Schedule of Values, Standards, and Rules

2025

Presented by: Jenny Williams
Chatham County Tax Administrator

CHATHAM COUNTY
NORTH CAROLINA

Contents

CALENDAR OF EVENTS
FOR ADOPTION OF

2025 SCHEDULE OF VALUES, STANDARDS, AND RULES

FOR
CHATHAM COUNTY, NORTH CAROLINA
Reference: North Carolina General Statutes 105-317c

DATE	DAY	DESCRIPTION
September 16, 2024	Monday	Present Schedule of Values to the Chatham County Board of Commissioners as information. Copy of Schedules located in Assessor's Office for Public View.
September 19, 2024	Thursday	Advertise in local press that the Schedule of Values is Available for public inspection in the office of the Chatham County Assessor at 12 East Street, Pittsboro, North Carolina and that the Public Hearing will be held in Historic Courthouse in Pittsboro, North Carolina during the October 21, 2024 Meeting of The Board of County Commissioners at 6:00 p.m.
October 21, 2024	Monday	Public Hearing for the Schedule of Values
November 18, 2024	Monday	Adoption of the Schedule of Values
November 21, 2024	Thursday	First Public Notice of Adoption of Values
November 28, 2024	Thursday	Second Public Notice of Adoption of Values
December 5, 2024	Thursday	Third Public Notice of Adoption of Values
December 12, 2024	Thursday	Fourth & Final Public Notice of Adoption of Values
December 20, 2024	Friday	Last Day for Appeal of Schedule of Values before the North Carolina Property Tax Commission

Board of County Commissioners – Signatures

Pursuant to G.S. 105-317, Appraisal of real property; adoption of schedules, standards, and rules, -subsection (c) The values, standards, and rules required by subdivision (b) (1) shall be reviewed and approved by the Board of County Commissioners before January 1 of the year they are applied…

Signatures are as follows:

_____

Mike Dasher, Chairman

_____

Karen Howard, Vice-Chairman

_____

David Delaney, Commissioner

_____

Katie Kenlan, Commissioner

_____

Franklin Gomez-Flores, Commissioner

Foreword

The purpose of this manual is to describe the methodology and procedures for appraising all Chatham County real estate at market value (and present use value, as appropriate) at the time of the county's most recent General Reappraisal. The Schedule of Values establishes the base rates and ranges for all types of property which will be in effect until the next General Reappraisal. It also includes the adjustments that may be used for various types of construction, market conditions, and valuation schedules for land. The tables, rates, and ranges found in this manual are only guidelines. On a property-by-property basis, appraisers have the flexibility to adjust rates in order to appraise individual properties at market value and establish equitable and uniform values for all types of property.

General Reappraisals are conducted by applying Mass Appraisal techniques, with thorough analysis from appraisal staff and the use of a computer-assisted mass appraisal (CAMA) software system. The sales comparison, cost approach, and income approach to value are all considered when applicable to appraise all real property.

Acknowledgements

The Chatham County Assessor's Office acknowledges the following for their assistance in writing, editing, and assembly of this manual:

Tanner Valuation Group, LLC
Jenny Williams, Tax Administrator
Peter Stephan, Appraisal Supervisor

Statutory Requirements

North Carolina General Statute 105-274 states that all real and personal property located within its jurisdiction shall be subject to taxation unless it is otherwise exempted or excluded from taxation by law.

North Carolina General Statute 105-283 requires appraisals to be made of each property's "true value in money". The term "true value" is defined as "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 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". This definition applies to both the terms "true value" and "market value" when used in this manual.

North Carolina General Statute 105-286 requires each county to conduct a General Reappraisal of all real property at least once every eight years. North Carolina General Statute 105-285 (d) states that real property shall be appraised at its value as of January 1 of the year a General Reappraisal is conducted under North Carolina General Statute 105-286. The effective date of each appraisal performed in accordance with this Schedule of Values is January 1, 2025, regardless of what calendar year in which the appraisal is made or the fiscal year for which ad valorem taxes are being calculated.

North Carolina General Statute 105-317 requires the tax assessor to create this Schedule of Values and outlines the procedure for adoption of the schedule. All appraisals of property performed under the terms of this manual are performed for the purpose of calculating and allocating the annual ad valorem property tax assessment authorized under North Carolina General Statute 105-274 and related statutes for Chatham County, its municipalities, and other tax districts as authorized by law.

All appraisals, including those for ad valorem tax purposes, fall under the jurisdiction of the Uniform Standards of Professional Appraisal Practice (USPAP), the relevant portions of which have been included in this manual, beginning on page 101.

An Overview of Mass Appraisal

Mass Appraisal is the process of appraising a large number of properties as of a given effective date using statistical analysis to arrive at uniform and equitable values. A valuation model is developed to replicate the changes in supply and demand over a large area. It is different from single-property appraisal "fee appraisal", in which a market analysis is performed for only the subject parcel. The same approaches to value (sales comparison, income, cost) apply to both methods; the differences lie in the way market analysis and appraisal are performed and the quality control process.

To accomplish appraising approximately 48,000 properties at the time of the General Reappraisal, as well as new construction on an ongoing basis, the county is divided into approximately 487 neighborhoods. This allows the county to recognize and adjust for distinct market conditions affecting value in each neighborhood. An example of a neighborhood would be a residential subdivision where houses are of a similar age, are constructed with similar style and workmanship, and share the same common amenities. These homes would typically be affected by the same market conditions and have similar desirability on the market.

First, all recent sales are analyzed to determine if they are arm's length transactions. A transaction is considered arm's length if it is between two unrelated parties who are not under any unique compulsion to buy or sell, and if it is representative of the fair market value. Sales between relatives, short sales, and estate sales are examples of transactions which might not be good evidence of market value in that area. Sale prices are determined based on the excise tax "revenue stamps" paid to the Register of Deeds office and reported on the deed.

Land is appraised based on available land sale data, allocation of sale prices between land and improvements, or other methods as appropriate.

The rates published in the Schedule of Values are base rates that is considered to be average quality and workmanship and standard lots and acreage. The CAMA appraisal system contains factors and adjustments that can be applied to land and building rates to recognize market conditions, functional or economic obsolescence, deferred maintenance, remodeling, poor topography, and many other characteristics which can affect supply and demand. Judgement by the appraiser plays an important role with respect to comparative grading and depreciation.

Further sales analysis is performed to confirm the valuation model is correctly producing values in line with the current market sales in each neighborhood. The final appraised value of each property is the appraiser's opinion of the most probable price at which the property would sell on the open market as of the effective date of the appraisal. It is not the highest or lowest price it could sell for, nor is it the average price.

Quality Control in Mass Appraisal

Mass appraisal relies heavily on statistical analysis to ensure uniformity and equity. The most commonly used test is the ratio study.

A ratio study compares appraised values to actual sale prices for a sample of properties. The ratios themselves are calculated by dividing the appraised value generated during the General Reappraisal by the sale price. For example, if a property is appraised at $250,000 and has a recent sale price of $252,000, its sale ratio is 99% of its market value, as represented by the sale price.

In mass appraisal, appraised values should not be expected to exactly match sale prices or independent appraisals. Instead, the median ratio for a group of similar properties (such as a neighborhood) should be near 100%, with high and low ratios balancing. Per the International Association of Assessing Officers (IAAO) Standard on Ratio Studies (2013a), the median ratio should fall between 90% and 110%. If the median ratio for a group of parcels falls within this range, the standard for overall appraisal level has been met. In conducting a ratio study, it is imperative that there be a sufficient number of samples for meaningful analysis. In Chatham County, the market is active enough to meet this need.

Additional checks show if the appraised values are uniform and equitable.

The Coefficient of Dispersion (COD) measures the difference between each ratio in the sample and the median ratio and returns the average deviation. A low COD indicates more uniformity in the sample than a high COD. Under IAAO standards, a COD demonstrates acceptable uniformity when it is under 10 for newer and homogeneous residential neighborhoods, under 15 for older or heterogeneous neighborhoods, under 20 or 25 for vacant land in urban or rural areas, under 20 for rural residential property, and under 20 for commercial properties.

The Price-Related Differential (PRD) is used to determine how high-value properties and low-value properties are appraised relative to each other. A high PRD indicates that high-value properties are under-appraised, meaning a weighted average will be less than the un-weighted average. A low PRD indicates the opposite; that high-value properties are over-appraised and are skewing the average sales ratio higher.

After the General Reappraisal

After a General Reappraisal, the Schedule of Values must remain in effect until the next General Reappraisal. North Carolina General Statute 105-287 outlines the conditions under which values may and may not be changed in between General Reappraisal years. This section highlights the points that are most relevant to the majority of property owners, however the taxpayer is encouraged to review North Carolina General Statute 105-287 in its entirety for a more detailed understanding of the law. Currently, statutes can be viewed online at the North Carolina General Assembly website using the following URL: http://www.ncleg.net/gascripts/statutes/Statutes.asp.

The statute permits the assessor to increase or decrease the appraised value of a property based on physical changes to the land and/or improvements North Carolina General Statute 105-286(a)(2b). Common examples of this would include new additions to a home, new outbuildings (such as detached garages), demolition of existing improvements, changes to zoning, or changes to land that would decrease or increase the resulting land area.

The statute permits the assessor to increase or decrease the appraised value of a property to correct clerical or mathematical errors, and to correct errors based on a misapplication of the Schedule of Values North Carolina General Statute105-287(a)(1) and 105-287(a)(2).

The statute prohibits the assessor from increasing or decreasing the appraised value of a property due to inflation, deflation, or changes in the local economy North Carolina General Statute 105-287(b)(2). This allows for equity in assessments, as every property is appraised based on the economic conditions influencing supply and demand at the same point in time.

The statute requires that all changes made in the above (and other allowed) situations be made using the current Schedule of Values North Carolina General Statute 105-287(c). This means that when improvements are made, they are valued using the same rates and guidelines outlined in the rest of this manual until the next General Reappraisal is conducted. For example, a house built in 2027 would be appraised based on an analysis of what similar homes were selling for at the time this 2025 Schedule of Values was compiled. The cost and market value of the home at the time of its construction would not be considered. This allows new construction to be appraised uniformly and equitably with existing construction.

North Carolina General Statute 105-317(a)(3) requires that partially completed buildings be appraised based on their degree of completion as of January 1 of the year for which the new assessment is being made.

Approaches to Value

There are three recognized approaches to appraising real property; these are the Market, Cost, and Income approaches. Chatham County uses all three as appropriate when performing appraisals. Not all approaches are applicable to every type of property.

The Market approach, also referred to as the Sales Comparison approach, is the most commonly used method for residential properties and the most commonly known among the general public. Stated simply, this method involves comparing the characteristics of a property being appraised to those properties that have recently sold, adjusting the known sale prices to reflect any noted differences, and using those adjusted sales to estimate the value of the subject property.

In the Cost approach, the appraiser determines the cost to build the subject structure(s) new, including all direct and indirect costs, and then makes an allowance for depreciation based on the actual condition of the improvements. This is added to the appraiser's opinion of the value of the land to calculate the total value.

The Income approach assumes that the subject property was (or is typically) bought for its potential to produce an income stream. It estimates the present value of all future anticipated income, making allowances for operating expenses, loss for vacancy, and collections (among other factors).

Highest and Best Use

Properties in Chatham County are appraised based on their highest and best use, which best reflects what the property would sell for in an open market. Almost all property has the potential to be used for more than one purpose. The highest and best use is that which is the most profitable for which the demand is highest, thus generating the highest return for the property owner. Four tests have been developed to help the appraiser in this application. They are (1) physically possible, (2) legally permissible, (3) financially feasible, and (4) maximum productivity. These tests are generally applied consequentially. Physical possibility and legal permissibility can be applied in either order, but they must be applied before the tests of financial feasibility and maximum productivity. To be legally permissible, consideration must be made for zoning and similar land use restrictions (such as watersheds).

The ability to obtain a zoning change or variance is often a factor in the price a potential buyer is willing to pay, therefore both current and potential zonings and restrictions may be considered

when determining the highest and best use of a parcel. This potential highest and best use must be a probable one based on supply and demand in the market; it should not be an unlikely or speculative use. The appraiser may also consider what interim uses exist in between the present use of the property and the possible future use.

Because the highest and best use of a piece of land may not be its current use, the appraiser must consider the relationship between the highest and best use of the land and its existing improvements. These improvements may still offer an income stream, salvage value, or other benefits. A reduction in the appraised value of the improvements may be appropriate, but in some cases, the appraiser may determine that the improvements contribute little value to the property, or that the improvements are a detriment to the overall value of the property due to the expense involved in removing them.

Present Use Value

The term Value in Use refers to the value of land or improvements for a specific purpose. Present Use applies this definition to the way a property is currently being utilized. In the case where the current use of the property is also its highest and best use, these are the same. In some cases, a separate appraised value may be calculated based on the present use of the property. This is most commonly the case with property being assessed as agricultural, horticultural, or forestland under North Carolina General Statute 105-277.2 through 105-277.7.

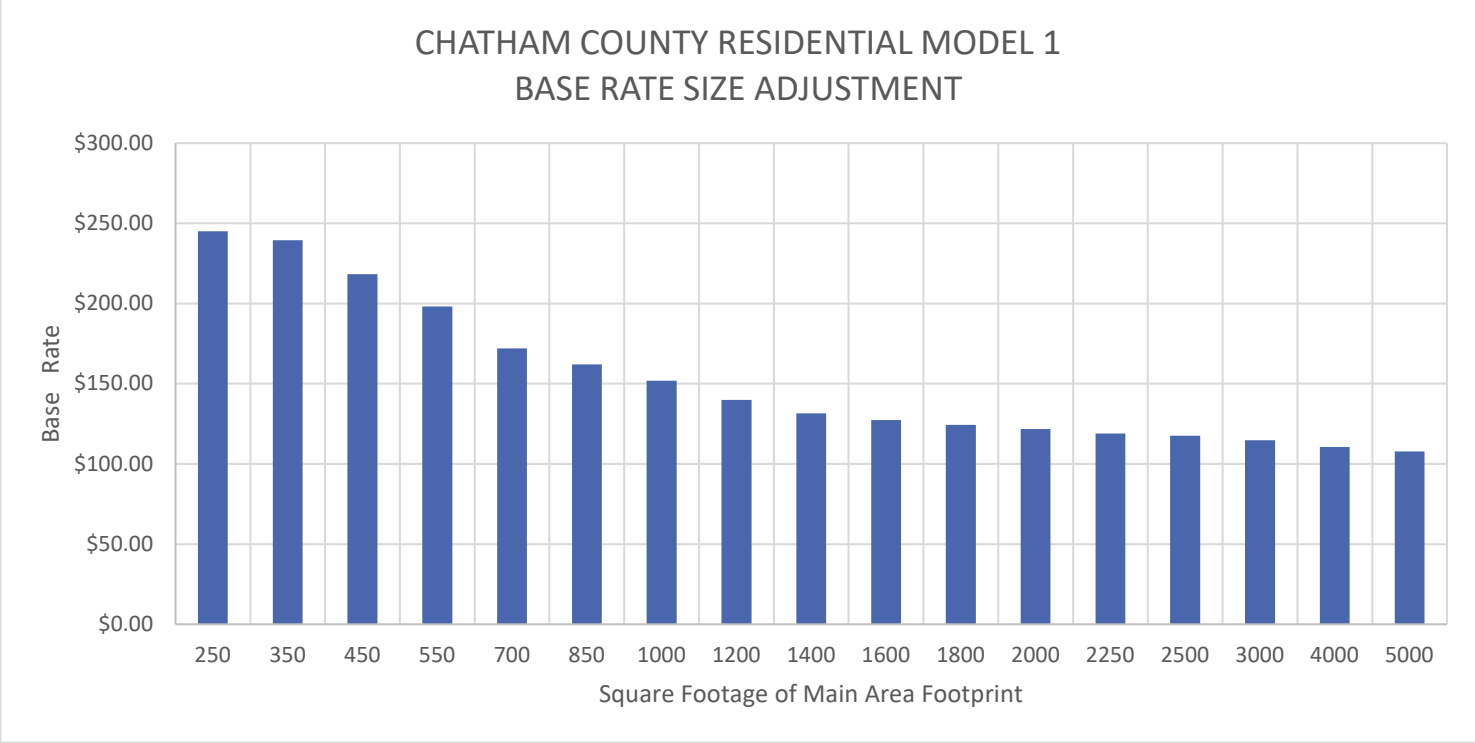
To qualify for Present Use Value (PUV) classification, property must meet statutory requirements for ownership, size, income, and sound management. The appraiser will determine both the market value of the property based on its highest and best use and a value based on its present use. Ad valorem taxes will be calculated each year based on both figures, with the owner paying on the present use value. The difference between the two tax amounts will be kept in the record each year as deferred taxes. When property becomes disqualified from the PUV program, the deferred taxes for the current year and the three previous years, along with accrued interest, will usually become immediately due and payable. These taxes are commonly referred to as “rollback” taxes.

Residential Section

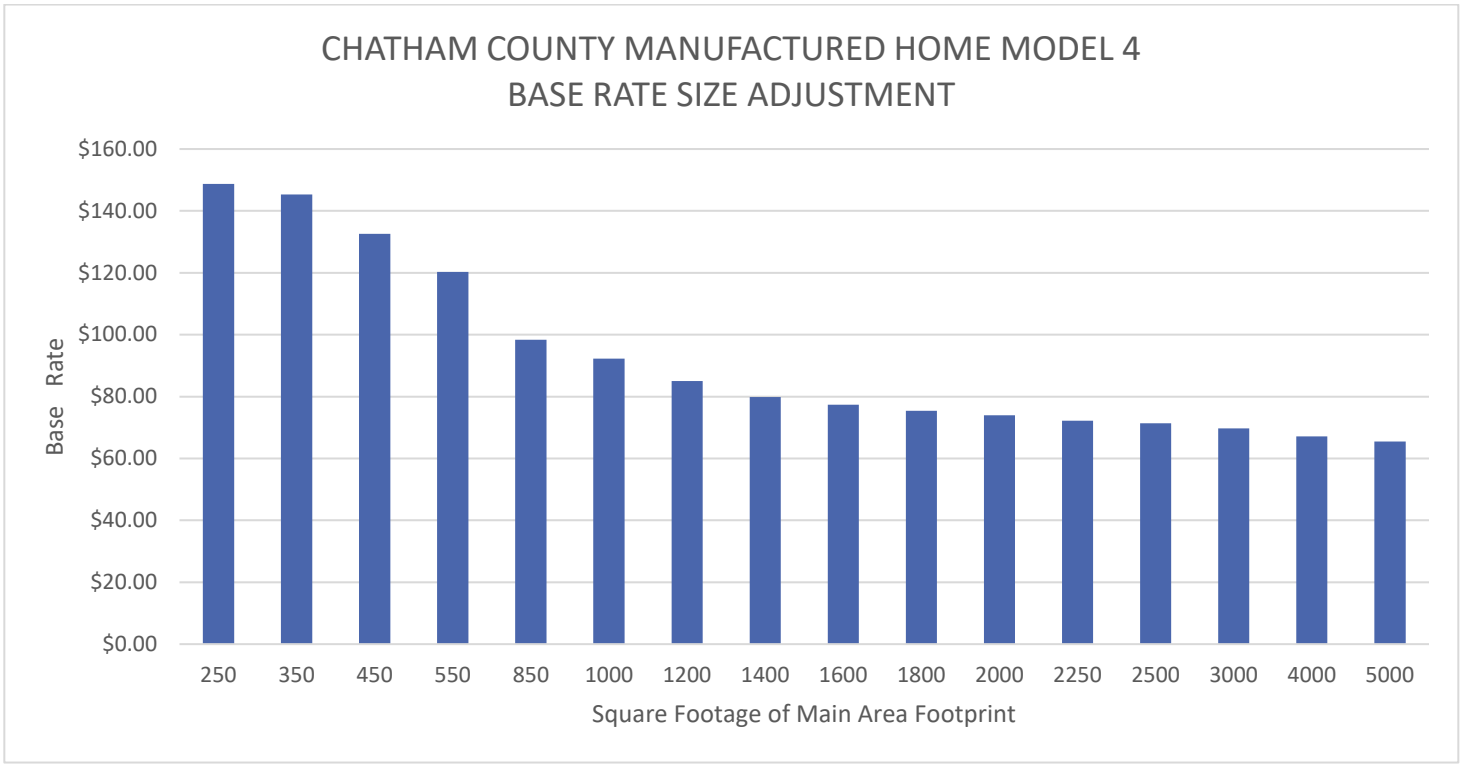
Residential Schedule

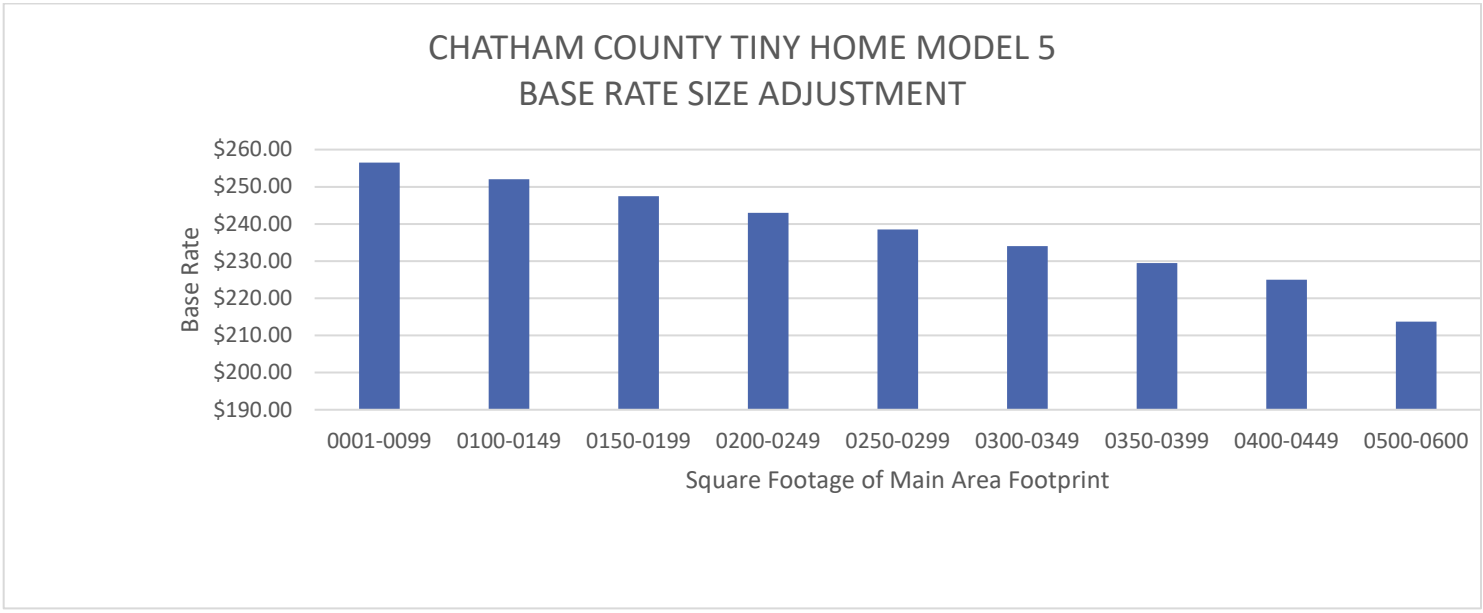
Explanation of Difference in Base Square Foot Values

