

OCTOBER 21, 2024 TAX ADMINISTRATION

Table of Contents

Foreword	8
Appraisal of Real Property in Union County, NC	9
An Overview of Mass Appraisal in Union County, NC	10
Quality Control in Mass Appraisal	13
After the General Reappraisal	14
Approaches to Value	16
Highest and Best Use	17
Present Use Value	18
Calculation of Replacement Cost New	19
Improvements Overview	19
Replacement Cost New Defined	19
Improvement Defined	19
Improvement Valuation Methodology	19
Residential Improvement Grading	19
General Grade Descriptions	21
Site Built and Modular Housing	22
First Floor Base	23
Upper Story Base	24
Unfinished Area	25
Unfinished Basement	25
Finished Basement	26
Finished Basement - High Quality	27
Unfinished Lower Level or Unfinished Walkout Basement	28
Finished Lower Level or Finished Walkout Basement	29
Finished Lower Level - High Quality or Finished Walkout Basement - High Quality	30
Slab	31
Crawlspace	31
Unfinished Attic	31
Finished Attic	32
Exterior Wall Cover	33
Roofing Material	34
Fireplace	35
Air Conditioning	35



Heating	36
Manufactured Housing	37
What is a Manufactured Home	37
Manufactured Home Valuation Methodology	37
Base Value	37
Single Section Manufactured Housing Base Rates	38
Multi-Section Manufactured Housing Base Rates	39
Manufactured Home Grades	39
Porches, Patios, Garages, Decks, etc	40
Manufactured Home Hookup	40
Attachments to Residential Structures Site Built, Modular, and Manufactured Housing	41
Replacement Cost New Defined	41
Garages	42
Garage - Living (Attached)	44
Integral Carport (Attached)	44
Shed Carport (Attached)	44
Concrete Patio	45
Brick Patio	46
Flagstone Patio	47
Masonry Stoop	48
Wood Patio	49
Wood Deck	50
Open Frame Porch	51
Open Masonry Porch	52
Enclosed Frame Porch or Frame Utility Room	53
Enclosed Masonry Porch or Masonry Utility Room	54
Residential Outbuildings	55
Replacement Cost New Defined	55
Residential Utility Shed - Frame/Masonry	56
Shed - Open Car Shed	57
Residential Detached Garage – Frame/Block	58
Residential Detached Garage – Stud Framed Brick Veneer	59
Attic Over Outbuilding	60
Upper Living (Outbuilding) - Frame Structure Only	60



Interior Finish (Outbuilding)	61
Residential Pool In-Ground	62
Commercial Swimming Pool	63
Bath House	64
Greenhouse	65
Tennis/Game Court	66
Outdoor Fireplace	67
Outdoor Kitchen	68
Non-Sketched Concrete Patio	69
Non-Sketched Brick Patio	70
Non-Sketched Flagstone Patio	71
Non-Sketched Masonry Stoop	72
Non-Sketched Wood Deck	73
Non-Sketched Open Porch	74
Non-Sketched Enclosed Porch	75
Residential Farm Outbuildings	76
Replacement Cost New Defined	76
Loft Area - Over Structure	77
Barn - Traditional Flat or Loft	78
Livestock Stable/Horse Barn	79
Estate Type Stables (High Value)	80
Lean-To	81
Milking Parlor	82
General Purpose Building Quonset Type	83
General Purpose Steel Frame Buildings - Four Sides Open	84
General Purpose Steel Frame Buildings - Three Sides Open	85
General Purpose Steel Frame Buildings - Two Sides Open	86
General Purpose Steel Frame Buildings - One Side Open	87
General Purpose Steel Frame Buildings - No Sides Open	88
Pole Building - Four Sides Open	89
Pole Building - Three Sides Open	90
Pole Building - Two Sides Open	91
Pole Building - One Side Open	92
Pole Building - No Sides Open	93



Silo Conventional	94
Silo Porcelain (Harvestore)	94
Storage Grain Bin	94
Poultry – Broiler Confinement	95
Poultry - Dark	95
Poultry – Egg Layer (Breeder)	96
Livestock Confinement (Hog Barns or Sheds)	97
Depreciation and Obsolescence	98
Obsolescence is divided into two types:	98
Functional Obsolescence	98
External Obsolescence	98
Depreciation Defined	98
Physical Depreciation is divided into two types:	99
Condition (CDU)	99
Physical Depreciation Tables	99
Site Built and Modular Dwelling Physical Condition Depreciation Table	100
Dwelling Condition Depreciation Table	101
Manufactured Home Physical Condition Depreciation Tables	103
Manufactured Home Condition Depreciation Table	104
Outbuilding Physical Condition Depreciation Tables	105
Outbuilding Condition Depreciation Table A	106
Outbuilding Condition Depreciation Table B	107
Outbuilding Condition Depreciation Table C	108
Outbuilding Condition Depreciation Table D	110
Outbuilding Condition Depreciation Table E	112
Commercial and Industrial Appraisal and Valuation	114
Schedules Used in Mass Appraisal Programs	114
Methods of Valuation	114
The Cost Approach to Value - Commercial and Industrial	115
The Sales Comparison Approach to Value - Commercial and Industrial	119
The Income Approach to Value - Commercial and Industrial	119
Commercial and Industrial Information Sources	121
General Classification of Real and Tangible Personal Property	122
Land Valuation	129



	Approaches to Land Value	. 129
	Influence Factors	. 130
	Homeowners' Association	.131
	Condominium Land	. 131
	Land Valuation Ranges	. 132
U	niform Standards of Professional Appraisal Practice	. 133
	When do USPAP Rules and Standards Apply?	. 134
	STANDARD 5: Mass Appraisal, Development	. 135
	Standards Rule 5-1 In developing a mass appraisal, an appraiser must:	. 135
	Standards Rule 5-2 In developing a mass appraisal, an appraiser must:	. 136
	Standards Rule 5-3 When necessary for credible assignment results, an appraiser must:	. 138
	Standards Rule 5-4 In developing a mass appraisal, an appraiser must:	. 139
	Standards Rule 5-5 In developing a mass appraisal, when necessary for credible assignment results, an appraiser must:	
	Standards Rule 5-6 When necessary for credible assignment results in applying a calibrated mass appraisal model an appraiser must:	
	Standards Rule 5-7 In reconciling a mass appraisal, an appraiser must:	.141
	STANDARD 6: Mass Appraisal, Reporting	.141
	Standards Rule 6-1 Each written report of a mass appraisal must:	.142
	Standards Rule 6-2	. 142
	Each written report of a mass appraisal must:	.142
	Standards Rule 6-3 Each written mass appraisal report must contain a signed certification t is similar in content to the following form: I certify that, to the best of my knowledge and	
	belief:	
	urther Reading	
	nformation Sources	
	eferences	
	able of Figures	
	Glossary of Terms	
	A ~	
	B ~	
	C ~	
	D ~	
~	E ~	. 158
~	F ~	. 159



~ G ~	159
~ H ~	160
~ ~	160
~ J ~	161
~ K ~	161
~ L ~	161
~ M ~	162
~ N ~	162
~ O ~	163
~ P ~	164
~ Q ~	166
~ R ~	166
~ S ~	167
~ T ~	168
~ U ~	168
~ V ~	169
~ W ~	169
~ X ~	169
~ Y ~	169
~ 7 ~	169



Foreword

The purpose of this manual is to describe the methodology and procedures for appraising all Union County real estate at market value at the time of the county's most recent General Reappraisal. The Schedule of Values sets forth the base rates and ranges for all property types, remaining in effect until the next General Reappraisal. It also outlines adjustments applicable for different types of construction, property condition, and land valuation schedules.

The tables, rates, and ranges in this manual serve as guidelines for appraisals. Appraisers have the discretion to adjust these rates on a case-by-case basis to ensure that properties are valued at market value. This flexibility promotes fair and consistent property valuations across all property types.

