of single-family houses, for example, buildings should be similar in construction, quality, size, and age to other buildings in the neighborhood, and they should house families of similar social and economic status.

ANTICIPATION

This principle holds that value can increase or decrease in anticipation of some future benefit or detriment affecting the property. For example, the value of a house may be affected if there are rumors that the block on which the house is located may be converted to commercial use in the near future.

INCREASING AND DECREASING RETURNS

This principle holds that improvements to land and structure will eventually reach a point at which they will have no effect on property values. If money spent on such improvements produced an increase in income or value, the law of increasing returns is applicable. But at the point where additional improvements will not produce a proportionate increase in income or value the law of decreasing returns applies.

CONTRIBUTION

This principle holds that the value of any component of a property consists of what its addition contributes to the value of a whole or what its absence detracts from that value. For example, the cost of installing an air conditioning system and remodeling an older office building may be greater than is justified by the rental increase that may result from the improvement to the property.

COMPETITION

This principle holds that excess profits attract competition and that competition often destroys profits. For example, the success of a retail store may attract investors to open similar stores in the area. This tends to mean less profit for all stores concerned unless the purchasing power in the area increases substantially.

THE PRINCIPLES OF CHANGE

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 state of infiltration and decay evidenced by declining values.

APPRAISAL METHODS

THE THREE APPROACHES TO VALUE

In order to arrive at an accurate estimate of value, three basic approaches, or techniques, are traditionally used by appraisers: the market data approach; the cost approach; and the income approach. Each method serves as a check against the others and narrows the range within which the final estimate of value will fall.

THE MARKET DATA, OR SALES COMPARISON, APPROACH TO VALUE

In the market data approach, an estimate of value is obtained by comparing the subject property (property under appraisal) with recent sales of generally comparable properties (properties similar to the subject). Since no two parcels of real estate are exactly alike, each such property must be compared to the subject property and the sales prices adjusted for any dissimilar features. After careful analysis of the differences between comparable properties and the subject property, the appraiser assigns either a dollar or a percentage value to these differences.

The principal factors for which adjustments must be made fall into four basic categories:

1. **Date of sale**: an adjustment must be made if economic changes occur between the date of sale of the comparable property and the date of the appraisal.

2. **Location**: an adjustment may be necessary to compensate for locational differences. For example, similar properties might differ in price from neighborhood to neighborhood, or even in more desirable locations within the same neighborhood.

3. **Physical features**: physical features which may cause adjustments include age, size of lot, landscaping, type and quality of construction, number of rooms, square feet of living space, interior and exterior condition, presence or absence of a garage, fireplace, air conditioner, and so forth.

4. **Terms and conditions of sale**: this consideration becomes important if a sale is not financed by a present standard financing procedure.

The market data approach is considered essential in almost every appraisal of real estate. It is considered the most reliable of the three approaches in appraising residential property, where the amenities (the tangible benefits) are so difficult to measure.

THE COST APPROACH TO VALUE

The cost approach is based on the principle of substitution, which states that the maximum value of a property tends to be set by the cost of acquiring an equally desirable and valuable substitute property, assuming that no costly delay is encountered in making the substitution.

The cost approach consists of five steps:

1. E**stimate the value of the land as if it were vacant and available to be put to its highest and best use.**

2. **Estimate the current cost of constructing the building (s) and site improvements.**

3. **Estimate the amount of accrued depreciation resulting from physical deterioration, function obsolescence, and/or economic obsolescence.**

4. **Deduct accrued depreciation from the estimated construction cost of new building (s) and site improvements.**

5. **Add the estimated land value to the depreciated cost of the building (s) and site improvements to arrive at the total property value.**

Land value (step 1) is estimated by using the market data approach: that is, the location, conditions, and improvements of the subject site are compared to those of similar sites and adjustments are made for significant differences.

There are two ways to look at the construction cost of a building for appraisal purpose (step 2): reproduction cost and replacement cost. Reproduction cost is the dollar amount required to construct an exact duplicate of material and construction practices of the subject building at current prices. Replacement cost would be the construction cost at current prices of the subject building using present day materials and construction practices that produces a very similar although not exact duplicate and serves the same purpose or function as the original.

Replacement cost is most often used in assessing, since it eliminates obsolete materials and takes advantage of current construction techniques. Either the reproduction or the replacement cost of a building is usually estimated by measuring the number of square feet or cubic feet contained in the structure and multiplying by the current cost per square or cubic foot to construct a similar building. From the reproduction or replacement cost so produced, the appraiser deducts depreciation, which is the loss of value from any cause.

THE INCOME APPROACH TO VALUE

The income approach measures the present worth of the future benefits of a property by the capitalization of the net income stream over the estimated 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 gross market rent, as evidenced by the present market yield of comparable properties. From this figure 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.

This approach obviously has its basic application in the appraisals 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.

RECONCILIATION

If the three approaches are applied to the same property, they will normally produce three separate indications of value.

Reconciliation is the art of analyzing and effectively weighing the findings from the three approaches. Reconciliation was formerly called correlation by the appraisers.

Although each approach may serve as an independent guide to value, whenever possible, all three approaches should be used as a check on the final estimate of value. The process of reconciliation is more complicated than simply taking the average of the three value estimates. An average implies that the data and logic applied in each of the approaches are equally valid and reliable and should therefore be given valid and reliable with some kinds of properties than with others. For example, in appraising a home, the income approach is rarely used and the cost approach is of limited value unless the home is relatively new; therefore, the market data approach is usually given greatest weight in valuing single-family residences. In the appraisal of income or investment property, the income approach would normally be given the greatest weight. In the appraisal of churches, libraries, museums, schools, and other special-use properties where there is seldom an increase in income, and few sales, if any, the cost approach would usually be assigned the greatest weight. From this analysis or reconciliation, a single estimate of market value is produced.

APPLYING THE COST APPROACH

Since estimating the land value is covered in a separate section, this section will address itself to the two remaining elements - cost and depreciation of improvements.

ESTIMATING COST

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 improvement.

Among these are material, labor, all subcontracts, contractors' overhead and profit, architectural and engineering fees, consultation fees, survey and permit fees, legal fees, taxes, insurance and the cost of interim financing.

There are various methods that may be employed to estimate cost. The methods widely used in the appraisal field are the quantity-survey method, the unit-in-place or component-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, contractors' 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 everyday 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 estimating 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 linear foot of footings and cost per 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. This 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 reoccur repeatedly in a number of buildings.

The model method is still a further extension in that unit-in-place costs 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.

APPLYING THE APPRAISAL METHOD

APPLYING THE MARKET DATA APPROACH

An indication of the value of a property can be derived from analyzing 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, and site and structural characteristics.

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 which do not normally reflect valid market conditions are as follows:

- Sales in connection with foreclosures, bankruptcies, condemnations and other legal action.
- 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 interest.
- Sales involving cemetery lots.
- Sales involving mineral or timer rights and access or drainage rights.
- Sales involving the transfer of part interests.
- Sales made at public or private auction.

In addition to selecting valid market transactions, it is equally important to select properties which 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, with reliable facts, be adjusted to reflect only the real property transactions, nor can sales of non-operating or deficient industrial plants be validly compared with operating or non-deficient plants. The comparable 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 under appraisement. In selecting these elements, the appraiser must give prime consideration to the same factors which influence the prospective buyers of particular types of properties.

The typical home buyer is interested in the property's capacity to provide himself and his family a place to live. He's primarily concerned with the living area, utility area, number of rooms, number of baths, age, structural quality and condition, and the modern kitchen and recreational conveniences of the house. He is equally concerned with 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 utility value of the farm buildings and structures on the land.

The typical buyer of commercial property, including warehousing and certain light industrial plants, is primarily concerned with its capacity to produce rent. He will be especially interested in the age, design, and structural quality and condition of the improvements, the parking facilities and the location relative to transportation, labor markets, material source, material market 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 which are truly comparable in their entirety. He will, therefore, generally find it necessary to select smaller units of comparison such as price per square foot, per unit, per room, etc. In doing so he must exercise great care in selecting a unit of comparison that represents a logical common denominator for the properties being compared. A unit of comparison which is commonly used and proven to be fairly effective is the gross rent multiplier, generally referred to as GRM, 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 which 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 he must make adjustments for significant variations in size, shape, topography, and land improvements. In comparing the structures, he must make similar adjustments for size, quality, design, condition, and significant structural and mechanical components.

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 which is most applicable to the subject property. Developed and applied properly, these pricing techniques will assist the appraiser in arriving at valid and accurate estimates of cost as of a given time. That cost generally represents the upper limit of value of a structure. The difference between its 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 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 its present value and the sum of the cost new as of a given time. The causes for the loss may be divided into three broad classifications:

1. Physical deterioration
2. Functional obsolescence
3. Economic obsolescence

PHYSICAL DETERIORATION pertains to the wearing out to the various improvement components, through the action of the elements, weather, 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 tend to lessen its usefulness as related to present day desires. 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 property 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 his ability to exercise sound judgment in equating his observations to the proper monetary allowance to be deducted from the cost new. There are several acceptable guidelines which may be employed.

PHYSICAL DETERIORATION, FUNCTIONAL, AND ECONOMIC OBSOLESCENCE can be observed by comparing the physical condition, functional deficiencies, and the economic status 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.

Economically, obsolescence generally being incurable and immeasurable by standards of restoration, will best be measured by extrapolating its observed loss from the market place.

PHYSICAL, FUNCTIONAL, AND ECONOMIC OBSOLESCENCE may also be measured by capitalizing the estimated loss in rental due to the deficiency.

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

APPLYING THE INCOME APPROACH

Since the justified price paid for income producing property is no more than the amount of investment required to produce a comparable 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 or value by employing one or more of the acceptable capital.

THE PRINCIPLES OF CAPITALIZATION

Capitalization is the mathematical process for converting the net income produced by property into an indication of value. The process evolves out of the principles of perpetuity and termination. Perpetuity affirms that the net income produced by land will continue for an infinite period of time.
Termination affirms that the net income produced by a building (assuming normal repairs and maintenance) will stop after a certain number of years...this in effect is to say that all buildings at some time in the future will cease to have economic value.

If the income flow produced by a building will terminate in the future, it is reasonable to suggest that the investor in buildings is entitled to the return of his investment as well as a return on his investment. In the capitalization process, this recovery of the investment is referred to as recapture. Theoretically, the recovered capital would be used to replace the present structure when it ceases to have value. In actual practice, however, the investor usually uses the return capital for debt services or for reinvestment in other projects.

Several methods of capitalization are currently employed by appraisers.

All the methods recognize that the investor is entitled to both a return on and the recapture of his investment.

EXPLORING THE RENTAL MARKET

The starting point for the appraiser is an investigation of current market rent in a specific area in order to establish a sound basis for estimating the gross income which should be returned from competitive properties. The appraiser must make a distinction between market rent, being the rent which property is normally expected to bring in the open market, as opposed to contract rent, or 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 which best typify normal market activity. The data is necessary to develop local guidelines for establishing the market 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 is an essential phase in the valuation of commercial properties. The appraiser is primarily earning power of a property. His objective is to estimate its expected net income. Income and expense statements of past years are valuable only to the extent which 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 data in order to arrive at an accurate and realistic estimate of net income.

QUESTIONS RELATING TO INCOME DATA

Was the reported income produced entirely by the subject property? Very often the rental will include an amount attributable to one or more additional parcels of real estate. In this case, it would be necessary to obtain the property allocations of rent.

Was the income attributable to the subject property as it physically existed at the time of listing or did the property 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 the proper rent.

Does the reported income represent a full year's return? It is often advisable to obtain both monthly and annual amounts as a cross-check.

Does the income reflect current market rent? Is either part or all of the income predicated on old leases? If so, what are the provisions for renewal options and rates?

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 nonrecurring causes?

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?

Is the income attributable directly to the real estate and conventional amenities? Is some of the income derived from furniture 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.

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 market rent. The information required pertains to the business operation using the property. Proper analysis of the annual operating statement of the business, including gross sales or receipts, can provide an accurate estimate of market rent.

ANALYSIS OF EXPENSE DATA

The appraiser must consider only those expenses which are applicable to the cost of ownership. Any portion of the expenses incurred either directly or indirectly by the tenant need not be considered. Reimbursed expenses can only be considered when the amount of reimbursement is included as income. 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

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, a proper 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 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 1 to 10% of the gross income.

GENERAL

General expenses in that they include such items as the cost of services and supplies not charged to a particular category, unemployment and FICA taxes, workman's compensation, and other employee insurance plans are legitimate deductions.

Miscellaneous expenses is the "catch-all" category for incidentals. This item should reflect a very nominal percentage of the income. If the 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

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 "correct" 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

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

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 above mentioned utilities, and may include, especially in large installations, the firemen wages, 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 wages and uniforms of elevator attendants and the cost of repaired and services, are legitimate deductions. Repairs and services are generally handled through service contracts and can be regarded as fairly stable 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

Repairs and Maintenance expenses reported for any given year may not necessarily be 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 (possible 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 property judgment as to the average annual expenses for these items or include a proper allowance in the building capitalization rate to cover these 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 not deducted as an expense item. Careful consideration must be given to the allowance used in the building capitalization rate as the cost of repairs and maintenance for commercial buildings will vary considerably depending on age, condition, the general quality of construction, and labor costs.

***Note that custodian charges such as wages of janitors, watchmen, doormen, porters, etc., must always be analyzed to determine if they are consistent with current wages**.

Consideration has to be given to the living quarters occupied by such employees. The economic rent attributable to the space should be included in the income estimate. The costs incurred in providing this space and other remuneration should be deducted as an expense item.
Fixed expenses include those items which show no or very little variation from year to year. It is practical to treat these items individually.

INSURANCE

As was the case of some other expense items, the amount reported for insurance in any given year may not be indicative of the actual annual expense. Many owners obtain the more economical 3-year coverage plans and expense the entire premium in one year. Furthermore, many owners obtain "blanket" coverage for more than one building and fail to make the proper allocations of cost. It is generally more effective for the appraiser to establish his own guidelines. He must be careful to include only items applicable to real estate. Fire extended coverage and owner's liability are the main insurance expense items. Separate coverage on different components of the building, such as elevators and plate glass, are also legitimate expenses. This factor is usually built into the building capitalization rate; however, in some instances, it will be necessary to adjust the rate to reflect unusual conditions related to specific properties.

REAL ESTATE TAXES

In making appraisals for tax purposes, the appraiser will find it more convenient to exclude the actual amount reported for real estate taxes. Since future taxes will be based upon his appraised value, he can readily provide for this expense item by including it in his capitalization rate.

OTHER TAXES

Expenses reported in this category, such as income taxes, corporate taxes, and franchise taxes, usually do not pertain to the real estate and should, therefore, be disregarded.

DEPRECIATION

The appraiser provides for this expense by the recapture rate which he includes in his building capitalization rate. The amount reported for depreciation is a "bookkeeping figure" which the owner uses for internal revenue purposes, and should not be considered in the income approach. In newer properties, this figure may provide an accurate indication of the original cost.

INTEREST

Interest on borrowed capital is not a legitimate expense. All property is appraised as if it were "free and clear". It makes no difference to the appraiser whose money is used for purchasing

the property. If a portion of the investment is borrowed capital, the owner of the fee (the property) is entitled only to a return on that portion of the property he owns, while the return on that portion of the investment is assigned to the holder of the mortgage. Interest paid for borrowed capital is not a deductible expense since interest on the total investment, as normal return, is considered in the capitalization rate.

LAND RENT

Land rent is paid in lieu of purchasing the land and is generally not considered an expense item in the capitalization process. It is, however, a significant item in that it may have a direct bearing upon the market value of a property. Land leases have a direct bearing upon the market value of a property. Land leases have the tendency to influence value of a property upward or downward depending upon whether or not they are favorable or unfavorable to a prospective buyer. It is, therefore, advisable to obtain the amount and terms of all leases whenever possible.

It is evident at this point that there are some expense items listed above which the appraiser should disregard. The question may come up, then, why ask for the information if we do not intend to use it? The answer is that expense should be designed to accommodate property owners and/or accountants. Their records include these categories and if space is not provided to enter these items on the form, they have the tendency to either lump all of them under "miscellaneous" or to include them in other categories, making it very difficult for the appraiser to abstract the legitimate deductions.

DEVELOPING CAPITALIZATION RATES

It is virtually impossible and certainly not practical to obtain a complete economic history on every commercial property we appraise. On many properties, however, we do obtain detailed economic information through the use of income and expense forms. We 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 in our listing operation. Therefore, in order to insure good appraisal, a number of the operating expenses necessary to maintain that gross income are best provided for by including percentage allowances in our land and building capitalization rates. These are, of course, in addition to the interest and recapture rates.

A capitalization rate established for use in appraising for ad valorem taxes will generally consist of the following factors:

1. **Recapture**...or the annual rate of return of the depreciable items of a real estate investment.

2. **Interest rate**...or the annual rate of return on a real estate investment.

3. **Tax, insurance, and maintenance rates**...or the annual rate of return on the total real estate investment required to pay the annual cost of each of these expenses.

4. **Contingency rates**...or the annual rate of return on the total real estate investment required to pay the annual cost of unusual and unanticipated expenses.

RECAPTURE RATE

The straight line method of capture is the simplest method and the one which seems to most reflect the action of the investors in general. It calls for the return of capital in equal increments or percentage allowances spread over the estimated remaining economic life of a building.