Houses of smaller area will have a higher value per square foot than houses of larger area, all else being equal. This is because a smaller house has greater wall surface in proportion to the floor area. The cost of one stairway, one bathroom, one fireplace, etc. must be prorated over a smaller area. For the same reason, a single-story home will have a higher per square foot value than a multi-story home with the same foundation area. Economic theory refers to this as "economies of scale". Market analyses show that this relationship is reflected in purchase prices when homes sell, both to their original owner after construction and later as they are resold.



Chatham County utilizes three Models for valuing residential property. Model 1 is used for all construction types excluding Manufactured and Tiny Homes. Rates may vary but adjustments are similar. Model 4 is used for all Manufactured Homes and Model 5 is used for Tiny Homes.


CHATHAM COUNTY MANUFACTURED HOME MODEL 4
BASE RATE SIZE ADJUSTMENT
Base Rate
$160.00
$140.00
$120.00
$100.00
$80.00
$60.00
$40.00
$20.00
$0.00
250
350
450
550
850
1000
1200
1400
1600
1800
2000
2250
2500
3000
4000
5000
Square Footage of Main Area Footprint



These graphs are created from the Base Rate tables that begin on page 22 and illustrate the relationship between building area and price per square foot. These rates assume average quality and workmanship. After the appraiser determines an initial value, they will adjust it for quality, depreciation, and other factors as appropriate. By referring to the following Grade Specifications, one can see the difference in square foot values for various levels of construction. This difference in value considers the quality and quantity of materials and workmanship. There are a few very distinct and obvious differences in quality throughout each level of construction.

Grade Specifications

AAA Grade

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

AA Grade

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

A Grade

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

B Grade

Buildings constructed with good quality materials and above average workmanship throughout. Moderate architectural treatment. Good quality interior finish and built-in features. Good grade heating, plumbing and lighting fixtures.

C Grade

Buildings constructed with average quality materials and workmanship throughout, conforming to the base specifications used to develop the pricing schedule. Minimal architectural treatment. Average quality interior finish and built-in features. Standard grade heating, plumbing and lighting fixtures.

D Grade

Buildings constructed with economy quality materials and fair workmanship throughout. Void of architectural treatment. Cheap quality interior finish and built-in features. Low grade heating, plumbing, and lighting fixtures.

E Grade

Buildings constructed with a very cheap grade of materials, usually “culls”, “seconds” and poor-quality workmanship, resulting from unskilled, inexperienced, “do-it-yourself” type labor. Low grade heating, plumbing, and lighting fixtures.

Depreciation

The purpose of appraising improvements separately from land is to establish the value that each building contributes to the land on which it is located. The appraiser must consider all factors affecting supply and demand, including depreciation. The prices buyers are willing to pay in an "arm's length sale", as defined earlier, are the best indication of depreciation from all sources once the land value is removed. The causes of depreciation fall into three categories: physical deterioration (wear and tear); functional obsolescence (change in the desirability of a property due to changes in style, technology, or similar factors); and external obsolescence (lack of desirability due to factors outside a property's boundaries). Individual sources of obsolescence may affect an entire neighborhood or a small number of properties within it. In the first case, the effect on supply and demand is considered to be reflected in the known sale prices and no separate adjustment is made. The appraiser may make unique adjustments to a specific property if the source of obsolescence is not experienced by typical homes in the neighborhood or reflected in their sale prices.

Residential Base Price Schedule
Average Grade “C”

Grade Factors – Residential

To determine the Replacement Cost of a dwelling, the appraiser analyzes and values the building according to size (main foundation area), story height, and other basic features as listed for that particular subject property, based on the valuation schedule contained herein. This determines the Schedule Value of such a building on the basis of average materials and workmanship. To adjust for quality of construction and finish, the following grading system is then applied.

A grade is chosen based on the above descriptions per the appraiser's observations and analysis of the market. The "+/-" which follows the grade enables the appraiser to adjust values within a range, bringing the appraisals as close as possible to market value. The percentage shown is the amount the base Schedule Value is adjusted to calculate a Replacement Cost for the building being appraised.

For example, consider an average house appraised at $100,000 before a quality grade and depreciation rating are assigned. If the home is given a grade of C, the value before depreciation (Replacement Cost New) would still be $100,000. In this case the Schedule Value and Replacement Cost are the same. A home of the same size, with the same features, if given the grade A+ would have a Replacement Cost of $165,000. ($100,000 * 1.65). A grade of A- ($100,000* 1.45) would come in slightly lower, at $145,000.

To put it another way, let's say the appraiser determines a house meets the criteria of a "B" grade. They have several options to choose from ranging from B+ to a B-. If the home has a Schedule Value of $100,000, this choice will create a Replacement Cost between $135,000 (B+, 135%) and $120,000 (B-, 120%), before depreciation.

Quality Grade & Adjustment to Schedule Value

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
AAA+	350%	AAA	325%	AAA-	300%

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
AA+	275%	AA	250%	AA-	200%

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
A+	165%	A	155%	A-	145%

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
B+	135%	B	125%	B-	120%

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
C+	110%	C	100%	C-	95%

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
D+	90%	D	85%	D-	75%

Grade	Adjustment	Grade	Adjustment	Grade	Adjustment
E+	65%	E	55%	E-	45%

Residential Base Rate Schedule
Model 1

The Main Floor Living Area is the footprint area of the main body of a building as shown on the building sketch.

GFLA	SIZE FACTOR	ADJ. RATE PER S.F.	GFLA	SIZE FACTOR	ADJ. RATE PER S.F.	GFLA	SIZE FACTOR	ADJ. RATE PER S.F.
0001-0299	175.00%	$245.00	0590-0599	136.50%	$191.10	1100-1124	103.00%	$144.20
0300-0309	174.50%	$244.30	0600-0609	135.25%	$189.35	1125-1149	102.25%	$143.15
0310-0319	174.00%	$243.60	0610-0619	134.00%	$187.60	1150-1174	101.50%	$142.10
0320-0329	173.25%	$242.55	0620-0629	132.75%	$185.85	1175-1199	100.75%	$141.05
0330-0339	172.50%	$241.50	0630-0639	131.50%	$184.10	1200-1224	100.00%	$140.00
0340-0349	171.75%	$240.45	0640-0649	130.25%	$182.35	1225-1249	99.00%	$138.60
0350-0359	171.00%	$239.40	0650-0659	129.00%	$180.60	1250-1274	98.00%	$137.20
0360-0369	170.75%	$239.05	0660-0669	127.75%	$178.85	1275-1299	97.00%	$135.80
0370-0379	169.50%	$237.30	0670-0679	126.50%	$177.10	1300-1349	96.00%	$134.40
0380-0389	168.00%	$235.20	0680-0689	125.25%	$175.35	1350-1399	95.00%	$133.00
0390-0399	166.50%	$233.10	0690-0699	124.00%	$173.60	1400-1449	94.00%	$131.60
0400-0409	164.75%	$230.65	0700-0719	122.90%	$172.06	1450-1499	93.00%	$130.20
0410-0419	163.00%	$228.20	0720-0739	121.90%	$170.66	1500-1574	92.00%	$128.80
0420-0429	161.25%	$225.75	0740-0759	120.90%	$169.26	1575-1649	91.00%	$127.40
0430-0439	159.50%	$223.30	0760-0779	119.80%	$167.72	1650-1724	90.25%	$126.35
0440-0449	157.75%	$220.85	0780-0799	118.80%	$166.32	1725-1799	89.50%	$125.30
0450-0459	156.00%	$218.40	0800-0819	117.80%	$164.92	1800-1899	88.75%	$124.25
0460-0469	154.25%	$215.95	0820-0839	116.70%	$163.38	1900-1999	88.00%	$123.20
0470-0479	152.50%	$213.50	0840-0859	115.70%	$161.98	2000-2099	87.00%	$121.80
0480-0489	150.75%	$211.05	0860-0879	114.70%	$160.58	2100-2249	86.00%	$120.40
0490-0499	149.00%	$208.60	0880-0899	113.70%	$159.18	2250-2399	85.00%	$119.00
0500-0509	147.75%	$206.85	0900-0924	112.66%	$157.72	2400-2599	84.00%	$117.60
0510-0519	146.50%	$205.10	0925-0949	111.62%	$156.27	2600-2799	83.50%	$116.90
0520-0529	145.25%	$203.35	0950-0974	110.58%	$154.81	2800-2999	83.00%	$116.20
0530-0539	144.00%	$201.60	0975-0999	109.54%	$153.36	3000-3249	82.00%	$114.80
0540-0549	142.75%	$199.85	1000-1019	108.50%	$151.90	3250-3499	81.00%	$113.40
0550-0559	141.50%	$198.10	1020-1039	107.40%	$150.36	3500-3999	80.00%	$112.00
0560-0569	140.25%	$196.35	1040-1059	106.30%	$148.82	4000-4499	79.00%	$110.60
0570-0579	139.00%	$194.60	1060-1079	105.20%	$147.28	4500-4999	78.00%	$109.20
0580-0589	137.75%	$192.85	1080-1099	104.10%	$145.74	5000-UP	77.00%	$107.80

*Base cost includes (2) two full bathrooms, kitchen sink, and water heater.

Base Rate Size Adjustment Example

Rates in the above table were generated by multiplying the Gross Finished Living Area (GFLA) by the appropriate Size Factor assigned to that particular Square Footage Range. As indicated by blue highlights, the base square footage for this model is 1,200 Square Foot which indicates a Size Adjustment Factor of 100%. The following examples are illustrated with all things being equal in regard to a "C" Grade home and difference is in square footage only. For illustration purposes, these examples show the calculations for a 900 S.F. Home, 1,200 S.F. Home and a 1,400 S. F. Home, rounded to the nearest dollar.

Example:

900 S.F. x $140.00 x 112.66% = $141,952
1,200 S.F. x $140.00 x 100.00% = $168,000
1,400 S.F. x $140.00 x 94.00% = $184,240

Model 4-Manufactured Home-Multi Section-MA 30W

GFLA	SIZE FACTOR	ADJ. RATE PER S.F.	GFLA	SIZE FACTOR	ADJ. RATE PER S.F.	GFLA	SIZE FACTOR	ADJ. RATE PER S.F.
0001-0299	175.00%	$148.75	0590-0599	136.50%	$116.03	1100-1124	103.00%	$87.55
0300-0309	174.50%	$148.33	0600-0609	135.25%	$114.96	1125-1149	102.25%	$86.91
0310-0319	174.00%	$147.90	0610-0619	134.00%	$113.90	1150-1174	101.50%	$86.28
0320-0329	173.25%	$147.26	0620-0629	132.75%	$112.84	1175-1199	100.75%	$85.64
0330-0339	172.50%	$146.63	0630-0639	131.50%	$111.78	1200-1224	100.00%	$85.00
0340-0349	171.75%	$145.99	0640-0649	130.25%	$110.71	1225-1249	99.00%	$84.15
0350-0359	171.00%	$145.35	0650-0659	129.00%	$109.65	1250-1274	98.00%	$83.30
0360-0369	170.75%	$145.14	0660-0669	127.75%	$108.59	1275-1299	97.00%	$82.45
0370-0379	169.50%	$144.08	0670-0679	126.50%	$107.53	1300-1349	96.00%	$81.60
0380-0389	168.00%	$142.80	0680-0689	125.25%	$106.46	1350-1399	95.00%	$80.75
0390-0399	166.50%	$141.53	0690-0699	124.00%	$105.40	1400-1449	94.00%	$79.90
0400-0409	164.75%	$140.04	0700-0719	122.90%	$104.47	1450-1499	93.00%	$79.05
0410-0419	163.00%	$138.55	0720-0739	121.90%	$103.62	1500-1574	92.00%	$78.20
0420-0429	161.25%	$137.06	0740-0759	120.90%	$102.77	1575-1649	91.00%	$77.35
0430-0439	159.50%	$135.58	0760-0779	119.80%	$101.83	1650-1724	90.25%	$76.71
0440-0449	157.75%	$134.09	0780-0799	118.80%	$100.98	1725-1799	89.50%	$76.08
0450-0459	156.00%	$132.60	0800-0819	117.80%	$100.13	1800-1899	88.75%	$75.44
0460-0469	154.25%	$131.11	0820-0839	116.70%	$99.20	1900-1999	88.00%	$74.80
0470-0479	152.50%	$129.63	0840-0859	115.70%	$98.35	2000-2099	87.00%	$73.95
0480-0489	150.75%	$128.14	0860-0879	114.70%	$97.50	2100-2249	86.00%	$73.10
0490-0499	149.00%	$126.65	0880-0899	113.70%	$96.65	2250-2399	85.00%	$72.25
0500-0509	147.75%	$125.59	0900-0924	112.66%	$95.76	2400-2599	84.00%	$71.40
0510-0519	146.50%	$124.53	0925-0949	111.62%	$94.88	2600-2799	83.50%	$70.98
0520-0529	145.25%	$123.46	0950-0974	110.58%	$93.99	2800-2999	83.00%	$70.55
0530-0539	144.00%	$122.40	0975-0999	109.54%	$93.11	3000-3249	82.00%	$69.70
0540-0549	142.75%	$121.34	1000-1019	108.50%	$92.23	3250-3499	81.00%	$68.85
0550-0559	141.50%	$120.28	1020-1039	107.40%	$91.29	3500-3999	80.00%	$68.00
0560-0569	140.25%	$119.21	1040-1059	106.30%	$90.36	4000-4499	79.00%	$67.15
0570-0579	139.00%	$118.15	1060-1079	105.20%	$89.42	4500-4999	78.00%	$66.30
0580-0589	137.75%	$117.09	1080-1099	104.10%	$88.49	5000-UP	77.00%	$65.45

Base Rate Size Adjustment Example

Rates in the above table were generated by multiplying the Gross Finished Living Area (GFLA) by the appropriate Size Factor assigned to that particular Square Footage Range. As indicated by blue highlights, the base square footage for this model is 1,200 Square Foot which indicates a Size Adjustment Factor of 100%. The following examples are illustrated with all things being equal in regards to a "C" Grade manufactured home and difference is in square footage only. For illustration purposes, these examples show the calculations for a 900 S.F. Home, 1,200 S.F. Home and a 1,400 S. F. Home, rounded to the nearest dollar.

Example:

900 S.F. x $85.00 x 112.66% = $86,185
1,200 S.F. x $85.00 x 100.00% = $102,000
1,400 S.F. x $85.00 x 94.00% = $111,860

Model 5-Tiny Home

GFLA	SIZE FACTOR	ADJ. RATE PER S.F.	GFLA	SIZE FACTOR	ADJ. RATE PER S.F.	GFLA	SIZE FACTOR	ADJ. RATE PER S.F.
0001-0099	114.00%	$256.50	0200-0249	108.00%	$243.00	0350-0399	102.00%	$229.50
0100-0149	112.00%	$252.00	0250-0299	106.00%	$238.50	0400-0449	100.00%	$225.00
0150-0199	110.00%	$247.50	0300-0349	104.00%	$234.00	0500-0600	95.00%	$213.75

Base Price Adjustments for Residential Buildings

These tables describe adjustments to the Base Rate per Square Foot for residential buildings. Base Price adjustments are commonly referred to as “add/deduct rates” or just “add/deducts”. While Price per Square Foot adjustments increase or decrease the value as a whole, Percent adjustments increase or decrease the value of a home in proportion with its size, and Flat Rate adjustments are the same regardless of size. When the adjustment is listed as “base”, the feature is either accounted for in the Base Rate or is only descriptive.

The basic adjustments used in Chatham County are adjustments based on an increase or decrease using a rate per square foot when applicable, or a flat value adjustment to the overall value based on the component that is considered. Percentage adjustments are used when considering the total square footage of the first floor main structure and when story height is applicable. The following cost schedules are based on a model residence constructed using typical components, average quality workmanship and materials, consisting of one thousand two hundred (1,200) square foot, two full baths, central heating system and perimeter (crawl space) foundation. Below is an example of how to calculate the value of a single family residence consisting of 1,500 square feet of first floor living area, 500 square feet of upper floor area, Heat Pump, Slab Foundation, 2 ½ baths, two fireplaces, finished basement, one elevator with 2 stops, 80 square feet of covered porch, quality grade is considered to be C-grade, and this home was built in 1985 and the C.D.U. is considered to be good. All adjustments are included within the following schedules to make the appropriate value calculations.