General Reappraisals employ mass appraisal techniques, relying on comprehensive analysis by appraisal staff and utilizing computer-assisted mass appraisal (CAMA) software. The appraisal considers the sales comparison approach, cost approach, and income approach, when applicable, ensuring comprehensive appraisal of all real estate properties.



Appraisal of Real Property in Union County, NC

North Carolina General Statute 105-274 establishes that all real and personal property in the state is subject to taxation unless specifically exempted by law, ensuring a broad tax base for public services.

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 the terms "true value" and "market value" when used in this manual.

According to North Carolina General Statute 105-286, each county is required to conduct a General Reappraisal of all real property at least once every eight years. General Statute 105-285 (d) specifies that the value of real property must be determined as of January 1 of the year in which the General Reappraisal takes place. This establishes a clear date for assessing property values, ensuring consistency and fairness in the valuation process for property taxes. This effective date is significant because it applies uniformly, regardless of the calendar year in which the appraisal takes place or the fiscal year for which ad valorem taxes (taxes based on property value) are assessed. Union County operates on a four-year reappraisal cycle as adopted by the Board of County Commissioners per North Carolina General Statute 105-286(a)(3).

North Carolina General Statute 105-317 requires the tax assessor to establish this Schedule of Values and sets forth the procedure for its adoption. This Schedule is essential for calculating and allocating annual ad valorem property taxes as authorized by General Statute 105-274 and related statutes. It applies to property appraisals conducted in Union County, its municipalities, and other tax districts permitted by law, ensuring a standardized approach to property valuation and taxation within the jurisdiction.

All appraisals, including those for ad valorem tax purposes, fall under the authority of the Uniform Standards of Professional Appraisal Practice (USPAP), the relevant portions of which have been included in this manual, beginning on page 133.



An Overview of Mass Appraisal in Union County, NC

The Mass Appraisal approach is employed to evaluate a significant number of properties as of a specific effective date, such as January 1, 2025. This method utilizes statistical analysis to establish uniform and equitable property values across the jurisdiction, developing a model that accounts for broader market trends and adjustments. In contrast, the Fee Appraisal approach focuses on conducting a detailed market analysis for an individual property, incorporating specific adjustments tailored to that property for a specific time period. Fee Appraisals are often used to obtain mortgages.

To efficiently appraise nearly 113,000 properties during the county-wide general reappraisal, as well as ongoing reviews of new construction or any changes to real property, Union County is divided into approximately 750 residential, commercial, and industrial neighborhoods. This division enables the creation of distinct market conditions that influence property values within each neighborhood. By categorizing properties in this way, the appraisals can more accurately reflect the varying market conditions across different areas of the county, supporting fair and equitable valuation practices.

One example of a neighborhood could be a residential subdivision where homes share common characteristics, such as year built, style, craftsmanship, and amenities. Properties within these neighborhoods typically exhibit similar levels of desirability in the market, making it easier to determine their values based on comparable sales and local market trends.

Initially, all recent property sales are analyzed to verify whether they qualify as arm's length transactions. An Arm's Length transaction is a sale between two unrelated parties, working independently, both seeking to maximize their position from the transaction.

Additional criteria of an arm's length transaction:

- Sales between a seller and buyer who are not connected by marriage, family, work, or have a personal or business relationship.
- Sales with typical terms and financing
- A sale where neither party is subject to pressure or duress to sell quickly
- A sale where both parties have sufficient knowledge of the property and market conditions.
- The property has been listed on the open market for a sufficient period of time based on the current market conditions.

Transactions involving relatives, short sales, and estate sales may not provide reliable evidence of market value in each area. The determination of sale prices relies on the excise tax "revenue stamps" filed with the Register of Deeds office, which are documented on the property deed.



All sales are documented, verified, and their validity is determined. Sales considered valid, known as 'arm's length' transactions, are viewed as good indicators of market value. Market value is defined as the most probable price a property should bring in a competitive and open market, under conditions that ensure a fair sale which are:

- The buyer and seller are typically motivated.
- Both parties are well informed or well advised, and each is acting in what they consider to be in their own best interest.
- A reasonable time is allowed for exposure in the open market.
- Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Land valuation relies on available land sales data and may involve allocating sale prices between land and improvements or other appropriate methods. Allocating involves assigning a portion of the total value of improved property to the land, using a land to building ratio. This method is often used when few vacant land sales exist.

The rates published in the Schedule of Values represent base rates indicative of average plus quality and workmanship, which is the typical quality for Union County for standard lots and acreage. The CAMA (Computer-Assisted Mass Appraisal) system incorporates factors and adjustments relevant to both land and building rates. It considers market conditions, functional or economic obsolescence, deferred maintenance, renovations, poor topography, and other elements that influence supply and demand. The appraiser's judgment is essential in evaluating comparative grading and depreciation factors.

Further sales analysis is conducted to ensure that the model accurately reflects current market trends within each neighborhood. This value is neither the highest nor the lowest possible selling price, nor is it an average price, but rather a well-informed estimate based on market conditions and property characteristics.



Figure 1 is an example of sales in a neighborhood. While a simple mathematical average would value every house in this neighborhood at \$186.00 per square foot, on the market, houses with the same heated area will sell for quite different prices for many reasons (such as differences in unheated features, remodeling, or upgrades chosen during construction). A quality valuation model identifies those differences and accounts for them, generating a more likely market value for each unique home and its particular combination of features.

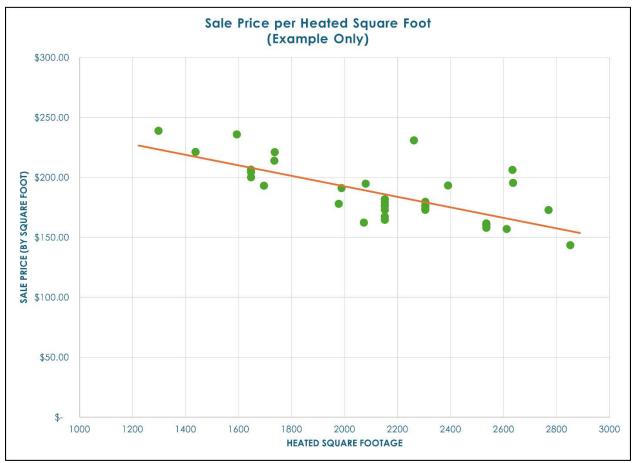


Figure 1: First Floor Base Rate Example.

As shown in **Figure 1** above, as homes increase in size, the price per square foot tends to go down, assuming all other factors are equal. Despite this, the overall value will rise as home increase in size, but not in a linear fashion. This phenomenon is known in economic theory as "economies of scale." Market analyses continually support this relationship.



Quality Control in Mass Appraisal

In mass appraisal, ensuring uniformity and equity relies heavily on rigorous statistical analysis. Ratio studies are an instrumental tool in establishing values, analyzing data, and determining accuracy of our appraised values. This study compares appraised values of sold properties to their sale prices. Ratios are calculated by dividing the appraised value by the corresponding sale price. For example, if a property is appraised at \$175,000 and sold recently for \$252,000, its sale ratio would be 69% of its market value, as represented by the sale price.

Sale Ratio Calculation: $175,000 \div 252,000 = .69$

It is important to note that in mass appraisal, exact matches between appraised values and sale prices or independent appraisals are not expected. Instead, the goal is to achieve a reasonable level of consistency and accuracy across a broad range of properties, reflecting overall market trends rather than pinpointing precise values for each individual property. This approach allows for efficient assessments while accommodating variations in property characteristics and market conditions. For example, the median ratio for similar properties, such as those within a neighborhood, should ideally be near 100%, with high and low ratios balancing each other out. According to the International Association of Assessing Officers (IAAO) Standard on Ratio Studies (2013a), the median ratio should typically fall within a range of 90% to 110%. This range indicates that the overall appraisal level meets the standard of accuracy. Conducting a meaningful ratio study requires a sufficient number of property samples, which Union County's active market adequately supports.