Examples:	50 years remaining	100 / 50 = 2.0%
	40 years remaining	100 / 40 = 2.5%
	25 years remaining	100 / 25 = 4.0%

INTEREST RATE

There are several methods currently employed by appraisers to determine the acceptable normal rate of return expected by investors. The band of investment method and the direct comparison method are considered below. Repeating these procedures on an adequate representative sampling should provide the appraiser with a pattern from which he would be able to select the most appropriate indicated rate of interest.

In the band of investment method, it is necessary to first determine the rate of return local investors require on their equity (cash outlay). It is then necessary to contact lenders and obtain the current interest rates for money and the amount of equity required, and then to multiply the percentages of equity and mortgage by the investors' rates. The sum of these products will indicate the actual rate of return.

Equity rate (12%) -	Mortgage rate (8%)
Amount of equity	20% x 12% = 2.4%
+Amount of mortgage	80% x 8% = 6.4%
=Indicated rate of return	8.8%

Equity rate (15%) -	Mortgage rate (8%)
Amount of equity	25% x 15% = 3.75%
+Amount of mortgage	75% x 8% = 6.00%
=Indicated rate of return	9.75%

In the **DIRECT COMPARISON METHOD**, the appraiser abstracts the rate of return directly from actual market data; for it can be reasonably assumed that informed investors fully aware of the existence of comparable properties will invest in those properties which are able to produce the required and desirable net return.

Following are the steps involved in determining the normal rate of return by the **DIRECT COMPARISON METHOD**.

1. Collect sales data on valid open market transactions involving properties for which the appraiser is able to accurately estimate both the net income and the land or building value.

2. Allocate the proper amounts of the total sales price to land and buildings.

3. Estimate the remaining economic life of the building and compute the amount of return required annually for the recapture of the investment to the building.

4. Determine the net income before recapture.

5. Deduct the amount required for recapture from the net income. The residue amount represents the actual amount of interest.

6. Divide the actual amount of interest by the sales price to convert it into a percentage rate of return.

Example A:

1. Sale price = $165,000.00

2. Amount allocated to land = $64,000.00
   Amount allocated to building = $101,000.00

3. Remaining life = 20 years
   Annual rate of recapture = 100% / 20 years = 5%
   Amount required annually = $101,000 x 5% = $5,050.00 per year

4. Net income before recapture = $20,345.00

5. Less recapture interest - $ 5,050.00

   $15,295.00

6. Indicated rate of return = $15,295.00 / $165,000.00 = 9.27%

Example B:

1. Sale price = $135,000.00

2. Amount allocated to land = $50,000.00
   Amount allocated to building = $85,000.00

3. Remaining life = 25 years
   Annual rate of recapture = 100% / 25 years = 4%
   Amount required annually = $85,000.00 x 4% = $3,400.00 per year

4. Net income before recapture = $16,000.00

5. Less recapture interest - $ 3,400.00

   $12,600.00

6. Indicated rate of return = $12,600.00 / $135, 00.00 = 9.33%

TAX RATE

To make the proper provisions for real estate taxes, the appraiser must anticipate two factors:

1. The tax rate for assessed valuation

2. The percentage of the appraised value to be used for assessment purposes.

The annual rate required to pay the cost of taxes can then be calculated by multiplying the tax rate in dollars per $100.00 assessment (equivalent to a percentage) by the percentage level of assessment.

Examples:

	A	B	C
Tax rate per $100.00 assessment	5.00	4.40	8.00
X percentage level of assessment	33.33%	33.33%	33.33%
= required	1.67%	1.47%	2.67%

MAINTENANCE AND INSURANCE RATES

It is essential that these figures reflect local conditions. The actual local cost may be extracted from income and expense data collected from available technical publications.

CONTINGENCY RATE

The percentage allowance for contingencies should be established at the local level. The element provides the appraiser some flexibility in:

A. Arriving at a proper market value based on the individual project requirements.

B. Providing some consideration for unusual expenses that may occur on properties appraised without the benefit of a detailed operating statement.

TOTAL LAND RATE

Since the income produced by land will theoretically continue for an infinite period of time, it is not necessary to recapture the investment to land. The capitalization rate applicable to land is, therefore, the sum of the interest rate and the tax rate.

TOTAL BUILDING RATE

A building is a depreciable item. Since the income produced by a building will terminate in a given number of years, it is necessary to recapture the investment in the buildings. The capitalization rate applicable to buildings is, therefore, the sum of the interest rate, the recapture rate, the tax rate, the maintenance rate, the insurance rate, and the contingency rate.

Since it is the appraiser's job to interpret the local real estate market, it is quite obvious that the capitalization rates he uses must also reflect the actions of local investors.

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, as we have seen, lies in the action in the market which indicated 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 / capitalization rate

In **DIRECT CAPITALIZATION**, the appraiser determines a single "over-all" capitalization rate. This is done by analyzing actual market sales of similar types of properties. He develops the net income for each property and divides the net income by the sales price to arrive at an over-all rate of return. The net income of the subject property is then divided by the appropriate over-all rate to provide an indication of value.

The big disadvantage of this method is that it does not provide for using separate rates for land and buildings. It therefore calls for a highly subjective judgment on the part of the appraiser in applying an over-all rate to properties having different land-to-building ratios.
The statement that **mortgage-equity capitalization** is a sophisticated form of direct capitalization may perhaps be an over-simplification, but is nevertheless true. The major difference in the two approaches is in the development of the over-all rate.

In this method, equity yields and mortgage terms are considered influencing factors in construction of the lease 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.

The **straight line** and **sinking fund** methods are both actually forms of direct capitalization with one using straight line recapture and the other using sinking fund recapture, 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 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 regular savings accounts, 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 day worth. The total property value then is the sum of the capitalized income stream plus the present worth of the reversion value.

RESIDUAL TECHNIQUES

It can readily be seen that any one of the factors of the capitalization equation (value = net income / 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.

PROPERTY RESIDUAL TECHNIQUE is an application of direct capitalization. In this technique, the total net income is divided by an over-all capitalization rate (which provides for the return on the total investment to land and buildings plus the recapture of the investment to the building) to arrive at an indicated value for the property.

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.

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.

The following are examples of the application of the residual techniques to a property yielding an annual net income of $10,000.00. The remaining life of the building is estimated to be 25 years, and the indicated normal rate of return to be 8%.

PROPERTY RESIDUAL TECHNIQUE

Analysis of market data involving the sales of comparable properties indicates that investors will invest for a total net return amounting to 11% of the investment.

Net income	$10,000.00
Property value	= net income / capitalization
Rate	= $10,000.00 / 11% = $90,000.00

BUILDING RESIDUAL TECHNIQUE (straight-line recapture)

Land value = $20,000.00
Recapture rate = 100% / 25 years = 4%
Land capitalization rate = 8% (interest rate)
Building capitalization rate = 8% (interest rate)
plus 4% (recapture rate) = 12%

Net income	= $ 10,000.00
Amount of net income imputable to land ($20,000.00 x 8%)	- $ 1,600.00
Residual income imputable to building	= $ 8,400.00

Building value = net income / capitalization
rate = $8,400.00 / 12% = $70,000.00
Land value = $20,000.00
Property value = $90,000.00

LAND RESIDUAL TECHNIQUE (straight-line recapture)

Building value = $70,000.00
Recapture rate = 100% / 25 years = 4%
Land capitalization rate = 8% (interest rate)
Building capitalization rate = 8% (interest rate)
plus 4% (recapture rate) = 12%

Net income = $10,000.00
Amount of net income imputable to building
($70,000.00 x 12%) - $ 8,400.00
Residual income imputable to land = $ 1,600.00

Land value = net income / capitalization
Rate = $1,600.00 / 8% = $20,000.00
Building value = $70,000.00
Property value = $90,000.00

GROSS RENT MULTIPLIER (GRM) METHOD

When certain specific types of income properties are rented in any significant number in the market, there is a strong tendency for the ratio between sales prices and gross incomes to be fairly consistent. The gross rent multiplier, commonly referred to as **GRM,** is a factor reflecting this relationship between the gross annual income and value. Once the **GRM** has been determined for a specific type property, it can then be applied against income of other similar properties to indicate their economic value.

The **GRM** approach is often underappreciated, though the appraiser, as with any income approach, must still give consideration to age of building, size, location, and land to building ratios. Many adjustments which would normally involve judgment estimate have been resolved by the free action of the rental market. For example, if one property has some advantage, such as location or accessibility over another property, this difference would probably be reflected in the rental.

The **GRM** may be applied to either the gross income or to the effective gross income **(EGRM),** depending on the circumstances and available data in the local market. This approach is frequently applicable to apartment, retail, and certain types of industrial properties, where a relatively consistent net-to-gross income operating ratio exists.

MASS APPRAISAL PSYCHOLOGY

In preceding sections, we have outlined the fundamental concepts, principles, and valuation techniques underlying the appraisal process. It now behooves us to attack the problem at hand...the reappraisal of property within a total taxing jurisdiction, be it an entire state, county, or any subdivision thereof...and to structure a systematic mass appraisal program to effect 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 price;

- provide the necessary standardization measures and quality controls essential to promoting and maintaining uniformity throughout the jurisdiction;

- providing the appropriate 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 on 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 each other property, and what is more, these valid, accurate, and equitable valuations must be generated as economically and efficiently as possible.

PRINCIPALITIES OF UNIFORM ASSESSMENT

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, he must coordinate his approaches to the valuation of the various classes of property 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 himself and his 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 his selection. He will rely heavily upon his powers of observation and his inherent intelligence, knowing what he can afford 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 appraisers for tax purposes, to evaluate the relative degree of appeal of one property to another.

The prospective purchaser of agricultural property will be motivated somewhat differently; he will be primarily interested in the productive capabilities of the land. It is reasonable to assume that he will be familiar, at least in a general way, with the productive capacity of the farm he proposes to buy. One might expect 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 farm land 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 he is justified in paying for the property is a measure of his prospects for a net return from his 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 then 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 over-all utility value that the property has for him. Of course, in evaluating the over-all utility, he must give individual consideration 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 value; if the operation becomes obsolete, the building likewise becomes obsolete. The upper limit of its value is its replacement cost new, and its present day value is some measure of its present day 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 plan. 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. The farm appraiser must likewise rely primarily upon the market-data approach to value, but in addition to analyzing the selling prices of comparable properties, it may be necessary to effectively analyze the farm's productive potential.

Rural dwellings are similar to urban dwellings in that their primary purpose is to provide a family with a home; as such, the appraiser should value them in the same manner as he values any other residence. His approach to farm buildings, however, must be somewhat different. Here, his primary objective is to arrive at that value which their presence adds to the productivity of the land...their degree of utility or usefulness. In determining the reproductive capabilities of the land, he will find it necessary to divide the land into various soil classifications utilizing all soil and land maps available through agriculture extension services and the state university. He must similarly give equal consideration to all other factors affecting the value of the property, such as its location relative to the market place, its relative accessibility, the shape and size of the fields, the extent and condition of the fences, drainage, water supply, etc.

The commercial appraiser will find that since commercial property is not bought and sold as frequently as is residential property, the sales market may not be as readily established. He must rely heavily on the income approach to value...determining the net economic rent which the property is capable of yielding and the amount of investment required to effect that net return at a rate commensurate with that normally expected by investors. 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. Nor will he be able to rely upon the income approach, again because of comparable investments, but also because of the inability to accurately determine the contribution of each unit of production to the over-all income produced. He must, therefore, rely heavily on the cost approach to value...determining the upper limit or replacement cost new of each improvement and the subsequent loss of value resulting over-all from physical, functional, and economic factors.

The fact that there are different approaches to value, some of which being 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 is 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 which are not only valid and accurate, but are also

equitable. The same “yardstick” or 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 or “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 effected.

All this, at best, is an over-simplification 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 achieve an estimate of value.

THE MASS APPRAISAL PROCESS

OUTLINE OF THE APPRAISAL PROCESS

The key to an accurate appraisal lies in the methodical collection of data. The appraisal process is an orderly set of procedures used to collect and analyze all data in order to arrive at an ultimate value conclusion. Such data is divided into two basic classes:

1. **SPECIFIC DATA** - covering details of the subject property, as well as comparative data relating to costs, sales, and income and expenses of properties similar to and competitive with the subject property.

2. **GENERAL DATA** - covering the nation, region, state, city, and neighborhood. Of particular importance is the neighborhood where an appraiser finds the physical, economic, social, and political influences that directly affect the value and potential of the subject property.

The flow chart on the following page outlines the steps an appraiser takes in carrying out an appraisal assignment. The numbers in the following list correspond to the numbers on the flow chart.

1. **STATE THE PROBLEM**: the kind of value to be estimated must be specified and the valuation approach (es) most valid and reliable for the kind of property under appraisal must be selected.

2. **LIST THE DATA NEEDED AND THEIR SOURCES**: based on the approach (es) the appraiser will be using, the types of data needed and the sources to be consulted are listed.

3. **GATHER, RECORD, AND VERIFY THE GENERAL DATA**: detailed information concerning the economic, political, and social conditions and comments on the effect of this data on the subject property must be obtained.

4. **GATHER, RECORD, AND VERIFY THE SPECIFIC DATA ON THE SUBJECT PROPERTY**: specific data include information about the subject site and improvements.

5. **GATHER, RECORD, AND VERIFY THE DATA FOR THE VALUATION APPROACH USED**: depending upon the approach (es) used, comparative information relating to sales, income and expenses, and construction costs of comparable properties must be collected. As with steps 3 and 4, all data should be verified, usually by checking the same information against two different sources. In the case of sales data, one source should be a person directly involved in the transaction.

6. **ANALYZE AND INTERPRET THE DATA**: all information collected must be reviewed to be sure that all relevant facts have been considered and handled properly and that no errors have been made in calculations.

7. **RECONCILE DATA FOR FINAL VALUE ESTIMATE**: the appraiser finally makes a definite statement of conclusion reached. This is stated in terms of a value estimate of the property.

THE MASS APPRAISAL PROCESS

1. State the problem

2. List the data needed and the sources

3. Gather, record, and verify the general data nation, region, city, and neighborhood

4. Gather, record, and verify the specific data subject, site, and improvements

5. Gather, record, and verify the data for each approach

    a. Market Data Approach - Sales Data

    b. Cost Approach - Cost Data

    c. Income Approach - Income and Expense Data

6. Analyze and interpret the data

7. Correlate data for final value estimate

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 process 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 which 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 the proper amount of data, no more or no less, which is necessary to provide the data base required to generate the desired output.

GENERAL SUPPORTING DATA

The appraisal staff will primarily be concerned with cost, sales and income data, but they will also find it necessary to research and compile general social-economic information pertaining to the entire political unit under appraisal. The information will serve to assist the staff during the analytical phase of the operation and should include, but not necessarily be limited to , population trends, prevailing geographical factors, primary transportation facilities, primary income sources, unemployment and income levels, institutional influences, the annual volume of new construction and ownership transfers, availability of vacant land, construction labor and material costs, preponderance of residential rentals, and the amount of residential vacancies.

COST DATA must be significant enough to develop and/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, 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 used to record specific property data.

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

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 income approach.

All sales data should include the parcel identification number, property classification code, month and year of sale, selling price, assessed value (land and total) as of the date of sale, source of information, i.e., buyer, seller, agent, or other, and a reliable judgment as to whether or not the sale is representative of a true arms-length transaction.

Sales data should be recorded on the same form used to record specific property data and verified during the property collection phase.

The principal source for obtaining sales data is from the county records. Other sources may include developers, realtors, lending institutions, and individual property owners during the data collection 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 terms.

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, an itemized account of the annual gross income, vacancy loss and operating expenses for the most recent three year period.

The general data should be documented in conjunction with the development of capitalization procedural guidelines. The specific data, being that it is often considered confidential and not subject to public access, may 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 source for obtaining the general financial data are investors, lending institutions, and property managers.

The primary sources for obtaining specific data are the individual property owner and/or tenants during the data collection phase of the operation.

NEIGHBORHOOD DATA

At 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 over-all county or any political subdivision 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 and social trends, and housing characteristics such as structural quality, age, and condition. The neighborhood delineation's should be outlined on a 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 desirability.

All neighborhood data should be recorded on a specially designed form during the delineation phase.

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 and related tax accounting output, 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 card customized to meet individual assessing needs. Each card should be designed and formatted in such a way as to accommodate the data collection of information and to facilitate data processing. In addition to the property data items noted above, space should be considered for a building sketch, land and building computations, summarizations, 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 which can be checked and/or circled.
The specific property data may be compiled from existing assessing records, field inspections, or combination of both, i.e., the parcel identification number, ownership, mailing address and legal descriptive 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 site characteristics may be obtained my making a physical inspection of each property. In computing lot sizes from the tax maps on to the property record cards, the person performing the tasks must be specially trained in the use of standardized lot sizing techniques and tables, which are necessary to adjust irregularly shaped lots and abnormal depths to account for variations from pre-determined norms.

In regard to acreage, the total acreage may be obtained in the field from the property owner and verified by personal observation and aerial photographs if available.

Complete and accurate data are essential to the program. Definite standardized data collection and recording procedures must be developed and followed if these objectives are to be met. Field inspections will be performed by qualified appraisers if necessary.

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.

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 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.