1. Determine the main first floor living area by wall type and type of residential building (this example is a single family residential wood siding ranch home, code MA 37W).
2. Multiply the base square footage of the first floor by the main area price and by the size factor for the MA code (Ex. 1,500 sq. ft. X $140 X .92=$193,200)
3. For buildings with an upper floor, multiply the square footage of the upper floor by the main are price, then by the size factor for the MA code of the first floor square footage and by the multiple story adjustment (SR1) of 75% which is only applied to the upper floor square footage. (Ex. 500 sq. ft. (upper floor area) X $140 X .92 X .65=$41,860)
4. Apply Cost & Design % factor to the total main area price in applicable.
5. Adjustments to the main area are calculated from the norm of the base structure.
    a. Heat type-the standard is central heat. Determine the heat type (Ex. Heat pump HC 08) and multiply the square footage by the heat type code rate and by the size adjustment for the main area of the first floor square footage. (Ex. 1,500 sq. ft. X $3.10 X .92=$4,278)

b. Foundation type-the standard is Perimeter (crawl) Footing. Determine the foundation type (Ex. Slab FN03) and multiply the square footage by the foundation type code by the size adjustment for the main area of the first floor square footage. (Ex. 1,500 sq. ft. X (-)$2.00 X .92=(-)$2,760)
c. Plumbing type-the standard is 2 baths. Determine the number of fixtures from the standard. (Ex. 2 ½ baths has two extra fixtures PL02) Multiply the number of extra fixtures times the rate. (Ex. 2 X $1,100=$2,200)
d. Fireplace type-the standard is no fireplace. Determine the number of fireplaces. (Ex. Two fireplaces FP05R) Value will equal the rate assigned for this fireplace type. (Ex. Code FP05R-Two Fireplaces=$7,000)
e. Basement type-the standard is no basement. Determine the type of basement. (Ex. Basement is finished BA BF) Multiply the square footage by the basement type code by the size adjustment for the main area of the first floor square footage. (Ex. 1,500 Sq. Ft. X $75 X .92=$103,500)
f. Elevator type-The standard is no elevator. Determine the number of stops. (Ex. 2 Stops E2R) Value will equal the rate assigned for the elevator dependent upon number of stops. (Ex. E2R-2-Stops=$17,500)

6. Determine the addition code type (Ex. Covered Porch AC06R) attached to the main structure. Multiply the base rate of the AC code by the size adjustment for that code. (Ex. 80 sq. ft. X $36 X 1.02=$2,938)
7. Sub-total all areas of the structure's components.
8. Apple the proper Quality Grade Factor to arrive at the Replacement Cost New. The standard pricing schedule is at a C grade building.
9. Apply the proper depreciation from the C.D.U Chart. (Ex. A home build in 1985 that is considered to be classified as "Good", the depreciation is 84% of the value remaining)
10. If a market adjustment is to be applied, it is applied at this stage.
11. The final value for the building has been calculated completely.

Main Area Base Rates

MA Code	Description	Rate
MA 12W	Condo Frame	$140.00
MA 12M	Condo Masonry	$148.50
MA 12C	Condo Concrete	$148.50
MA 18W	Multiplex Frame	$145.00
MA 18M	Multiplex Masonry	$152.00
MA 18C	Multiplex Concrete	$149.50
MA 30S	Manufactured Home Single	$37.50
MA 30W	Manufactured Home Multi	$85.00
MA 37W	Single Family Res. Frame	$140.00
MA 37M	Single Family Res. Masonry	$147.00
MA 37C	Single Family Res. Concrete	$147.50
MA 37CMB	Single Family Res. Frame/Masonry	$144.50
37CMBU	Single Family Comb. Masonry/Frame Upper Floor	$144.50
37CU	Single Family Concrete Upper Floor	$148.50
37MU	Single Family Masonry Upper Floor	$147.50
37WU	Single Family Wood Frame Upper Floor	$140.00
MA 37MMD	Modular Masonry	$140.50
MA 37WMD	Modular Frame	$132.50
37TW	Tiny Home Frame	$225.00
37TM	Tiny Home Masonry	$235.00

Main Area Base Adjustment Rates

HC Code	Heat & A/C	SQ. FT. ADJ.
HC01	None	(-) $3.75
HC02	Flr/Wall Furnace	(-) $1.75
HC03	Radiant/Elec/BB	Base
HC04	Radiant/Water	Base
HC05	Forced Hot Air	Base
HC06	Unit Heaters	(-) $1.75
HC07	Packaged Heat/Cool	(+) $3.10
HC08	Heat Pump	(+) $3.10
HC09	Cooling W/Ducts	(+) $3.10
HC10	Mobile Home Cooling	(+) $1.75

EL Code	Elevator Type	Rate
E2R	Elevator 2 Stops	$17,500.00
E3R	Elevator 3 Stops	$22,500.00
E4R	Elevator 4 Stops	$27,500.00

PL Code	Plumbing	Rate
PL02	Number of Fixtures	$1,100.00
PL03	Extra Kitchen/Bar	$4,500.00

FN Code	Foundation Type	SQ. FT. ADJ.
FN02	Earth/Pier/Post	(-) $4.00
FN03	Slab	(-) $2.00
FN04	Crawl	Base

FP Code	Fireplace Description	Rate
FP01R	None	Base
FP03R	Prefabricated	$2,500.00
FP04R	One Fireplace	$4,500.00
FP05R	Two Fireplaces	$7,000.00
FP07R	Three of More Fireplaces	$9,000.00

BA Code	Basement Description	SQ. FT. Rate
BA BF	Basement Finished	$75.00
BA BU	Basement Unfinished	$35.00
BA BR	Recreation Room	$55.00
BA FW	Finished Walkout	$85.00
BA UW	Unfinished Walkout	$37.00

ST Code	Description	Percentage
SR1	Story Height Adjustment	75.00%

Residential Attachment Codes

CODE	DESCRIPTION	SIZE ADJ.	Rate
AC01R	Addition-Brick	M12	$105.00
AC02R	Garage-Brick-Finished	M11	$38.00
AC03R	Garage-Brick-Unfinished	M11	$32.00
AC04R	Lean to/Canopy	M21	$15.00
AC05R	Carport	M13	$24.00
AC05A	Carport w/Attic	M13	$27.00
AC05U	Carport w/Upper Floor	M12	$31.00
AC06R	Covered Porch	M21	$36.00
AC08R	Porch-Enclosed Frame	M22	$59.00
AC09R	Porch-Enclosed Glass	M22	$77.00
AC10R	Porch-Enclosed Masonry	M22	$61.00
AC11	Addition-Frame	M12	$102.00
AC12R	Deck-Frame	M21	$21.00
AC12U	Deck-Frame-Upper Level	M21	$21.00
AC13R	Garage-Frame-Finished	M11	$36.00
AC14R	Garage-Frame-Unfinished	M11	$29.00
AC15R	Storage-Frame/Metal	M22	$34.00
AC16	Garage-Frame w/Living Area	M12	$77.00
AC17R	Porch-Screened	M22	$38.00
AC17U	Porch-Full Screen-Upper Level	M22	$38.00
AC20R	Stoop-Masonry	M12	$19.00
AC21R	Storage-Masonry	M22	$36.00
AC25R	Garage-Brick w/Living Area	M12	$81.00
AC27R	Overhang-Frame	M12	$57.00
AC27MR	Overhang-Masonry	M12	$60.00
AC28R	Bay-Frame	M12	$75.00
AC28MR	Bay-Masonry	M12	$78.00
AC28U	Bay-Frame-Upper Level	M12	$75.00
AC35R	Sunroom	M22	$71.00
AC37R	Patio/Terrace	M14	$14.00
AC41	Garage-Brick-Finished Attic	M11	$66.00
AC42	Garage-Frame-Finished Attic	M11	$63.00
AC43R	Garage-Frame-Unfinished Attic	M11	$42.00
AC44	Garage-Brick-Unfinished Attic	M11	$45.00
AC49R	Porch-Prefab Enclosed	M22	$40.00
AC52	Hot Tub/Sauna	-	$4,500.00

CODE	DESCRIPTION	SIZE ADJ.	Rate
AC53R	Covered Porch-2 Story	M21	$52.00
AC54	Addition-Frame-2nd Floor	M12	$90.00
AC55	Addition-Brick-2nd Floor	M12	$95.00
AC56R	Balcony	M21	$37.00
AC59R	Indoor Pool	M12	$81.00
AC69	Greenhouse	M21	$68.00
AC70R	Unfinished Upper	M12	$17.00
AC80	Bathhouse-Attached	M12	$75.00

RESIDENTIAL OUTBUILDING AND YARD ITEMS

CODE	DESCRIPTION	RATE	SIZE ADJ.	DEPREC.
MS02R	Bathhouse/Pool House-Det.	$57.50	M12	D2
MS03R	Barn-Tobacco	$23.00	M14	D3
MS04R	Canopy	$13.00	M21	D3
MS05R	Carport	$18.50	m21	D3
MS05U	Carport w/Unfinished Upper Area	$23.00	M21	D3
MS06AR	Patio-Detached	$6.00	M11	D3
MS08R	Egg/Apple House	$25.50	M12	D2
MS10R	Garage-Frame-Unfinished	$24.50	M11	D3
MS12R	Grain Bin Metal	$2.50	-	D1
MS14R	Grainery/Crib	$6.50	M14	D1
MS15R	GREENHOUSE (GLASS)	$9.00	M14	D2
MS16R	Hog Parlor	$11.50	M14	D1
MS17R	Implement Shed 3 Side	$8.50	M14	D2
MS18R	Lumber Shed 3 Side	$18.50	M14	D1
MS20R	Milk Parlor	$32.50	M14	D2
MS21R	Poultry House w/No Equipment	$6.50	M11	D1
MS23R	Shed Open Pole	$8.50	M14	D2
MS23ER	Shed Enclosed 3 Side	$8.50	M14	D2
MS24R	Shop	$28.00	M11	D3
MS24A	Studio	$57.50	M11	D3
MS24Y	Yurt	$10-$150	M11	D3
MS25R	Silo (Corn/Stave)	$10.00	-	D1
MS26R	Stable-Horse Barn	$27.50	M14	D2
MS26AR	Stable-Finished Area	$34.50	M14	D2
MS27R	Stock Barn w/Loft	$14.50	M14	D2
MS28R	Storage Bldg. Unfinished	$13.00	M14	D2
MS282R	Shed 2 Story	$26.50	M14	D2
MS29R	Storage Bldg. Finished	$17.50	M14	D2
MS30R	Swimming Pool-Concrete	$41.00	M11	D1
MS32SR	Single Wide Storage Only	-	-	-
MS33	DWELLING SITE	-	-	-
MS34R	Deck-Detached	$14.00	M21	D3
MS34PR	Porch-Detached	$21.00	M21	D3
MS35	MH Attached Addition	$46.00	M12	D1
MS40	Boat Dock	$29.00	M21	D1
MS43R	Mobile Home Space	-	-	-
MS44R	Hay Shed Open	$8.50	M14	D2
MS45R	Barn-Dairy	$20.50	M14	D2

CODE	DESCRIPTION	RATE	SIZE ADJ.	DEPREC.
MS46R	Lounging Shed	$11.50	M14	D2
MS47R	Barn-Open Pole	$8.50	M14	D2
MS48R	Lean-to/Shelter	$6.00	M14	D2
MS49R	Utility Building-Prefab Metal	$15.00	M11	D3
MS50R	Swimming Pool-Non-Concrete	$34.00	M11	D1
MS52R	Lumber Shed RSF Open	$9.00	M14	D2
Ms53R	Quonset Bldg.	$20.00	M11	D3
MS56R	Water Tank-No Tower	$1.00	-	D2
MS57R	Barn-Fruit Package	$20.50	M14	D2
MA59E	Silo (Glass Lined)	$1,150.00	-	D1
MS61R	Garage-Frame-Unfinished Attic	$44.00	M11	D3
MS62R	Garage-Frame-Finished Attic	$56.00	M11	D3
MS63R	Garage-Brick-Unfinished Attic	$47.00	M11	D3
MS64R	Garage-Brick-Finished Attic	$59.00	M11	D3
MS68	Hot Tub/Sauna	$4,050.00	-	D1
MS71R	Barndominium-Fair	$60.00	RMA	D5
MS72R	Barndomonium-Average	$100	RMA	D5
MS73R	Barndominium-Good	$140	RMA	D5
MS75R	Cold Storage Bldg.	$26.50	M14	D2
MS76R	Garage-Frame-Finished	$33.50	M11	D3
MS77R	Garage-Brick-Unfinished	$33.50	M11	D3
MS78R	Garage-Brick-Finished	$41.50	M11	D3
MS79R	Gazebo/Pergola	$1,750.00	-	D1
MS80R	Utility Bldg.	$15.00	M11	D3
MS81R	Car Pole Shed-Metal	$8.50	M11	D1
MS81ER	Car Shed Enclosed-Metal	$11.50	M11	D1
MS82R	Garage-Frame-Apartment	$56.00	M11	D3
MS83	Garage-Brick-Apartment	$59.00	M11	D3
MS84	Greenhouse-Glass	$18.50	M14	D2
MS92	Plumbing Fixture	$1,200.00	-	D3
MS93	Central A/C	$4.00	-	D3
MS96	Outdoor Fireplace	$4,600.00	-	D3
MS96A	Outdoor Kitchen	$5,750.00	-	D3
MS98R	Construction In Progress	-	-	-
MS99R	Miscellaneous	-	-	-

Size Adjustment Tables
Residential Main Area Attachments &
Outbuilding and Yard Items

M11		
AREA		**ADJ.**
001-150		110
151-200		108
201-250		106
251-300		104
301-350		102
351-600		100
601-650		98
651-700		96
701-750		94
751-800		92
801-UP		90

M12		
AREA		**ADJ.**
001-050		110
051-100		105
101-150		102
151-400		100
401-550		98
551-700		96
701-850		94
851-1000		92
1001-UP		90

M13		
AREA		**ADJ.**
001-150		110
151-200		105
201-250		102
251-400		100
401-600		98
601-700		96
701-800		94
801-900		92
901-UP		90

M14		
AREA		**ADJ.**
001-040		100
041-080		98
081-150		96
151-300		94
301-UP		90

M21		
AREA		**ADJ.**
001-020		110
021-040		106
041-060		104
061-080		102
081-200		100
201-300		98
301-400		96
401-500		94
501-UP		90

M22		
AREA		**ADJ.**
001-020		110
021-040		106
041-060		104
061-080		102
081-200		100
201-300		98
301-400		96
401-500		94
501-UP		90

Depreciation/Obsolescence

Condition Percent (CDU)

High quality, consistent results in depreciation values are partly dependent on carefully selected entries for Normal Condition Percent. While Condition Percent tables provide a specific percent good, pinpoint accuracy is not crucial. The market does not draw such a fine line and tends to show the condition percent good as being substantially the same for groups of similar properties built within the same time frame and located within a given neighborhood. Simply stated, the market prices for any group of residential properties within a homogeneous neighborhood will seek the same level.

The Year Built for every principal building must be listed. Items which may be considered within the broad category of normal maintenance, repair, and replacement should not influence the Normal Condition Percent. Such items generally do not materially increase the overall market value or extend the remaining useful life of the building. For example, a new water heater may temporarily influence the market price, but it does not significantly extend the life of the building.

The following tables give the base percent adjustment based on the Condition Percent good. The appraiser may make additional adjustments for functional or external obsolescence. Definitions of depreciation and obsolescence are provided below for clarity.

General areas to be considered by the appraiser in making a determination of obsolescence include suitability or appropriateness; comfort; efficiency; safety; security; accessibility; ease and cost of maintenance; market standards; attractiveness; profitability.

Physical Depreciation

Physical depreciation is a reduction in utility due to the chemical and mechanical breaking down of improvements due to use, weathering, damage, pest or insect infestation, and deferred maintenance. Physical deterioration may be subdivided into curable and incurable components.

Curable physical depreciation is deterioration that a prudent buyer would plan to correct upon purchase of the property, and the cost of making the correction would be no more than the increase in the present worth associated with the cure. Curable physical deterioration is usually

measured by the cost to cure and subtracted from the cost new. Examples of physical deterioration include such repairable or replaceable items as worn-out roofing, broken windowpanes, or soiled or peeling paint.
Incurable physical depreciation is deterioration that, when looking at market conditions on the effective date of the appraisal, a prudent buyer would not feasibly or economically be justified in correcting. The test is not physical ability, but rather economic feasibility. In other words, if the cost of correcting the condition is greater than the anticipated increase in present worth, incurable physical depreciation is present.

Functional Obsolescence

Functional Obsolescence is a loss of value due to characteristics inherent within the property. This is a loss in value due to defects in design, or caused by changes that, over time, have made some aspect of a structure obsolete by current standards. The defect may be curable or incurable. To be curable, the cost of replacing the outmoded or unacceptable aspect must be the same as or less than the anticipated increase in value. Curable functional obsolescence is measured as the cost to cure the condition. Incurable functional obsolescence may be caused by a deficiency or a super-adequacy.

Examples of functional obsolescence include excessive or deficient floor load capacity; deficient storage space; poor heating, lighting, or air conditioning system; inadequate parking or loading facilities; multiple floors in a manufacturing facility, inhibiting efficient manufacturing process; low or excessive ceiling height; insufficient elevator service.

External Obsolescence

External Obsolescence is a loss of value due to forces outside the boundaries of the property. The diminished utility of a structure due to negative influences from outside the site is incurable. It can be caused by a variety of factors, including neighborhood decline, the property's location in a community, state or region, or market conditions.

Examples of external obsolescence include zoning laws that affect the use or operation of the property; lack of need for this property due to changing economic conditions; a well-kept house located on land with commercial zoning; oversupply of a type of property; a very large house located in a neighborhood of small houses; a house located near a busy street or highway.

Normal Condition Percent Schedule - Residential

Residential Properties—Model 1 & 5

Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor	Un-Sound
0	100	100	100	100	95	90	85	5
1	100	100	100	100	95	90	85	5
2	100	100	100	100	94	88	82	5
3	100	100	100	99	93	86	79	5
4	100	100	100	99	92	84	76	5
5	100	100	99	98	91	82	73	5
6	100	100	99	97	90	80	70	5
7	100	99	99	97	88	78	68	5
8	100	99	99	96	86	76	66	5
9	100	99	99	96	84	74	64	5
10	100	99	98	95	82	72	62	5
11	100	99	98	94	80	70	60	5
12	100	99	98	93	78	68	58	5
13	100	99	98	92	77	67	57	5
14	100	99	98	91	76	66	56	5
15	100	99	97	90	75	65	55	5
16	99	98	97	89	74	64	54	5
17	99	98	97	88	73	63	53	5
18	99	98	96	87	72	62	52	5
19	99	98	96	86	71	61	51	5
20	99	98	95	85	70	60	50	5
21	99	98	95	85	70	60	50	5
22	99	98	94	84	69	59	49	5
23	99	98	94	84	69	59	49	5
24	99	98	93	83	68	58	48	5
25	99	98	92	82	67	57	47	5
26	98	98	92	82	67	57	47	5
27	98	98	91	81	66	56	46	5
28	98	98	91	81	66	56	46	5
29	98	98	90	80	65	55	45	5
30	98	97	90	80	65	55	45	5
31	98	97	89	79	64	54	44	5
32	98	97	89	79	64	54	44	5
33	98	97	88	78	63	53	43	5
34	98	97	88	78	63	53	43	5

Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor	Un-Sound
35	97	97	87	77	62	52	42	5
36	97	97	86	76	61	51	41	5
37	97	97	86	76	61	51	41	5
38	97	97	85	75	60	50	40	5
39	97	97	85	75	60	50	40	5
40	97	96	84	74	59	49	39	5
41	97	96	84	74	59	49	39	5
42	97	96	83	73	58	48	38	5
43	97	96	83	73	58	48	38	5
44	97	96	82	72	57	47	37	5
45	97	95	82	72	57	47	37	5
46	97	95	81	71	56	46	36	5
47	97	95	81	71	56	46	36	5
48	97	95	80	70	55	45	35	5
49	97	95	80	70	55	45	35	5
50	97	95	79	69	54	44	34	5
51	96	94	79	69	54	44	34	5
52	96	94	78	68	53	43	33	5
53	96	94	78	68	53	43	33	5
54	96	94	77	67	52	42	32	5
55	96	94	77	67	52	42	32	5
56	95	93	76	66	51	41	31	5
57	95	93	76	66	51	41	31	5
58	95	93	75	65	50	40	30	5
59	95	93	75	65	50	40	29	5
60	95	93	75	64	49	39	29	5
61	95	92	74	64	49	39	29	5
62	95	92	74	63	48	38	28	5
63	95	92	74	63	48	38	28	5
64	95	92	74	62	47	37	27	5
65	94	92	73	62	47	37	27	5
66	94	91	73	61	46	36	26	5
67	94	91	73	61	46	36	26	5
68	94	91	73	61	46	36	26	5
69	94	91	72	60	45	35	25	5
70	93	91	72	60	45	35	25	5
71	93	90	72	60	45	35	25	5
72	93	90	72	59	44	34	24	5
73	93	90	71	59	44	34	24	5
74	93	90	71	59	44	34	24	5

Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor	Un-Sound
75	93	90	71	58	43	33	23	5
76	93	89	71	58	43	33	23	5
77	93	89	70	58	43	33	23	5
78	93	89	70	57	42	32	22	5
79	93	89	70	57	42	32	22	5
80	92	89	70	57	42	32	22	5
81	92	89	69	56	41	31	21	5
82	92	88	69	56	41	31	21	5
83	92	88	69	56	41	31	21	5
84	92	88	69	55	40	30	20	5
85	92	88	68	55	40	30	20	5
86	92	88	68	55	40	30	20	5
87	92	88	68	54	39	29	19	5
88	92	87	68	54	39	29	19	5
89	92	87	67	54	39	29	19	5
90	91	87	67	53	38	28	18	5
91	91	87	67	53	38	28	18	5
92	91	87	67	53	38	28	18	5
93	91	86	66	52	37	27	17	5
94	91	86	66	52	37	27	17	5
95	91	86	66	52	37	27	17	5
96	91	86	66	51	36	26	16	5
97	91	85	66	51	36	26	16	5
98	91	85	66	51	36	26	16	5
99	90	85	65	50	35	25	15	5
100+	90	85	65	50	35	25	15	5

Model 4-Manufactured Home

Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor	Un-Sound
0	100	100	99	98	95	90	85	5
1	100	100	99	98	95	90	85	5
2	100	99	97	96	93	88	83	5
3	100	98	95	94	91	86	81	5
4	99	96	93	90	87	82	77	5
5	98	95	92	89	86	81	76	5
6	97	94	91	88	85	80	75	5
7	96	93	90	87	84	79	74	5
8	95	92	89	86	83	78	73	5
9	94	91	88	85	82	77	72	5
10	93	90	87	84	81	76	71	5
11	92	89	86	83	80	75	70	5
12	91	88	85	82	79	74	69	5
13	90	87	84	81	78	73	68	5
14	89	86	83	80	77	72	67	5
15	88	85	82	79	76	71	66	5
16	87	84	81	78	75	70	65	5
17	86	83	80	77	74	69	64	5
18	85	82	79	76	73	68	63	5
19	84	81	78	75	72	67	62	5
20	83	80	77	74	71	66	61	5
21	82	79	76	73	70	65	60	5
22	81	78	75	72	69	64	59	5
23	80	77	74	71	68	63	58	5
24	79	76	73	70	67	62	57	5
25	78	75	72	69	66	61	56	5
26	77	74	71	68	65	60	55	5
27	76	73	70	67	64	59	54	5
28	75	72	69	66	63	58	53	5
29	74	71	68	65	62	57	52	5
30	73	70	67	64	61	56	51	5
31	72	69	66	63	60	55	50	5
32	71	68	65	62	59	54	49	5
33	70	67	64	61	58	53	48	5
34	69	66	63	60	57	52	47	5
35	68	65	62	59	56	51	46	5
36	67	64	61	58	55	50	45	5
37	66	63	60	57	54	49	44	5
38	65	62	59	56	53	48	43	5
39	64	61	58	55	52	47	42	5

Age Depreciated	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor	Un-Sound
40	63	60	57	54	51	46	41	5
41	62	59	56	53	50	45	40	5
42	61	58	55	52	49	44	39	5
43	60	57	54	51	48	43	38	5
44	59	56	53	50	47	42	37	5
45	58	55	52	49	46	41	36	5
46	57	54	51	48	45	40	35	5
47	56	53	50	47	44	39	34	5
48	55	52	49	46	43	38	33	5
49	55	51	48	45	42	37	32	5
50	55	50	47	44	41	36	31	5
51	55	50	46	43	40	35	30	5
52	55	50	45	42	39	34	29	5
53	55	50	45	41	38	33	28	5
54	55	50	45	40	37	32	27	5
55	55	50	45	40	36	31	26	5
56	55	50	45	40	35	30	25	5
=>57	55	50	45	40	34	29	24	5

OTHER BUILDING AND YARD ITEMS DEPRECIATION

D1	
AGE	**DEPR.**
01	10%
02	20%
03	25%
04	30%
05	35%
06	40%
07	45%
08-Up	50%

D2	
AGE	**DEPR.**
01	5%
02	10%
03	15%
04	20%
05	25%
06	30%
07	35%
08	40%
09	45%
10	50%
11	55%
12	60%
13	65%
14	70%
15-Up	75%

D3	
AGE	**DEPR.**
00-03	5%
04-06	10%
07-09	15%
10-12	20%
13-15	25%
16-18	30%
19-21	35%
22-24	40%
25-27	45%
28-30	50%
31-35	55%
36-40	60%
41-45	65%
46-50	70%
51-Up	75%

D4	
AGE	**DEPR.**
00-04	5%
05-08	10%
09-12	15%
13-16	20%
17-20	25%
21-24	30%
25-28	35%
29-32	40%
33-36	45%
37-40	50%
41-44	55%
45-48	60%
49-52	65%
53-56	70%
57-Up	75%

D5	
AGE	**DEPR.**
00-05	5%
06-10	10%
11-15	15%
16-20	20%
21-25	25%
26-30	30%
31-35	35%
36-40	40%
41-45	45%
46-50	50%
51-55	55%
56-60	60%
61-65	65%
66-70	70%
71-Up	75%

Effective Economic Life

Economic Life is primarily based upon the average condition of the subject property relative to its actual age. The normal condition percentage good found by the application of the Effective Economic Life Tables may be adjusted as deemed necessary by the appraiser.

The Economic Life of any residential/commercial structure is determined by its Type and Use. Wood joist construction has a lower life expectancy than fire-resistant construction. Structures built for a temporary need are characterized by low-cost construction. In most instances, the choice of construction is determined by the building use, and by the estimated economic life of that particular use.

It is important to also keep in mind that the functional and economic rates of depreciation for some building uses are faster than the rate of physical decline.

Commercial and Industrial Section

Commercial Building Pricing Schedule

The following tables contain the model base rate value for each type which are the basis for the final model rates to be used in the 2025 Revaluation. The appraiser has additional adjustments that can be applied that may influence what the final base rate value is. Each Occupancy has a unique MA Code assigned.

Commercial Main Area Rates

MA CODE	OCCUPANCY	CONC (C)	MASON (M)	R.S.F. (R)	WOOD (W)	HEIGHT ADJ.
MA01	Apartment Building	$0	$146	$144	$140	H1
MA02	Apartment Townhouse	$0	$136	$134	$130	H1
MA03	Armory	$94	$82	$74	$78	H2
MA04	Auditorium	$104	$90	$81	$86	H2
MA05	Auto Dealership	$92	$88	$78	$83	H2
MA06	Bank	$121	$117	$110	$113	H2
MA07	Beauty/Barber Shop	$0	$84	$74	$78	H2
MA08	Cafeteria	$0	$102	$97	$102	H2
MA09	Self Service Car Wash	$0	$56	$46	$49	H1
MA10	Church	$148	$129	$118	$122	H2
MA11	Classroom	$96	$94	$84	$89	H2
MA13	Dwelling Conversion	$139	$139	$0	$135	H2
MA14	Country Club/Clubhouse	$0	$102	$93	$98	H2
MA15	Department Store	$95	$91	$81	$86	H2
MA16	Discount Store	$84	$67	$59	$63	H2
MA17	Dormitory	$105	$91	$82	$87	H2
MA18	Multiplex	$127	$131	$0	$125	H1
MA19	Gymnasium	$0	$88	$79	$83	H2
MA20	Fire/Police Station	$0	$90	$81	$85	H2
MA21	Fraternity	$105	$91	$82	$87	H2
MA22	Hangar	$57	$45	$43	$48	H2
MA23	Hospital	$151	$147	$0	$142	H2
MA24	Hotel	$135	$118	$106	$111	H1
MA25	Industrial/Manufacturing	$46	$44	$37	$39	H2
MA26	Laboratory	$140	$138	$128	$133	H2
MA27	Laundry/Cleaners	$0	$85	$75	$80	H2
MA28	Library	$100	$97	$89	$94	H2

MA CODE	OCCUPANCY	CONC (C)	MASON (M)	R.S.F. (R)	WOOD (W)	HEIGHT ADJ.
MA29	Support Area	$43	$41	$35	$38	H2
MA31	Motel	$131	$101	$93	$99	H1
MA32	Office	$99	$96	$87	$91	H2
MA33	Restaurant	$113	$110	$101	$104	H2
MA34	Retail Store	$110	$107	$95	$101	H2
MA35	Service Garage	$93	$88	$73	$73	H2
MA36	Service Station	$0	$101	$91	$96	H2
MA38	Supermarket	$90	$87	$78	$82	H2
MA39	Theater	$0	$116	$106	$110	H2
MA40	Warehouse Storage Building	$58	$55	$43	$49	H2
MA41	Convenience Store	$230	$224	$208	$216	H2
MA42	Nursing/Retirement	$164	$161	$152	$157	H2
MA43	Bowling Alley	$0	$88	$77	$82	H2
MA44	Funeral Home	$0	$103	$94	$99	H2
MA45	Radio/TV Station	$0	$113	$103	$108	H2
MA46	Medical Office	$154	$151	$141	$146	H2
MA47	Government Building	$110	$107	$98	$102	H2
MA48	Research/Development	$104	$81	$74	$75	H2
MA49	Convalescent Home	$153	$118	$107	$113	H2
MA50	Heavy Industrial	$114	$109	$92	$107	H2
MA51	Transit Warehouse	$0	$72	$62	$66	H2
MA52	Community Bldg.	$0	$67	$57	$62	H2
MA53	Health Club	$0	$88	$79	$83	H2
MA54	Automotive Center	$0	$59	$49	$54	H2
MA55	Mini-Lube	$0	$204	$194	$199	H2
MA56	Dairy Sales	$0	$84	$74	$79	H2
MA57	Service Shop	$0	$50	$40	$45	H2
MA58	Neighborhood Shops	$99	$97	$87	$92	H2
MA59	Regional Shops	$110	$107	$97	$102	H2
MA60	Community Shops	$99	$97	$87	$92	H2
MA61	Skating Rink	$0	$86	$77	$82	H2
MA62	Distribution Warehouse Building	$56	$53	$43	$48	H2
MA63	Self-Storage Building	$0	$47	$31	$37	H1
MA64	Bank Drive Thru	$132	$129	$120	$124	H2
MA65	Apartment House	$0	$140	$137	$135	H1
MA66	Post Office	$109	$106	$92	$97	H2
MA67	Car Wash Full Service	$0	$56	$47	$51	H1
MA68	Dispensary	$0	$109	$101	$106	H2
MA69	Day Care	$0	$97	$88	$93	H2
MA70	Fast Food	$235	$235	$235	$235	H1
MA71	Veterinary Clinic	$105	$102	$92	$97	H2

MA CODE	OCCUPANCY	CONC (C)	MASON (M)	R.S.F. (R)	WOOD (W)	HEIGHT ADJ.
MA72	Group Care Home	$153	$118	$107	$113	H1
MA73	Lumber Storage	$0	$27	$26	$27	H2
MA74	Jail/Prison	$110	$107	$98	$102	H2
MA75	Open Office	$0	$93	$84	$89	H2
MA76	Parking Garage	$46	$48	$43	$45	H2
MA77	Storage	$55	$52	$42	$47	H2
MA78	Cold Storage	$73	$70	$60	$65	H2
MA79	Food Shoppe	$78	$75	$66	$71	H2
MA80	Truck Terminal	$51	$60	$43	$64	H2
MA81	Warehouse/Office-Flex Building	$0	$72	$64	$66	H2
MA82	Drug Store	$88	$85	$76	$81	H2
MA82F	Franchise Drug Store	$275	$275	$275	$275	H2
MA83	Winery	$0	$92	$79	$132	H2
MA84	Auto Parts Store	$120	$110	$94	$104	H2
MA85	Kennel	$0	$112	$96	$107	H2
MA86	Pro Shop	$0	$129	$111	$123	H2
MA87	Convenience Store/Fast Food	$165	$155	$135	$150	H2
MA89	Downtown Row	$109	$98	$0	$86	H2

Story Height Adjustment For Commercial Buildings

CODE	DESCRIPTION	RATE
FUS	FINISHED UPPER	90% of First Floor Price

Area Perimeter Ratio Percentage

CODE	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	P11	P12	P13	P14	P15	P16
PERIM	150	175	200	250	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000
SQ FT																
1000	122%	126%	130%	132%	---	---	---	---	---	---	---	---	---	---	---	---
1500	111%	115%	119%	123%	126%	---	---	---	---	---	---	---	---	---	---	---
2000	104%	107%	111%	117%	120%	125%	---	---	---	---	---	---	---	---	---	---
2500	100%	103%	105%	110%	115%	120%	124%	---	---	---	---	---	---	---	---	---
3000	97%	100%	102%	106%	110%	119%	120%	---	---	---	---	---	---	---	---	---
4000	94%	96%	98%	100%	104%	110%	117%	119%	---	---	---	---	---	---	---	---
5000	92%	94%	95%	97%	100%	105%	110%	115%	---	---	---	---	---	---	---	---
6000	91%	92%	93%	95%	98%	102%	106%	110%	110%	---	---	---	---	---	---	---
8000	89%	90%	91%	92%	94%	97%	100%	104%	107%	110%	---	---	---	---	---	---
10000	---	---	90%	91%	93%	95%	97%	100%	103%	105%	110%	115%	---	---	---	---
12000	---	---	89%	90%	91%	93%	95%	97%	100%	102%	106%	110%	115%	---	---	---
14000	---	---	---	---	90%	92%	94%	96%	98%	100%	103%	106%	110%	114%	---	---
16000	---	---	---	---	---	91%	93%	94%	96%	97%	100%	104%	107%	110%	---	---
18000	---	---	---	---	---	90%	92%	93%	95%	96%	99%	102%	104%	107%	110%	---
20000	---	---	---	---	---	89%	91%	92%	94%	95%	97%	100%	103%	105%	108%	110%
25000	---	---	---	---	---	88%	90%	91%	92%	93%	95%	97%	99%	101%	103%	105%
30000	---	---	---	---	---	87%	89%	90%	91%	92%	93%	95%	97%	98%	100%	102%
35000	---	---	---	---	---	86%	88%	89%	90%	91%	92%	93%	95%	96%	98%	99%
40000	---	---	---	---	---	85%	87%	88%	89%	90%	91%	92%	94%	95%	96%	98%
50000	---	---	---	---	---	---	86%	87%	88%	89%	90%	91%	92%	93%	94%	95%
75000	---	---	---	---	---	---	85%	85%	85%	86%	87%	88%	89%	90%	91%	92%
100000	---	---	---	---	---	---	---	---	---	84%	85%	86%	87%	88%	89%	90%
199999	---	---	---	---	---	---	---	---	---	---	---	85%	86%	87%	88%	89%
999999	---	---	---	---	---	---	---	---	---	---	---	---	85%	85%	85%	85%

Wall Height Adjustments

CODE	HEIGHT	ADJUST
H1	ALL	100.0%
H2	8	88.0%
H2	9	90.0%
H2	10	92.0%
H2	11	94.0%
H2	12	96.0%
H2	13	98.0%
H2	14	100.0%
H2	15	102.0%
H2	16	104.0%
H2	17	105.0%
H2	18	108.0%
H2	19	110.5%
H2	20	113.0%
H2	21	115.0%
H2	22	118.0%
H2	23	120.5%
H2	24	123.0%
H2	25	125.0%
H2	26	128.0%
H2	27	131.5%

CODE	HEIGHT	ADJUST
H2	28	133.0%
H2	29	135.5%
H2	30	138.0%
H2	31	141.0%
H2	32	144.0%
H2	33	147.0%
H2	34	149.0%
H2	35	151.0%
H2	36	154.5%
H2	37	158.0%
H2	38	161.5%
H2	39	163.0%
H2	40	165.0%
H2	41	169.0%
H2	42	172.0%
H2	43	175.0%
H2	44	177.0%
H2	45	179.0%
H2	46--49	186.0%
H2	50-OVER	193.0%

Building Component Rates

HC- Heating/Air Conditioning

CODE	DESCRIPTION	RATE
HC51	NO Heat	(-)$2.00
HC52	Flr/Wall Furnace	$1.00
HC53	Radiant/Elect/BB	$2.05
HC54	Radiant/Water	$2.05
HC55	Forced Hot Air	$2.05
HC56	Unit Heaters	$1.00
HC57	Packaged Heat/Cool	$4.00
HC58	Reverse Cycle Pump	$4.00
HC59	Cooling W/Ducts	$4.00
HC60	HVAC	$5.35
HC61	Industrial Unit	$1.00
HC62	Industrial Heat	$1.55
HC63	Industrial Heat/AC	$3.10
HC64	Industrial Cooling	$1.55

EL/ES- Elevator/Escalator

CODE	DESCRIPTION	RATE
DL	DOCK LEVELERS	7500.00
FE	Freight Elevator	$45,000.00
XS	Extra Stops	$9,000.00
PE	Passenger Elevator	$75,000.00
ES	Escalator	$100,000.00

SS-Sprinkler System

CODE	DESCRIPTION	RATE
SS01	Wet	$1.50
SS02	Dry	$1.75

Commercial Basement Rates

CODE	TYPE	CF-Finished	CU-Unfinished
01	Apartment	$47	$14
02	Retail	$44	$14
03	Office	$53	$14
04	Warehouse	$22	$12
05	Manufacturing	$24	$14
06	Fast Food	$83	$14
07	Storage	$26	$12
08	Government	$56	$14
09	Classroom	$48	$14
10	Restaurant	$57	$14
11	Hotel/Motel	$53	$14

Commercial Main Building Attachment Codes

Code	Description	Rate	Size Adj
AC07	Loading Dock	$18.50	M21
AC18	Overheard Doors	$575.00	-
AC22	Mezzanine Display	$40.00	M22
AC22A	Mezzanine Open	$19.00	M22
AC23	Exterior-Above Average	$53.50	M12
AC29	Mezzanine Office	$40.50	M22
AC30	Attached Office Brick	$57.50	M22
AC31	Attached Office Frame	$52.00	M22
AC32	Attached Warehouse Masonry	$29.00	M12
AC34	Attached Warehouse	$26.00	M12
AC45	Canopy Commercial	$28.00	M21
AC46	Attached Warehouse RSF	$26.00	M12
AC47	Enclosure-Above Average	$29.00	M12
AC48	Enclosure-Average	$26.00	M12
AC57	Commercial Drive-Thru	-	-
AC58	Penthouse	$23.00	M12
AC60	Bank Vault	$86.50	M12
AC61	Bank Drive-Thru Window	$8,650.00	-
AC62	Cooler-Chiller	$12.00	M14
AC63	Cooler-Freezer	$15.00	M14
AC64	Cooler Sharp Freezer	$20.00	M14
AC65	Dock Levelers	$7,400.00	-
AC68	Record Vault	$57.50	M12
AC71	Attached Office RSF	$49.00	M22
AC72	Enclosure Minimum	$13.00	M12
AC73	Attached Shop Wood	$31.50	M22
AC74	Attached Shop Masonry	$34.50	M22
AC75	Attached Shop RSF	$29.00	M22
AC76	Auto Showroom	$75.00	M22
AC77	Roof Monitor	$7.50	M12

Commercial Outbuilding and Yard Items

CODE	DESCRIPTION	RATE	Size Adj.	Deprec.
MS01C	Paving-Asphalt	$2.50	M11	D1
MS02C	Bath House-Frame	$57.50	M12	D2
MS03C	Barn-Tobacco	$23.00	M14	D3
MS04C	Canopy-Detached	$12.50	M21	D3
MS05C	Carport-Detached	$18.50	M21	D3
MS06AC	Patio-Detached	$6.00	M11	D3
MS06C	Paving-Concrete	$4.50	M11	D1
MS07C	Loading Dock	$14.50	M21	D2
MS08C	Egg/Apple House	$25.50	M12	D2
MS09C	Fencing	$3.50	-	D2
MS10C	Garage-Frame-Unfinished	$24.50	M11	D3
MS100C	Burial Sites	$1,250.00	-	-
MS101C	Crypts	$4,600.00	-	-
MS102C	Cremation Garden	$350.00	-	-
MS103C	Niches	$1,150.00	-	-
MS104C	Garden of Peace	$750.00	-	-
MS105C	Outdoor Fireplace	$4,600.00	-	D3
MS12C	Grain Bin-Metal	$2.50	-	D1
MS14C	Grainery/Crib	$6.50	M14	D1
MS15C	Greenhouse (Glass)	$9.00	M14	D2
MS16C	Hog Parlor	$11.50	M14	D1
MS17C	Implement Shed 3 Side	$8.50	M14	D2
MS18C	Lumber Shed-3 Side	$18.50	M14	D1
MS19C	Lighting (Yard)	$2,000.00	-	D2
MS19MC	Lighting (Multi-Fixture)	$2,500.00	-	D2
MS20C	Milk Parlor	$32.50	M14	D2
MS21C	Poultry House w/No Equipment	$6.50	M11	D1
MS22C	Railroad Siding	$86.00	M11	D1
MS23C	Shed-Open -Pole	$8.50	M14	D2
MS23EC	Shed-Enclosed-3 Side	$8.50	M14	D2
MS24C	Shop	$28.00	M11	D3
MS25C	Silo (Corn/Stave)	$10.00	-	D1
MS26AC	Stable-Finished Area	$34.50	M14	D2
MS26C	Stable/Horse Barn	$27.50	M14	D2
MS27C	Stock Barn w/Loft	$14.50	M14	D2
MS282C	Shed-2 Story	$26.50	M14	D2
MS28C	Storage Bldg.-Unfinished	$13.00	M14	D2
MS29C	Storage Bldg.-Finished	$17.50	M14	D2
MS30C	Swimming Pool-Concrete	$41.00	M11	D1