Additional quality checks to show if the appraised values are uniform and equitable:

- Coefficient of Dispersion (COD): This metric gauges the average deviation of each ratio from the median ratio within a sample set. A lower COD indicates greater uniformity among appraised values within the sample. IAAO standards dictate acceptable COD thresholds: under 10 percent for newer and homogeneous residential neighborhoods, under 15 percent for older or heterogeneous neighborhoods, under 25 percent for vacant land in urban areas, 30 percent or under for rural areas, and under 20 for commercial properties.
- Price-Related Differential (PRD): The PRD evaluates the relative appraisal of high-value properties in relation to low-value properties. A high PRD suggests that high-value properties are potentially under-appraised, whereas a low PRD indicates they might be over-appraised. This metric helps ensure that the appraisal process maintains fairness across different property values and types. IAAO standards dictate acceptable PRD thresholds: .98% 1.03%.



After the General Reappraisal

After a General Reappraisal, the Schedule of Values remains effective until the next scheduled reappraisal, as outlined by North Carolina General Statute 105-287. This statute governs the circumstances under which property values may or may not be adjusted between reappraisal cycles. Property owners are encouraged to review the statute in its entirety for a comprehensive understanding. The statutes are accessible online through the North Carolina General Assembly website at http://www.ncleq.net/gascripts/statutes/Statutes.asp.

Under North Carolina General Statute 105-287:

- 1. The assessor is authorized to adjust property values based on physical changes to the land or improvements (North Carolina General Statute 105-287(a)(2b)). This includes examples such as adding new structures to a property (new addition to home, new outbuildings, detached garages, pools etc.), demolishing existing improvements, changes to zoning, or subdividing land into smaller lots.
- 2. The assessor is authorized to adjust property values to rectify clerical or mathematical errors, or errors resulting from misapplication of the Schedule of Values (North Carolina General Statute 105-287(a)(1) and 105-287(a)(2)).
- 3. The assessor is not authorized to adjust property values due to inflation, deflation, or changes in the local economy (North Carolina General Statute 105-287(b)(2)), ensuring fairness and equity in property assessments based on economic conditions at a specific point in time.

Any adjustments made under the aforementioned circumstances, as well as other allowed scenarios, must adhere to the current Schedule of Values (North Carolina General Statute 105-287(c)). This means that improvements or changes to properties are valued using the rates and guidelines established in the Schedule of Values effective at the time of the adjustment, ensuring consistency until the next General Reappraisal. For example, a house constructed in 2027 would be appraised based on an analysis of comparable home sales that occurred when the 2025 Schedule of Values was formulated. Therefore, the actual cost or market value of the home at the time of its construction in 2027 would not be considered. This approach allows new construction to be appraised uniformly and equitably alongside existing properties.



North Carolina General Statute 105-317(a)(3) requires that partially completed buildings be appraised based on their level of completion as of January 1 of the year for which the new assessment is being made. **Table 1** below serve as a guide to determine the level of completion for residential and commercial structures. The final percentage assigned to each structure reflects the professional judgment of the appraiser reviewing the property.

 Table 1: Percent Complete Guide.

Percent Complete Guide		
Structural Element	Individual Percentage	Cumulative Percentage
Plans and Permits	2%	2%
Floor System	4%	6%
Concrete	8%	14%
Rough Framing	21%	35%
Windows and Doors	2%	37%
Roof Cover	3%	40%
Rough-in Plumbing	4%	44%
Rough-in Mechanical and Electrical	11%	55%
Insulation	1%	56%
Exterior Cover	6%	62%
Interior Drywall	8%	70%
Cabinets and Trim	13%	83%
Plumbing Fixtures	5%	88%
Floor Cover	3%	91%
Built-in Appliances	3%	94%
Lighting Fixtures and Hardware	2%	96%
Paint and Decorating	4%	100%



Approaches to Value

There are three recognized methods for appraising real property: the Market Approach or Sales Comparison Approach, Cost Approach, and Income Approach.

- The Sales Comparison Approach, commonly used for residential properties and most known by the public, involves comparing the characteristics of the property being appraised with recently sold properties. Adjustments are made to the sale prices of comparable properties to account for any differences, providing an estimate of the subject property's value.
- In the Cost Approach, the appraiser calculates the cost to construct the subject property new, encompassing all direct and indirect expenses. Depreciation is then factored in based on the current condition of the improvements. This cost is added to the appraiser's opinion of the land value to determine the total property value.
- The Income Approach assumes that the property was acquired or would be acquired for its income-producing potential. This approach estimates the present value of all anticipated future income streams, while also considering vacancy, collection loss, expenses, and market Capitalization Rates.

Union County employs all three methods as appropriate, recognizing that not all methods are suitable for every type of property. The Sales Comparison Approach is primarily used to develop land values. While the Cost approach is used to develop base rates for improvements on many commercial and industrial properties. For the 2025 reappraisal, Union County transitioned to the Income Approach to value most income producing properties.



Highest and Best Use

Properties in Union County are appraised based on their highest and best use, which reflects what the property would sell for on the open market. Almost all properties have the potential for multiple uses. The highest and best use is generally the most profitable and has the highest demand, ultimately generating the greatest return for the property owner. To assist appraisers in this determination, four tests have been developed:

- 1. Legally Permissible
- 2. Physically Possible
- 3. Financially Feasible
- 4. Maximum Productivity

These tests ensure a thorough evaluation of each property's potential uses, guiding appraisers in determining its highest and best use. The tests are generally applied sequentially; physical possibility and legal permissibility can be assessed in either order, but they must precede the tests of financial feasibility and maximum productivity. To be legally permissible, appraisers must consider zoning regulations and similar land use restrictions, such as watershed protections.

The ability to obtain a zoning change or variance is often a significant factor in the price a potential buyer is willing to pay. Therefore, both current and potential zoning regulations and restrictions are 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.

Since the highest and best use of a piece of land may differ from its current use, the appraiser may consider any interim uses that exist between the property's current use and its potential future use. This consideration provides a more comprehensive view of the property's value and potential within the market. Improvements may still offer an income stream, salvage value, or other benefits. While a reduction in the appraised value of the improvements may be appropriate, the appraiser might find that the improvements contribute little value or may even detract from the overall value of the property, especially if the costs associated with their removal are significant.



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. When the current use of the property coincides with its highest and best use, these values are the same. However, in some cases, a separate appraised value may be calculated based on the present use of the property. This is particularly common for properties 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, the 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 taxes on the present use value. The difference between the two tax amounts is recorded annually as deferred taxes. If the property becomes disqualified from the PUV program, the deferred taxes for the current year and the three previous years, along with accrued interest, will typically become immediately due and payable. These taxes are commonly referred to as "rollback" taxes.

Please refer to the 2025 Use-Value Manual for Agricultural, Horticultural, and Forest Land for more information. This document can be downloaded for free at http://www.dor.state.nc.us/publications/property.html.



Calculation of Replacement Cost New

Improvements Overview

Replacement Cost New Defined

Replacement Cost New (RCN) — The current cost of producing a building or improvement, or item of personal property with the same utility with modern materials, design, and workmanship. This cost is less than the amount indicated by the reproduction cost new method. It implies that the cost is based on a modern improvement that affords utility equivalent to that provided by the subject property (Lisa A. Hobart, et al., 2022).

Improvement Defined

Improvements refer to any real property placed upon the land, encompassing a variety of structures and enhancements. Examples include residential houses, certain types of manufactured housing (as detailed in the manufactured housing sections), commercial buildings, garages, porches, decks, patios, paving, and outbuildings.