Of the three approaches, the cost approach is the one which tends to lend itself best to property valuations for tax purposes. The two principle reasons for this are that appraisals for ad valorem taxes generally require separate land value estimates, and secondly, the cost approach is the one which can reasonably be applied to all classes of property rather than to only those having a sufficient number of comparable sales or to those typically producing an income. The use, however, of one approach to the exclusion of the others is contrary to the appraisal process. The approach to be taken then is an integrated one, starting with the cost approach, but incorporating the market data and income approaches whenever feasible and appropriate.

Any one, or all three, of the approaches, if applied properly, should lead to an indication of market value; of primary concern is to apply the approaches on an equitable basis. This will require the coordinate 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.

Once the final values have been established for each property, it still remains to evaluate the entire program in terms of its primary objectives...do the values approximate a satisfactory level of market value and what is more important, are the values equalized? Satisfactory answers to these questions can best be obtained through a statistical analysis of recent sales in an appraisal-to-sale ratio study.
To perform the study, it is necessary to take a representative sampling of recent valid sales from each individual taxing jurisdictions and to compute the appraisal-to-sale ratio for each of the sales. If the sample is representative, the computed mean appraisal-to-sale ratio will give you an indication of how close the appraisals within each district approximate 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 mean ratio, and to compute either the average or the standard deviation, which will give you an indication of the degree of equalization within each individual district. What remains then, is to compare the statistical measures across districts and property classes in order to determine which, if any, of these need to be investigated further, revising the appraisals, if necessary, to attain a satisfactory level of value and equalization 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 you with a sound property tax base. It should be noted, however, that no program, regardless of how skillfully administered, can ever 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 is important in the final analysis is to use all of these measures as well as any other resources available to you to effect the highest degree of accuracy and equity possible.

PROPERTY RECORD CARD DEFINITIONS

SOURCE OF INFO		**LAND SEGMENTS**	**CON'T**
E	ESTIMATE	0700	WASTELAND
O	OWNER	0800	MINERAL INTEREST
R	RELATIVE		
T	TENANT	**UTILITIES**	
M	MAILER	A	ALL AVAILABLE
Q	QUESTIONNAIRE	E	ELECTRIC
		G	GAS
NEIGHBORHOODS		N	NONE
SEE PAGE 57	ASSIGNED BY STAFF	PS	PUBLIC SEWER
		PW	PUBLIC WATER
LAND VAL. METH		S	SEPTIC
A	ACREAGE	W	WATER
L	LOT (SITE VALUE)		
S	SQUARE FOOT	**TOPOGRAPHY**	
X	LAND MKT ADJ	L	LEVEL
		M	MOUNTAINOUS
LAND SEGMENTS		P	PRECIPITOUS
0100	RES HOMESITE	R	ROLLING
0110	RESIDENTIAL	S	SWAMPY
0120	RES CREEK FRONT	T	STEEP
0130	RES RESORT	W	LOW
0131	RESORT VIEW		
0132	RESORT FAIRWAY	**ROAD TYPE**	
0139	RESORT COMMON	G	GRAVEL STATE
0140	RES LAKEFRONT	N	NO ROAD
0150	RES VIEW	P	PAVED, PRIMARY
0199	COMMON AREA	R	PAVED, PRIVATE
0200	OPEN	S	PAVED, SECONDARY
0220	OPEN CREEK FNT	T	DIRT PRIVATE
0240	OPEN LAKE FNT	W	NO RIGHT OF WAY
0250	OPEN VIEW		
0300	WOODED	**VIEW**	
0320	WOODED CREEK FNT	CF	CREEK FRONT
0340	WOODED LAKE FNT	CFV	CREEK FRONT & VIEW
0350	WOODED VIEW	FW	FAIRWAY
0500	COMM PRIMARY	GC	GOLF COURSE
0501	COMM SECONDARY	LF	LAKEFRONT
0502	COMM REAR	LFV	LAKEFRONT & VIEW
0503	COMM RESIDUAL	LR	LONG RANGE
0504	COMM RURAL	LS	LIMITED/SEASONAL
0505	COMM GOLF COURSE	LV	LAKE VIEW
0590	COMM CELL TOWER	MR	MEDIUM RANGE
0599	COMM COMMON	PV	PANORAMIC
0600	INDUS PRIMARY	RF	RIVERFRONT
0601	INDUS SECONDARY	SR	SHORT RANGE
0602	INDUS REAR		
0603	INDUS RESIDUAL		

LAND ADJ. CODE		BUILDING USE	
C	CORNER INFLUENCE	C01	APARTMENT
CE	CONSERVATION EAS	C02	AUTOMOTIVE BLDG
D	DRAINAGE	C03	AUTOMOTIVE CTR.
E	EXCESS	C04	BANK
EF	EXCESSIVE FRONT	C05	BARBER/BEAUTY SHP
EO	ECON OBSOLESCES	C06	BED & BREAKFAST
ER	EASEMENT/ROW	C07	CARWASH
EX	EXEMPT	C08	CHURCH
FF	FLOOD FRINGE	C09	CLUB HOUSE
FP	FLOOD PLAIN	C10	CONVENIENCE ST.
L	LEVEL	C11	COMMERCIAL
LC	LOCATION	C12	COUNTRY CLUB
LW	LOW	C13	DEPARTMENT STORE
M	MISIMPROVED	C14	DISCOUNT STORE
NC	NON-CONFORMING	C15	DORMITORY
P	PERC TEST FAILED	C16	DAYCARE CENTER
R	REAR	C17	FIRE STATION
RU	RESTRICTED USE	C18	GARAGE LUBE CTR
S	SIZE SHAPE	C19	GOVERNMENT BLDG
SI	SITE IMPROVEMENT	C20	HOSPITAL
T	TOPOGRAPHY	C21	LAUNDROMAT
UN	UNDEVELOPED	C22	INDUS./MANUFAC.
V	VIEW	C23	SUPERMARKET
WF	WATERFRONT	C24	MOTEL
EX	EXEMPT	C25	MORTUARY
GC	GOLF COURSE	C26	OFFICE TYPICAL
IN	INDUSTRIAL	C27	OFFICE MEDICAL
LR	L/H REAL PROPERTY	C28	REST/NURS HOME
MH	MANF HOME	C29	RESTAURANT/ LOUNGE
MHP	MANF HOME PARK	C30	FAST FOOD RESTAURANT
MIN	MINERAL INTEREST	C31	RETAIL STORE
RES	RESIDENTIAL	C32	RETAIL RURAL
TH	TOWNHOUSE	C33	SCHOOL
		C34	SERVICE GARAGE
BLDG. VALUATION		C35	SHOPPING CENTER
C	COMMERCIAL	C36	WAREHOUSE
O	OUTBUILDING	C37	WAREHOUSE DIST
P	PRICED ENTRY	C38	WAREHOUSE MINI
R	RESIDENTIAL	C39	PRE-FAB COMM
		C40	THEATER LIVE STAGE
		C41	THEATER CINEMA
		C	CONDO
		D	DWELLING
		DP	DUPLEX
		T	TOWNHOUSE
		TH	TINY HOME

SECTION TYPES		EXTERIOR WALL	
AA	ATT ADDITION	AS	ASBESTOS SHINGLE
AG	ATTACHED GARAGE	AV	ALUM/VINYL
CA	CANOPY	BR	BRICK
CP	CARPORT	C	CONC LAP SIDING
EP	ENCLOSED PORCH	CB	CONC BLOCK
FG	FINISHED GARAGE	F	FRAME
FUS	FIN UPPER STORY	G	GLASS
MA	MAIN AREA	L	LOG
OP	OPEN PORCH	M	METAL
PA	PATIO	MF	MASONRY & FRAME
PP	PORCH O/V PORCH	S	STUCCO
SP	SCREEN PORCH	ST	STONE
ST	STOOP		
TR	TERRACE	**COND. CODES**	
UR	UTILITY ROOM	A	AVERAGE
UUS	UNFIN UPPER STORY	F	FAIR
WD	WOOD DECK	G	GOOD
		P	POOR
CONST STYLE		U	UNSOUND
A	A-FRAME		
B	BUNGALOW	**ROOF STYLE**	
C	CONVENTIONAL	F	FLAT / SHED
CC	CAPE COD	G	GABLE
CL	COLONIAL	GB	GAMBREL
CD	CONDO	H	HIP
CN	CONVERSION	M	MANSARD
CT	COTTAGE	O	OTHER
CY	CONTEMPORY	S	SHED
D	DUPLEX		
DW	DOUBLE WIDE	**ROOF MATERIAL**	
L	LOG	A	ASPHALT SHINGLE
MF	MULTI FAMILY	M	METAL
O	OTHER	O	OTHER
PB	POST & BEAM	R	ROLL ROOFING
PM	PARK MODEL	T	TILE, SLATE
R	RANCH	TG	TAR & GRAVEL
RW	ROW	W	WOOD SHAKES
SF	SPLIT FOYER		
SL	SPLIT LEVEL		
SW	SINGLE WIDE		
TH	TOWNHOUSE		
TS	TWO STORY		
UL	UNLIVEABLE		
FOUNDATION			
C	CONTINOUS WALL		
P	PIER		
PL	PILING		
S	SLAB		

HEATING			
E	ELEC. B.B./ CEILING		
F	FORCED HOT AIR		
G	GEO-THERMAL		
H	STEAM/HOT WATER		
M	MINI-SPLIT		
N	NONE		
P	HEAT PUMP		
S	SOLAR		
SP	SPACE HEATER		
UA	UNIT HEAT		
W	WALL/FLOOR FURN		
HEATING FUEL			
C	COAL		
E	ELECTRIC		
G	GAS		
N	NONE		
O	OIL		
S	SOLAR		
W	WOOD		
SEC. DEPREC.			
CA	COMMON AREA		
D	DESIGN		
DC	DECLINING AREA		
EC	ECON FACTORS		
I	INCOMPLETE		
L	LOCATION		
O	OVERBUILT		
S	SIZE		
U	UTILITY		

LAND VALUATION

LAND VALUATION METHODS

Land is valued by one of three methods using the market data approach.

VALUATIONS METHODS

CODE	DESCRIPTION
A	ACREAGE
L	LOT PRICED
S	SQUARE FOOT

Roads are defined as follows:

P – PAVED PRIMARY - intestates or other major artery highways.

S – SECONDARY PAVED - paved county road or secondary arteries.

G – GRAVEL - all weather surface road, state maintained.

R – PAVED PRIVATE - paved or concrete private access road.

T – DIRT PRIVATE - gravel or dirt private access road.

N – NO ROAD - right of way that is not open for normal road use.

W – NO RIGHT OF WAY - property without a deeded right of way or easement.

In areas of commercial or industrial sites, tracts for residential development, excessive road frontage, useable water frontage, and well located small tracts or any other further that influences land value pricing will be adjusted by market adjustment. Likewise, factors that affect tracts located in areas that make them unfeasible to manage and practically inaccessible will cause reduction in price to reflect the proper value. Square foot prices will be assigned as indicated by the market studies from $.05 to a maximum $500 per square foot.

ACREAGE METHOD

Base rate comes from road type, by the acreage size factor multiplied by the number of acres.

PAVED SECONDARY ROAD - 10 ACRES
RESIDENTIAL LAND - $20,000 X .38 = $7,600 X 10 ACRES = $76,000

EXAMPLE: LAND PRICING METHOD COMPUTER DISPLAY

LAND SEGMENT 1: METHOD - A, TYPE 0110 - RESIDENTIAL LAND

SCHEDULE MLR, Land Type 0110 road S, VALUE 25,000	
INITIAL UNIT PRICE; sched, MLR, MAC LAND RATES	20,000
SCHEDULE LANDSIZE, AREA 1000, VALUE 0.38	
SIZE ADJUSTMENT 10.00 AC OF 0.38	-12,400
ADJUSTED FOR MARKET AT 100%	0
SCHEDULE LNBRHD, AREA 01/A, VALUE 0.00	
NEIGHBORHOOD A ADJUSTMENT OF 0%	0
INITIAL SEG VALUE 10.00 ACRES AT 9120/AC	76,000
TOTAL LAND SEGMENT 1	76,000
TOTAL LAND MARKET VALUE	76,000
TOTAL LAND USE VALUE	0
TOTAL BUILDING VALUE	0
TOTAL PARCEL VALUE IS	76,000

MACON COUNTY BASE RATES PER ACRE

ROAD TYPE	P	S	G	R	T	N	W
LAND TYPE	PAVED PRIMARY	PAVED STATE	GRAVEL STATE	PAVED PRIVATE	DIRT PRIVATE	NO ROAD	NO RIGHT OF WAY
0100 - RESIDENTIAL HOMESITE	20,000	20,000	19,000	18,000	17,000	8,000	2,000
0110 – RESIDENTIAL	20,000	20,000	19,000	18,000	17,000	8,000	2,000
0120 - RESIDENTIAL CREEKFRONT	40,000	40,000	38,000	36,000	34,000	20,000	4,000
0130 – RESIDENTIAL RESORT	125,000	125,000	125,000	125,000	125,000	50,000	12,500
0131 – RESIDENTIAL RESORT VIEW	500,000	500,000	500,000	500,000	500,000	200,000	50,000
0132 – RES RESORT FAIRWAY	125,000	125,000	125,000	125,000	125,000	50,000	12,500
0133 – RES RESORT FAIRWAY	250,000	250,000	250,000	250,000	250,000	100,000	25,000
0139 – RES RESORT COMMON AREA	100	100	100	100	100	100	100
0140 – RESIDENTIAL LAKEFRONT	200,000	200,000	200,000	200,000	200,000	80,000	20,000
0150 – RESIDENTIAL VIEW	60,000	60,000	57,500	55,000	50,000	24,000	6,000
0199 – COMMON AREA	100	100	100	100	100	100	100
0200 – OPEN	20,000	20,000	19,000	18,000	17,000	8,000	2,000
0220 – OPEN CREEKFRONT	40,000	40,000	38,000	36,000	34,000	20,000	4,000
0240 – OPEN LAKEFRONT	200,000	200,000	200,000	200,000	200,000	80,000	20,000
0250 – OPEN VIEW	60,000	60,000	57,500	55,000	50,000	24,000	6,000
0300 – WOODED	20,000	20,000	19,000	18,000	17,000	8,000	2,000
0320 – WOODED CREEKFRONT	40,000	40,000	38,000	36,000	34,000	20,000	4,000
0340 – WOODED LAKEFRONT	200,000	200,000	200,000	200,000	200,000	80,000	20,000
0350 – WOODED VIEW	60,000	60,000	57,500	55,000	50,000	24,000	6,000
0500 – COMMERCIAL PRIMARY	250,000	200,000	175,000	150,000	125,000	100,000	25,000
0501 – COMMERCIAL SECONDARY	125,000	100,000	85,000	75,000	65,000	50,000	12,500
0502 – COMMERCIAL REAR	62,500	50,000	45,000	40,000	35,000	25,000	6,250
0503 – COMMERCIAL RESIDUAL	30,000	25,000	22,500	20,000	18,000	12,000	3,000
0504 – COMMERCIAL RURAL	50,000	50,000	45,000	42,500	40,000	20,000	5,000
0505 – COMM GOLF COURSE	40,000	40,000	40,000	40,000	40,000	20,000	4,000
0520 – COMM PRIM OPEN	250,000	200,000	175,000	150,000	125,000	100,000	25,000
0521 – COMM SECONDARY OPEN	125,000	100,000	85,000	75,000	65,000	50,000	12,500
0590 – COMMUNICATION TOWER	75,000	75,000	75,000	75,000	75,000	75,000	75,000
0599 – COMMERCIAL COMMON AREA	100	100	100	100	100	100	100
0600 – INDUSTRIAL PRIMARY	100,000	90,000	85,000	80,000	75,000	40,000	10,000
0601 – INDUSTRIAL SECONDARY	50,000	45,000	42,500	40,000	37,500	20,000	10,000
0602 – INDUSTRIAL REAR	30,000	27,000	25,500	24,000	22,500	15,000	3,000
0603 – INDUSTRIAL RESIDUAL	20,000	18,000	16,000	15,000	14,000	8,000	2,000
0700 – WASTELAND	1,000	1,000	1,000	1,000	1,000	1,000	1,000
0800 – MINERAL INTEREST	10	10	10	10	10	10	10

*Land segments 0100, 02##, 03## typically should only be used on parcels qualifying for present use value.
*Land segments 0199, 0590, 0599, 0700 and 0800 do not use the land size table for adjustment for total size of tract.
*Wasteland is any portion of tracts where easements or other factors prohibit primary use.

LAND PRICE FACTORS

All acreage pricing will be based on 1 acre. Adjustments will be made to the base rate according to the acreage size factor. The land size factor used will be interpolated by the total size of an individual tract. The factor will be determined from where the total acreage falls in the table below. The matching rate from size factor will be used as the factor to adjust the entire tract.

LANDSIZE FACTOR CHART

TRACT SIZE (AC)	SIZE FACTOR	TRACT SIZE (AC)	SIZE FACTOR
.01	5.00	.80	1.13
.10	3.40	.85	1.10
.15	2.58	.90	1.07
.20	2.42	.95	1.02
.25	2.18	1.00	1.00
.30	1.95	2.00	.75
.35	1.79	5.00	.55
.40	1.60	10.00	.40
.45	1.52	20.00	.32
.50	1.47	30.00	.30
.55	1.39	40.00	.28
.60	1.30	50.00	.26
.65	1.25	100.00	.22
.70	1.21	200.00	.20
.75	1.17	300.00+	.18

COMMERCIAL LANDSIZE FACTOR

TRACT SIZE (AC)	SIZE FACTOR
0.01	2.00
0.20	1.50
0.30	1.40
0.40	1.30
0.50	1.25
0.60	1.20
0.70	1.15
0.80	1.10
0.90	1.05
1.00+	1.00

LAND MARKET ADJUSTMENT

A land market adjustment may be used on certain parcels in areas where the entire neighborhood does not warrant an adjustment. This adjustment can be applied as a negative or positive adjustment. The range of this adjustment if at the discretion of the appraiser.