CODE	DESCRIPTION	RATE	Size Adj.	Deprec.
MS31C	Tennis Court w/Fencing	$16.00	M11	D1
MS32SC	Single Wide Storage Only	-	-	-
MS33C	Dwelling-Site Value	-	-	-
MS34C	Deck-Detached		M21	D3
MS34PC	Porch-Detached	$21.00	M21	D3
MS43C	Campground RV Site	-	-	-
MS43PC	Manufactured Home Park Site	-	-	-
MS44C	Hay Shed Open	$8.50	M14	D2
MS45C	Barn-Dairy	$20.50	M14	D2
MS46C	Lounging Shed	$11.50	M14	D2
MS47C	Barn-Open Pole	$8.50	M14	D2
MS48C	Lean-To/Shelter	$6.00	M14	D2
MS49C	Utility Building-Prefab Metal	$15.00	M11	D3
MS50C	Swimming Pool-Non-Concrete	$34.00	M11	D1
MS51C	Self Service Booth	$95.00	M11	D2
MS52C	Lumber Shed RSF Open	$9.00	M14	D2
MS53C	Quonset Building	$20.00	M11	D3
MS54C	Field Office	$46.00	M11	D2
MS56C	Water Tank-No Tower	$1.00	-	D2
MS57C	Barn-Fruit Package	$20.50	M14	D2
MS59C	Silo (Glass Lined)	$1,150.00	-	D1
MS60C	Golf Course Very Good	$165,000.00	-	D2
MS61C	Garage-Frame-Unfinished Attic	$44.00	M11	D3
MS63C	Garage-Brick-Unfinished Attic	$46.50	M11	D3
MS65C	Water Reservoir (Concrete)	$0.75	-	D2
MS67C	Guard House Brick	$95.00	M11	D2
MS69C	Field House	$28.50	M11	D2
MS71C	Industrial Stack (Site Value)	-	-	-
MS72C	Commercial Canopy RSF	$29.50	M11	D2
MS72WC	Commercial Canopy-Wood	$27.50	M11	D2
MS73C	Mini Storage Building	$23.00	M11	D2
MS74C	Hangar	$24.00	M11	D2
MS75C	Cold Storage Building	$26.50	M14	D2
MS76C	Garage-Frame-Finished	$33.50	M11	D3
MS77C	Garage-Brick-Unfinished	$33.50	M11	D3
MS78C	Garage-Brick Finished	$41.50	M11	D3
MS79C	Gazebo/Pergola	$1,750.00	-	D1
MS80C	Utility Building	$15.00	M11	D3
MS81C	Car Pole Shed-Metal	$8.50	M11	D1
MS81EC	Car Shed Enclosed-Metal	$11.50	M11	D1
MS82C	Garage-Frame-Apartment	$56.00	M11	D3

CODE	DESCRIPTION	RATE	Size Adj.	Deprec.
MS86C	Golf Course Good	$137,500.00	-	D2
MS87C	Golf Course Average	$110,000.00	-	D2
MS88C	Golf Course Fair	$82,500.00	-	D2
MS89C	Golf Course Par 3	$45,000.00	-	D2
MS90C	Restroom Structure	$35.00	M11	D2
MS91C	Truck Scale	$5,750.00	-	D2
MS92C	Plumbing Fixture	$1,250.00	-	-
MS93C	Central A/C	$3.50	-	-
MS94C	Modular Classroom/Office	$28,750.00	-	D2
MS95C	Golf Course Excellent	$220,000.00	-	D2
MS98C	Construction In Progress	-	-	-
MS99C	Miscellaneous	-	-	-
MS105C	Outdoor Fireplace Commercial	$4,750.00	-	D3

Manufactured Home Park Valuation Guide

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

A Grade — Excellent quality and planned manufactured home parks designed to accommodate the largest tractor-drawn or on-site erected manufactured homes, and to provide the user with the utmost in residential amenities, including spacious lots with extensive and attractive landscaping, ample off-street parking, and a wide variety of recreational facilities. Site areas will generally range from 4,500 to 5,500 sq. ft. Rent Range=$300 Up
Value=$12,500 per site

B Grade — Good quality and well-planned manufactured home parks designed to accommodate the larger tractor-drawn mobile homes with room to spare for lawns and gardens, and featuring attractive landscaping, off-street parking, and complete recreational facilities. Site areas will generally range from 3,500 to 4,500 sq. ft. Rent Range=$275-$295
Value=$10,000 per site

C Grade — Average quality and well-planned manufactured home parks designed to accommodate manufactured homes up to 55’ to 60’ long, and to provide the user with adequate utility services and facilities, but rather limited recreational facilities and other such amenities. Site areas will generally range from 2,500 to 3,500 sq. ft. Rent Range=$250-$270
Value=$8,500 per site

D Grade — Fair quality and minimally planned manufactured home parks intended primarily for semi-permanent occupancy and offering only minimal utility and recreational facilities. Site areas will generally range from 1,750 to 2,500 sq. ft. Rent Range=$200-$245
Value=$7,500 per site

E Grade — Cheap quality manufactured home parks designed to accommodate transient type trailers, and to provide the user with the minimum required facilities. Site areas will generally range from 1,000 to 1,750 sq. ft. Rent Range=$195 Down
Value=$6,000 per site

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

Base Cost Components

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

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

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

Street Paving-includes base preparation and paving.

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

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

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

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

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

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

Base Cost Adjustments

Many Manufactured home and RV trailer parks are apt to possess some features which are typical of one Grade and some features which are typical of another Grade. For example, an A-Grade park may exhibit B-Grade “other features” such as entrance décor, landscaping, and recreational facilities; or similarly, a park may be C-Grade in

all respects except for good quality streets. In such cases, the appraiser must analyze each park in terms of its individual component in order to determine the contribution of each component to the overall cost per site. In order to facilitate this, the specifications and corresponding costs for each component are detailed, thus enabling the appraiser to adjust the base cost either upward or downward to account for any significant variations.

Percent (%) Good Guidelines

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

Manufactured Home Parks

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

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

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

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

Manufactured home Park Code

MS43PC Manufactured Home Park Site

Income Valuation of a Manufactured Home Park

This valuation example will illustrate the calculation for a manufactured home park that has 12 spaces with a monthly lot rent of $200, allowance for vacancy and collection loss of 10% and operating expenses of 25%. The capitalization rate applied is 10%. Even though each park has to be reviewed and analyzed independently of each other, a review from the market indicates that each of these components leads to a conservative market value. After this calculation is performed, select the most appropriate grade model in comparison to lot rent and any other consideration that should be considered when applying the appropriate value.

Gross Monthly Rent	Gross Annual Rent
$200/space x 12	$2,400
Less	
Vacancy/Collection Rate @ 10%	(-) $ 240
Effective Gross Income	$2,160
Less Operating Expense @ 25%	(-) $ 540
Net Operating Revenue	$1,620

Capitalized at 10% = $16,200 per space

Golf Course Valuation Guide

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

Regulations Courses

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

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

Base Price Components

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

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

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

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

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

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

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

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

Other Courses

Miniature Course	The entire course is comprised of a putting surface which has various obstacles and hazards placed between the tee and the cup.
Pitch and Putt	The course has greens, bunkers, tees, fairways, and very little, if any rough area separating the holes. The holes are usually 60 to 120 yards long and the course often has lighting for night play.
Par 3 Course	The course is the same as a regulation course, but on a smaller scale with all the holes rated par 3, 140 to 160 yards long, and the course may have lighting for night play.
Executive Course	Also called a par 60 course; the course is the same as regulation course, but on a smaller scale with the holes 200 to 300 yards long. The holes are mostly par 3 with some par 4 and par 5 ratings.

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

General Application

The primary variables in golf courses are size, layout, sprinkler system, greens, tees, fairways, and bunkers. The cost of courses may vary from $15,000 per hole for a course with minimal improvements to well over $200,000 per hole for the best championship courses. The costs given are for average courses in each quality grade. Included in the cost per hole is normal clearing and grading, complete sprinkler systems, landscaping, greens, tees, bunkers, service and cart roads, and architect's fees. Costs do not include buildings, swimming pools, parking areas, or any other off-course improvements. Listed below is the procedure to be used for the appraisal of golf courses.

1. Identify the course by name and record the following data on the property record card (preferably in the top portion of the sketch area).
    a. The type of course (regulation size, pitch and putt, miniature, etc…).
    b. The year of completion (if developed in phases, describe the number of holes completed each year).
    c. The number of holes and the amount of land used for the course.
    d. The course length and par.
    e. The terrain and topographical features.
    f. The average size of the greens, tees, and the number of bunkers.
    g. The type of sprinkler system.

2. Analyze the various components of the subject property, giving special consideration to the extent of planning, the natural contour of the land, clearing and grading of fairways, greens, and tees, the extent and quality of the sprinkler system; whether it is automatic, manual, covers the entire course or only the tees and greens, the average green and tee size, the average number of bunkers per hole, the quality of cart and service roads and any other characteristics essential to establishing the proper grade level of the course.

3. Determine the Quality Grade of the course by comparing its components, as analyzed above, with the given specifications for each grade and select the corresponding base cost per hole.

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

4. Multiply the average replacement cost per hole, as derived in Step #3, by the total number of holes to arrive at the total replacement cost of the course.

5. Determine the proper depreciation allowance based upon the condition, desirability, and usefulness of the course relative to its age, and apply it to the total replacement cost as derived in Step #4, to arrive at the depreciated value of the course.

6. Sketch, list, and compute by using the appropriate pricing schedule, the replacement cost and depreciated value of all improvements not included in the base cost.

   See pricing example as follows:

   Golf Course Pricing Example

   Example Golf Course-an 18 hole; regulation size course, 6500 yards long, par 72, located on 150 acres of rolling terrain. The course is 10 years old and has 10,000 square foot greens, (3) 2,500 square foot tee locations for each hole, and (3) bunkers per hole. Fairways and greens have automatic sprinkler systems.

   This course is judged to be an Average Quality Course with very good greens and tees, good overall condition, desirability and utility. Land value is estimated at $5,000 per acre.

Base Cost Per Hole Average Quality	$ 110,000
Quality Factor- - - 0%	+ - 0
Replacement Cost Per Hole	$ 110,000
Number of Holes	X 18
Total Replacement Cost	$1,980,000
Less Depreciation -10%	- 198,000
Total Value of Course Improvements	$1,782,000
Land Value (150 acres @ $5,000/acre)	+ 750,000
Total Value	$2,532,000
Value Per Hole (rounded)	$ 140,667

Golf Course Pricing

MS95 Excellent-Replacement Cost $220,000 Per Hole

Excellent golf course consisting of 18 holes designed for championship, professional, advanced, or competitive play with a par rating of 71 to 72 and yardage ranging from 6,800 and up. Terrain is generally rolling with medium to wide fairways, numerous man-made and natural hazards, well maintained landscaping with tees, greens and fairways of excellent quality.

MS60 Very Good-Replacement Cost $165,000 Per Hole

Very Good golf course consisting of 18 holes designed for championship, professional, advanced or competitive play with a par rating of 71 to 72 and yardage ranging from 6,000 to 7,300 yards. Terrain is generally rolling with wide fairways, and many man-made or natural hazards, well maintained landscaping, tees, greens and fairways of very good quality.

MS86 Good-Replacement cost $137,500 Per Hole

Good golf course consisting of 18 holes designed for all classes of golfers with a par rating of 70 to 72 and yardage ranging from 5,500 to 7,300 yards. Terrain is generally rolling with narrow to wide fairways, several natural hazards and some man-made hazards, well maintained landscaping with tees, greens and fairways of good quality.

MS87 Average-Replacement Cost $110,000 Per Hole

Average quality public or semi-private course; 18 holes designed for the average or occasional golfer with a par rating of 68 to 72 and yardage ranging from 5,500 to 6,900 yards. Terrain is generally flat to rolling with varying fairway widths and few natural or man-made hazards, mostly natural landscaping with some maintenance, tees, and greens are of average to good quality.

MS88 Fair-Replacement Cost $82,500 Per Hole

Simply designed golf course consisting of 9 to 18 holes designed for recreational or occasional golfers; with a par rating of 68 to 72 and yardage ranging from 5,500 to 6,900 yards. Terrain is generally flat with narrow fairways, little maintenance, very few hazards, tees and greens are fair to average quality.

MS89 Par3-Replacement Cost $45,000 Per Hole

Non-regulation golf course, consisting of 9 to 18 holes located on 25 to 50 acres, 1,800 to 2,500 yards long, par 27 to 54, terrain is rolling to flat, tees, greens and fairways range from fair to good quality, maintenance varies based on private or public play.

Commercial Depreciation Tables

Commercial Depreciation Codes are defined by three characters. All commercial depreciation codes start with character “C”. The second position character denotes “Condition”. The last character position identifies “Construction Type”. Codes are defined as:

Condition	**Construction Type**
E--Excellent	W--Wood Frame
G--Good	R--Fire Resistant
A--Average	P--Fire Proof
F--Fair	
P--Poor	
U--Unsound	

Fireproof Construction

AGE	CEP	CGP	CAP	CFP	CPP	CUP
1	0	0	0	1	2	90
2	0	1	2	2	2	90
3	0	2	3	4	5	90
4	1	3	5	7	8	90
5	1	4	6	8	10	90
6	2	5	8	10	12	90
7	2	6	10	12	14	90
8	3	8	12	14	16	90
9	3	9	14	16	18	90
10	4	10	15	18	20	90
11	4	10	16	19	22	90
12	5	11	17	20	23	90
13	5	12	18	21	24	90
14	6	13	20	23	25	90
15	6	14	21	24	26	90
16	7	15	22	25	27	90
17	7	15	23	26	28	90
18	8	16	24	27	29	90
19	8	17	25	28	30	90
20	9	18	26	29	32	90
21	9	18	27	30	33	90
22	10	19	28	31	34	90
23	10	20	29	33	36	90
24	11	21	30	34	37	90
25	12	22	31	35	39	90
26	12	22	32	36	40	90
27	13	23	33	37	41	90
28	13	24	34	38	42	90
29	14	25	35	39	43	90
30	14	25	36	41	45	90
31	15	26	37	42	46	90
32	15	27	38	43	47	90
33	16	28	39	44	49	90
34	16	28	40	45	50	90
35	17	29	40	46	51	90
36	17	29	41	47	52	90
37	18	30	41	47	53	90

AGE	CEP	CGP	CAP	CFP	CPP	CUP
38	18	30	42	48	54	90
39	19	31	42	48	55	90
40	19	31	43	48	56	90
41	20	32	44	49	57	90
42	20	33	45	49	58	90
43	21	34	46	50	59	90
44	21	34	46	50	60	90
45	22	35	47	51	60	90
46	22	35	47	51	61	90
47	23	36	48	52	62	90
48	23	36	48	52	63	90
49	24	37	49	53	64	90
50	24	37	50	53	64	90
51	25	38	50	54	65	90
52	25	38	51	54	65	90
53	26	39	51	55	66	90
54	26	39	52	56	67	90
55	27	40	52	56	67	90
56	27	40	53	57	68	90
57	28	41	53	58	68	90
58	28	41	54	58	69	90
59	29	42	54	59	69	90
60	30	43	55	60	70	90

Fire Resistant Construction

AGE	CER	CGR	CAR	CFR	CPR	CUR
1	0	1	2	3	4	90
2	1	2	3	5	6	90
3	1	3	5	6	8	90
4	2	5	7	8	10	90
5	3	6	9	10	12	90
6	3	7	10	12	14	90
7	4	8	12	14	16	90
8	5	10	14	16	18	90
9	5	11	16	18	20	90
10	6	12	17	19	22	90
11	7	13	19	21	24	90
12	7	14	21	23	26	90
13	8	15	22	24	27	90
14	9	16	23	25	29	90
15	9	17	24	26	30	90
16	10	18	25	27	32	90
17	11	19	27	28	34	90
18	11	20	28	30	35	90
19	12	21	29	31	37	90
20	13	22	30	32	38	90
21	13	22	31	34	40	90
22	14	23	32	35	42	90
23	15	24	33	36	43	90
24	15	25	34	37	44	90
25	16	26	35	38	45	90
26	17	27	36	39	46	90
27	17	27	37	40	48	90
28	18	28	38	42	49	90
29	19	29	39	43	51	90
30	19	30	40	44	52	90
31	20	31	41	45	53	90
32	20	31	42	46	54	90
33	21	32	43	47	55	90
34	22	33	44	48	57	90
35	22	34	45	49	58	90
36	23	35	46	50	59	90
37	23	35	47	51	60	90

AGE	CER	CGR	CAR	CFR	CPR	CUR
38	24	36	48	52	61	90
39	24	37	49	52	62	90
40	25	37	49	53	63	90
41	25	38	50	54	64	90
42	26	38	50	55	65	90
43	26	39	51	56	65	90
44	26	39	52	56	66	90
45	27	40	52	57	66	90
46	27	40	53	58	67	90
47	28	41	53	58	67	90
48	29	42	54	59	68	90
49	29	42	54	59	69	90
50	30	43	55	60	70	90

Wood Frame Construction

AGE	CEW	CGW	CAW	CFW	CPW	CUW
1	0	2	3	4	4	90
2	1	3	5	6	7	90
3	1	4	7	8	9	90
4	2	6	9	10	11	90
5	3	7	11	12	14	90
6	3	8	13	14	16	90
7	4	10	15	16	18	90
8	5	11	17	18	20	90
9	5	12	19	20	23	90
10	6	14	21	22	25	90
11	7	15	22	24	27	90
12	7	16	24	26	30	90
13	8	17	26	28	32	90
14	9	19	28	30	34	90
15	9	19	29	31	36	90
16	10	21	31	32	38	90
17	11	22	33	35	40	90
18	11	23	34	36	42	90
19	12	24	35	37	44	90
20	13	25	36	38	45	90
21	13	25	37	39	47	90
22	14	26	38	40	49	90
23	15	27	39	42	51	90
24	15	28	40	44	52	90
25	16	29	42	45	53	90
26	17	30	43	46	55	90
27	17	31	44	47	56	90
28	18	32	45	48	57	90
29	19	33	46	49	59	90
30	19	33	47	51	60	90
31	20	34	48	52	61	90
32	20	35	49	53	62	90
33	21	36	50	54	63	90
34	22	37	51	55	64	90
35	22	37	51	56	65	90
36	23	38	52	57	66	90
37	23	38	53	58	67	90

AGE	CEW	CGW	CAW	CFW	CPW	CUW
38	24	39	54	59	68	90
39	24	39	54	59	69	90
40	25	40	55	60	70	90
41	25	40	55	60	70	90
42	26	41	55	60	70	90
43	26	41	55	60	70	90
44	26	41	55	60	70	90
45	27	41	55	60	70	90
46	27	41	55	60	70	90
47	28	42	55	60	70	90
48	29	42	55	60	70	90
49	29	42	55	60	70	90
50	30	43	55	60	70	90

Income Approach to Commercial & Industrial Income-Producing Property

Income Approach to Value

The income approach to value is based on the principle that the value of an investment property reflects the quality and quantity of the income it is expected to generate over its life. In other words, the market value is the estimated present value of future benefits (income and proceeds from the future sale of the property). The model used to estimate the value of expected future income is known as the IRV formula.