Improvement Valuation Methodology

Sales of individual properties along with Marshall and Swift, an industry leading supplier of cost data, were used to determine structure values. Improvements were grouped by grade (a measurement of build quality—read more in the next section) and analyzed to determine the overall value of each group based on size.

To determine the Replacement Cost of a dwelling, the appraiser begins by analyzing and valuing the building based on its size and specific features, referencing the schedule of values. This process establishes the Schedule Value of the building based on average materials and workmanship. To account for variations in quality of construction and finish, a grading system is then applied, allowing for adjustments that reflect the actual characteristics of the property.

Residential Improvement Grading

Grade is used to distinguish the difference between build quality of all the homes within Union County and is a key component in mass appraisal. A general description of each grade from Superior to Substandard is available on page 21.



It was determined that Average Plus was the typical grade within Union County and was used as the starting point for grade adjustments. **Table 2** below shows everything that is a higher quality than Average Plus has a positive adjustment, and everything inferior has a negative adjustment:

 Table 2: Union County Grade Adjustments.

Union County Grade Adjustments			
Grade	Adjustment Factor	Grade	Adjustment Factor
Superior	2.75	Average Plus	1.00
Excellent Plus	1.96	Average	.90
Excellent	1.80	Average Minus	.87
Excellent Minus	1.55	Fair Plus	.78
Good Plus	1.38	Fair	.69
Good	1.36	Fair Minus	.52
Good Minus	1.14	Substandard	.43



General Grade Descriptions

- Superior buildings are characterized by exceptional architectural style and design, constructed with the highest quality materials and craftsmanship. They often include specialized engineering for customization and feature superior interior finishes and amenities.
- Excellent Plus buildings are slightly higher quality of materials and craftsmanship than Excellent buildings.
- Excellent buildings are architecturally attractive structures constructed with high-quality materials and craftsmanship throughout. They feature custom or very high-quality interior finishes and built-in features.
- Excellent Minus buildings are slightly lower in quality of materials and craftsmanship than Excellent buildings.
- Good Plus buildings are slightly higher quality of materials and craftsmanship than Good buildings.
- Good buildings are known for their high-quality materials and workmanship throughout, along with a high standard of interior finish and features.
- Good Minus buildings are slightly lower in quality of materials and craftsmanship than Good buildings.
- Average Plus buildings are slightly higher quality of materials and craftsmanship than Average buildings.
- Average buildings feature average quality materials and workmanship throughout, with an average level of interior finish and features.
- Average Minus buildings are slightly lower in quality of materials and craftsmanship than Average buildings.
- Fair Plus buildings are slightly higher quality of materials and craftsmanship than Fair buildings.
- Fair buildings are characterized by below-average quality materials and workmanship, resulting in a below-average quality of interior finish and features.
- Fair Minus buildings are slightly lower in quality of materials and craftsmanship than Fair buildings.
- Substandard buildings exhibit very cheap materials and poor workmanship.



Calculation of Replacement Cost New

Site Built and Modular Housing

The tables on the following pages are used to develop a replacement cost new for a dwelling.



First Floor Base

The First-Floor Base value is calculated by multiplying the first-floor square footage by a price per square foot based on the total heated square footage in **Table 3** below. The rate will be calculated by interpolation when the square footage falls between two charted points. Interpolation is a mathematical technique used to estimate a value within two known values in a data set. In appraisal, interpolation is often used to estimate property values based on characteristics like square footage when the exact value is not available on a schedule or table.

Table 3: First Floor Base Rates.

First Floor Base Rates		
Size	Base Rate per Size	
0 – 1,400	\$ 189.53	
1,600	\$ 183.53	
1,800	\$ 178.24	
2,000	\$ 173.50	
2,200	\$ 169.22	
2,400	\$ 165.31	
2,600	\$ 161.71	
2,800	\$ 158.38	
3,000	\$ 155.28	
3,200	\$ 152.38	
3,400	\$ 149.66	
3,600	\$ 147.09	
3,800	\$ 144.66	
4,200	\$ 140.17	
4,600	\$ 136.08	
5,000	\$ 132.33	
5,500	\$ 128.05	
6,000 +	\$ 124.14	



Upper Story Base

Upper Story Base value is calculated by multiplying the upper story square footage by a price per square foot based on the total heated square footage in **Table 4** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 4: Upper Story Base Rates.

Upper Story Base Rates Upper Story Base Rates	
Size	Base Rate per Size
0 – 1,400	\$ 170.58
1,600	\$ 165.18
1,800	\$ 160.42
2,000	\$ 156.15
2,200	\$ 152.30
2,400	\$ 148.78
2,600	\$ 145.54
2,800	\$ 142.54
3,000	\$ 139.75
3,200	\$ 137.14
3,400	\$ 134.69
3,600	\$ 132.38
3,800	\$ 130.19
4,200	\$ 126.15
4,600	\$ 122.47
5,000	\$ 119.10
5,500	\$ 115.25
6,000 +	\$ 111.73



Unfinished Area

Unfinished Area is a main or upper area that lacks finish beyond drywall but could possibly have minimal utilities. The value for any Unfinished Areas on the first or upper floor will be calculated by multiplying the unfinished area square footage by a price per square foot based on **Table 5** below.

Table 5: Unfinished Area.

Unfinished Area	
Size	Base Rate
Flat Rate per Square Foot	\$ 39.15

Unfinished Basement

An Unfinished Basement is a raw space with exposed structural elements like concrete or cement floors and walls, visible ceiling joists, and utility systems such as plumbing, heating and air conditioning (HVAC) ducts that is completely below grade. It typically lacks insulation, drywall, or flooring and is often used for storage, mechanical systems, or as a workshop. The space is not designed for living and has little to no aesthetic upgrades.

Unfinished Basement value is calculated by multiplying the unfinished basement square footage by a price per square foot based in **Table 6** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 6: Basement – Unfinished.

Basement - Unfinished	
Size	Base Rate per Size
0 – 1,200	\$ 24.35
1,600	\$ 22.77
2,000	\$ 22.28
2,400	\$ 21.56
2,800	\$ 21.06
3,200 +	\$ 20.56



Finished Basement

A Finished Basement is an area with completed walls, ceilings, and flooring that is below grade. It is often designed to extend the home's living space, offering rooms such as a recreation area. The finishes typically include drywall, paint, carpeting or laminate flooring, and basic lighting. The quality of finishes is standard and functional.

Finished Basement value is calculated by multiplying the basement square footage by a price per square foot based on the total heated square footage in **Table 7** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 7: Basement - Finished.

Basement - Finished	
Size	Base Rate per Size
0 – 1,200	\$ 41.63
1,600	\$ 39.33
2,000	\$ 38.33
2,400	\$ 37.07
2,800	\$ 36.08
3,200 +	\$ 35.09



Finished Basement – High Quality

A Finished Basement - High Quality is designed to match or exceed the finish level of the main level of the home but is below grade. It features premium materials such as hardwood or luxury vinyl flooring, custom cabinetry, built-in shelving, and high-end lighting. Additional features often include aesthetic upgrades like decorative moldings, recessed lighting, and possibly even specialized areas like a home theater, gym, or wet bar. The space is intended to feel as refined as any other living area in the home.

Finished Basement – High Quality value is calculated by multiplying the basement square footage by a price per square foot based on the total heated square footage in **Table 8** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 8: Basement - Finished - High Quality.

Basement - Finished - High Quality	
Size	Base Rate per Size
0 – 1,200	\$ 58.86
1,600	\$ 57.05
2,000	\$ 55.43
2,400	\$ 54.71
2,800	\$ 54.21
3,200 +	\$ 53.72



Unfinished Lower Level or Unfinished Walkout Basement

An Unfinished Lower Level or Walkout Basement is a raw space with exposed structural elements like concrete or cement floors and walls, visible ceiling joists, and utility systems such as plumbing or HVAC ducts. It typically lacks insulation, drywall, or flooring and is often used for storage, mechanical systems, or as a workshop. The space is not designed for living but has exterior windows or doors.