NEIGHBORHOOD ADJUSTMENT - APPLIED TO INDIVIDUAL NEIGHBORHOOD

This manual reserves the right to identify and create neighborhoods in Macon County as being unique areas of property that are determined by subdivisions, natural boundaries or other determining factors that will create a neighborhood. Neighborhoods will be determined by the appraiser and alpha or numeric codes will be created to uniquely identify them. The adjustment for these neighborhoods could range from 25% - 2500%.

LOT PRICED METHOD

In some situations lots may be valued by site value regardless of the size. In those cases lots may be valued from $100 to $4,000,000 depending on the market condition, sales, and geographical location.

SQUARE FOOT METHOD

The following formula will be use in determining land priced by the square foot method.

The rate for square foot pricing is determined by the appraiser and entered in the grade/condition field on the land segment summary screen.

For commercial lots:

BASE SIZE	7500
INCREMENTIAL ADJUSTMENT	%80
DECREMENTIAL ADJUSTMENT	%80

FOR RESIDENTIAL LOTS:

BASE SIZE	20000
INCREMENTIAL ADJUSTMENT	%80
DECREMENTIAL ADJUSTMENT	%80

The following example is a 5,000 square foot lot price by commercial method:

GRADE	4.00
LAND.SQ.FEET = 5000, BASE.AREA = 7500	.80
BASE VALUE 30000, FT. DIFF -2500, ADDON.VAL -8000	
ADJUSTED SEG VALUE 10000 SQ FT AT 4.00/SF	22,000

THE FOLLOWING EXAMPLE IS A 10,000 SQUARE FOOT LOT PRICE BY COMMERCIAL METHOD:

GRADE	4.00
LAND.SQ.FEET = 10000, BASE.AREA = 7500	.80
BASE VALUE 30000, FT. DIFF 2500, ADDON.VAL 8000	
ADJUSTED SEG VALUE 10000 SQ FT AT 4.00/SF	38,000

RESIDENTIAL COST SCHEDULES

The value of a building from a market value standpoint is the sum which the presence of the building adds to the value of the land upon which it stands.

Just as our basis for the valuation for land is a fair sale or economic value, so it is for buildings capable of commanding competition between buyers. As a general rule, the governing factor in building construction value is reproductive cost, less proper depreciation.

In Macon County, property record cards were designed to conform to the county's needs.

In order to establish the fair taxable value of any building, our first step is to determine its reproductive cost, regardless of age or condition. To do this, we secured information on local costs of all classes of building materials and other necessary information pertaining to labor rates and efficiency on the several classes of construction locally.

The foregoing information has been analyzed and tested and developed into unit costs for the various quantities of building materials in place, including the architect's fees and the contractors' overhead and profit. Before using the information obtained, we applied the unit costs to construction of known cost to determine proof of accuracy. These costs for the various quantities and qualities have been developed into square foot replacement prices based upon definite specifications for various qualities of residence construction.

Other schedules of prices have been added to cover any variation from "base" as well as for additions, porches, garages, etc. Before these new schedules could be used, they were applied to new construction ordinarily found in homes of various grades in question. Variations falling between these grades are classified with a plus or minus percentage, such as a plus 10% or a minus 10%, etc.

Since ad valorem assessments required uniform valuation between classes of property, our appraisers apply these grades and their differentials in the field. This insures equalization of property values, so that similar homes in various areas will be appraised at a uniform rate.

In order to achieve the equalization of property, it is necessary to insure proper grading or classification of buildings. Therefore, in our field inspection, the lister notes on each appraisal card the details of that building construction.

The detail information on these cards cover type of foundation walls, roof, floors, basement area, attic areas, heating, plumbing, etc. And controls the cost pricing procedures.

This detailed information together with the age, condition, accrued physical and functional depreciation plus any additional information such as rents, sale price, improvements, etc., is

recorded on each card. Then the cards are returned to the office and all data obtained in the field is applied to the previously tested schedules and insured equitable values.

After office pricing, the cards are reviewed for purposes of catching any error and omissions and for application and/or review of functional depreciation resulting from good houses in poor locations, houses of obsolete size and design, etc.

In the instance of commercial and industrial buildings similar types of information is recorded and priced on a unit-cost replacement basis.

Separate unit value construction costs have been developed for all commercial and industrial construction. The appraisal cards vary in what information is necessary for this type of building and pricing is completed in the office. After pricing the cards they are reviewed for purpose of catching errors. Proper allowances are made for obsolescence resulting from poor layouts, surplus construction, inadequacy etc. And net taxable value being the sound utility value of the property for the purpose for which the plant was built and can be utilized.

EXPLANATION OF SECTION CODES

The following pages comprise the formula for evaluation of residential, commercial, and farm improvements. Dwellings are valued by their section type. Each dwelling will have a main area and as many other sections as are required. A value for the dwelling will be the sum of its section values.

A separate page is provided for each section type that is currently defined. The base area, where applicable, and the appraisal method is indicated for each section. Those section types which are components of a dwelling are represented by a letter code (MA, AA, etc.).

Residential yard improvements, farm outbuildings, and other general non-dwelling structures, are represented by the number section types 01 - 74.

The grade adjustment is applied to the total replacement value of the section just prior to application of depreciation.

For residential or commercial buildings grade must be entered for the main section; i.e., section type ma. That grade will apply to all other sections of that structure unless a different grade is entered for a particular section.

STANDARD PROCESSING FOR DEPRECIATION

Depreciation is normally entered at the building level only. If any section has depreciation entered then that rate will be used instead of the building rate.

PHYS. DEPR = PHYS % * REPLACEMENT RATE
FUNC. DEPR = FUNC. % * (REPLACEMENT VALUE - PHYS. DEPR.)
ECON. DEPR = ECON % * (REPLACEMENT VALUE - PHYS. DEPR. - FUNC. DEPR)

For most residential buildings (valuation method r) the depreciation is assigned by the computer from the following depreciation table based on effective age and condition.

For most commercial buildings (valuation method c) the depreciation is assigned by the computer from the following depreciation table based on effective age and condition.

For all outbuildings (valuation method p) the depreciation is assigned by the computer from the following depreciation table based on effective age and condition.

In all cases, depreciation may be assigned by the appraiser in lieu of the computer assigned default value.

GRADE AA DWELLINGS

These photographs are only an indication of “grade” and not a determination of actual “grade” of the dwellings shown. “Grade” must be based upon individual inspection of the type of materials and quality of construction of the subject dwelling.

GRADE AA DWELLINGS

Dwellings constructed of the finest quality and workmanship, exhibiting unique and elaborate architectural styling and are characterized by the high quality of finishes and the considerable attention to detail. The following will further describe the most common characteristics of this grade of construction.

FOUNDATION – A continuous reinforced concrete block or poured concrete perimeter and interior load bearing wall, waterproofed, with drainage system.

EXTERIOR WALLS – Select brick, stucco, cut stone, cedar, vinyl or the best quality siding with well-designed fenestration, high quality sash, custom ornamentation and trim. 2" x 4" wood or metal studs 16" on center, 1 ¾" – 2 ¼" fine quality exterior doors, best quality wood or vinyl insulated windows with custom ornamentation and trim.

ROOFING - Gable, hipped, or contemporary designed, tongue and groove plywood sheathed, covered with slate, tile, wood shake, or architectural shingles; 2" x 10" rafters or custom built trusses; ornamental wood cornice, copper flashing and gutters.

FLOORING - Basement floor poured with 4" reinforced concrete. Upper floors have 3/4" tongue and groove sub floor with underlayment. Floor coverings are best quality carpet, vinyl, hardwood, marble, slate, or tile.

INTERIOR FINISH - Interior walls are painted drywall with best grade paper or vinyl covering, hardwood paneling or ceramic tile. Finest quality vanities in bathrooms and dressing areas with ceramic, tile, marble, or Corian countertops. Custom built kitchen with pantry, cooking island, built-in microwave, dishwasher, disposal, and custom made cabinetry with ceramic, tile, marble, or Corian countertops. Raised panel hardwood veneer or enameled doors with high quality hardware. High grade ornamental moldings with tight mitered corners. Spacious walk-in closets, wardrobes, linen closets and pantries that are fully shelved.

HEATING - Forced air furnace(s) or heat pump(s) with central air conditioning, multiple controls and large capacity insulated ductwork. Optional vented or un-vented gas fireplaces.

Plumbing - Three and one-half baths. Finest quality white or colored fixtures including water heater(s), kitchen sink(s), laundry tub, tiled shower stall, bidet, lavatories, tub and shower, wet bar, and whirlpool tub.

Electrical - Numerous well positioned outlets and finest quality lighting fixtures throughout. Large luminous fixtures in kitchen, bath, and dressing areas. Some recessed, track, and fluorescent lighting possible.

Note: These grading specifications are only guidelines for general descriptive purposes and may or may not be limited to the detail of the individual components.

GRADE A DWELLINGS

These photographs are only an indication of “grade” and not a determination of actual “grade” of the dwellings shown. “Grade” must be based upon individual inspection of the type of materials and quality of construction of the subject dwelling.

GRADE A DWELLINGS

Dwellings constructed of excellent quality materials and workmanship, exhibiting outstanding architectural styling and treatment, and having an abundance of built-in features. Architect designed and supervised homes would normally fall into this classification. The following will further describe the most common characteristics of this grade of construction.

FOUNDATION – A continuous reinforced concrete block or poured concrete perimeter and interior load bearing wall, waterproofed, with drainage system.

EXTERIOR WALLS – Brick, stucco, stone, cedar, vinyl or the high quality siding with well-designed fenestration, high quality sash, custom ornamentation and trim. 2" x 4" wood or metal studs 16" on center, 1 ¾" – 2 ¼" fine quality exterior doors, best quality wood or vinyl insulated windows with custom ornamentation and trim.

ROOFING - Gable, hipped, or contemporary designed, tongue and groove plywood sheathed, covered with slate, tile, wood shake, or architectural shingles; 2" x 10" rafters or custom built trusses; ornamental wood cornice, copper flashing and gutters.

FLOORING - Basement floor poured with 4" reinforced concrete. Upper floors have 3/4" tongue and groove sub floor with underlayment. Floor coverings are best quality carpet, vinyl, hardwood, marble, slate, or tile.

INTERIOR FINISH - Interior walls are painted drywall with best grade paper or vinyl covering, hardwood paneling or ceramic tile. Finest quality vanities in bathrooms and dressing areas with ceramic, tile, marble, or Corian countertops. Custom built kitchen with pantry, cooking island, built-in microwave, dishwasher, disposal, and custom made cabinetry with ceramic, tile, marble, or Corian countertops. Raised panel hardwood veneer or enameled doors with high quality hardware. High grade ornamental moldings with tight mitered corners. Spacious walk-in closets, wardrobes, linen closets and pantries that are fully shelved.

HEATING - Forced air furnace(s) or heat pump(s) with central air conditioning, multiple controls and large capacity insulated ductwork. Optional vented or un-vented gas fireplaces.

Plumbing - Three and one-half baths. Finest quality white or colored fixtures including water heater(s), kitchen sink(s), laundry tub, tiled shower stall, bidet, lavatories, tub and shower, wet bar, and whirlpool tub.

Electrical - Numerous well positioned outlets and finest quality lighting fixtures throughout. Large luminous fixtures in kitchen, bath, and dressing areas. Some recessed, track, and fluorescent lighting possible.

Note: These grading specifications are only guidelines for general descriptive purposes and may or may not be limited to the detail of the individual components.

GRADE B DWELLINGS

These photographs are only an indication of “grade” and not a determination of actual “grade” of the dwellings shown. “Grade” must be based upon individual inspection of the type of materials and quality of construction of the subject dwelling.

GRADE "B" DWELLINGS

Dwellings constructed of good quality and workmanship, exhibiting unique and pronounced architectural styling and treatment, and having an ample amount of built-in features. The following will further describe the most common characteristics of this grade of construction.

FOUNDATION – A continuous reinforced concrete block or poured concrete perimeter and interior load bearing wall, waterproofed, with drainage system.

EXTERIOR WALLS – Brick, stucco, cut stone, cedar, vinyl or good quality siding with good fenestration, and good quality sash. 2" x 4" wood studs 16" on center, 1 ¾" good quality exterior doors, good quality wood or vinyl insulated windows with some ornamentation trim.

ROOFING – Gable, hipped, tongue and groove plywood sheathed, covered with wood shake, or architectural shingles; 2" x 8" rafters or custom built trusses; plain wood cornice, metal flashing and gutters.

FLOORS – Basement floor poured with 3 ½" reinforced concrete. Upper floors have ¾" tongue and groove sub floor. Floor coverings are good quality carpet, vinyl, hardwood or tile.

INTERIOR FINISH – Interior walls are painted drywall with good grade paper or vinyl covering, with some paneling. Kitchen and baths have enamel painted walls and ceilings. An ample amount of cabinets with natural wood veneer finish are used in kitchen and bath areas. Countertops are laminated plastic, ceramic tile or simulated marble. Doors are good quality hollow-core fir or pine with enameled trim. Walk-in closets or large siding door wardrobes. Ample linen and storage closets. Workmanship throughout is good quality.

HEATING – Forced air furnace(s) or heat pump(s) with central air conditioning, multiple controls, and insulated ductwork. Optional vented or un-vented gas fireplace(s).

PLUMBING – Good quality white or colored fixtures including water heater(s), kitchen sink(s), laundry tub, tiled or modular plastic shower stall, lavatories, tub and shower.

ELECTRICAL – A good amount of convenience outlets and good quality lighting fixtures throughout. Luminous fixtures in kitchen and bath areas. Some recessed, track and fluorescent lighting possible.

NOTE: These grading specifications are only guidelines for general descriptive purposes and may or may not be limited to the detail of the individual components.

GRADE C DWELLINGS

These photographs are only an indication of “grade” and not a determination of actual “grade” of the dwellings shown. “Grade” must be based upon individual inspection of the type of materials and quality of construction of the subject dwelling.

GRADE C DWELLINGS

Dwellings constructed of average quality materials and workmanship, exhibiting moderate architectural styling and treatment, and having a minimal amount of built-in features. Typical tract built homes would normally fall into this classification. The following will further describe the most common characteristics of this grade of construction.

Foundation - A continuous reinforced concrete block perimeter and interior load bearing wall, waterproofed, with drainage system.

Exterior Walls - Frame, vinyl, brick, or average quality siding with standard sash. 2” x 4” wood studs 16” on center, 1 3/4” wood exterior doors, average quality wood double hung windows.

Roofing - Gable or hipped, plywood sheathed, covered with asphalt shingles; 2” x 8” rafters or custom built trusses; plain wood cornice, metal flashing and gutters.

Flooring - Basement floor poured with 3 1/2” reinforced concrete. Upper floors have 3/4” tongue and groove sub floor. Floor coverings are average quality carpet, vinyl, or hardwood.

Interior Finish - Interior walls are painted drywall with some inexpensive wall paper or paneling. Kitchen and baths have enamel painted walls and ceilings. Pre-finished plywood cabinets are used in kitchen areas and small vanities in bath areas. Countertops are laminated plastic or ceramic tile. Doors are medium grade hollow-core with standard grade hardware. An adequate amount of closet space. Baseboard moldings and casings are stock quality. Workmanship throughout is average quality.

Heating - Forced air furnace or heat pump with adequate output and ductwork. Optional vented or un-vented gas fireplaces.

Plumbing - Two full baths. Average quality white or colored fixtures including water heater, kitchen sink, laundry tub, tiled or modular plastic shower stall, lavatories, tub and shower.

Electrical - An adequate number of outlets with some luminous fixtures in kitchen and bath areas.

Note: These grading specifications are only guidelines for general descriptive purposes and may or may not be limited to the detail of the individual components.

GRADE D DWELLINGS

These photographs are only an indication of “grade” and not a determination of actual “grade” of the dwellings shown. “Grade” must be based upon individual inspection of the type of materials and quality of construction of the subject dwelling.

GRADE "D" DWELLINGS

Dwellings constructed of fair quality materials and workmanship, generally lacking architectural styling and treatment, and having a scant amount of built-in features. Economy mass built homes would fall into this classification. The following will further describe the most common characteristics of this grade of construction.

Foundation - A continuous reinforced concrete block perimeter and piers.

Exterior Walls - Wood, asbestos, vinyl or aluminum siding with inexpensive sash. 2" x 4" wood studs 16" on center, 1 3/8" wood exterior doors, double hung wood sash or aluminum frame windows.

Roofing - Gable roof, sheathed with plywood or 1" planks, covered with asphalt shingles or metal roofing; 2" x 6" rafters or prefabricated trusses; plain wood cornice, galvanized metal gutters.

Flooring - Basement floor poured with 3 1/2" reinforced concrete. Upper floors have 3/4" tongue and groove sub floor or 1" plank sheathing on older homes. Floor coverings are linoleum, asphalt tile, or carpet.