Net Operating **I**ncome/Capitalization **R**ate = **V**alue
I/R = V

Net Operating Income is an estimate of the property's earning capacity, free from debt and before income taxes. First, gross annual rent from comparable rental real estate is examined and is used to determine what the subject property should earn (Potential Gross Rent). There must be a distinction made between market rent, or the rent that the property is expected to produce on the open market, and contract rent, or rent which the property is actually realizing at the time of the appraisal due to lease terms established at some point in the past. From the Potential Gross Rent is subtracted a reasonable vacancy and collection loss, as well as expenses required to operate the property (except ad valorem taxes). Any other miscellaneous income is added.

Capitalization is the process of determining the present value of the expected future income. In simplest form, capitalization is the division of the present income by the appropriate rate of return to estimate the value of the income stream. It does include a percentage for ad valorem taxes.

The IRV formula is the general model used as the basis for all applications of the income approach. To use the model to estimate value, the income and capitalization rate must be estimated. Income is the annual Net Operating Income expected for the property being appraised. The rate is the capitalization rate appropriate for the subject property as of the appraisal date. Direct Capitalization is considered the most appropriate for mass appraisal purposes and uses only two numbers: annual income and a capitalization rate.

The income approach to value applies several economic principles:

- Supply & Demand – Oversupply leads to lower prices; high demand leads to higher prices.
- Anticipation – Demand is influenced by the potential for future benefits.
- Substitution – Demand is influenced by the price of potential substitutes.
- Competition – The attempt of two or more parties to buy or sell similar commodities influences the rate of return on invested capital.

Application of the Income Model

Income and expense models are developed for each property type to cover the range of income-producing properties in Chatham County.

Market income is developed on the net square foot or unit basis. Potential Gross Income is adjusted for market vacancy and collection loss to produce an Effective Gross Income. Income and vacancy factors may be adjusted for individual properties.

Expenses for management and marketing, maintenance, utilities, reserve for replacement, property taxes and other operating expenses are specified as a percentage of Effective Gross Income. Expenses are deducted from Effective Gross Income to generate a Net Income, which is then capitalized using direct capitalization.

Even though these Income and Expense Models are a guide for each type of property, these parameters may be adjusted for lower or higher risk properties through an override of the indicated model rates.

Property qualifying for Section 42 tax credit will be appraised in accordance with North Carolina General Statute 105-277.16. This requires the use of the income approach to value and requires the appraiser to consider rent restrictions in its application.

Income Model Attributes

Property Type	Annual/Monthly Income per Square Foot	Rate per Room, Bed or Unit	Vacancy	Operating Expenses	Direct Capitalization Rate
Apartment		$400-$3,500	3%-20%	3%-50%	5%-12%
Hotel		$75 -$250	25%-50%	5%-75%	8%-12%
Retail Shops/Grocery Store	$5-$30		5%-20%	20%-50%	5%-12%
Discount Store	$2.50-$12		3%-5%	25%-50%	6%-11%
Office	$5-$40		3%-15%	20%-50%	6%-11%
Convenient Store	$5-$45		5%-10%	10%-50%	7%-12%
Restaurant	$4-$40		1%-10%	25%-50%	6%-12%
Manufacturing/Warehouse	$1-$10		5%-15%	25%-65%	7%-12%
Manufactured Home Park		$200-$350/Month	5%-10%	25%-40%	7%-11%
Mini Storage		$40-$150/Month	10%-25%	20%-40%	6%-11%
Service Shop/Service Garage	$3-$20		5%-10%	15%-50%	6%-11%
Franchise Drug Store	$15-$30		3%-5%	10%-20%	5%-9%
Franchise Restaurant	$15-$45		1%-3%	15%-25%	5%-9%
Franchise Retail	$6-$25		5%-10%	10%-25%	5%-10%
Medical Office	$10-$50		5%-10%	20%-45%	6%-10%
Motels		$50-$150	35%-50%	50%-75%	8%-12%
Nursing Home		$1100-$1600/Month	5%-10%	40%-70%	7%-11%
Office/Warehouse	$5-$20		5%-10%	20%-50%	6%-11%
Shopping Center/Mall	$8-$30		5%-10%	25%-60%	6%-11%

SECTION 42 LOW-INCOME HOUSING

North Carolina General Statute # 105-277.16

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

General Application

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

Analyze the actual income stream; apply expense ratios, capitalization rates, and Gross Rent Multipliers (GRM) developed for use in the 2025 Chatham County Revaluation Project.

Standardized Operating Expenses & Vacancy Rates

Operating Expenses

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

Vacancy Rates

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

Reserve for Replacements

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

Capitalization Rate

A range of capitalization rates from 6% to 7.5% have been adopted for use in Section 42 low-income housing.

SAMPLE INCOME APPROACH APPRAISAL

SECTION 42 LOW INCOME HOUSING

(G.S. 105-277.16)

100 UNIT APARTMENT COMPLEX @ $450 PER MONTH BASE RENT

POTENTIAL GROSS INCOME (100 x $450 x 12 MONTHS)	**$ 540,000**
VACANCY (3%)	**(-) $ 16,200**
OTHER INCOME	
EFFECTIVE GROSS INCOME	**$ 523,800**
OPERATING EXPENSES (50%)	**(-) $ 288,090**
RESERVE FOR REPLACEMENTS (5%)	**(-) $ 26,190**
NET OPERATING INCOME	**$ 209,520**
CAPITALIZATION RATE (7.5%)	**{.075}**
APPRAISED VALUE	**$2,793,600**
VALUE PER UNIT (ROUNDED)	**$27,936**

.

Land Section

Appraisal of Land

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

1. An estimate of land value is required in the application of the Cost Approach.
2. An estimate of land value is required to be deducted from the total property selling price in order to derive indications of depreciation through market-data analysis. Depreciation here is defined as the difference between the replacement cost of a structure and the actual price paid in the market for the structure.
3. Since land may or may not be used to its highest potential, the value of a tract of land may be completely independent of the existing improvements located on it.

All of the land in the county has been appraised on a per lot, per square foot, or per acre basis. Base values have been established for each type of land unit based on market analysis and use value analysis for land considered to have agricultural, horticultural, or forestry use.

In appraising land, we try to establish the relative desirability of each lot compared to that of other parcels in the neighborhood or appraisal area. The final value of a specific unit may be adjusted up or down from its base value. When adjusting land rates, we have considered the fact that the same condition may reduce the value on one site and enhance a different site. For example, a rocky ledge usually reduces the value of a business location but may enhance a residential site. A slight hollow is sometimes an asset, as it may reduce excavation costs, but in many instances it is a liability. A list of common adjustments follows later in this section.

Approaches to Land Value

There are six recognized methods for appraising land. Not all approaches are applicable to every type of property and the method(s) used may be determined by the availability of sales data. Chatham County uses all six as appropriate when performing appraisals.

The Market (or Sales Comparison) approach compares the subject property with vacant land that has recently sold and makes adjustments for differences between the subject and comparable property. When performing mass appraisal on land using the market approach, the appraiser can apply either of two methods:

- The Base-Lot method, in which the appraiser determines the attributes and value of a typical property in the market area and then uses it as a benchmark for other properties, which may be adjusted up or down. This is most frequently seen in subdivisions where most lots are similar in size, shape, and desirability.
- The Comparative Unit method, where land is divided into categories (for example, by zoning or use) and sales data is used to calculate a mean or median price per unit. This is more common in rural or commercial areas where parcels vary widely in size.

The Abstraction approach is related to the Cost approach to value. In this case, the comparable sales are for land with improvements. The depreciated cost of the improvements is removed from the sale price, and the remaining balance is indicative of the land value. This is most appropriate when improvements are relatively new with little depreciation observed.

The Allocation approach is based on the economic principle of balance, which states that the value of land has a logical relationship to the value of improved property. In this case a total value is determined, and a portion is then assigned to the land. This is typically 15-35% in newer residential neighborhoods but may be higher in older ones or in neighborhoods that have features that would significantly enhance the land value such as golf courses or water.

The abstraction and allocation methods are most frequently used in subdivisions which are fully developed with few or no vacant lots.

Capitalization of Ground Rent is related to the Income method of appraisal and converts a projected income stream into an indication of value. Market rents are used to calculate a new income amount which is divided by a capitalization rate to determine the market value.

Land Residual Capitalization is similar to the Allocation approach. Here, the calculated net income stream is divided between the land and improvements, with a separate capitalization rate used to determine the market value of land.

The Anticipated Use (Development) method uses the projected sale price of developed lots to determine a total value for a tract of land, then deducts the cost of development to appraise the raw land in its current state.

Factors Determining Base Acreage Values

1. Location of Property
    a. Relation of the tract to high or low urban, commercial, or industrial development areas, or to farming and rural areas
    b. Access to roads and highways
    c. Overall desirability
2. Land Characteristics
    a. Topography (level or rolling, high or low)
    b. Physical Characteristics
        i. Open Land (cultivated, pasture, orchards)
        ii. Woodland
        iii. Wasteland (swamps, gullies, floodplain)
3. Market Value
    a. Actual sales prices of comparable properties, marketed as an arm's length transaction
    b. Highest and best use
    c. Supply and demand
4. Size and Shape of Tract
    a. The shape of the tract can have a positive or negative effect on value.
    b. Depending upon market reaction, acreage in some cases sells for less per acre as the size of the tract increases, with all other amenities being the same. In other situations, acreage may sell for more per acre as the size of the tract decreases. This is often the case in areas experiencing high levels of development activity. The higher price per acre is primarily attributed to the reduction in time and money spent by a developer compared to assembling many small, separate tracts to achieve comparable development potential.

Unsuitable Soil For Septic

If a lot is not connected to public water/sewer, and an alternative septic system cannot be installed, the lot value may be reduced. Alternative septic systems continue to be designed that make many previously unbuildable sites financially feasible to develop. The specific reduction amount may vary based on the base lot value and incorporates the cost to cure the deficiency. Proof that the lot cannot support an onsite septic system must be provided by the owner. The adjustment will be removed if public sewer access becomes available, or a septic system is installed.

Accessibility

Access to each parcel via a paved road, public or private, is assumed in the base land values. This may include an easement across another property that ends at a paved road. When a parcel is accessed by a dirt or gravel road, is landlocked, or when a mapped road has not been built and only exists on paper, an appropriate adjustment may be applied.

Undesirable Topography

When unit values are established, it is assumed that the land is reasonably level and free from any physical encumbrances. When the final field inspection of each parcel is made, due consideration is given to any undesirable features which would normally be removed, such as depressions, ledges, hills, slopes, flood zones, wetlands, or easements. Consideration is also given to odd shapes, excessive depths, or any features which would ordinarily detract from the normal value.

Land Types and Descriptions

B	Primary	Primary Site—site for possible construction of buildings.
B1	Primary w/ Public Water	Primary Site—same as above but with public water available to site.
S	Secondary	Secondary Site—restricted site for possible construction of buildings. Example; the site of second house located behind the main house on a particular parcel.
S1	Secondary w/Public Water	Secondary Site—Secondary Stie—same as above but with public water available to the site.
U	Undeveloped	Land that is either being actively developed, being prepared for development, or the highest and best use is suitable for and likely to be developed in the near future. Typically located in suburban areas with many active subdivisions and concentrated population centers but can also be found in rural areas with extra road frontage or pocket areas of construction. Public water and sewer are preferred but is not a requirement.
R	Residual	Land with nominal value, typically land which only has value relative to its contribution to the overall parcel value. Example: an improved parcel which consists of 1.25 acres, one parcel will be classified as a Primary Site with the remaining .25 acres priced as residual land.
LU	Land Use	Land segment used for descriptive purposes to identify quantities of land for reference. Example: can be used to identify the number of Agricultural Land Use acres in a given land segment.
CA	Open Space	Allocation of value to individual properties located in townhouse or condominium developments. Value includes interest in all common areas, e.g. parking areas, Pools, tennis courts, etc…
CT	Cell Tower	Land that has a cell tower placed on it.
ZV	Zero Value	Land segment used for descriptive purposes to identify quantities of land for Reference. Example: can be used to identify the number of Agricultural Land Use Acres in a given land segment.

W	Wasteland	Land which is unsuitable for any practical use. Example: land located under the waters of a river.
WF	Waterfront	Land which directly adjoins a lake and refers to residential, Commercial and Industrial Improved Building Sites as well as Undeveloped Lots and Acreage tracts.
GC	Golf Course	Course Land—land that is used for golf course, not including club house or extra amenities.
AP	Apartment Improved	Apartment Building Site—includes cost typical site preparations, landscaping and water and sewer access.
CB	Commercial Improved	Commercial Building Site—includes cost of typical site preparation, landscaping and water and sewer system access.
CS	Commercial Secondary	Commercial Building Site—includes cost of minimal site preparation, landscaping, and water and sewer service.
CR	Commercial Residual	Commercial land which has nominal value, typically land which only has value relative to its contribution to the overall parcel value.
CU	Commercial Undeveloped	Vacant Commercial Land which is suitable in size, zoning and location for for commercial development.
IB	Industrial Improved	Industrial Building Site—includes cost of typical site preparation, landscaping and water and sewer system access.
IS	Industrial Secondary	Industrial Secondary Site—includes cost of minimal site preparation, landscaping, and water and sewer service.
IU	Industrial Undeveloped	Vacant Industrial Land which is suitable in size, zoning and location for industrial development.
IR	Industrial Residual	Industrial land which has nominal value, typically land which only has value relative to its contribution to the overall parcel value.

Land Influence Factors

The technique of land pricing provides for the development of unit land rates for all classes of real property within a given area or neighborhood. It is significant to point out that assigned land rates are based on typical or normal conditions for that class of property and land type within a specific neighborhood or area. It is likely that some number of specific parcels within an area or neighborhood, will have unique factors affecting the value of that land parcel. These "Land Influence Factors" may affect the value of a specific parcel in either a positive or negative manner in relation to value resulting in an increase or reduction to the value assigned for that particular area or neighborhood.

Land Influence Factor Guidelines

Topography

This category allows the reviewer's judgement of the degree of difficulty due to poor topography in erecting a suitable improvement on the subject parcel.

Normally if a suitable improvement is present on the subject lot, the topography problem has been corrected. Therefore, an improved lot normally should have no allowance for topography. However, a topography influence may need to be applied in significant cases of un-improved lots or tracts where poor topography represents an actual detriment to the presumed utilization of the parcel

Topography factors include irregular land contour, poor drainage, potential subsidence, sub-surface rock ledge, potential erosion, and flood plain areas.

Topography Influence Factor Guide

Condition		Factor
Normal	Problem corrected or not significant.	None
Slight	Problem is moderate handicap to full utilization of the lot but is correctable. The lot is buildable but less desirable than typical lots in the area due to topography problems.	10%-25%
Moderate	Problem is significant but correctable in that it prevents the development of the lot until the topography problem is corrected.	25%-75%
Severe	The topography problem is so severe it is not economically feasible to develop the lot.	75%-90%

Shape or Size

Shape or size factor is normally a negative adjustment to account for loss of value to a parcel due to highly irregular shape or insufficient size for the presumed utilization of the parcel.

Shape or size factor is a review judgement and may apply to all land types. The basis for any factor is a negative adjustment reducing the subject lot value to the amount and degree of land utility applicable for the presumed utilization.

Shape or Size Influence Factor Guide

Condition		Factor
Normal	Shape or size is not a significant detriment to the presumed utilization of the parcel.	None
Minor	The lot is buildable and/or economically usable for the presumed utilization but irregular shape or insufficient size precludes the full utilization of the parcel.	10%-25%
Moderate	Irregular shape or insufficient size represents a significant handicap to the presumed utilization and/or development of the land category is restricted to a significant under improvement or under utilization of the parcel.	25%-75%
Un-Buildable	The shape or size problem is so severe that it renders the land category unusable and/or unbuildable for the presumed utilization.	75%-90%

Restrictions

A negative land influence adjustment for restrictions is applicable for cases where the property is subject to a legal or physical restriction to its utilization. Typical examples would include utility easements such as power lines and sewer lines. Zoning or deed restrictions to the property, limiting the utilization to a less than normal use for typical lots in the neighborhood.

Physical barriers to the property such as bridges, highway medians, fences or abutments.

Restrictions Influence Factor Guide

Condition		Factor
Normal	No significant restriction to the property exists.	None
Minor	A restriction of moderate significance, legal or physical, exists which causes the property to be less desirable than similar lots in the area which are not subject to this restriction but does not prevent utilization of the property for the presumed use.	10%-25%
Moderate	A restriction of major significance, legal or physical, exists which causes the property to be restricted to a less than full utilization compared to similar lots in the area, which are not subject to this restriction. An example would be power lines bisecting the lot which prevent the building of a dwelling but would be suitable for a garage or secondary structure.	25%-75%
Un-Buildable	A restriction of very severe impact, legal or physical, exists which causes the property to be rendered virtually un-buildable or unusable for any significant utilization compared to similar lots in the area which are not subject to this restriction. An example would be a lot rendered non-accessible by a highway right-of-way.	75%-90%

Economic Mis-Improvement

This category is reserved as a reviewer's judgement of the comparative loss of value to land (either under-improvement or over-improvement). In essence, this judgement is expressing the appraiser's opinion that the existing structure represents an encumbrance to the full utilization of the land.

The application of a mis-improvement factor for Residential/Agricultural property is possible buy very rare. Most instances occur in commercial or industrial situations where market evidence indicates a different economic utilization of the land than the current utilization. It is important to recognize in the application of economic mis-improvement factors that the land is presumed to be valued on the bases of typical "highest and best" utilization and the existing structure is non-contributory to this most economical utilization. Obviously, vacant tracts are not encumbered by any structure, therefore, vacant tracts are not subject to economic mis-improvement factors. Further, the appraiser should recognize that the economic mis-improvement condition is "curable"; i.e., if the structure is removed, the previously applied economic mis-improvement factor is normally no longer applicable.

Examples would include; Dwellings in areas converting to commercial development, or gross under-improvement, as an old warehouse located in an area where market evidence indicates modern office complex development.

Economic Mis-Improvement Factor Guide

Condition		Factor
Normal	The property is unimproved (No major structures present) or the existing structure is consistent with the economical utilization of the land	None
Minor	The land is encumbered with a structure that represents an economic mis-improvement and the structure has an assigned value of 25% to 50% of the land value at highest and best use.	25%-50%
Major	The land is encumbered with a structure that represents an economic mis-improvement and the structure has an assigned value of 50% or more of land value at the highest and best use.	50%-75%

Corner and/or Alley Influence

This category is reserved for the recognition of the enhancement in land value attributable to the potential utilization of a corner lot, over and above the value of an otherwise comparable inside lot. The enhancement due to the presence of a rear or side alley is normally common to all lots in a given area or block. Therefore, the recommended procedure for enhancement due to alley influence, if any, is to consider this factor in the land rate itself.

Normally, corner influence is not applicable to Residential/Agricultural property. Corner influence factors should be applied to only cases of commercial or industrial property where the corner is an actual enhancement to the land. The amount of enhancement, if any, to a corner lot must be based on the individual merits of each corner location.

Corner and/or Alley Influence Factor Guide

Condition		Factor
Normal	The presence of a corner or alley has no significant enhancement effect to the property. Example: the side street has restricted access as a dead-end street.	None
Minor	The lot value is moderately enhanced by the presence of corner or alley exposure. Example: intersection of two secondary streets or a major arterial street and a secondary street.	10%-25%
Major	The lot value is significantly enhanced by the presence of corner or alley exposure. Example: the intersection of two major arterial streets.	25%-100%

View Influence

This factor is normally a positive adjustment for lots or parcels where the land value is significantly enhanced by the presence of a scenic or waterfront view when compared to similar lots in the area where no significant view is present. This factor also applies to golf course lots.

It is highly recommended that the appraiser exercise due caution in the application of view influence. It is useful to remember that while the subject may have an appealing view, if this condition is common to most parcels in the area, then comparatively there is probably no real view enhancement. The appraiser should also consider the permanency of the view, i.e., the probability of potential obstruction.

View Influence Factor Guide

Condition		Factor
Normal	The view is considered common to the area, and market evidence indicates no actual value enhancement exists.	None
Minor	The subject property has a moderate enhancement due to an appealing view, and market evidence, indicates value enhancement exists.	10%-25%

Major	The subject property has a significant enhancement due to an appealing view. Further, the view enhancement is not common to similar lots in the area and there is little or no potential for obstruction of the view by other structures.	25%-100%
Negative	For properties with less than normal or typical views, the appraiser should apply negative factors to the affected properties as indicated by market analysis and evidence.	10%-75%

Base Rate Land Valuation Technique

The Base Rate Land Valuation Technique allows the appraiser to establish land rates using either a price per acre, price per square foot or price per lot for each parcel located within an individual neighborhood unit. This method also allows the appraiser to develop base land size for each land segment type within the neighborhood.