Unfinished Lower Level or Walkout Basement value is calculated by multiplying the unfinished basement square footage by a price per square foot based on **Table 9** below. When the square footage falls between to charted points the rate will be calculated by interpolation.

Table 9: Lower Level or Walkout Basement - Unfinished.

Lower Level or Walkout Basement - Unfinished	
Size	Base Rate per Size
0 – 1,200	\$ 27.68
1,600	\$ 25.49
2,000	\$ 24.59
2,400	\$ 23.53
2,800	\$ 22.52
3,200 +	\$ 21.99



Finished Lower Level or Finished Walkout Basement

A Finished Lower Level or Walkout Basement is a fully developed living area with completed walls, ceilings, and flooring. It is often designed to extend the home's living space, offering rooms such as a recreation area, additional bedrooms, or a home office. The finishes typically include drywall, paint, carpeting or laminate flooring, and basic lighting. The quality of the finish is commensurate with those seen in the overall structure and has exterior windows or doors.

Finished Lower Level or Walkout Basement value is calculated by multiplying the basement square footage by a price per square foot based on the total heated square footage in **Table 10** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 10: Lower Level or Walkout Basement - Finished.

Lower Level or Walkout Basement - Finished	
Size	Base Rate per Size
0 – 1,200	\$ 62.19
1,600	\$ 59.77
2,000	\$ 57.74
2,400	\$ 56.68
2,800	\$ 55.67
3,200 +	\$ 55.14



Finished Lower Level - High Quality or Finished Walkout Basement - High Quality

A Finished Lower Level or Walkout Basement – High Quality is designed to match or exceed the finish level of the upper floors of the home. It features premium materials such as hardwood or luxury vinyl flooring, custom cabinetry, built-in shelving, and high-end lighting. Additional features often include aesthetic upgrades like decorative moldings, recessed lighting, and possibly even specialized areas like a home theater, gym, or wet bar. The space is intended to feel as refined as any other living area in the home with extra windows or doors.

Finished Lower Level or Walkout Basement – High Quality value is calculated by multiplying the basement square footage by a price per square foot based on the total heated square footage in **Table 11** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 11: Lower Level or Walkout Basement - Finished - High Quality.

Lower Level or Walkout Basement - Finished - High Quality	
Size	Base Rate per Size
0 – 1,200	\$ 77.91
1,600	\$ 75.77
2,000	\$ 73.40
2,400	\$ 72.50
2,800	\$ 71.59
3,200 +	\$ 71.14



Slab

If a home has a slab foundation, value is deducted. This deduction is calculated by multiplying the first-floor square footage by the slab floor rate located in **Table 12** below.

Table 12: Slab.

Slab	
Size	Base Rate
Flat Rate per Square Foot	\$ (2.46)

Crawlspace

Crawlspace is a raised foundation on piers typically with a brick skirting. Crawlspaces are the typical foundation type and are not a separate adjustment to the base rate.

Unfinished Attic

An Unfinished Attic is a raw space found beneath the roof that has not been developed for living or functional use. It often consists of exposed insulation, wooden framing, and subflooring (or no flooring at all). Unfinished attics have fixed staircases and are primarily used for storage.

Unfinished Attic value is calculated by multiplying the unfinished attic square footage by a price per square foot based in **Table 13** below.

Table 13: Unfinished Attic.

Unfinished Attic	
Size	Base Rate
Flat Rate per Square Foot	\$ 11.78



Finished Attic

A Finished Attic is a fully developed space designed for living or additional usable areas within the home. It typically features insulated walls and ceilings, drywall, and flooring, and has a fixed staircase.

Finished Attic value is calculated by multiplying the attic square footage by a price per square foot based in **Table 14** below.

Table 14: Finished Attic.

Finished Attic	
Size	Base Rate
Flat Rate per Square Foot	\$ 23.01



Exterior Wall Cover

The typical exterior wall cover for the main and upper floors is cement fiber siding, which does not require a separate adjustment to the base rate. The typical exterior wall cover for basements and lower levels is cement fiber siding and concrete block, which also does not require a separate adjustment to the base rate.

Atypical exterior wall covering may affect value. **Table 15** below outlines the adjustments for the various types of exterior cover. Several types of exterior cover can be listed for each floor based on the square footage of the floor and the percentage of wall area the exterior wall cover makes up.

Table 15: Exterior Wall Cover.

Exterior Wall Cover			
Туре	Basement Lower Level	Main	Upper
Asbestos Siding	\$ (3.70)	\$ (3.70)	\$ (3.70)
Brick	\$ 12.99	\$ 12.99	\$ 12.99
Brick and Stone	\$ 14.60	\$ 14.60	\$ 14.60
Brick and Wood	\$ 6.27	\$ 6.27	\$ 6.27
Cement Fiber Siding	\$ -	\$ -	\$ -
Composition Siding	\$ (0.89)	\$ (0.89)	\$ (0.89)
Concrete Block	\$ -	\$ 8.18	\$ 8.18
Log Veneer or Rustic	\$ 7.81	\$ 7.81	\$ 7.81
Masonite	\$ (3.70)	\$ (3.70)	\$ (3.70)
Metal	\$ 0.53	\$ 0.53	\$ 0.53
None	\$ -	\$ -	\$ -
Stone – Ruble	\$ 29.16	\$ 29.16	\$ 29.16
Stone – Synthetic	\$ 13.19	\$ 13.19	\$ 13.19
Stucco	\$ 0.89	\$ 0.89	\$ 0.89
Vinyl Siding	\$ (0.82)	\$ (0.82)	\$ (0.82)
Wood Shake	\$ 1.06	\$ 1.06	\$ 1.06
Wood Siding	\$ (0.44)	\$ (0.44)	\$ (0.44)
Wood Siding - Cedar	\$ 1.84	\$ 1.84	\$ 1.84
Wood Siding – Redwood	\$ 1.84	\$ 1.84	\$ 1.84



Roofing Material

Typical roofing material is composition singles heavy and does not require a separate adjustment to the base rate.

Roofing Material may add or subtract value. The adjustment is calculated by multiplying the rate by the square footage of the first floor plus any attached garages and integral carports based on the rates in **Table 16** below.

Table 16: Roofing Material.

Roofing Material	
Туре	Base Rate per Square Foot
Cement Fiber Singles	\$ 2.64
Cement Tile	\$ 3.83
Clay Tile	\$ 7.34
Composition Singles Heavy	\$ -
Composition Singles up to 235	\$ (0.81)
Composition - Roll	\$ (1.59)
Copper	\$ 13.30
Corrugated Steel	\$ 0.08
Enamel Steel	\$ 4.37
Metal Standing Seam	\$ 4.28
Pitch and Gravel	\$ (0.23)
Plastic Tile	\$ 2.93
Shake Shingles	\$ 2.10
Slate or Tile	\$ 4.34
Synthetic Tile	\$ 2.93
Wood Shingles	\$ 1.65



Fireplace

A fireplace will add value. **Table 17** below list the value added for each gas or masonry fireplace. The adjustment is calculated by multiplying the quantity of each item by the rate for the item.

Table 17: Fireplaces.

Fireplaces	
Туре	Flat Rate per Item
Fireplace - Gas	\$ 2,819.06
Fireplace - Masonry	\$ 4,736.02

Air Conditioning

Air Conditioning adds value. **Table 18** below list the base rate per square foot for air conditioning. The adjustment is calculated by multiplying square footage with air conditioning by the rate for air conditioning.

Table 18: Air Conditioning.

Air Conditioning	
Size	Base Rate
Flat Rate per Square Foot	\$ 3.67



Heating

Typical heating is considered forced hot air or forced hot air - gas and does not require a separate adjustment to the base rate.