Interior Finish - Interior walls are painted drywall or plaster with enamel painted walls and ceilings. Inexpensive paint grade wood cabinets in kitchen areas with small vanity in bath. Countertops are laminated plastic with small splash. Stock, hollow core doors with inexpensive hardware. Minimal amount of closet space. Workmanship throughout is below average quality but will still meet minimum construction codes.

Heating - Forced air furnace or electric baseboard heat with minimum output and ductwork and thermostat.

Plumbing - One full bath. Inexpensive quality white fixtures including water heater, kitchen sink(s), stall shower, lavatories, tub and shower. Some galvanized piping.

Electrical - A minimal number of outlets and lighting fixtures.

Note: These grading specifications are only guidelines for general descriptive purposes and may or may not be limited to the detail of the individual components.

GRADE E DWELLINGS

These photographs are only an indication of “grade” and not a determination of actual “grade” of the dwellings shown. “Grade” must be based upon individual inspection of the type of materials and quality of construction of the subject dwelling.

GRADE "E" DWELLINGS

Dwellings constructed of low-cost materials and poor workmanship, lacking any architectural treatment or built-in features. Interior and exterior finishes are plain and inexpensive with little or no attention given to detail. Normally, self-built built homes would fall into this classification. The following will further describe the most common characteristics of this grade of construction.

Foundation - Cement block, brick, or rock continuous foundation with block, brick, or wooden piers.

Exterior Walls - Wood frame, cement block, asbestos, or composition roll siding with inexpensive sash and little or no trim. 2" x 4" wood studs 24" on center, 1 3/8" wood exterior doors, and wood painted windows.

Roofing - Gable or shed roof, sheathed with plywood or 1" planks, covered with low quality asphalt shingles or metal roofing; 2" x 4" wood rafters 24" on center; no cornice or gutters.

Flooring - Basement floor poured with 3" cement on earth. Upper floor has plywood flooring or
1" plank sheathing on older homes. Floor coverings are low grade linoleum, asphalt tile, or carpet.

Interior Finish - Interior walls are inexpensive drywall or plaster with painted walls and ceilings. Inexpensive paint grade wood cabinets in kitchen areas with small vanity in bath. Countertops are low cost laminated plastic with small splash. Stock, hollow core doors with low cost hardware. Minimal amount of closet space. Workmanship throughout is poor quality but will still meet minimum construction codes if new construction.

Heating - Forced air furnace, electric baseboard, unit heaters or wood heat with minimum output and ductwork.

Plumbing - One full bath. Low cost white fixtures including water heater, kitchen sink(s), stall shower, lavatories, tub and shower. Some galvanized piping.

Electrical - A minimal number of outlets and low cost lighting fixtures.

Note: These grading specifications are only guidelines for general descriptive purposes and may or may not be limited to the detail of the individual components.

RESIDENTIAL SECTION TYPE CODES

CODE	DESCRIPTION	% OF MA	1.0 FL	2.0 FL	3.0 FL
AA	ATTACHED ADDITION	95%	-	-	-
AG	ATTACHED GARAGE UNFINISHED	45%	-	-	-
CA	CANOPY	10%	-	-	-
CP	CARPORT	30%	-	-	-
EP	ENCLOSED PORCH	38%	1.00	1.90	2.80
FG	FINISHED GARAGE	60%	-	-	-
FUS	FINISHED UPPER STORY	92%	-	-	-
MA	MAIN AREA	-	-	-	-
OP	OPEN PORCH	30%	1.00	1.90	2.80
PA	PATIO	4%	-	-	-
SP	SCREEN PORCH	35%	1.00	1.90	2.80
ST	STOOP	15%	-	-	-
TR	TERRACE	20%	-	-	-
UR	UTILITY ROOM	35%	1.00	1.90	2.80
UUS	UNFIN UPPER STORY	40%	-	-	-
WD	WOOD DECK	15%	1.00	2.00	3.00

Sections with floor will use the percentage adjustment in the above table

RESIDENTIAL MAIN AREA COST FORMULA

GFLA X Coefficient + Constant = Area Factor

_____ X .000584 + .299200 = ___.____

Base Price X Area Factor X SH-BRICK = Adj. Base Value

$114,000 X ___.___ X ___.____ = $_____

RESIDENTIAL MAIN AREA COST FORMULA EXAMPLES

EXAMPLE 1: 1200 SQUARE FOOT FRAME DWELLING

GFLA X Coefficient + Constant = Area Factor

1200 X .000584 + .299200 = 1.00

Base Price X Area Factor X SH-BRICK = Adj. Base Value

$114,000 X 1.00 X 1.00 = $114,000

EXAMPLE 2: 1200 SQUARE FOOT BRICK DWELLING

GFLA X Coefficient + Constant = Area Factor

1200 X .000584 + .299200 = 1.00

Base Price X Area Factor X SH-BRICK = Adj. Base Value

$114,000 X 1.00 X 1.06 = $120,840

EXAMPLE 3: 1800 SQUARE FOOT FRAME DWELLING

GFLA X Coefficient + Constant = Area Factor

1800 X .000584 + .299200 = 1.3504

Base Price X Area Factor X SH-BRICK = Adj. Base Value

$116,100 X 1.3504 X 1.00 = $ 188,140

RESIDENTIAL BASE RATES FOR THE FOLLOWING APPLY DEPENDING ON USE CODE

Use Code	GFLA	Coefficient	Constant	Area Factor	Base Price
C – Condo	**1,000**	**.000701**	**.2992**	**1.00000**	**$90,000**
D – Dwelling	**1,200**	**.000584**	**.2992**	**1.00000**	**$114,000**
DP – Duplex	**1,000**	**.000701**	**.2992**	**1.00000**	**$95,000**
T – Townhouse	**1,000**	**.000701**	**.2992**	**1.00000**	**$90,000**
TH – Tiny Home	**300**	**.002336**	**.2992**	**1.00000**	**$45,000**

SH-BRICK = EXTERIOR WALL FACTORS – FOR BRICK OR STONE SIDING

NUMBER STORIES	ADJUSTMENT FACTOR
1.0	1.060
1.5	1.070
2.0	1.080
2.5	1.090
3.0	1.100

RESIDENTIAL ADDITIONAL PRICES NOT INCLUDED IN BASE

BASEMENT SQUARE FOOT RATES

UNFINISHED	REC ROOM	SEMI FINISH	FINISHED
*$12.00	$20.00	$30.00	$40.00

*Price will be adjusted by the area factor from the main area

RESIDENTIAL HEATING SCHEDULE

CODE	DESCRIPTION	PER SQ FT
E	ELECTRIC	3.00
F	FORCED AIR	4.50
G	GEO-THERMAL	7.00
H	STEAM/HOT WATER	6.00
M	MINI-SPLIT	1.80
N	NONE	0.00
P	HEAT PUMP	4.50
S	SOLAR	0.00
SP	SPACE HEATER	2.00
W	WOOD FURNACE	3.50

AIR CONDITIONING

CENTRAL AIR	2.00

RESIDENTIAL PLUMBING SCHEDULE

1 (one) bath included in base (3 fixtures)

Add $1000 per fixture for extra bath/s
Full bath adds 3 fixtures
Half bath adds 2 fixtures

*Optional to add extra fixtures not included above

RESIDENTIAL FIREPLACE SCHEDULE

$4,000	Per stack
$1,500	1st opening
$1,500	Each additional opening

*For prefab design use opening only

RESIDENTIAL WALL HEIGHT FACTORS

WALL HEIGHT	ADJUSTMENT %
7	.97
8	1.00
9	1.03
10	1.06
11	1.09
12	1.12
13	1.15
14	1.18
15	1.21
16	1.24
17	1.27
18	1.30
19	1.33
20+	1.36

Base will be 8 feet if none is provided

EXAMPLE: A COMPUTER PRINTOUT OF DWELLING PRICING METHOD

BUILDING 1 - RESIDENTIAL DWELLING	
**DEFAULT PHYSICAL DEPRECIATION FROM SCHEDULE, AGE 1, CONDITION "A", IS 0%	
BUILDING 1, SECTION 1, TYPE MA - MAIN AREA	
SCHEDULE RBP, AREA 01, VALUE 114,000.00	
SCHEDULE SHFACT, AREA 10, VALUE 1.00	
AREA FACTOR 1.0000, SHFACTOR 1.00, SHBRICK	
UNDEPRECIATED VALUE FOR 1200 SQUARE FEET	114,000
SCHEDULE FIREPLACE, AREA STACK, VALUE 2500	
OPENINGS 0 AT 2500.00/OPENING.....	0
SCHEDULE RHEAT, AREA P, VALUE 5.00	
HEAT ADJ 4.50/FT, AF 1.0000, SHF 1.00.....	5,400
100% AIR ADJ 2.00/SF, 1200 SQFT, AF 1.0000, SHFACTOR 1.00	2,400
MISCELLANEOUS 1 3.00	
MISCELLANEOUS 2 1000.00	
ADDITIONAL FIXTURES, 0 AT 1000.00 EA.....	0
SCHEDULE RGRADE, AREA C, VALUE 1.00	
GRADE C FACTOR OF 1.00.....	0
NEIGHBORHOOD ADJUSTMENT A OF 100%.....	0
PHYSICAL DEPRECIATION OF 0%.....	-0
TOTAL UNDEPRECIATED SECTION VALUE.....	121,800
TOTAL DEPRECIATED SECTION VALUE.....	121,800
SECTION 2, OPEN PORCH	
SCHEDULE OP, AREA 1.0, VALUE 1.00	
.30 x 95.00, 1.0 STORY, (FACTOR = 1.00)	28.50
BASE RATE; SCHED OP, 320 SFT …….	28.50
EXTENDED VALUE (29.03 X 320)……..	9,120
SCHEDULE RGRADE, AREA C, VALUE 1.00	0
UNDEPREC. VALUE OF 29.03 X 320	9,120
NEIGHBORHOOD ADJUSTMENT "A" OF 1.00	0
PHYSICAL DEPRECIATION OF 0%	-0
TOTAL SECTION 2	9,100
TOTAL UNDEPRECIATED BUILDING =	$130,900
TOTAL DEPRECIATED BUILDING =	$130,900

RESIDENTIAL GRADE INDEX FACTORS

The following table is used wherever "grade" is applied for residential buildings. 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 in based on the use of better grade materials and higher quality workmanship from C grade to grade B. Grade B dwellings have better individual features and interior finish, which reflects a higher cost than grade C. Likewise, the grade D dwelling would be constructed of materials and workmanship of lower quality than grade C.

The following table is used wherever "grade" is applied unless otherwise denoted.

ADJUSTMENT PERCENTAGE

Letter Grade	Residential Schedule
AA	+100%
A	+50%
B	+25%
C	Base
D	-25%
E	-50%

Grades may be entered as just a letter grade or as a letter grade plus or minus a given percentage. If a percentage is specified as a part of the grade, then that percentage is added to or subtracted from the letter grade from the above table.

EXAMPLE: GRADE A -YIELDS A 50% INCREASE

B -YIELDS A 25% INCREASE

D -YIELDS A 25% DECREASE

The grading method is based on grade C as the standard of quality and design. A factor multiplier of 100 percent is assigned to the grade C base grade. The relationship between the highest and lowest grade levels is established by means of grade factor multipliers. Since not all dwellings fall precisely within a particular grade level, but may be slightly better or poorer, the use of grade factors (+ or -) with 5 or 10 percent will accomplish the appropriate adjustment in grades A, B, C, D and E. The only exception would be grade A can be added in 5 percent increments up to 40.

The grade AA dwelling incorporates the best quality of material and workmanship. Construction costs of AA grade dwelling generally run as much as 100 percent higher than that of grade C dwellings. The prestige-type home, the mansion and country estate-type home are usually in this class. AA grades can be increased in 10 percent increments up to 990 if needed.

RESIDENTIAL DEPRECIATION TABLE – PHYS-R1

Age	GD	AV	FR	PR	UN
1	0	0	1	1	90
2	1	1	2	3	90
3	1	2	3	4	90
4	2	3	4	5	90
5	2	4	5	7	90
6	3	4	6	9	90
7	4	5	7	10	90
8	4	6	8	12	90
9	5	7	10	14	90
10	5	8	11	16	90
11	6	9	12	18	90
12	7	10	13	20	90
13	8	11	15	22	90
14	8	12	16	24	90
15	9	12	17	26	90
16	10	13	19	28	95
17	10	15	20	30	95
18	11	16	22	32	95
19	12	17	24	34	95
20	13	18	25	37	95
22	14	20	28	42	95
24	16	23	31	47	95
26	18	25	35	52	95
28	20	28	39	57	95
30	22	31	44	62	99
32	24	34	47	67	99
34	27	37	51	71	99
36	29	40	55	74	99
38	32	43	59	77	99
40	35	47	63	79	99
42	38	51	66	80	99
44	41	54	69	82	99
46	44	57	72	85	99
48	46	61	75	88	99
50	49	64	77	90	99
55	57	70	80	92	99
60	64	74	85	95	99
65	71	78	90	95	99
70+	76	80	95	95	99

MANUFACTURED HOME BASE VALUE SCHEDULE
MAIN AREA - MMA

Manufactured housing shall be considered real property if all of the following are true.

- The land in which the manufactured home is located on, is owned by the same owner/owners as the manufactured home, i.e., deed and title must be registered in the same name/names.
- The manufactured home has a permanent foundation.
- Must be used only for residential purposes

Otherwise it will be considered personal property and list as such

Code – Description	GFLA	Coefficient	Constant	Area Factor	Base Price
DW	**1,400**	**.00501**	.2992	1.00000	$89,600
PW	**400**	**.001752**	.2992	1.00000	$34,000
SW	**800**	**.000876**	.2992	1.00000	$48,000

Residential manufactured home cost formula – Based on Style code applied

GFLA X Coefficient + Constant = Area Factor

_____ X .000501 + .299200 = ___.____

RESIDENTIAL MANUFACTURED HOME COST FORMULA EXAMPLE

EXAMPLE: 1680 SQ FT DW MANUFACTURED HOME

Building 1, Method R – RESIDENTIAL, use M – MANUFACTURED HOME
Schedule PHYS-M2, age 2, condition A, value 3
Default physical depr from schedule: age 2: condition A is 3%

Building 1, Section 1, type MMA – M/H MAIN AREA

SCHEDULE RBP, USE DW	
STD AREA, VALUE 1400	
VALUE/AREA, VALUE 89600	
BASE RATE; SCHED MMA, 1680 SFT	60.81
EXTENDED VALUE (60.81 X 1680 SFT)	102,161
SCHEDULE MGRADE, AREA C, VALUE 1.00	
GRADE C FACTOR OF 1.00	0
UNDEPRECIATED VALUE OF 60.81 BY 1680 SQ FEET	102,161
PHYSICAL DEPRECIATION OF 3%	-3,000
TOTAL UNDEPRECIATED BUILDING VALUE	102,160
TOTAL DEPRECIATED BUILDING VALUE	99,100

MANUFACTURED HOUSING ADDITION FACTORS

ADDITION TYPE	FACTOR
	% OF MAIN AREA
MAA – ATT ADDITION	95% of Base
MAG – ATT GARAGE	$28.00
MCA – CANOPY	$10.00
MCP – CARPORT	$20.00
MEP – ENCL PORCH	$30.00
MFB – FIN BASEMENT	$30.00
MOP – OPEN PORCH	$20.00
MPA – PATIO	$4.00
MRB – REC BASEMENT	$25.00
MSP – SCREEN PORCH	$22.00
MST – STOOP	$8.00
MUB – UNFIN BASEMENT	$10.00
MUR – UTILITY ROOM	$24.00
MWD – WOOD DECK	$10.00

MANUFACTURED HOUSING GRADE INDEX - MGRADE

GRADE	FACTOR
A+	1.60
A	1.50
A-	1.40
B+	1.35
B	1.25
B-	1.15
C+	1.10
C	1.00
C-	.90
D+	.85
D	.75
D-	.65
E+	.60
E	.50
E-	.40

MANUFACTURED HOME PHYSICAL DEPRECIATION
SINGLE WIDE PHYS-M

AGE	GOOD	AVERAGE	FAIR	POOR	UNSOUND
1	1	2	3	5	90
2	3	4	7	10	90
3	4	6	11	15	90
4	5	9	15	21	90
5	7	12	20	27	90
6	9	14	24	32	90
7	10	17	28	38	90
8	12	19	33	45	90
9	14	22	38	51	90
10	16	25	43	57	95
12	20	31	53	69	95
14	24	37	61	77	95
16	28	43	70	80	95
18	32	50	76	85	95
20	37	56	79	90	95
22	42	62	80	95	99
24	47	68	85	95	99
26	52	74	90	95	99
28	57	77	90	95	99
30+	62	79	90	95	99

DOUBLE WIDE & PARK MODEL
PHYS-M2

AGE	GOOD	AVERAGE	FAIR	POOR	UNSOUND
1	1	1	2	3	90
2	2	3	4	6	90
3	3	4	5	9	90
4	4	5	7	12	90
5	5	7	9	15	90
6	6	9	11	18	90
7	7	10	13	22	90
8	8	12	15	25	90
9	10	14	17	29	90
10	11	16	20	32	95
12	13	20	24	40	95
14	16	24	29	48	95
16	19	28	34	55	95
18	22	32	40	63	95
20	25	37	45	71	99
22	28	42	51	76	99
24	31	47	57	76	99
26	35	52	62	80	99
28	39	57	68	82	95
30	44	62	71	84	99
32	47	57	74	86	99
34	51	71	77	88	99
36	55	74	79	90	99
38	59	77	80	90	99
40+	63	79	82	90	99