Incremental/Decremental Rates are developed as a percentage of the Base Land Rates to allow for size adjustments for those parcels with either smaller or larger than the indicated base sizes established for the neighborhood. Following are two examples of how these calculations are performed

Example 1:

Neighborhood 0902 North Hickory Mountain

Land Type	Base Size (Acreage)	Base Rate	Decrement Rate	Increment Rate
AC-B	1.00	$ 35,000 Per Acre	$17,500	$35,000
AC-R	20.00	$175,000 Per 20 Acres ($8,750/acre)	$ 8,750	$ 4,375

Subject parcel consists of 50 acres, including; an improved one (1) acre building site, and forty nine (49) acres of residual land. The base rate valuation technique will value the parcel in the following manner:

1 acre Building Site @ $35,000 per acre		$ 35,000
49 acres Residual Land @ $6,160 per acre (average)		$301,875
(20 acres @ $175,000)=	$175,000	
(29 acres@ $4,375)=	$126,875	
Residual Land Value=	$301,875	
Total Appraised Value of Land Value		$336,875

Example 2:

Neighborhood SC002 Pine Forest South

Land Type	Base Size (Acreage)	Base Rate (Per Acre)	Decrement Rate	Increment Rate
AC-B	1.00	$90,000	$45,000	$90,000
AC-R	1.00	$22,500	$22,500	$11,250

Subject parcel consists of an improved lot containing .65 acres located within a prominent neighborhood. The base rate valuation technique will value the parcel in the following manner:

Base Size (-) Subject Size = Residual Size
(1.0 acre) – (0.65 ares) = (0.35 acres)

Residual Size x Decrement = Residual Value
(0.35 acres) x ($45,000/acre = ($15,750)

Base Rate (-) Residual Value = Appraised Value
($90,000/acre) (-) ($15,750) = ($74,250)

Appraised Value/Subject Size = Effective Rate/Acre
($74,250) / (0.65 acres) = ($114,231)

Subject Site x Effective Rate/Acre = Appraised Value
(0.65) acres x ($114,231) = ($74,250)

Total Appraised Value of Land $74,250

Land Schedule

RESIDENTIAL SQUARE FOOT
$0.10 - $750 PER SQUARE FOOT
RESIDENTIAL ACREAGE
$1,000 - $500,000 PER ACRE
RESIDENTIAL LOTS
$1,000 - $500,000 PER LOT

COMMERCIAL SQUARE FOOT
$0.10 - $750 PER SQUARE FOOT
COMMERCIAL ACREAGE
$1,000 - $1,250,000 PER ACRE
COMMERCIAL LOTS
$1,000 - $1,250,000 PER LOT

Solar Farms

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

80% of the appraised value of solar electric systems is excluded as exempt use. Solar Energy Electric System means "all equipment used directly and indirectly for the conversion of solar energy to electricity."

Solar Panels and other equipment shall be valued as business personal property at a rate of 20% of value. The land associated with this equipment will be valued at a range of $10,000 to $30,000 per acre based on the principal of Highest and Best Use.

Cell Towers

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

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

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

Chatham County, NC
Present Use Value Schedule
January 1, 2025

In Order to comply with the procedures of North Carolina General Statutes 105-317(c) "1" and "2" and 105-277.6(c), Chatham County is required to develop and adopt a land use schedule of values for agriculture, horticulture and forest lands. The purpose of this schedule is to provide a uniform method of valuation based on the present value in use for qualifying lands.

After careful consideration of the available pertinent production statistics for Chatham County, North Carolina and the Use Value Manual for Agricultural, Horticultural and Forest Land prepared by the North Carolina Use Advisory Board, the following schedule of values is recommended as the standard for present use taxation for the 2025 Chatham County, North Carolina Reappraisal.

Land Use Valuation Schedule

Agricultural Schedule (Rate Per Acre)

UA	All Soils	$645

Horticultural Schedule (Rate Per Acre)

UH	All Soils	$890

Forestry Schedule (Rate Per Acre)

UW	All Soils	$260

Rates shown are price per acre.
In Lieu of detailed soil maps, the rate per class will be applied countywide.

General Classification of Real and Tangible Personal Property

Manufactured Homes

North Carolina General Statute 105-273 includes in the definition of Real Property all land, buildings, structures, improvements, and permanent fixtures on land. Manufactured Homes are to be listed as real estate if they meet all three of the following conditions:

- The building is a residential structure;
- The wheels, axles, and hitch ("tongue") have been removed;
- The home has a permanent foundation, and is located on property owned by the same person or entity as the home. This condition may also be met if the owner of the home has a leasehold interest with a primary term of at least 20 years, and the lease makes the provision for the disposition of the home at such time as the lease is terminated.

Real Property and Business Personal Property

The following list is a guide to which improvements are typically classified as real property and which should be listed as Business Personal Property in accordance with North Carolina General Statute 105-274 and 105-275(16). This list should not be considered comprehensive, and serves only as a guideline. Final decisions may be made on a case-by-case basis, as needed. Care should be taken to ensure that improvements are not listed as both real and personal property in the same fiscal year. Property owners are encouraged to contact the Chatham County Tax Department at (919) 542-8250 for questions concerning classification of assets.

General Classification of
Real and Tangible Personal Property

Real	Personal	Asset
XX		Air Conditioning – Building
	XX	Air Conditioning – Manufacturing/Product
	XX	Air Conditioning – Window Units
	XX	Airplanes
	XX	Alarm Systems (Security) and Wiring
	XX	Alarm Systems (Fire) and Wiring – Computer Room in Office Building
XX		Alarm Systems (Fire) and Wiring – Required by Code; Data Center
	XX	Asphalt Plants & Equipment
	XX	ATM – All Equipment & Self-standing Booths
XX		Auto Exhaust Systems for Building
	XX	Auto Exhaust Systems for Equipment
	XX	Awnings
	XX	Balers (Paper, Cardboard, etc.)
	XX	Bank Teller Counters & Lockers – Movable or Built-In
	XX	Bank Night Depository
	XX	Bar and Bar Equipment – Movable or Built-In
XX		Bathroom Fixtures - All
XX		Barns
	XX	Billboards
	XX	Boats & Motors – All
XX		Boiler – For Service of Building
	XX	Boiler – Primarily for Process
	XX	Bookcases – Movable or Built-In
	XX	Bowling Alley Lanes
	XX	Broadcasting Equipment
	XX	Cabinets (All Other)
	XX	Cable TV Distribution Systems
	XX	Cable TV Equipment & Wiring
	XX	Cable TV Subscriber Connections
	XX	Camera Equipment
	XX	Canopies – Fabric, Vinyl, Plastic
XX		Canopies – General
XX		Canopy Lighting

Real	Personal	Asset
	XX	Car Wash – All Equipment, Filters, and Tanks
XX		Carpet – Installed
	XX	Catwalks
	XX	Cement Plants
	XX	Chairs – All Types
	XX	CIP Equipment
	XX	Closed Circuit TV
	XX	Cold Storage – Equipment, Rooms, Partitions
	XX	Compressed Air or Gas Systems (Other than Building Heat)
	XX	Computer Room A/C
	XX	Computer Room Raised Floor
	XX	Computer Scanning Equipment
	XX	Computer and Data Lines
	XX	Concrete Plants
	XX	Construction and Grading Equipment
	XX	Control Systems – Building & Equipment
	XX	Conveyor & Material Handling Systems
	XX	Coolers – Walk-In or Self-Standing
XX		Cooling Towers – Primary Use for Building
	XX	Cooling Towers – Primary Use in Manufacturing
	XX	Counters/Reception Desks – Movable or Built-In
	XX	Dairy Processing Plants – All Process Items, Bins, Tanks
	XX	Dance Floors
	XX	Data Processing Equipment – All Items
	XX	Deli Equipment
	XX	Desks – All
	XX	Diagnostic Center Equipment – Movable or Built-In
	XX	Display Cases – Movable or Built-In
XX		Dock Levelers
	XX	Drapes & Curtains, Blinds, Etc.
	XX	Drinking Fountains
	XX	Drive-Thru Windows – All
	XX	Drying Systems – Process or Product
	XX	Dumpsters
	XX	Dust Catchers, Control Systems, etc.
	XX	Electronic Control Systems
XX		Elevators

Real	Personal	Asset
XX		Escalators
	XX	Farm Equipment – All
	XX	Fencing – Inside
XX		Fencing – Outside
	XX	Flagpoles
	XX	Flooring – Raised, Padded, Special Purpose
	XX	Foundations for Machinery & Equipment
	XX	Fountain Structure
	XX	Freight Charges
	XX	Fuels – Not for Sale (List as Supplies)
	XX	Furnaces – Steel Mill Process, etc.
	XX	Furniture & Fixtures
XX		Gazebos & Pergolas
XX		Generator
XX		Golf Course & Improvements (Drainage/Irrigation)
	XX	Grain Bins/Feed Hoppers
XX		Grain Bins (Storage)
XX		Grease Traps
	XX	Greenhouse Benches, Heating System, etc.
XX		Greenhouses – Structure if Permanently Affixed
	XX	Handrails – If Used for Dividing Areas or Decorative
	XX	Heating Systems – Process
	XX	Hoppers – Metal Bin Type
	XX	Hospital Systems, Equipment & Piping
	XX	Hot Air Balloons
	XX	Hotel/Motel – Televisions & Wiring, Movable Furnishings
XX	XX	Hot Tub/Sauna
	XX	Humidifiers – Process
	XX	Incinerators – Equipment and/or Movable
	XX	Industrial Piping – Process
	XX	Installation Cost
	XX	Irrigation Equipment
	XX	Irrigation Equipment – Portable
	XX	Kiln Heating System
	XX	Kilns – Metal Tunnel or Movable
	XX	Laboratory Equipment
XX		Lagoons/Settling Ponds

Real	Personal	Asset
	XX	Laundry Bins
	XX	Law & Professional Libraries
	XX	Leased Equipment – Lessor or Lessee Possession
		Leasehold Improvements (List in Detail Annually)
	XX	Lifts – Other than Elevator
	XX	Lighting – Portable, Movable, Special
XX		Lighting – Yard Lighting, Canned Lighting
	XX	Machinery & Equipment
	XX	Medical Equipment
	XX	Mezzanines – For Parts or Storage (Metal Racking)
	XX	Milk Handling – Milking, Cooling, Piping, Storage
	XX	Millwork
XX		Mineral Rights
	XX	Mirrors (Other than Bathroom)
	XX	Molds
	XX	Monitoring Systems – Building or Equipment
	XX	Netting – Driving Range
	XX	Newspaper Stands
	XX	Office Equipment – All
	XX	Office Supplies (List as Supplies)
	XX	Oil Company Equipment – Pumps, Supplies, etc.
	XX	Ovens – Processing/Manufacturing
	XX	Overhead Conveyor System
	XX	Package & Labeling Equipment
	XX	Paging Systems
	XX	Paint Spray Booths
	XX	Painting – No Added Value
	XX	Partitions
XX		Paving
	XX	Piping Systems – Process Piping
	XX	Playground Equipment – All
	XX	Pneumatic Tube Systems
	XX	Portable Buildings/Storage Sheds
	XX	Power Generator Systems (Auxiliary, Emergency, etc.)
	XX	Power Transformers – Equipment
	XX	Public Address Systems (Intercom, Music, etc.)
XX		Railroad Sidings (Other than Railroad-owned)

Real	Personal	Asset
	XX	Refrigeration Systems – Compressors, etc.
XX		Repairs – Building
	XX	Repairs – Equipment (50% Cost)
	XX	Restaurant Furniture (Incl. Attached Floor or Building)
	XX	Restaurant/Kitchen Equip – Vent Hoods, Sinks, etc. (Commercial)
	XX	Returnable Containers
	XX	Roll-up Doors (Inside Wall)
XX		Roll-up Doors (Outside Wall); Storage Unit Roll-up Doors
XX		Roofing
	XX	Room Dividers/Partitions – Movable or Built-In
	XX	Rooms – Self-Contained or Special Purpose (Walls, Ceiling, Floor)
	XX	Safes – Wall or Self-Standing
	XX	Sales/Use Tax
	XX	Satellite Dishes (All Wiring & Installation to TV & Equipment)
XX		Scale Houses (Unless Movable)
	XX	Scales
	XX	Security Systems
	XX	Service Station Equipment – Pumps, Tanks, Lifts, and Related
XX		Sewer Systems
	XX	Sheds (Storage)
	XX	Shelving – Movable or Built-In
	XX	Signs – All Types Including Attached to Building
XX		Silos
XX		Sinks – Bathroom (Includes Medical & Dental Offices)
	XX	Sinks – Kitchen Area
	XX	Software – Purchased from Unrelated 3rd Party & Capitalized
		Software – Custom & Modification Costs for Canned Software (Not Taxable)
	XX	Solar Panels
	XX	Sound Systems & Projection Equipment
	XX	Spare Parts – List as Supplies
	XX	Speakers – Built-In or Freestanding
	XX	Spray Booths
	XX	Sprinkler System – Attached to Product Storage Racks
XX		Sprinkler System – Building/Fire Protection
	XX	Supplies – Office & Other
XX		Swimming Pools

Real	Personal	Asset
	XX	Tanks – All Above & Below Ground
	XX	Telephone Systems & Wiring – Private
	XX	Theatre Screens – Indoor
XX		Theatre Screens – Outdoor
	XX	Tooling, Dies, Molds
	XX	Towers – Microwave, Equipment, Wiring, Foundation, Building & Fencing
	XX	Towers – TV, Radio, CATV, Two-Way Radio, Wiring & FDN
		Towers – Cell Towers & Mobile Communications Equip Owned by Communication Co – State-Assessed
	XX	Trailers – Designed to be Pulled Behind Vehicle
	XX	Trailers – Office or House Type
	XX	Transportation Cost – All
XX		Tunnels – Unless Part of Process System
	XX	Upgrades to Equipment
	XX	Vacuum System – Process
XX		Vault
	XX	Vault Door, Inner Gates, Vents & Equipment
	XX	Vending Machines
	XX	Vent Fans
XX		Ventilation Systems – General Building
	XX	Ventilation Systems – Needed for Manufacturing, Process
	XX	Video Tapes, Movies, Reel Movies
XX		Wall Covering
	XX	Walls – Partitions, Movable & Room Dividers
	XX	Water Coolers – All
	XX	Water Lines – For Process Above or Below Ground
XX		Water System – Residential or General Building
	XX	Water Tanks & System – For Process Equipment
	XX	Whirlpool, Jacuzzi
	XX	Wiring – Power Wiring for Machinery & Equipment

Uniform Standards of Professional Appraisal Practice (USPAP)

Uniform Standards of Professional Appraisal Practice

As promulgated by the Appraisal Standards Board of The Appraisal Foundation

The purpose of the Uniform Standards of Professional Appraisal Practice (USPAP) is to promote and maintain a high level of public trust in appraisal practice by establishing requirements for appraisers. It is essential that appraisers develop and communicate their analyses, opinions, and conclusions to intended users of their services in a manner that is meaningful and not misleading.

The Appraisal Standards Board promulgates USPAP for both appraisers and users of appraisal services. The appraiser's responsibility is to protect the overall public trust and it is the importance of the role of the appraiser that places ethical obligations on those who serve in this capacity. USPAP reflects the current standards of the appraisal profession.

USPAP does not establish who or which assignments must comply. Neither The Appraisal Foundation nor its Appraisal Standards Board is a government entity with the power to make, judge, or enforce law. Compliance with USPAP is required when either the service or the appraiser is obligated to comply by law or regulation, or by agreement with the client or intended users. When not obligated, the individual may still choose to comply.

USPAP addresses the ethical and performance obligations of appraisers through DEFINITIONS, Rules, Standards, Standards Rules, and Statements (there are currently no active Statements).

- The DEFINITIONS establish the application of certain terminology in USPAP
- The ETHICS RULE sets forth the requirements for integrity, impartiality, objectivity, independent judgment, and ethical conduct.
- The RECORD KEEPING RULE establishes the work file requirements for appraisal and appraisal review assignments.
- The COMPETENCY RULE presents pre-assignment and assignment conditions for knowledge and experience.
- The SCOPE OF WORK RULE presents obligations related to problem identification, research, and analyses.
- The JURISDICTIONAL EXCEPTION RULE preserves the balance of USPAP if a portion is contrary to law or public policy of a jurisdiction.
- The Standards establish the requirements for appraisal and appraisal review and the manner in which each is communicated.
    - STANDARDS 1 and 2 establish requirements for the development and communication of a real property appraisal
    - STANDARDS 3 and 4 establish requirements for the development and communication of an appraisal review
    - STANDARDS 5 and 6 establish requirements for the development and communication of a mass appraisal.
    - STANDARDS 7 and 8 establish requirements for the development and communication of a personal property appraisal
    - STANDARDS 9 and 10 establish requirements for the development and communication of a business or intangible asset appraisal.
- There are currently no active Statements on Appraisal Standards.
- Comments are an integral part of USPAP and have the same weight as the component they address. These extensions of the DEFINITIONS, Rules, and Standards Rules provide interpretation and establish the context and conditions for application.

When do USPAP Rules and Standards Apply?

USPAP does not establish who or which assignments must comply. Neither The Appraisal Foundation nor its Appraisal Standards Board is a government entity with the power to make, judge, or enforce law. An appraiser must comply with USPAP when either the service or the appraiser is required by law, regulation, or agreement with the client or intended user. Individuals may also choose to comply with USPAP any time that individual is performing the service as an appraiser. In order to comply with USPAP, an appraiser must meet the following obligations:

- An appraiser must act competently and in a manner that is independent, impartial, and objective.
- An appraiser must comply with the ETHICS RULE in all aspects of appraisal practice.
- An appraiser must maintain the data, information, and analysis necessary to support his or her opinions for appraisal and appraisal review assignments in accordance with the RECORD KEEPING RULE.
- An appraiser must comply with the COMPETENCY RULE and the JURISDICTIONAL EXCEPTION RULE for all assignments.
- When an appraiser provides and opinion of value in an assignment, the appraiser must also comply with the SCOPE OF WORK RULE, the RECORD KEEPING RULE, the applicable development and reporting Standards, and applicable Statements (there are currently no active Statements).
- When an appraiser provides an opinion about the quality of another appraiser's work that was performed as part of an appraisal or appraisal review assignment, the appraiser must also comply with the SCOPE OF WORK RULE, the RECORD KEEPING RULE, applicable portions of STANDARDS 3 and 4, and applicable Statements (there are currently no active Statements).
- When preparing an appraisal or appraisal review that is a component of a larger assignment with additional opinions, conclusions, or recommendations, the appraisal or appraisal review component must comply with the applicable development and reporting Standards and applicable Statements (there are currently no active Statements), and the remaining component of the assignment must comply with the ETHICS RULE, the COMPETENCY RULE, and the JURISDICTIONAL EXCEPTION RULE.

STANDARD 5: MASS APPRAISAL, DEVELOPMENT

In developing a mass appraisal, an appraiser must be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce and communicate credible mass appraisals.

Comment: STANDARD 5 applies to all mass appraisals of real or personal property regardless of the purpose or use of such appraisals. STANDARD 5 is directed toward the substantive aspects of developing and communicating credible analyses, opinions, and conclusions in the mass appraisal of properties. Mass appraisals can be prepared with or without computer assistance. The reporting and jurisdictional exceptions applicable to public mass appraisals prepared for ad valorem taxation do not apply to mass appraisals prepared for other purposes.

A mass appraisal includes:

1) Identifying properties to be appraised;
2) Defining market area of consistent behavior that applies to properties;
3) Identifying characteristics (supply and demand) that affect the creation of value in that market area;
4) Developing a model structure that reflects the relationship among the characteristics affecting value in the market area;
5) Calibrating the model structure to determine the contribution of the individual characteristics affecting value;

6) Applying the conclusions reflected in the model to the characteristics of the property(ies) being appraised; and
7) Reviewing the mass appraisal results.

The JURISDICTIONAL EXCEPTION RULE may apply to several sections of STANDARD 5 because ad valorem tax administration is subject to various state, county, and municipal laws.

Standards Rule 5-1

In developing a mass appraisal, an appraiser must:

(a) Be aware of, understand, and correctly employ those recognized methods and techniques necessary to produce a credible mass appraisal;

Comment: Mass appraisal provides for a systematic approach and uniform application of appraisal methods and techniques to obtain estimates of value that allow for statistical review and analysis of results.