Atypical heating may add or subtract value. The adjustment is calculated by multiplying the rate for the appropriate heating by the heated square footage based on the rates shown in **Table 19** below.

Table 19: Heating.

Heating	
Туре	Base Rate per Square Foot
Electric - Baseboard	\$ (0.64)
Forced Hot Air	\$ -
Forced Hot Air - Gas	\$
Geothermal Heating	\$ 3.40
Heating - Baseboard	\$ (0.64)
Heat Pump	\$ 0.24
Hot Water	\$ 2.64
None	\$ (5.29)
Radiant Floor	\$ 2.71
Wall Units	\$ (3.35)



Calculation of Replacement Cost New

Manufactured Housing

What is a Manufactured Home

Under North Carolina General Statute 105-273 (13),

A manufactured home is defined as real property if it meets all the following requirements:

- It is a residential structure.
- It has the moving hitch, wheels, and axles removed.
- It is placed upon a permanent foundation either on land owned by the owner of the manufactured home or on land in which the owner of the manufactured home has a leasehold interest pursuant to a lease with a primary term of at least 20 years and the lease expressly provides for disposition of the manufactured home upon termination of the lease.

Manufactured Home Valuation Methodology

A manufactured home is appraised similarly to traditional homes. The valuation process starts by establishing the replacement cost new of the manufactured home. The replacement cost new is defined as the current cost of producing a building or improvement, or item of personal property with the same utility with modern materials, design, and workmanship. This cost is less than the amount indicated by the reproduction cost new method. It implies that the cost is based on a modern improvement that affords utility equivalent to that provided by the subject property (Lisa A. Hobart, et al., 2022). After determining this cost, any relevant depreciation is deducted to calculate the base value, and then the appraisal is adjusted to meet market conditions.

Base Value

Base Value for manufactured homes is determined by multiplying the square footage by the corresponding rate per square foot based on whether the home is classified as a single-section or multi-section unit. If the square footage lies between two values on the rate tables, the rate is calculated through interpolation.



Single Section Manufactured Housing Base Rates

For single section manufactured housing the base value is calculated using **Table 20** below in combination with the quality multiplier found on page 40 in **Table 22**. If the square footage lies between two values on the rate tables, the rate is calculated through interpolation.

 Table 20: Single Section Manufactured Home.

Single Section Manufactured Home		
Size	Base Rate per Size	
0 – 392	\$ 176.71	
448	\$ 161.62	
504	\$ 149.49	
560	\$ 139.89	
616	\$ 131.77	
672	\$ 124.80	
728	\$ 119.14	
784	\$ 114.16	
840	\$ 109.72	
896	\$ 105.74	
952	\$ 102.55	
1,008	\$ 99.23	
1,064	\$ 96.17	
1,120 +	\$ 93.78	



Multi-Section Manufactured Housing Base Rates

For multi-section manufactured housing the base value is calculated using **Table 21** in combination with the quality multiplier located in **Table 22** on the following page. If the square footage lies between two values on the rate tables, the rate is calculated through interpolation.

 Table 21: Multi-Section Manufactured Home.

Multi-Section Manufactured Home		
Size	Base Rate per Size	
0 – 672	\$ 160.66	
768	\$ 147.08	
864	\$ 136.09	
960	\$ 127.02	
1,056	\$ 119.49	
1,152	\$ 113.22	
1,248	\$ 107.56	
1,344	\$ 102.85	
1,440	\$ 98.53	
1,536	\$ 94.96	
1,632	\$ 91.23	
1,728	\$ 88.60	
1,824	\$ 85.71	
1,920 +	\$ 82.97	

Manufactured Home Grades

Additionally, for valuation purposes manufactured housing is divided into five quality classes or grades. They are excellent, good, average, fair, and poor. The appraisers will use their professional experience to determine which grade a manufactured home will be classified. The multipliers located in **Table 22** on the following page will be used to calculate the final replacement cost new in conjunction with either **Table 20** on page 38 for single or **Table 21** above for multi-section manufactured home.



It was determined that Average was the typical grade within Union County and was used as the starting point for grade adjustments. Everything that is a higher quality than Average has a positive adjustment and everything inferior has a negative adjustment:

Table 22: Manufactured Homes Quality Grade Multipliers.

Grade (Quality)	Multiplier
Excellent	129%
Good	117%
Average	100%
Fair	93%
Poor	86%

Porches, Patios, Garages, Decks, etc.

Attachments to a manufactured home are valued using the same rates as those applied to site-built or modular homes, as outlined in the section titled "Attachments to Residential Structures" starting on page 41.

Manufactured Home Hookup

Manufactured home values exclude the value of utilities, including well and septic systems or public water and sewer connections. In Union County's CAMA system, this utility value is designated as "MH Hookup" and is assigned a flat rate for each site associated with a manufactured dwelling based on the rate listed in **Table 23** below.

Table 23: Manufactured Home Hookup.

Mobile Home Hookup		
Size	Base Rate	
Flat Rate per Item	\$ 6,030.69	



Calculation of Replacement Cost New

Attachments to Residential Structures
Site Built, Modular, and Manufactured Housing

The tables on the following pages are used to develop a replacement cost for attachments to residential structures.

Replacement Cost New Defined

Replacement Cost New (RCN) — The current cost of producing a building or improvement, or item of personal property with the same utility with modern materials, design, and workmanship. This cost is less than the amount indicated by the reproduction cost new method. It implies that the cost is based on a modern improvement that affords utility equivalent to that provided by the subject property (Lisa A. Hobart, et al., 2022).



Garages

Garage – Attached – Standard (Unfinished) is a basic structure with exposed framing, concrete floors, and unfinished walls and ceilings. It often has visible insulation or bare studs, and minimal electrical outlets or lighting. The space is primarily functional for vehicle storage, tools, or other items, without any aesthetic upgrades or finishes.

Garage – Attached – Standard (Unfinished) value is calculated by multiplying the garage square footage by a price per square foot based on **Table 24** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 24: Garage - Attached - Standard (Unfinished).

Garage - Attached - Standard (Unfinished)		
Size	Base Rate per Size – Frame	Base Rate per Size - Brick Veneer
0 – 200	\$ 42.39	\$ 47.81
400	\$ 34.73	\$ 38.79
600	\$ 30.89	\$ 33.82
800	\$ 29.09	\$ 31.79
1,000 +	\$ 27.73	\$ 29.99

Garage – Attached – Semi-Finished has partial upgrades, such as painted walls or ceilings, basic drywall, and installation, often only on walls adjoining living area. The space offers improved aesthetics and some additional functionality but is still primarily used for storage or parking.

Garage – Attached – Semi-Finished value is calculated by multiplying the garage square footage by a price per square foot based on **Table 25** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 25: Garage - Attached - Semi-Finished.

Garage - Attached - Semi-Finished		
Size	Base Rate per Size - Frame	Base Rate per Size - Brick Veneer
0 – 200	\$ 47.17	\$ 52.59
400	\$ 38.73	\$ 42.79
600	\$ 34.54	\$ 37.47
800	\$ 32.53	\$ 35.24
1,000 +	\$ 30.97	\$ 33.23



A Garage – Attached – Finished has fully developed walls and ceilings, often with drywall, insulation, and paint. It may have cabinets, shelving, or workbenches installed for additional functionality.

Garage – Attached – Finished value is calculated by multiplying the garage square footage by a price per square foot based on **Table 26** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 26: Garage - Attached - Finished.