COMMERCIAL BUILDING SCHEDULE

NUMERICAL LISTING OF COMMERCIAL BUILDINGS USE CODE INDEX

CODE	DESCRIPTION
C01	APARTMENT
C02	AUTOMOTIVE BUILDING
C03	AUTOMOTIVE CENTER
C04	BANK
C05	BARBER AND BEAUTY SHOP
C06	BED & BREAKFAST
C07	CAR WASH
C08	CHURCH
C09	CLUBHOUSE
C10	CONVENIENCE STORE
C11	COMMERCIAL
C12	COUNTRY CLUB
C13	DEPARTMENT STORE
C04	DISCOUNT STORE
C15	DORMITORY
C16	DAYCARE CENTER
C17	FIRE STATION
C18	GARAGE LUBE CENTER
C19	GOVERNMENT BUILDING
C20	HOSPITAL
C21	LAUNDROMAT
C22	INDUSTRIAL
C23	SUPERMARKET
C24	MOTEL
C25	MORTUARY
C26	OFFICE TYPICAL
C27	OFFICE MEDICAL
C28	REST OR NURSING HOME
C29	RESTAURANT/LOUNGE
C30	RESTAURANT/FAST FOOD
C31	RETAIL STORE
C32	RETAIL RURAL
C33	SCHOOL
C34	SERVICE GARAGE
C35	SHOPPING CENTER
C36	WAREHOUSE
C37	WAREHOUSE/DISTRIBUTION
C38	MINI WAREHOUSE
C39	PRE-FAB COMMERCIAL
C40	THEATER LIVE STAGE
C41	THEATER CINEMA

COMMERCIAL BUILDING UNIT PRICE TABLE

TYPE	DESCRIPTION	BASE SQFT	BASE	HEAT	A/C	HEAT & A/C	BSMT AREA	BSMT FIN.	ADJ. FT.	DEPR
C01	APARTMENT	3000	92.70	3.70	2.60	6.30	27.80	83.40	600	50
C02	AUTO BLDG	4000	69.90	2.10	8.00	10.10	21.00	62.90	800	40
C03	AUTO CENTER	4000	75.20	2.10	8.00	10.10	22.60	67.70	800	40
C04	BANK	3000	208.00	7.60	10.40	18.00	62.40	187.20	600	50
C05	BARBER/BEAUTY	1500	71.50	1.90	7.50	9.40	21.50	64.40	300	40
C06	BED & BREAKFAST	3000	120.80	3.70	2.60	6.30	18.10	72.50	600	60
C07	CAR WASH	1200	130.80	3.30						30
C08	CHURCH	3000	165.60	7.00	10.70	17.70	49.70	149.00	600	50
C09	CLUBHOUSE	3000	90.60	5.80	4.50	10.30	27.20	81.50	600	40
C10	CONVIENCE STORE	3000	82.00	4.20	4.60	8.80	24.60	73.40	600	40
C11	COMMERCIAL	2000	48.00	4.00	2.00	6.00	14.40	43.20	400	40
C12	COUNTRY CLUB	9000	124.90	5.80	3.40	9.20	37.50	112.40	1800	50
C13	DISCCOUNT STORE WHSE	100000	58.00	4.20	3.70	7.90	17.30	52.20	20000	40
C14	DISCOUNT STORE	10000	56.50	4.20	3.70	7.90	17.40	50.90	2000	40
C15	DORMITORY	3000	139.30	5.80	3.40	9.20	41.80	125.40	600	50
C16	DAYCARE CENTER	3000	124.50	8.10	5.90	14.00	37.40	112.10	600	40
C17	FIRE STATION	3000	65.80	2.30	12.00	14.30	19.70	59.20	600	40
C18	GARAGE LUBE CTR	1400	163.70	2.10	8.00	10.10	49.10	147.30	280	40
C19	GOVERNMENT BLDG	3000	141.40	7.60	10.40	18.00	42.40	127.30	600	50
C20	HOSPITAL	60000	252.20	7.60	19.40	27.00	75.70	227.00	3000	40
C21	LAUNDROMAT	1500	80.20	1.80	7.00	8.80	24.10	72.20	300	40
C22	INDUSTRIAL	100000	47.20	2.10	8.00	10.10	14.20	42.50	20000	50
C23	SUPERMARKET	30000	62.20	4.20	3.70	7.90	18.70	56.00	6000	40
C24	MOTEL/HOTEL	4000	82.70	1.50	2.00	3.50	24.80	74.40	800	50
C25	MORTUARY	3000	134.80	5.80	4.50	10.30	40.40	121.30	600	50
C26	OFFICE - TYPICAL	2000	101.60	7.60	6.70	14.30	30.50	91.40	400	50
C27	OFFICE - MEDICAL	2000	122.90	7.60	6.70	14.30	36.90	110.60	400	40
C28	REST/NURSING HOME	10000	142.30	5.80	6.90	12.70	42.70	128.10	2000	50
C29	RESTRUANT/LOUNGE	7000	106.90	4.20	11.10	15.30	32.10	96.20	1400	40
C30	REST/FAST FOOD	3000	154.30	4.20	11.10	15.30	46.30	123.40	600	30
C31	RETAIL	2500	72.60	4.20	3.70	7.90	21.80	58.10	500	50
C32	RETAIL/RURAL	1500	53.60	4.20	3.70	7.90	16.10	42.90	300	40
C33	SCHOOL	12000	118.60	8.10	5.90	14.00	35.60	106.70	2400	40
C34	SERVICE GARAGE	2800	73.30	2.00	7.70	9.70	22.00	66.00	560	40
C35	SHOPPING CENTER	14000	79.30	4.20	3.70	7.90	23.80	71.40	2800	40
C36	WAREHOUSE	30000	39.60	2.10	8.00	10.10	27.70	35.60	6000	40
C37	WAREHOUSE/DIST	30000	46.20	2.10	8.00	10.10	32.30	41.60	6000	50
C38	MINI WAREHOUSE	3000	35.10	2.10	8.00	10.10	17.60	31.60	600	40
C39	PRE-FAB COMM	3000	33.8	4.80	4.90	9.70	16.90	30.40	600	40
C40	THEATER LIVE STAGE	30000	226.10	7.00	10.70	17.70	67.80	203.50	6000	50
C41	THEATER CINEMA	10000	131.60	7.00	4.80	11.80	39.50	118.40	1000	50

1/2 STORY & ADDITIONAL FLOOR PERCENT FACTORS

Commercial 1/2 story	75% of base price
Commercial additional floors	85% of base price

Note: If FUS is used on Commercial Building it will override this table.

SPRINKLER SYSTEM

Adjustment for sprinkling systems when installed:

Area covered under 5000 sq. Ft. - add $1.60 per sq. Ft.

Area covered over 5000 sq. Ft. - add $1.25 per sq. Ft.

COMMERCIAL BUILDING SIZE ADJUSTMENT FACTORS

Unit rate adjustment of +.006 for size - less than base sq. Ft.

Unit rate adjustment of -.006 for size - more than base sq. Ft.

WALL HEIGHT ADJUSTMENT FACTORS

WALL HEIGHT	% ADJUSTMENT
7	.92
8	.95
9	.97
10	1.00
11	1.03
12	1.06
13	1.08
14	1.11
15	1.14
16	1.18
17	1.21
18	1.24
19	1.27
20	1.31

Note: Buildings above 20 feet in height will use adjustment for 20 feet

The above table will be used to adjust for wall heights on the following building

C01 APARTMENTS
C06 BED & BREAKFAST
C09 CLUBHOUSE
C12 COUNTRY CLUB
C15 DORMITORY
C25 MORTUARY

WALL HEIGHT ADJUSTMENT FACTORS

WALL HEIGHT	ADJUSTMENT %
7	.96
8	1.00
9	1.04
10	1.08
11	1.12
12	1.16
14	1.24
16	1.32

Note: Buildings over 16 feet in height will use adjustment for 16 feet

The above table will be used to adjust for wall heights on the following building

C24 MOTEL/HOTEL

WALL HEIGHT ADJUSTMENT FACTORS

WALL HEIGHT	ADJUSTMENT %
8	.92
10	.96
11	.98
12	1.00
13	1.02
14	1.04
15	1.06
16	1.09
18	1.13
20	1.17
22	1.21
24	1.26
26	1.30
28	1.34

Note: Buildings over 28 feet in height will use adjustment for 28 feet

The above table will be used to adjust for wall heights on the following building

C05 BARBER / BEAUTY SHOP
C10 CONVENIENCE STORE
C13 DEPARTMENT STORE
C14 DISCOUNT STORE
C21 LAUNDROMAT
C23 SUPERMARKET
C29 RESTAURANT / LOUNGE
C30 RESTAURANT / FAST FOOD
C31 RETAIL STORE
C32 RETAIL RURAL
C35 SHOPPING CENTER

WALL HEIGHT ADJUSTMENT FACTORS

WALL HEIGHT	ADJUSTMENT %
8	.89
10	.92
12	.96
14	1.00
16	1.04
18	1.09
20	1.13
22	1.18
24	1.23
30	1.38
35	1.52
40	1.65
45	1.79
50	1.93
55	2.08
60	2.23
70	2.53
80	2.85

Note: Buildings over 80 feet in height will use adjustment for 80 feet

The above table will be used to adjust for wall heights on the following building

C02	AUTOMOTIVE BUILDING
C03	AUTOMOTIVE CENTER
C18	GARAGE SERVICE
C22	INDUSTRIAL
C34	SERVICE STATION
C36	WAREHOUSE
C37	WAREHOUSE DISTRIBUTION
C38	MINI WAREHOUSE
C39	PRE-FAB COMMERCIAL

WALL HEIGHT ADJUSTMENT FACTORS

WALL HEIGHT	ADJUSTMENT %
8	.90
9	.93
10	.95
11	.98
12	1.00
13	1.02
14	1.05
15	1.07
16	1.09
18	1.14
20	1.18
24	1.28
28	1.37
32	1.46

Note: Buildings over 32 feet in height will use adjustment for 32 feet

The above table will be used to adjust for wall heights on the following building

C04 BANK
C11 COMMERCIAL BUILDING
C17 FIRE STATION
C19 GOVERNMENT BUILDING
C20 HOSPITAL
C26 OFFICE TYPICAL
C27 OFFICE MEDICAL
C28 REST / NURSING HOME

WALL HEIGHT ADJUSTMENT FACTORS

WALL HEIGHT	ADJUSTMENT %
8	.78
10	.83
12	.89
14	.95
16	1.00
18	1.05
20	1.11
22	1.16
24	1.21
26	1.26
28	1.31
30	1.36
34	1.46
38	1.56
42	1.66
46	1.75
50	1.85
54	1.94
58	2.04
62	2.13
66	2.22
70	2.31
74	2.40
78	2.49
82	2.57
86	2.66
90	2.74

Note: Buildings over 90 feet in height will use adjustment for 90 feet

The above table will be used to adjust for wall heights on the following building

C08 CHURCH
C40 THEATER LIVE STAGE
C41 THEATER CINAMA

WALL HEIGHT ADJUSTMENT FACTORS

WALL HEIGHT	ADJUSTMENT %
8	.96
9	.98
10	1.00
11	1.02
12	1.04
13	1.06
14	1.07
15	1.09
16	1.11
18	1.15
20	1.18
22	1.22
24	1.26
30	1.37
36	1.48

Note: Buildings over 36 feet in height will use adjustment for 36 feet

The above table will be used to adjust for wall heights on the following building

C16 DAYCARE CENTER
C33 SCHOOL

COMMERCIAL SECTION TYPES AND RATES

CODE –DESC	RATE	1.0	1.5	2.0	2.5	3.0
CAA – COMM ATTCHED AREA	95%	1.00	1.65	1.92	2.32	2.84
CAG – COMM UNFIN GARAGE	42%	1.00	1.65	1.92	2.32	2.84
CBC – COMM BANK CANOPY	35%	-	-	-	-	-
CBZ – COMM BREEZEWAY	30%	-	-	-	-	-
CCA – COMM CANOPY	15%	-	-	-	-	-
CCD – COMM COVERED DECK	28%	-	-	-	-	-
CCP – COMM CARPORT	42%	-	-	-	-	-
CCPT – COMM COVERED PATIO	18%	-	-	-	-	-
CEP – COMM ENCLOSED PORCH	40%	1.00	-	1.92	-	2.84
CFG – COMM FINISHED GARAGE	55%	1.00	1.65	1.92	2.32	2.84
CFUS – COMM FIN UPPER STORY	85%	-	-	-	-	-
CLD – COMM CVD LOAD DOCK	15%	-	-	-	-	-
CMZ – COMM MEZZANINE	32%	-	-	-	-	-
COP – COMM OPEN PORCH	32%	1.00	-	1.92	-	2.84
CPA – COMM PATIO	6%	-	-	-	-	-
CSP – COMM SCREEN PORCH	36%	1.00	-	1.92	-	2.84
CSR – COMM SUNROOM	58%	1.00	-	1.92	-	2.84
CST – COMM STOOP	12%	-	-	-	-	-
CTR – COMM TERRACE	16%	-	-	-	-	-
CUR – COMM UTILITY ROOM	40%	1.00	-	1.92	-	2.84
CWD – COMM WOOD DECK	18%	1.00	-	2.00	-	3.00

COMMERCIAL BUILDING GRADE INDEX FACTORS

The following table is used wherever "grade" is applied for commercial buildings. 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 in based on the use of better grade materials and higher quality workmanship from C grade to grade B. Grade B buildings have better individual features and interior finish, which reflects a higher cost than grade C. Likewise, the grade D dwelling would be constructed of materials and workmanship of lower quality than grade C.

The following table is used wherever "grade" is applied unless otherwise denoted.

ADJUSTMENT PERCENTAGE

Letter Grade	Commercial Schedule
AA	+100%
A	+50%
B	+25%
C	Base
D	-25%
E	-50%

Grades may be entered as just a letter grade or as a letter grade plus or minus a given percentage. If a percentage is specified as a part of the grade, then that percentage is added to or subtracted from the letter grade from the above table.

EXAMPLE: GRADE A -YIELDS A 50% INCREASE

B -YIELDS A 25% INCREASE

D -YIELDS A 25% DECREASE

The grading method is based on grade C as the standard of quality and design. A factor multiplier of 100 percent is assigned to the grade C base grade. The relationship between the highest and lowest grade levels is established by means of grade factor multipliers. Since not all commercial buildings fall precisely within a particular grade level, but may be slightly better or poorer, the use of grade factors (+ or -) with 5 or 10 percent will accomplish the appropriate adjustment in grades A, B, C, D and E. The only exception would be grade A can be added in 5 percent increments up to 40.

The grade AA commercial building incorporates the best quality of material and workmanship. Construction costs of AA grade commercial building generally run as much as 100 percent higher than that of grade C. AA grades can be increased in 10 percent increments up to 200 if needed.

NEIGHBORHOOD ADJUSTMENT - APPLIED TO INDIVIDUAL NEIGHBORHOOD

This manual reserves the right to identify and create neighborhoods in Macon County as being unique areas of property that are determined by subdivisions, natural boundaries or other determining factors that will create a neighborhood. Neighborhoods will be determined by the appraiser and numeric codes will be created to uniquely identify them. The adjustment for these neighborhoods could range from 25% - 250%.