This requirement recognizes that the principle of change continues to affect the manner in which appraisers perform mass appraisals. Changes and developments in the real property and personal property fields have a substantial impact on the appraisal profession.

To keep abreast of these changes and developments, the appraisal profession is constantly reviewing and revising the appraisal methods and techniques and devising new methods and techniques to meet new circumstances. For this reason it is not sufficient for appraisers to simply maintain the skills and the knowledge they possess when they become appraisers. Each appraiser must continuously improve his or her skills to remain proficient in mass appraisal.

(b) Not commit a substantial error of omission or commission that significantly affects a mass appraisal; and

Comment: An appraiser must use sufficient care to avoid errors that would significantly affect his or her opinions and conclusions. Diligence is required to identify and analyze the factors, conditions, data, and other information that would have a significant effect on the credibility of the assignment results.

(c) Not render a mass appraisal in a careless or negligent manner.

Comment: Perfection is impossible to attain, and competence does not require perfection. However, an appraiser must not render appraisal services in a careless or negligent manner. This Standards Rule requires an appraiser to use due diligence and due care.

Standards Rule 5-2

In developing a mass appraisal, an appraiser must:

(a) Identify the client and other intended users;

Comment: It is the appraiser's responsibility to identify the client and other intended users. In ad valorem mass appraisal, the assessor, or party responsible for certification of the assessment or tax roll is required to apply the relevant law or statute and identify the client and other intended users (if any).

(b) Identify the intended use of the appraisal;

Comment: An appraiser must not allow the intended use of an assignment or a client's objectives to cause the assignment results to be biased.

(c) Identify the type and definition of value, and, if the value opinion to be developed is market value, ascertain whether the value is to be the most probable price:

- **i. In terms of cash; or**
- **ii. In terms of financial arrangements equivalent to cash; or**
- **iii. In such other terms as may be precisely defined; and**
- **iv. If the opinion of value is based on non-market financing or financing with unusual conditions or incentives, the terms of such financing must be clearly identified and the appraiser's opinion of their contributions to or negative influence on value must be developed by analysis of relevant market data;**

(d) Identify the effective date of the appraisal

(e) Identify the characteristics of the properties that are relevant to the type and definition of value and intended use, including:

- **i. The group with which a property is identified according to similar market influence;**
- **ii. The appropriate market area and time frame relative to the property being valued; and**
- **iii. Their location and physical, legal, and economic characteristics;**

Comment: The properties must be identified in general terms, and each individual property in the universe must be identified, with the information on its identity stored or referenced in its property record.

When appraising proposed improvements, an appraiser must examine and have available for future examination, plans, specifications, or other documentation sufficient to identify the extent and character of the proposed improvements.

Ordinarily, proposed improvements are not appraised for ad valorem tax. Appraisers, however, are sometimes asked to provide opinions of value of proposed improvements so that developers can estimate future property tax burdens. Sometimes units in condominiums and planned unit developments are sold with an Interest in un-built community property, the pro rata value of which, if any, must be considered in the analysis of sales data.

(f) Identify the characteristics of the market that are relevant to the purpose and intended use of the mass appraisal, including:

- **i. Location of the market area;**
- **ii. Physical, legal, and economic attributes;**
- **iii. Time frame of market activity; and**
- **iv. Property interests reflected in the market;**

(g) In appraising real property or personal property;

- **i. Identify the appropriate market area and time frame relative to the property being valued;**
- **ii. When the subject is real property, identify and consider any personal property, trade fixtures, or intangibles that are not real property but**

are included in the appraisal;

iii. **When the subject is personal property, identify and consider any real property or intangibles that are not personal property but are included in the appraisal;**

iv. **Identify known easements, restrictions, encumbrances, leases, reservations, covenants, contracts, declarations, special assessments, ordinances, or other items of similar nature; and**

v. **Identify and analyze whether an appraised fractional interest, physical segment or partial holding contributes pro rata to the value of the whole;**

Comment: The above requirements do not obligate the appraiser to value the whole when the subject of the appraisal is a fractional interest, physical segment, or a partial holding. However, if the value of the whole is not identified, the appraisal must clearly reflect that the value of the property being appraised cannot be used to develop the value opinion of the whole by mathematical extension.

(h) Analyze the relevant economic conditions at the time of the valuation, including market acceptability of the property and supply, demand, scarcity, or rarity;

(i) Identify any extraordinary assumptions and any hypothetical conditions necessary in the assignment; and

Comment: An extraordinary assumption may be used in an assignment only if:

- It is required to properly develop credible opinions and conclusions;
- The appraiser has a reasonable basis for the extraordinary assumption;
- The use of the extraordinary assumption results in a credible analysis; and
- The appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

A hypothetical condition may be used in an assignment only if:

- Use of the hypothetical condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison.
- Use of the hypothetical condition results in a credible analysis, and
- The appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

(j) Determine the scope of work necessary to produce credible assignment results in accordance with the SCOPE OF WORK RULE.

Standards Rule 5-3

When necessary for credible assignment results, an appraiser must:

(a) In appraising real property, identify and analyze the effect on use and value of the following factors: existing land use regulations, reasonably probable modifications of such regulations, economic supply and demand, the physical adaptability of the real estate, neighborhood trends, and highest and best use of the real estate; and

Comment: This requirement sets forth a list of factors that affect use and value. In considering neighborhood trends, an appraiser must avoid stereotyped or biased assumptions

relating to race, age, color, gender, or national origin or an assumption that race, ethnic, or religious homogeneity is necessary to maximize value in a neighborhood. Further, an appraiser must avoid making an unsupported assumption or premise about neighborhood decline, effective age, and remaining life. In considering highest and best use, an appraiser must develop the concept to the extent required for a proper solution to the appraisal problem.

(b) In appraising personal property: identify and analyze the effects on use and value of industry trends, value-in-use, and trade level of personal property. Where applicable, analyze the current use and alternative uses to encompass what is profitable, legal, and physically possible, as relevant to the type and definition of value and intended use of the appraisal. Personal property has several measurable marketplaces; therefore, the appraiser must define and analyze the appropriate market consistent with the type and definition of value.

Comment: The appraiser must recognize that there are distinct levels of trade and each may generate its own data. For example, a property may have a different value at a wholesale level of trade, a retail level of trade, or under various auction conditions. Therefore, the appraiser must analyze the subject property within the correct market context.

Standards Rule 5-4

In developing a mass appraisal, an appraiser must:

(a) Identify the appropriate procedures and market information required to perform the appraisal, including all physical, functional, and external market factors as they may affect the appraisal;

Comment: Such efforts customarily include the development of standardized data collection forms, procedures, and training materials that are used uniformly on the universe of properties under consideration.

(b) Employ recognized techniques for specifying property valuation models; and

Comment: The formal development of a model in a statement or equation is called model specification. Mass appraisers must develop mathematical models that, with reasonable accuracy, represent the relationship between property value and supply and demand factors, as represented by quantitative and qualitative property characteristics. The models may be specified using the cost, sales comparison, or income approaches to value. The specification format may be tabular, mathematical, linear, nonlinear, or any other structure suitable for representing the observable property characteristics. Appropriate approaches must be used in appraising a class of properties. The concept of recognized techniques applies to both real and personal property valuation models.

(c) Employ recognized techniques for calibrating mass appraisal models.

Comment: Calibration refers to the process of analyzing sets of property and market data to determine the specific parameters of a model. The table entries in a cost manual are examples of calibrated parameters, as well as the coefficients in a linear or nonlinear model. Models must be calibrated using recognized techniques, including, but not limited to, multiple linear regression, nonlinear regression, and adaptive estimation.

Standards Rule 5-5

In developing a mass appraisal, when necessary for credible assignment results, an appraiser must:

(a) Collect, verify, and analyze such data as are necessary and appropriate to develop:

- **i. The cost new of the improvements;**
- **ii. Depreciation;**
- **iii. Value of the land by sales of comparable properties;**
- **iv. Value of the property by sales of comparable properties;**
- **v. Value by capitalization of income or potential earnings (i.e., rentals, expenses, interest rates, capitalization rates, and vacancy data);**

Comment: This Standards Rule requires appraisers engaged in mass appraisal to take reasonable steps to ensure that the quantity and quality of the factual data that are collected are sufficient to produce credible appraisals. For example, in real property, where applicable and feasible, systems for routinely collecting and maintaining ownership, geographic, sales, income and expense, cost, and property characteristics data must be established. Geographic data must be contained in as complete a set of cadastral maps as possible, compiled according to current standards of detail and accuracy. Sales data must be collected, confirmed, screened, adjusted, and filed according to current standards of practice. The sales file must contain, for each sale, property characteristics data that are contemporaneous with the date of sale. Property characteristics data must be appropriate and relevant to the mass appraisal models being used. The property characteristics data file must contain data contemporaneous with the date of appraisal including historical data on sales, where appropriate and available. The data collection program must incorporate a quality control program, including checks and audits of the data to ensure current and consistent records.

(b) Base estimates of capitalization rates and projections of future rental rates and/or potential earnings capacity, expenses, interest rates, and vacancy rates on reasonable and appropriate evidence;

Comment: This requirement calls for an appraiser, in developing income and expense statements and cash flow projections, to weigh historical information and trends, current market factors affecting such trends, and reasonably anticipated events, such as competition from developments either planned or under construction.

(c) Identify and, as applicable, analyze terms and conditions of any available leases; and

(d) Identify the need for and extent of any physical inspection.

Standards Rule 5-6

When necessary for credible assignment results in applying a calibrated mass appraisal model an appraiser must:

(a) Value improved parcels by recognized methods or techniques based on the cost approach, the sales comparison approach, and the income approach;

(b) Value sites by recognized methods or techniques; such techniques include but are not limited to the sales comparison approach, allocation method, abstraction method, capitalization of ground rent, and land residual technique;

(c) When developing the value of a leased fee estate or a leasehold estate, analyze the effect on value, if any, of the terms and conditions of the lease;

Comment: In ad valorem taxation the appraiser may be required by rules or law to appraise the property as if in fee simple, as though unencumbered by existing leases. In such cases, market rent would be used in the appraisal, ignoring the effect of the individual, actual contract rents.

(d) Analyze the effect on value, if any, of the assemblage of the various parcels, divided interests, or component parts of a property; the value of the whole must not be developed by adding together the individual values of the various parcels, divided interests, or component parts; and

Comment: When the value of the whole has been established and the appraiser seeks to value a part, the value of any such part must be tested by reference to appropriate market data and supported by an appropriate analysis of such data.

(e) When analyzing anticipated public or private improvements, located on or off the site, analyze the effect on value, if any, of such anticipated improvements to the extent they are reflected in market actions.

Standards Rule 5-7

In reconciling a mass appraisal, an appraiser must:

(a) Reconcile the quality and quantity of data available and analyzed within the approaches used and the applicability and relevance of the approaches, methods, and techniques used; and

(b) Employ recognized mass appraisal testing procedures and techniques to ensure that standards of accuracy are maintained.

Comment: It is implicit in mass appraisal that, even when properly specified and calibrated mass appraisal models are used, some individual value conclusions will not meet standards of reasonableness, consistency, and accuracy. However, appraisers engaged in mass appraisal have a professional responsibility to ensure that, on an overall basis, models produce value conclusions that meet attainable standards of accuracy. This responsibility requires appraisers to evaluate the performance of models, using techniques that may include but are not limited to, goodness-of-fit statistics, and model performance statistics such as appraisal-to-sale ratio studies, evaluation of hold-out samples, or analysis of residuals.

STANDARD 6: MASS APPRAISAL, Reporting

In reporting the results of a mass appraisal, an appraiser must communicate each analysis, opinion, and conclusion in a manner that is not misleading.

Comment: Standard 6 addresses the content and level of information required in a report that communicates the results of a mass appraisal.

Standard 6 does not dictate the form, format, or style or mass appraisal reports. The form, format, and style of a report are functions of the needs of intended users and appraisers. The substantive content of a report determines its compliance.

Standards Rule 6-1

Each written report of a mass appraisal must:

(a) Clearly and accurately set forth the appraisal in a manner that will not be misleading;
(b) Contain sufficient information to enable the intended users of the appraisal to understand the report properly; and

Comment: Documentation for a mass appraisal for ad valorem taxation may be in the form of (1) property records, (2) sales ratios and other statistical studies, (3) appraisal manuals and documentation, (4) market studies, (5) model building documentation, (6) regulations, (7) statutes, and (8) other acceptable forms.

(c) Clearly and accurately disclose all assumptions, extraordinary assumptions, hypothetical conditions, and limiting conditions used in the assignment.

Comment: The report must clearly and conspicuously:

- State all extraordinary assumptions and hypothetical conditions; and
- State that their use might have affected the assignment results.

Standards Rule 6-2

Each written report of a mass appraisal must:

(a) State the identity of the client, unless the client has specifically requested otherwise; state the identity of any intended users by name or type;
(b) State the intended use of the appraisal;
(c) Disclose any assumptions or limiting conditions that result in deviation from recognized methods and techniques or that affect analyses, opinions, and conclusions;
(d) State the effective date of the appraisal and the date of the report;

Comment: In ad valorem taxation the effective date of the appraisal may be prescribed by law. If no effective date is prescribed by law, the effective date of the appraisal, if not stated, is presumed to be contemporaneous with the data and appraisal conclusions.

The effective date of the appraisal establishes the context for the value opinion, while the date of the report indicates whether the perspective of the appraiser on the market and property as of the effective date of the appraisal was prospective, current, or retrospective.

(e) State the type and definition of value and cite the source of the definition;

Comment: Stating the type and definition of value also requires any comments needed to clearly indicate to intended users how the definition is being applied.

When reporting an opinion of market value, state whether the opinion of value is:

- In terms of cash or financing terms equivalent to cash; or
- Based on non-market financing with unusual conditions or incentives.

When an opinion of market value is not in terms of cash or based on financing terms equivalent to cash, summarize the terms of such financing and explain their contributions to or negative

influence on value.

(f) Identify the properties appraised including the property rights;

Comment: The report documents the sources for location, describing and listing the property. When applicable, include references to legal descriptions, addresses, parcel identifiers, photos, and building sketches. In mass appraisal, this information is often included in property records. When the property rights to be appraised are specified in a statute or court ruling, the law must be referenced.

(g) Summarize the scope of work used to develop the appraisal; exclusion of the sales comparison approach, cost approach, or income approach must be explained;

Comment: Because intended users' reliance on an appraisal may be affected by the scope of work, the report must enable them to be properly informed and not misled. Sufficient information includes disclosure of research and analyses performed and might also include disclosure of research and analyses not performed.

When any portion of the work involves significant mass appraisal assistance, the appraiser must describe the extent of that assistance. The signing appraiser must also state the name(s) of those providing the significant mass appraisal assistance in the certification, in accordance with Standards Rule 6-3.

(h) Summarize and support the model specification(s) considered, data requirements, and the model(s) chosen;

Comment: The appraiser must provide sufficient information to enable the client and intended users to have confidence that the process and procedures used conform to accepted methods and result in credible value conclusions. In the case of mass appraisal for ad valorem taxation, stability and accuracy are important to the credibility of value opinions. The report must include a summary of the rationale for each model, the calibration techniques to be used, and the performance measures to be used.

(i) Summarize the procedure for collecting, validating, and reporting data;

Comment: The report must describe the sources of data and the data collection and validation processes. Reference to detailed data collection manuals or electronic records must be made, as appropriate, including where they may be found for inspection.

(j) Summarize calibration methods considered and chosen, including the mathematical form of the final model(s); summarize how value conclusions were reviewed; and, if necessary, state the availability and location of individual value conclusions;

(k) When an opinion of highest and best use, or the appropriate market or market level was developed, summarize how that opinion was determined;

Comment: The mass appraisal report must reference case law, statute, or public policy that describes highest and best use requirements. When actual use is the requirement, the report must discuss how use-value opinions were developed. The appraiser's reasoning in support of the highest and best use opinion must be provided in the depth and detail required by its significance to the appraisal.

(l) Identify the appraisal performance tests used and the performance measures attained;
(m) Summarize the reconciliation performed, in accordance with Standards Rule 5-7; and
(n) Include a signed certification in accordance with Standards Rule 6-3.

Standards Rule 6-3

Each written mass appraisal report must contain a signed certification that is similar in content to the following form:

I certify that, to the best of my knowledge and belief:

- **The statements of fact contained in this report are true and correct.**
- **The reported analyses, opinions, and conclusions are limited only to the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.**
- **I have no (or the specified) present or prospective interest in the property that is the subject of this report, and I have no (or the specified) personal interest with respect to the parties involved.**
- **I have performed no (or the specified) services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.**
- **I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.**
- **My engagement in this assignment was not contingent upon developing or reporting predetermined results.**
- **My compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, or the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.**
- **My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.**
- **I have (or have not) made a personal inspection of the properties that are the subject of this report. (If more than one person signs the report, this certification must clearly specify which individuals did and which individuals did not make a personal inspection of the subject property).**
- **No one provided significant mass appraisal assistance to the person signing this certification. (If there are exceptions, the name of each individual providing significant mass appraisal assistance must be stated).**

Comment: The above certification is not intended to disturb an elected or appointed assessor's work plans or oaths of office. A signed certification is an integral part of the appraisal report. An appraiser, who signs any part of the mass appraisal report, including a letter of transmittal, must also sign this certification.

In an assignment that includes only assignment results developed by the real property appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all elements of

the certification, for the assignment results, and for the contents of the appraisal report. In an assignment that includes personal property assignment results not developed by the real property appraiser(s), any real property appraiser(s) who signs a certification accepts full responsibility for the real property elements of the certification, for the real property assignment results, and for the real property contents of the appraisal report.

In an assignment that includes only assignment results developed by the personal property appraiser(s), any appraiser(s) who signs a certification accepts full responsibility for all elements of the certification, for the assignment results, and for the contents of the appraisal report. In an assignment that includes real property assignment results not developed by the personal property appraiser(s), any personal property appraiser(s) who signs a certification accepts full responsibility for the personal property elements of the certification, for the personal property assignment results, and for the personal property contents of the appraisal report.

When a signing appraiser(s) has relied on work done by appraisers and others who do not sign the certification, the signing appraiser is responsible for the decision to rely on their work. The signing appraiser(s) is required to have a reasonable basis for believing that those individuals performing the work are competent. The signing appraiser(s) also must have no reason to doubt that the work of those individuals is credible.

The names of individuals providing significant mass appraisal assistance who do not sign a certification must be stated in the certification. It is not required that the description of their assistance be contained in the certification, but disclosure of their assistance is required in accordance with Standards Rule 6-2(g).

Further Reading

The Machinery Act of North Carolina is published bi-annually by the North Carolina Department of Revenue and includes extensive case notes and a list of sections affected each year by new legislation. Copies can be obtained from the LexisNexis store. All statutes can also be viewed on the North Carolina General Assembly web site. https://www.ncleg.gov/Laws/GeneralStatuteSections/Chapter105

For those who seek additional information regarding real estate appraisal, mass appraisal, or other topics described in this manual, the Chatham County Department of Tax Administration has used the following sources in determining how to best fulfill its duties.

International Association of Assessing Officers. 1999. *Mass Appraisal of Real Property*. Chicago: International Association of Assessing Officers.

International Association of Assessing Officers. 1996. *Property Assessment Valuation*. Chicago: International Association of Assessing Officers.

The above listed textbooks are used in most certification and continuing education classes offered by the International Association of Assessing Officers.

IAAO also publishes Standard on Mass Appraisal of Real Property, which provides advice on operation and quality control in an assessment office. This document can be downloaded for free at their website: http://www.iaao.org. Of particular interest here is section 5, from which we obtain the use of models and quality control statistics outlined earlier in this manual.

Uniform Standards of Professional Appraisal Practice (USPAP) is developed and updated by The Appraisal Standards Board (ASB) of The Appraisal Foundation. Copies can be obtained from The Appraisal Foundation at http://www.appraisalfoundation.org.

Present use value rates are provided by the North Carolina Department of Revenue. These are included in the 2025 Use-Value Manual for Agricultural, Horticultural, and Forest Land. This document can be downloaded for free at http://www.dor.state.nc.us/publications/property.html. Please note that although this manual is updated annually, Chatham County uses the 2025 edition, or the most current edition, due to the effective General Reappraisal date and will continue to use this edition until the next General Reappraisal.