Garage - Attached - Finished		
Size	Base Rate per Size – Frame	Base Rate per Size - Brick Veneer
0 – 200	\$ 51.96	\$ 57.37
400	\$ 42.75	\$ 46.80
600	\$ 38.18	\$ 41.11
800	\$ 35.98	\$ 38.69
1,000 +	\$ 34.22	\$ 36.48

A Garage – Attached – Finished – High Quality includes premium finishes and materials, such as custom cabinetry, epoxy flooring, and built-in storage solutions. The walls and ceiling are fully insulated, with painted or finished surfaces that match the rest of the home and features adequate plumbing. High-Quality Finished Garage may include car lifts. This type of garage is designed to provide both functionality and aesthetic appeal.

Garage – Attached – Finished – High Quality value is calculated by multiplying the garage square footage by a price per square foot based on **Table 27** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 27: Garage - Attached - Finished - High Quality.

Garage – Attached – Finished – High Quality		
Size	Base Rate per Size - Frame	Base Rate per Size - Brick Veneer
0 – 200	\$ 56.74	\$ 62.15
400	\$ 46.75	\$ 50.81
600	\$ 41.83	\$ 44.76
800	\$ 39.43	\$ 42.13
1,000 +	\$ 37.46	\$ 39.71



Garage – Living (Attached)

Any living space within a garage adds value to the garage. This is calculated by multiplying the living square footage by a price per square foot based on **Table 28** below.

Table 28: Garage - Living (Attached).

Garage - Living (Attached)	
Size	Base Rate per Size
0 – 300	\$ 50.96
400	\$ 48.26
500	\$ 46.90
600 +	\$ 45.55

Integral Carport (Attached)

An integral carport value is calculated by multiplying the carport square footage by a price per square foot based on **Table 29** below.

Table 29: Integral Carport (Attached).

Integral Carport (Attached)	
Size	Base Rate
Flat Rate per Square Foot	\$ 23.45

Shed Carport (Attached)

The shed carport value is calculated by multiplying the shed carport square footage by a price per square foot based on **Table 30** below.

Table 30: Shed Carport (Attached).

Shed Carport (Attached)	
Size	Base Rate
Flat Rate per Square Foot	\$ 16.23



Concrete Patio

A standard quality concrete patio consists of a basic poured concrete slab at ground level, while a high-quality concrete patio may feature extra ornamentation for enhanced aesthetics.

The value of a concrete patio is calculated by multiplying the patio square footage by a price per square foot based on **Table 31** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 31: Concrete Patio.

Concrete Patio		
Concrete Patio - Standard Quality		
Size	Base Rate per Size	
0	\$ 10.21	
50	\$ 9.29	
100	\$ 8.83	
200	\$ 8.55	
300 +	\$ 8.26	
C	oncrete Patio – High Quality	
Size	Base Rate per Size	
0	\$ 14.68	
50	\$ 13.58	
100	\$ 12.79	
200	\$ 12.44	
300 +	\$ 12.10	



Brick Patio

A standard quality brick patio is a ground level patio made from brick pavers. A high-quality brick patio may feature extra ornamentation for enhanced aesthetics. A low-quality brick patio is slightly lower in quality of materials and craftsmanship than standard brick patios.

The value of a brick patio is calculated by multiplying the patio square footage by a price per square foot based on **Table 32** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 32: Brick Patio.

Table 32: Brick Patio.	Brick Patio									
	Brick Patio - Low Quality									
Size	Base Rate per Size									
0	\$ 11.86									
50	\$ 11.42									
100	\$ 10.98									
200	\$ 10.76									
300 +	\$ 10.32									
Brick Patio – Standard Quality										
Size	Base Rate per Size									
0	\$ 16.73									
50	\$ 16.11									
100	\$ 15.49									
200	\$ 15.18									
300 +	\$ 14.55									
	Brick Patio – High Quality									
Size	Base Rate per Size									
0	\$ 25.57									
50	\$ 24.62									
100	\$ 23.68									
200	\$ 23.20									
300 +	\$ 22.25									



Flagstone Patio

A standard quality flagstone patio is a ground level patio made of flat stone or other high-end material. A high-flagstone patio may feature extra ornamentation for enhanced aesthetics. A low-quality flagstone patio is slightly lower in quality of materials and craftsmanship than standard flagstone patios.

The value of a flagstone patio is calculated by multiplying the patio square footage by a price per square foot based on **Table 33** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 33: Flagstone Patio.

Table 33: Flagstone Patio.										
	Flagstone Patio									
Flagstone Patio – Low Quality										
Size	Base Rate per Size									
0	\$ 1	13.76								
50	\$ 1	13.25								
100	\$ 1	12.74								
200	\$ 1	12.48								
300 +	\$ 1	11.97								
Flagstone Patio – Standard Quality										
Size	Base Rate per Size									
0	\$ 2	20.84								
50	\$ 2	20.07								
100	\$ 1	19.30								
200	\$ 1	18.91								
300 +	\$ 1	18.14								
	Flagstone Patio - High Quality									
Size	Base Rate per Size									
0	\$ 3	31.90								
50	\$ 3	30.72								
100	\$ 2	29.54								
200	\$ 2	28.94								
300 +	\$ 2	27.76								



Masonry Stoop

A standard quality masonry stoop is a small, often raised, porch or step at the entrance of a building constructed of masonry, often brick. A high-quality masonry stoop may feature extra ornamentation for enhanced aesthetics. A low-quality masonry stoop is slightly lower in quality of materials and craftsmanship than standard masonry stoops.

The value of a masonry stoop is calculated by multiplying the masonry stoop square footage by a price per square foot based on **Table 34** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 34: Masonry Stoop.

Masonry Stoop. Masonry Stoop										
Masonry Stoop – Low Quality										
Size	Base Rate per Size									
0	\$ 24.85									
50	\$ 19.88									
100	\$ 15.74									
200	\$ 13.94									
300 +	\$ 12.15									
Masonry Stoop - Standard Quality										
Size	Base Rate per Size									
0	\$ 27.62									
50	\$ 23.01									
100	\$ 19.38									
200	\$ 17.30									
300 +	\$ 15.23									
N	lasonry Stoop – High Quality									
Size	Base Rate per Size									
0	\$ 36.59									
50	\$ 33.14									
100	\$ 31.53									
200	\$ 28.42									
300 +	\$ 25.31									



Wood Patio

A standard quality wood patio is a ground level patio made of wood. A high-quality wood patio may feature extra ornamentation for enhanced aesthetics, high-end wood, or synthetic wood product. A low-quality wood patio is slightly lower in quality of materials and craftsmanship than standard wood patios.

The value of a wood patio is calculated by multiplying the wood patio square footage by a price per square foot based on **Table 35** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 35: Wood Patio

Wood Patio. Wood Patio										
Wood Patio – Low Quality										
Size	Base Rate per Size									
0	\$ 8.35									
50	\$ 8.04									
100	\$ 7.74									
200	\$ 7.57									
300 +	\$ 7.27									
Wood Patio – Standard Quality										
Size	Base Rate per Size									
0	\$ 10.96									
50	\$ 10.56									
100	\$ 10.15									
200	\$ 9.95									
300 +	\$ 9.54									
	Wood Patio - High Quality									
Size	Base Rate per Size									
0	\$ 13.58									
50	\$ 13.08									
100	\$ 12.58									
200	\$ 12.33									
300 +	\$ 11.82									



Wood Deck

A standard quality wood deck is an elevated platform made of wood that is often connected to a house or built in a garden. Decks are usually supported by posts, beams, and joints, and are generally enclosed by railings for safety. A high-quality wood deck may feature extra ornamentation for enhanced aesthetics, high-end wood, or synthetic wood product. A low-quality wood deck is slightly lower in quality of materials and craftsmanship than standard wood decks.

The value of a wood deck is calculated by multiplying the wood deck square footage by a price per square foot based on **Table 36** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 36: Wood Deck.