EXAMPLE: COMPUTER PRINTOUT OF COMMERCIAL PRICING METHOD

Building 1, method C- COMMERCIAL, use C01 – APARTMENT

Schedule C01, area DEPR, value 50.00
Schedule PHYS-C50, age 3, condition A, value 1
Default physical depreciation from schedule PHYS-C50 for condition of A of 1%

Building 1, Section 1, type C01 – APARTMENT

Schedule C01, area BASE, value 3000.00	
Schedule C01, area RATE, value 92.700	
Base rate 91.59 x 4000 sq ft	366,360
Schedule C01, area H&A, value 6.30	
Adjustment for heat and air	25,200
Schedule C01-WALLHT, wall height 8.0, value .95	
Wall height adjustment for 8.0 ft	-19.578
Adjustment for 1 additional floors	316,185
Adjustment for 4000 sq ft sprinkler	5,000
Schedule CGRADE, area C, value 1.00	
Adjustment for grade C of 1.00	0
Neighborhood adjustment A CA of 100.00	0
Default physical depreciation of 1%	-6,932
Total undepreciated section value	693,167
Total depreciated section value	686,235
Total undepreciated building value	693,170
Total depreciated building value	686,240
Total building value	686,240

COMMERCIAL\INDUSTRIAL 60 YEAR LIFE
TABLE PHYS-C60

AGE	GD	AV	FR	PR	UN
1	0	0	0	1	90
2	1	1	2	2	90
3	1	1	3	3	90
4	1	1	2	4	90
5	1	1	3	5	90
6	1	2	3	6	90
7	1	2	4	7	90
8	1	2	5	8	90
9	2	3	5	10	90
10	2	3	6	11	90
11	2	4	7	13	90
12	2	4	8	14	90
13	2	5	9	16	90
14	3	5	10	18	90
15	3	6	11	20	90
16	3	7	12	22	95
17	4	7	13	24	95
18	4	8	14	26	95
19	4	9	16	28	95
20	5	9	17	30	95
21	5	10	18	32	95
22	6	11	20	35	95
23	6	12	21	37	95
24	7	13	23	40	95
25	7	14	25	43	95
26	8	15	27	46	99
27	9	16	28	49	99
28	9	17	30	52	99
29	10	18	32	54	99
30	11	20	34	57	99
32	13	22	38	62	99
34	15	25	43	68	99
36	17	28	48	73	99
38	19	32	53	77	99
40	21	35	59	79	99
42	25	39	65	80	99
44	28	43	70	82	99
46	31	48	74	84	99
48	34	53	77	86	99
55	48	67	80	90	99
60	57	74	82	90	99
65	65	78	85	90	99
70+	71	80	85	90	99

COMMERCIAL\INDUSTRIAL 50 YEAR LIFE
TABLE PHYS-C50

AGE	GD	AV	FR	PR	UN
1	0	0	1	2	90
2	1	1	2	3	90
3	1	1	3	5	90
4	1	2	4	7	90
5	1	3	5	9	90
6	2	3	6	11	90
7	2	4	7	14	90
8	2	5	8	16	90
9	3	5	10	18	90
10	3	6	11	21	90
11	4	7	13	24	90
12	4	8	14	26	90
13	5	9	16	29	90
14	5	10	18	32	90
15	6	11	20	35	90
16	7	12	22	39	95
17	7	13	24	42	95
18	8	14	26	46	95
19	9	16	28	49	95
20	9	17	30	53	95
21	10	18	32	57	95
22	11	20	35	60	95
23	12	21	37	63	95
24	13	23	40	66	95
25	14	25	43	69	95
26	15	27	46	72	95
27	16	28	49	75	95
28	17	30	42	77	95
29	18	32	54	78	95
30	20	34	57	79	99
32	22	38	62	80	99
34	25	43	68	82	99
36	28	48	73	84	99
38	32	53	77	86	99
40	35	59	79	88	99
42	39	65	80	90	99
44	43	70	82	90	99
46	48	74	84	90	99
48	53	77	85	90	99
50	58	79	85	90	99
55	67	80	85	90	99

COMMERCIAL\INDUSTRIAL 40 YEAR LIFE
TABLE PHYS-C40

AGE	GD	AV	FR	PR	UN
1	0	1	2	3	90
2	1	2	3	7	90
3	1	3	5	10	90
4	2	4	7	14	90
5	3	5	9	18	90
6	3	6	11	22	90
7	4	7	14	26	90
8	5	8	16	30	90
9	5	10	18	35	90
10	6	11	21	40	90
11	7	13	24	45	90
12	8	14	26	50	90
13	9	16	29	55	90
14	10	18	32	60	90
15	11	20	35	65	90
16	12	22	39	69	95
17	13	24	42	73	95
18	14	26	46	76	95
19	16	28	49	78	95
20	17	30	53	79	95
21	18	32	57	80	95
22	20	35	60	83	95
23	21	37	63	86	95
24	23	40	66	89	95
25	25	43	69	90	95
26	27	46	72	90	95
27	28	49	75	90	95
28	30	52	77	90	95
29	32	54	78	90	95
30	34	57	79	95	99
32	38	62	80	95	99
34	43	68	84	95	99
36	48	73	85	95	99
38	53	77	85	95	99
40+	59	79	85	95	99

COMMERCIAL\INDUSTRIAL 30 YEAR LIFE
TABLE PHYS-C30

AGE	GD	AV	FR	PR	UN
1	1	2	2	3	90
2	2	3	5	7	90
3	3	5	7	10	90
4	4	7	10	14	90
5	5	9	13	18	90
6	6	11	16	22	90
7	7	14	19	26	90
8	8	16	22	30	90
9	10	18	25	35	90
10	11	21	29	40	90
11	13	24	32	45	90
12	14	26	36	50	90
13	16	29	40	55	90
14	18	32	44	60	90
15	20	35	44	60	90
16	22	39	52	69	95
17	24	42	56	73	95
18	26	46	60	76	95
19	28	49	64	78	95
20	30	53	68	79	95
21	32	57	71	80	95
22	35	60	73	82	95
23	37	63	75	84	95
24	40	66	77	86	95
25	43	69	79	88	95
26	46	72	80	90	95
27	49	75	83	95	99
28	52	77	85	95	99
29	54	78	85	95	99
30+	57	79	85	95	95

CLASSIFICATION OF PROPERTY

REAL vs BUSINESS PERSONAL PROPERTY

Generally speaking machinery and equipment used primarily as part of the manufacturing process (process equipment) is listed, appraised and assessed as personal property. Machinery and equipment which is part of the land or building improvement is taken as real estate. Please refer to the list that follows for clarification.

In most cases replacement floor coverings, interior remodeling, painting, and roofing are considered general maintenance. These improvements may or may not increase the market value of a commercial building. The appraiser will evaluate the extent of the remodeling and interior improvements and decide if the changes have increased the market value of the building.

Note that the replacement of carpeting or any other floor finish and or upfit of building that is done by the tenant is a leasehold improvement and are considered business personal property to be listed by the tenant, and listed, appraised, and assessed as personal property.

REAL PROPERTY

- Air Conditioning – building (generally for the comfort of employees and visitors)
- Auto exhaust systems for building
- Boiler – for service of building
- Buildings
- Canopies – generally
- Carpet – installed
- Elevator
- Escalators
- Fencing – outside
- Gazebos
- Golf course and improvements (drainage and irrigation)
- Greenhouses – permanently affixed
- Lagoons/settling ponds
- Land
- Mineral rights
- Paving
- Water system
- Repairs – building
- Roll-up doors (outside wall)
- Roofing

REAL PROPERTY

- Scales (unless moveable)
- Sewer systems
- Sinks – bathroom
- Sprinkler system – building
- Swimming pools – below ground
- Tunnels – unless part of process system
- Vault (vault doors are personal property)
- Ventilation systems – building
- Wall covering

PERSONAL PROPERTY

- Air conditioning - manufacturing (generally necessary for manufacturing process)
- Air Conditioning – window units
- Airplanes
- Alarm systems (security or fire) and wiring
- Asphalt plants
- Automatic teller machine
- Auto exhaust systems for equipment
- Awnings
- Balers (paper, cardboard)
- Bank teller lockers
- Bars and bar equipment
- Billboards
- Boats and motors
- Boiler – for process
- Bowling alley lanes
- Broadcasting equipment
- CIP equipment
- Cabinets
- Cable TV distribution systems
- Cable TV equipment and wiring
- Camera equipment
- Canopies – fabric, vinyl, plastic
- Car wash – all equipment
- Catwalks for M&E
- Cement plants
- Chairs
- Closed circuit TV

PERSONAL PROPERTY

- Cold storage refrigeration equipment
- Compressed air or gas systems – other than building heat
- Computer room air conditioning
- Computer room raised floor
- Computerized scanning equipment
- Computers and data lines
- Concrete plants
- Construction and grading equipment
- Control systems – building and equipment
- Conveyer and material handling systems
- Coolers – walk-in or free-standing
- Cooling towers – used for manufacturing
- Counters and reception desks
- Dairy processing plants – all process items
- Dance floors
- Data processing equipment – all items
- Deli equipment
- Desks
- Diagnostic center equipment
- Display cases
- Dock levelers
- Drapes and curtains
- Drawings
- Drinking fountains
- Drive thru windows
- Drying systems
- Dumpsters
- Dust catchers
- Electronic control systems
- Farm equipment
- Fencing – inside
- Flagpole
- Foundation for machinery and equipment
- Freight charges
- Fuels – not for sale
- Furniture and fixtures
- Grain bins
- Greenhouse – fans, heating system, benches, etc
- Heating systems – for process
- Hoppers

PERSONAL PROPERTY

- Hospital systems – equipment and piping
- Hot air balloons
- Hotel/motel televisions and wiring
- Humidifiers – for process
- Incinerators
- Industrial piping – for process
- Installation cost
- Irrigation equipment
- Kilns
- Laboratory equipment
- Laundry bins
- Law & professional libraries
- Leased equipment
- Lifts – other than elevator
- Lighting – portable/moveable/special
- Lighting – yard
- Machinery and equipment
- Medical equipment
- Mirrors – other than bathroom
- Monitoring systems
- Newspaper stands
- Night depository
- Office equipment
- Office supplies
- Oil company equipment
- Ovens – processing and manufacturing
- Overhead conveyer system
- Package and labeling equipment
- Paging system
- Paint spray booths
- Partitions (moveable, free standing)
- Pneumatic tube systems
- Process piping
- Playground equipment
- Portable buildings
- Power generator systems
- Power transformers
- Public address systems
- Refrigeration systems
- Restaurant furniture (including attached to floor or building)
-

PERSONAL PROPERTY

- Restaurant/kitchen equipment (commercial only)
- Returnable containers
- Roll-up doors – inside
- Room dividers/partitions
- Rooms – special purpose
- Safes – wall or self-standing
- Sales/use tax
- Satellite dishes
- Security systems
- Service station equipment – pumps, tanks, etc.
- Shelving
- Signs
- Sinks – kitchen area (commercial)
- Software – capitalized
- Sound systems and projection equipment
- Spare parts – lists as supplies
- Speakers
- Spray booths
- Sprinkler system – used for production
- Supplies (office and other)
- Tanks – above and below ground
- Telephone systems
- Teller window – bank
- Theater seats
- Tooling, dies, and molds
- Towers – microwave, equipment, wiring, and foundation
- Towers – TV, radio, Cable TV, two-way radio, and wiring
- Transportation cost – all
- Upgrades to equipment
- Vacuum system – used for process
- Vault door (the actual vault is real property)
- Vending machines
- Vent fans
- Ventilation systems
- Video tapes/movies/reel movies
- Water coolers
- Water lines – for process
- Water tanks & system – for process
- Whirlpool/Jacuzzi/hot tubs
- Wiring – for machinery & equipment

OUTBUILDING COST SCHEDULES

OUTBUILDING CODES AND DESCRIPTIONS

CODE	DESCRIPTION	CODE	DESCRIPTION
01	BARN	39	MISC BLDG
02	BARN, HORSE/DAIRY	40	MOBILE HOME, SITE/PARK
03	BARN, LOW COST	41	MOBILE HOME, S/V
04	BATHHOUSE	42	PATIO
05	BOATDOCK	43	PATIO, COVERED
06	BOATHOUSE	44	PAVILLION
07	BOATHOUSE W/DECK	45	PAVING, ASPHALT
08	BULKHEAD / RETAINING	46	PAVING, CONCRETE
09	CABIN, AVG QUALITY	47	PIER
10	CABIN, GOOD QUALITY	48	PORCH, ENCLOSED
11	CABIN, LOW QUALITY	49	PORCH, OPEN
12	CAMPSITE	50	PORCH, SCREEN
13	CANOPY, AVG QUALITY	51	POULTRY HOUSE
14	CANOPY, COMMERCIAL	52	PRODUCE STAND
15	CANOPY, GOOD QUALITY	53	PUMP HOUSE
16	CANOPY, LOW QUALITY	54	SHED, EQUIP W/SIDES
17	CARPORT	55	SHED, POLE OPEN
18	CHAIN LINK FENCE	56	SHOP, FRAME
19	COMM LUMBER STORAGE	57	SHOP, STEEL PRE-FAB
20	COMM OFFICE, AVG QUAL	60	STABLE
21	COMM OFFICE, LOW QUAL	61	STORAGE, FR UTILITY
22	DWELLING SOUND VALUE	62	STORAGE, METAL UTILITY
23	FELLOWSHIP HALL	63	STORAGE, QUANSET
24	FISH HATCHERY	64	STOARGE, STEEL PRE-FAB
25	GARAGE, FINISHED	65	STORE, COMM BLDG
26	GARAGE, UNFINISHED	66	SWIMMING POOL, COMM
27	GARAGE, W/LIVING QRTS	67	SWIMMING POOL, RES
28	GAZEBO	68	SWINE, BLDG
29	GOLF COURSE, AVG	69	TANK, WATER STG
30	GOLF COURSE, EXCEL	70	TENANT HOUSE
31	GOLF COURSE, GOOD	71	TENNIS COURT
32	GOLF COURSE, PAR 3	72	UTILITY ROOM
33	GRAIN BIN	73	WOOD DECK
34	GREENHOUSE	74	YURT
35	HANGER, AIRPLANE		
36	ADDITION L/Q		
38	MINI GOLF		

OUTBUILDING RATES AND ADJUSTMENTS

CODE	DESCRIPTION	RATE	DEPR TABLE
01	BARN	30	10
02	BARN, HORSE/DAIRY	60	10
03	BARN, LOW COST	15	10
04	BATH HOUSE	45	12
05	BOAT DOCK	18	13
06	BOAT HOUSE	40	13
08	BULKHEAD/RETAINING WALL	65	13
09	CABIN, AVG QUALITY	65	10
10	CABIN, GOOD QUALITY	80	10
11	CABIN, LOW QUALITY	30	12
12	CAMPSITE	2,.500	-
13	CANOPY, AVG QUALITY	25	12
14	CANOPY, COMMERCIAL	60	12
15	CANOPY, GOOD QUALITY	40	12
16	CANOPY, LOW QUALITY	20	11
17	CARPORT	40	10
18	CHAIN LINK FENCE	15	13
19	COMM LUMBER STORAGE	20	13
20	COMM OFFICE AVERAGE	30	10
21	COMM OFFICE LOW	15	12
22	DWELLING SOUND VALUE	-	-
23	FELLOWSHIP HALL	80	10
24	FISH HATCHERY	40	13
25	GARAGE, FINISHED	80	11
26	GARAGE, UNFINISH	50	11
27	GARAGE, W/LQ	120	11
28	GAZEBO	30	13
29	GOLF COURSE AVGERAGE	60,000	-
30	GOLF COURSE EXELLENT	120,000	-
31	GOLF COURSE GOOD	75,000	-
32	GOLF COURSE PAR3	25,000	-
34	GREENHOUSE	20	13
35	HANGER, AIRPLANE	30	12
36	ADDITION L/Q	48	12
38	MINITURE GOLF	8,500	-
39	MISC BLDG	20	13
40	M/H SITE/PARK	7,500	-
41	M/H SOUND VALUE	-	-

CODE	DESCRIPTION	RATE	DEPR TABLE
42	PATIO	4	12
43	PATIO, COVERED	15	12
44	PAVILLION	40	13
45	PAVING, ASPHALT	3.50	14
46	PAVING, CONCRETE	4	14
47	PIER	30	13
48	PORCH, ENCLOSED	25	12
49	PORCH, OPEN	20	12
50	PORCH, SCREEN	22	12
51	POULTRY HOUSE	15	12
52	PRODUCE STAND	20	12
53	PUMP HOUSE	40	14
54	SHED, EQUIP W/SIDES	12	13
55	SHED, OPEN POLE	10	13
56	SHOP, FRAME	30	10
57	SHOP, STEEL PRE-FAB	28	12
60	STABLE	40	10
61	STORAGE, FRAME	25	11
62	STORAGE, METAL	20	13
63	STORAGE, QUANSET	15	13
64	STORAGE, STEEL PRE-FAB	12	12
65	STORE, COMM BLDG	45	10
66	SWIM POOL COMMERCIAL	20	13
67	SWIM POOL RESIDENTIAL	25	14
68	STUDIO	150	10
69	TANK, WATER	.30	11
70	TENANT HOUSE	30	10
71	TENNIS COURT	55,000	12
72	UTILITY ROOM	30	12
73	WOOD DECK	15	13
74	YURT	24	13

OUTBUILDING FORMULAS

FORMULA – AREA x RATE = BASE CALCULATION

OUTBUILDING GRADE INDEX FACTORS

The following is used wherever grade is applied unless otherwise noted.

ADJUSTMENT PERCENTAGE

LETTER GRADE	OUTBUILDING SCHEDULE (METHOD O)
A	+50%
B	+25%
C	BASE
D	-25%
E	-50%

Grades may be entered as just a letter grade or as a letter grade plus or minus a given percentage. If a percentage is specified as a part of the grade, then that percentage is added to from the percentage for the letter grade from the above table.

EXAMPLE: GRADE A -YIELDS A 50% INCREASE

B -YIELDS A 25% INCREASE

D -YIELDS A 25% DECREASE

The grading method is based on grade C as the standard of quality and design. A factor multiplier of 100 percent is assigned to the grade C base grade. The relationship between the highest and lowest grade levels is established by means of grade factor multipliers. Since not all outbuildings fall precisely within a particular grade level, but may be slightly better or poorer, the use of grade factors (+ or -) with 5 or 10 percent will accomplish the appropriate adjustment in grades A, B, C, D and E. The only exception would be grade A can be added in 10 percent increments up to A+50.

18 - CHAIN LINK FENCE GRADE TABLE

A	3.45
B	2.90
C	2.35
D	1.80
E	1.23

OUTBUILDING 50 YEAR LIFE CDU TABLE
PHYS – 10

Age	GD	AV	FR	PR	UN
1	0	1	1	2	90
2	1	2	3	4	90
3	2	3	4	6	90
4	3	4	5	9	90
5	4	5	7	12	90
6	4	6	9	14	90
7	5	7	10	17	90
8	6	8	12	19	90
9	7	10	14	22	90
10	8	11	16	25	90
11	9	12	18	28	90
12	10	13	20	31	90
13	11	15	22	34	90
14	12	16	24	37	90
15	12	17	26	40	90
16	13	19	28	43	95
17	15	20	30	46	95
18	16	22	32	50	95
19	17	24	34	53	95
20	18	25	37	56	95
22	20	28	42	62	95
24	23	31	47	68	95
26	25	35	52	74	99
28	28	39	57	77	99
30	31	44	62	79	99
32	34	47	67	80	99
34	37	51	71	85	99
36	40	55	74	90	99
38	43	59	77	95	99
40	47	63	79	95	99
42	51	66	80	95	99
44	54	69	85	95	99
46	57	72	90	95	99
48	61	75	95	95	99
50+	64	77	95	95	99

OUTBUILDING 40 YEAR LIFE CDU TABLE
PHYS – 11

Age	GD	AV	FR	PR	UN
1	1	1	2	3	90
2	2	3	4	7	90
3	2	4	6	11	90
4	4	5	9	15	90
5	5	7	12	20	90
6	6	9	14	24	90
7	7	10	17	28	90
8	8	12	19	33	90
9	10	14	22	38	90
10	11	16	25	43	90
11	12	18	28	48	90
12	13	20	31	53	90
13	15	22	34	57	90
14	16	24	37	61	90
15	17	26	40	66	90
16	19	28	43	70	95
17	20	30	46	73	95
18	22	32	50	76	95
19	24	34	53	78	95
20	25	37	56	79	95
22	28	42	62	80	95
24	31	47	68	85	95
26	35	52	74	90	99
28	39	57	77	95	99
30	44	62	79	95	99
32	47	67	80	95	99
34	51	71	85	95	99
36	55	74	90	95	99
38	59	77	90	95	99
40+	63	79	90	95	99

OUTBUILDING 30 YEAR LIFE CDU TABLE
PHYS – 12

Age	GD	AV	FR	PR	UN
1	1	2	3	3	90
2	3	4	6	7	90
3	4	6	9	11	90
4	5	9	12	15	90
5	7	12	15	20	90
6	9	14	18	24	90
7	10	17	22	28	90
8	12	19	25	33	90
9	14	22	29	38	90
10	16	25	32	43	90
12	20	31	40	53	90
14	24	37	48	61	90
16	28	43	55	70	95
18	32	50	63	76	95
20	37	56	67	79	95
22	42	62	76	80	95
24	47	68	79	82	95
26	52	74	80	85	99
28	57	77	85	90	99
30+	62	79	90	95	99

OUTBUILDING 20 YEAR LIFE CDU TABLE
PHYS – 13

AGE	GD	AV	FR	PR	UN
1	2	3	5	8	90
2	4	7	10	16	90
3	6	11	15	24	90
4	9	15	21	33	90
5	12	20	27	42	90
6	14	24	32	51	90
7	17	28	38	61	90
8	19	33	45	70	90
9	22	38	51	76	90
10	25	43	57	79	90
11	28	48	63	80	95
12	31	53	69	80	95
13	34	57	74	85	95
14	37	61	77	85	95
15	40	66	79	90	95
16	43	70	80	90	99
17	46	73	82	90	99
18	50	76	84	95	99
19	53	78	85	95	99
20+	56	80	90	95	99

OUTBUILDING 15 YEAR LIFE CDU TABLE
PHYS – 14

AGE	GD	AV	FR	PR	UN
1	4	5	6	8	90
2	8	10	13	16	90
3	12	15	20	24	90
4	17	21	27	33	90
5	21	27	34	42	90
6	25	32	42	51	90
7	30	38	50	61	90
8	35	45	57	70	90
9	40	51	64	76	90
10	46	57	71	79	95
11	51	63	76	80	95
12	56	69	78	82	95
13	61	74	80	84	95
14	66	77	82	86	95
15+	69	79	84	88	95

Macon County, North Carolina

Use-Value Schedule
2019

MACON COUNTY
BOARD OF COMMISSIONERS

James P. Tate, Chairman
Ronnie Beale, Vice Chairman
Karl Gillespie
Paul Higdon
Gary Shields

PROPOSED

The following manual is to be used in establishing values on qualifying tracts for agriculture, forestry and horticulture use-value.

INDEX

USE VALUE ASSESSMENT AND TAXATION OF AGRICULTURAL, HORTICULTURAL OR FOREST LANDS

G.S. 105-277.2. AGRICULTURAL, HORTICULTURAL AND FOREST LAND; DEFINITIONS -- FOR THE PURPOSE OF G.S. 105-277.3 THROUGH G.S. 105-277.7 THE FOLLOWING SHALL APPLY:

1. "AGRICULTURAL LAND" means land that is a part of a farm unit that is actively engaged in the commercial production or growing of crops, plants, or animals under a sound management program. Agricultural land includes woodland and wasteland that is a part of the farm unit, but the woodland and wasteland included in the unit shall be appraised as woodland or wasteland. A farm unit may consist of more than one tract of agricultural land, but at least one of the tracts must meet the minimum size requirement in G.S. 105-277.3(A) (1) and each tract must be under a sound management program.

2. "FOREST LAND" means land that is a part of a forest unit that is actively engaged in the commercial growing of trees under a sound management program. Forest land includes wasteland that is a part of the forest unit, but the wasteland included in the unit shall be appraised as wasteland. A forest unit may consist of more than one tract of forest land, but at least one of the tracts must meet the minimum size requirement in G.S. 105-277.3(A) (3) and each tract must be under a sound management program.

3. "HORTICULTURAL LAND" means land that is a part of a horticultural unit that is actively engaged in the commercial production or growing of fruits or vegetables or nursery or floral products under a sound management program. Horticultural land includes woodland and wasteland that is a part of the horticultural unit, but the woodland and wasteland included in the unit shall be appraised as woodland or wasteland. A horticultural unit may consist of more than one tract of horticultural land, but at least one of the tracts must meet the minimum size requirement in G.S. 105-277.3 (A) (2) and each tract must be under a sound management program.

4. "INDIVIDUALLY OWNED" means owned by: (A) a natural person or (B) a corporation having as its principal business one of the activities described in subdivisions (1), (2), and (3) and whose shareholders are all natural persons actively engaged in the business of the corporation or a relative of a shareholder who is actively engaged in the business of the corporation.

5. "PRESENT USE VALUE" means the value of land in its current use as agricultural land, horticultural land, or forest land, based solely on its ability to product income, using a rate of nine percent (9%) to capitalize the expected net income of the property and assuming an average level of management.6. "RELATIVE" MEANS: (A) a spouse; (B) a lineal ancestor; (C) A LINEAL DESCENDANT; (D) a brother or sister, including a stepbrother or stepsister; (E) an adopted or adoptive child, parent, grandchild, or grandparent; or (F) a spouse of a person listed in paragraphs B through E.

7. “SOUND MANAGEMENT PROGRAM” means a program of production designed to obtain the greatest net return from the land consistent with its conservation and long-term improvement. G.S.105-277.3. AGRICULTURAL, HORTICULTURAL AND FOREST LAND CLASSIFICATION, -- (A) the following classes of property are hereby designated special classes of property under authority of article v. Sec.2 (2) of the North Carolina constitution and shall be appraised, assessed and taxed as hereinafter provided:

1. Individually owned agricultural land consisting of at least 10 acres in actual production and averaging at least one thousand dollars ($1,000) a year in gross income for the three years preceding January 1 of the year for which the benefit of this section is claimed. Gross income includes income from the sale of the agricultural products produced from the land and any payments received under a governmental soil conservation or land retirement program. Land in actual production includes land under improvements used in the commercial production or growing of crops, plants, or animals.

2. Individually owned horticultural land consisting of at least five acres in actual production and averaging at least one thousand dollar ($1,000) a year in gross income for the three years preceding January 1 of the year for which the benefit of this section is claimed. Gross income includes income from the sale of the horticultural products produced from the land and any payments received under a governmental soil conservation or land retirement program. Land in actual production includes land under improvements used in the commercial production or growing of fruits or vegetables or nursery or floral products.

3. Individually owned forest land consisting of at least 20 acres in actual production, if the property is not included in a farm unit.

(B) in order to come within a classification described in subdivision (A) (1), (2), or (3), above, the property must, if owned by natural persons, also:

1. Be the owner’s place of residence; or

2. Have been owned by the current owner or a relative of the current owner for the four years proceeding January 1 of the year for which the benefit of the section is claimed. If owned by a corporation, the property must have been owned by a corporation or by one or more of its principal share-holders as defined in G.S. 105-277.2(4) (b) for the four years immediately preceding January 1 of the year for which the benefit of this section is claimed. Notwithstanding the provisions of G.S. 105-277.2(4) (b), above, a corporation qualifying for a classification described in G.S. 105-277.3 shall not lose the benefit of the classification by reason of the death of one of the principal shareholders provided the descendant's ownership passes to and remains in the surviving spouse or children.

(c) in addition, property may come within the classification described in subdivision (a) (1) or (2) above, if (1) it was appraised at its present use value or was eligible for appraisal at its present use value pursuant to that section at the time title to the property passed to the present owner, and (2) at the time title to the property passed to the present owner, he owned other property classified under subdivision (a) (1) or (2) above. Classification

pursuant to this subsection shall not affect any liability for deferred taxes under G.S. 105-277.4(c) if such taxes were otherwise due at the time title passed to the present owner.

G.S. 105-277.4. APPLICATION FOR TAXATION AT PRESENT USE VALUE - (A) Property coming within one of the classes defined in G.S.105-277.3 shall be eligible for taxation on the basis of the value of the property in its present use if a timely and proper application is filed with the tax supervisor of the county in which the property is located. The application shall clearly show that the property comes within one of the classes and shall also contain any other relevant information required by the tax supervisor to properly appraise the property at its present use value. An initial application shall be filed during the regular listing period of the year for which the benefit of this classification is first claimed, or within 30 days of the date shown on a notice of a change in valuation made pursuant to G.S. 105-286 or G.S. 105-287. A new application is not required to be submitted unless the property is transferred or becomes ineligible for use-value appraisal because of a change in use or acreage. (this section applies to taxable years beginning on or after January 1, 1984.)

(b) Upon receipt of a properly executed application, the tax supervisor shall appraise the property at its present use value as established in the schedule prepared pursuant to G.S. 105-277.6(c). In appraising the property at its present use value, the tax supervisor shall appraise the improvements located on qualifying land according to the schedules and standards used in appraising other similar improvements in the county. If all or any part of a qualifying tract of land is located within the limits of an incorporated city or town, the tax supervisor shall furnish a copy of the property record showing both the present use appraisal and the valuation upon which the property would have been taxed in the absence of the classification to the collector of the city or town. He shall also notify the tax collector of any changes in the appraisals or in the eligibility of the property for the benefit of this classification.

(1) Decisions of the tax supervisor regarding the qualification or appraisal of property under this section may be appealed to the county board of equalization and review or, if that board is not in session, to the board of county commissioners. Decisions of the county board may be appealed to the property tax commission as provided in G.S. 105-324.
(c) Property meeting the conditions herein set forth shall be taxed on the basis of the value of the property for its present use. The difference between the taxes due on the present use basis and the taxes which would have been payable in the absence of this classification, together with any interest, penalties or costs that may accrue thereon, shall be a lien on the real property of the taxpayer as provided in G.S. 105-355(a). The difference in taxes shall be carried forward in the records of the taxing unit or units as deferred taxes, but shall not be payable, unless and until (i) the owner conveys the property to anyone other than a relative of the owner or (ii) ownership of the property passes to anyone other than a relative by will or intestacy, or (iii) ownership of the property passes to a corporation as defined in G.S. 105-277.2(4) (b) from anyone other than its principal shareholders or from such a corporation to anyone other than its

principal shareholders, or (iv) the property loses its eligibility for the benefit of this classification for some other reason. The tax for the fiscal year that opens in the calendar year in which a disqualification occurs shall be computed as if the property had not been classified for that year, and taxes for the preceding three fiscal years which have been deferred as provided herein, shall immediately be payable, together with interest thereon as provided in G.S. 105-360 for unpaid taxes which shall accrue on the deferred taxes due herein as if they have been payable on the dates on which they originally became due. If only a part of a qualifying tract of land loses its eligibility, a determination shall be made of the amount of deferred taxes applicable to that part and that amount shall become payable with interest as provided above. Upon the payment of any taxes deferred in accordance with this section for the three years immediately preceding a disqualification, all liens arising under this subsection shall be extinguished.

G.S. 105-277.5. Agricultural, horticultural and forest land; notice of change in use -- not later than the close of the listing period following a change which would disqualify all or a part of a tract of land receiving the benefit of this classification, the property owner shall furnish the tax supervisor with complete information regarding such change. Any property owner who fails to notify the tax supervisor of changes as aforesaid regarding land receiving the benefit of this classification shall be subject to a penalty of ten percent (10%) of the total amount of the deferred taxes and interest thereon for each listing period for which the failure to report continues.

G.S. 105-277.6. AGRICULTURAL, HORTICULTURAL AND FOREST LAND -- APPRAISAL, COMPUTATION OF DEFERRED TAX.

(A) In determining the amount of the deferred taxes herein provided, the tax supervisor shall use the appraised valuation established in the county's last general reappraisal except for any changes made under the provisions of G.S. 105-287.

(B) In reappraisal years, as provided in G.S. 105-286, all property entitled to classification under G.S. 105-277.3 shall be reappraised at its true value in money and at its present use value as of the effective date of the reappraisal. The two valuations shall continue in effect and shall provide the basis for deferred taxes until a change in one or both of the appraisals is required by law.

(c) to insure uniform appraisal of the classes of property herein defined in each county, the tax supervisor, at the time of the general reappraisal of all real property as required by G.S. 105-286, shall also prepare a schedule of land values, standards and rules which, when properly applied, will result in the appraisal of the property at its present use value. Such schedule, standards and rules shall be used by the tax supervisor to appraise property receiving the benefit of this classification until the next general reappraisal of real property in the county as required by G.S. 105-286. For the year 1976, the tax supervisor of each county shall prepare a new present use value schedule as herein described and shall use such schedule to appraise property receiving the benefit

of this classification until that county's next general reappraisal. The schedule of values, standards and rules shall be subject to all of the conditions set forth in G.S. 105-37(c), (c) (1) and (c) (2) relating to the adoption of schedules, standards and rules in reappraisal years.

G.S. 105-277.7. Use advisory board -- the use value advisory board is established under the supervision of the cooperative extension service of North Carolina state university. The board shall annually submit to the department of revenue a recommended use-value manual developed in accordance with the guidelines in G.S. 105-289 (a) (5). In developing the manual, the board may consult with federal and state agencies as needed.

The board shall be chaired by the director of the cooperative extension service of North Carolina state university and shall consist of the following additional members: a representative of the department of agriculture, designated by the commissioner of agriculture; a representative of the forest resources division of the department of natural resources and community development, designated by the director of the division; and a representative of the cooperative extension service at North Carolina agricultural and technical state university, designated by the director of the extension service. All members shall serve ex officio. The cooperative extension service at North Carolina state university shall provide clerical assistance to the board.

G.S. 105-289. Duties of the department of revenue -- (a) it shall be the duty of the department of revenue:

(5) to prepare and distribute annually to each assessor a manual that establishes five expected net income per acre ranges for agricultural land, horticultural land, and forest land, and establishes a method for appraising nonproductive land as a percentage of the lowest use-value established for productive land. To establish values based on existing rents with a 6 – 7% capitalization rate and other considerations as established by the North Carolina use-value committee.

Practical and enhanced definitions and instructions to be followed in carrying out the requirements of present use value as set out in G.S. 105-277 are:

1. Agricultural land is any land that has been cleared and is used in any commercial production of crops, plants or animals under a sound management program. It can be row crops, grains, hay or pasture. It can be grazing lands for poultry, feedlots for slaughter animals or areas used for storage bins, curing barns, and maintenance shops for farm equipment, equipment shelters and any other area used or necessary for the support of any of the agricultural enterprises which are in part of the farm operation.

2. Forestland can be any land that is actively engaged in the commercial growing of trees under a sound management program. This can be land that has mature trees ready for harvest or any stage in the life of forest products from the setting of nursery

seedlings to the harvesting of the mature trees. Cutover land can qualify if sound management concurs that there are sufficient trees for natural reforestation.

3. Horticultural land is any land that is actively used in the commercial production or growing of horticultural products under a sound management program. This would include fruits, vegetables, nursery stock and floral products and any other similar horticultural enterprise. It would also include container-grown products that are not ready for sale. It would not include retail sales areas, storage areas for the sale of horticultural products and customer parking areas. It would include land under greenhouses, equipment shelters and other storage buildings necessary for the support of the commercial production or growing of horticultural products.

There will be situations where the operation could be classified as both horticultural and agricultural. If the product grown is an annual that is, it lasts for one season, and will be involved in a crop rotation, it is permissible and recommended that this type of operation be classified as an agricultural unit. Land used for green beans, green peppers or cucumbers and then rotated with soybeans, grain or corn should be treated as an agricultural unit. If the land is used for growing fruit trees, vineyard products, berries or vegetables and other products that are not annuals, it should be classified as horticultural. It is possible that some operations will quality as both agricultural and horticultural. It would be better to ask this type of operator to complete two applications, even if only one tract of land is involved. However, it would be permissible to attach the land breakdown and income figures to one application form.

USE-VALUE

AGRICULTURE & HORTICULTURE	FORESTRY
760	**195**