	Wood Deck								
Wood Deck - Low Quality									
Size	Base R	ate per Size							
0	\$	36.59							
50	\$	26.70							
100	\$	19.38							
200	\$	15.62							
300 +	\$	11.87							
Wood Deck - Standard Quality									
Size	Base R	ate per Size							
0	\$	40.28							
50	\$	29.46							
100	\$	21.77							
200	\$	17.64							
300 +	\$	13.50							
	Wood Deck - High Quality								
Size	Base R	Rate per Size							
0	\$	49.25							
50	\$	37.51							
100	\$	28.54							
200	\$	23.61							
300 +	\$	18.69							



Open Frame Porch

A standard open frame porch is a structure like a poured slab or wood deck with a roof and open wood supports that might be enclosed with screen. A high-quality open frame porch may feature extra ornamentation for enhanced aesthetics. A low-quality open frame porch is slightly lower in quality of materials and craftsmanship than standard open frame porches.

The value of an open frame porch is calculated by multiplying the open frame porch square footage by a price per square foot based on **Table 37** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 37: Open Frame Porch.

Open Frame Porch. Open Frame Porch										
Open Frame Porch – Low Quality										
Size	Base Rate per Size									
0	\$ 47.37									
50	\$ 39.92									
100	\$ 34.58									
200	\$ 31.54									
300 +	\$ 28.50									
Open Frame Porch – Standard Quality										
Size	Base Rate per Size									
0	\$ 57.62									
50	\$ 50.30									
100	\$ 45.35									
200	\$ 41.91									
300 +	\$ 38.49									
Оре	en Frame Porch – High Quality									
Size	Base Rate per Size									
0	\$ 75.16									
50	\$ 68.72									
100	\$ 65.72									
200	\$ 61.11									
300 +	\$ 56.52									



Open Masonry Porch

A standard open masonry porch is a structure like a poured slab or wood deck with a roof and open masonry supports that might be enclosed with screen. A high-quality open masonry porch may feature extra ornamentation for enhanced aesthetics. A low-quality open masonry porch is slightly lower in quality of materials and craftsmanship than standard open masonry porches.

The value of an open masonry porch is calculated by multiplying the open masonry porch square footage by a price per square foot based on **Table 38** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 38: Open Masonry Porch.

Table 38: Open Masonry Porch.	Open Masonry Porch									
Open Masonry Porch – Low Quality										
Size	Base Rate per Size									
0	\$ 60.36									
50	\$ 52.91									
100	\$ 47.57									
200	\$ 44.53									
300 +	\$ 41.49									
Open Masonry Porch – Standard Quality										
Size	Base Rate per Size									
0	\$ 70.61									
50	\$ 63.29									
100	\$ 58.34									
200	\$ 54.90									
300 +	\$ 51.48									
Оре	en Masonry Porch – High Quality									
Size	Base Rate per Size									
0	\$ 88.15									
50	\$ 81.71									
100	\$ 78.71									
200	\$ 74.10									
300 +	\$ 69.51									



Enclosed Frame Porch or Frame Utility Room

A standard enclosed frame porch or frame utility room is a structure like a poured slab or wood deck with a roof and enclosed frame walls. A high-quality enclosed frame porch or frame utility room may feature extra ornamentation for enhanced aesthetics. A low-quality enclosed frame porch or frame utility room is slightly lower in quality of materials and craftsmanship than standard enclosed frame porch or frame utility rooms.

The value of an enclosed frame porch or frame utility room is calculated by multiplying the square footage by a price per square foot based on **Table 39** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 39: Enclosed Frame Porch or Frame Utility Room.

Enclosed Frame Porch or Frame Utility Room									
Enclosed Frame	Porch or Frame Utility Room – Low Quality								
Size	Base Rate per Size								
0	\$ 56.75								
50	\$ 49.29								
100	\$ 43.95								
200	\$ 40.91								
300 +	\$ 37.87								
Enclosed Frame Porch or Frame Utility Room - Standard Quality									
Size	Base Rate per Size								
0	\$ 70.16								
50	\$ 62.84								
100	\$ 57.89								
200	\$ 54.45								
300 +	\$ 51.03								
Enclosed Frame	Porch or Frame Utility Room - High Quality								
Size	Base Rate per Size								
0	\$ 98.64								
50	\$ 92.19								
100	\$ 89.20								
200	\$ 84.59								
300 +	\$ 79.99								



Enclosed Masonry Porch or Masonry Utility Room

A standard enclosed masonry porch or masonry utility room is a structure like a poured slab or wood deck with a roof and enclosed walls of masonry or brick veneer. A high-quality enclosed masonry porch or masonry utility room may feature extra ornamentation for enhanced aesthetics. A low-quality enclosed masonry porch or masonry utility room is slightly lower in quality of materials and craftsmanship than standard enclosed masonry porch or masonry utility rooms.

The value of an enclosed masonry porch or masonry utility room is calculated by multiplying the square footage by a price per square foot based on **Table 40** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 40: Enclosed Masonry Porch or Masonry Utility Room.

Enclosed Masonry Porch or Masonry Utility Room. Enclosed Masonry Porch or Masonry Utility Room										
Enclosed Masonry Porch or Masonry Utility Room - Low Quality										
Size	Base Rate per Size									
0	\$ 69.74									
50	\$ 62.28									
100	\$ 56.94									
200	\$ 53.90									
300 +	\$ 50.86									
Enclosed Masonry Porch or Masonry Utility Room - Standard Quality										
Size	Base Rate per Size									
0	\$ 83.15									
50	\$ 75.83									
100	\$ 70.88									
200	\$ 67.44									
300 +	\$ 64.02									
Enclosed Masonry	Porch or Masonry Utility Room – High Quality									
Size	Base Rate per Size									
0	\$ 111.63									
50	\$ 105.18									
100	\$ 102.19									
200	\$ 97.58									
300 +	\$ 92.98									



Calculation of Replacement Cost New

Residential Outbuildings

Residential outbuildings replacement cost new are calculated using the tables on the following pages.

Replacement Cost New Defined

Replacement Cost New (RCN) — The current cost of producing a building or improvement, or item of personal property with the same utility with modern materials, design, and workmanship. This cost is less than the amount indicated by the reproduction cost new method. It implies that the cost is based on a modern improvement that affords utility equivalent to that provided by the subject property (Lisa A. Hobart, et al., 2022).



Residential Utility Shed – Frame/Masonry

Multi-purpose structure generally equipped with minimum electrical and/or water service for general storage.

The Residential Shed value is calculated by multiplying the square footage by a price per square foot based on **Table 41** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 41: Residential Shed: Small Utility (Frame) or Utility Shed – Masonry.

Residential Shed: Small Utility (Frame) or Utility Shed - Masonry												
		Construction Quality										
Size	Su	Superior Excellent Good Average Fair Substandard										
0 – 200	\$	84.83	\$	58.37	\$	41.34	\$	27.66	\$	25.48	\$	15.68
400	\$	63.48	\$	43.68	\$	30.93	\$	20.70	\$	19.07	\$	11.74
600	\$	56.18	\$	38.66	\$	27.38	\$	18.32	\$	16.88	\$	10.39
800	\$	52.80	\$	36.34	\$	25.73	\$	17.22	\$	15.86	\$	9.76
1,000 +	\$	50.56	\$	34.79	\$	24.64	\$	16.48	\$	15.19	\$	9.35
				Depre	ciat	ion Sched	ule -	- C				

Quality Notes

Superior: Good wood frame and best brick or stone veneer, hip or gable roof, heavy

composition or wood shingles, best overhead door, concrete slab floor, few extras, best lighting, electric service, plumbing fixtures, may have electric, or a

wall heater.

Excellent: Good wood frame and better brick or stone veneer, hip or gable roof, heavy

composition shingles, better overhead door, concrete slab floor, few extras, good

lighting, electric service, plumbing fixtures, may have electric, or a wall heater.

Good: Wood frame, good brick veneer, hip or gable roof, heavy composition shingles,

good overhead door, unfinished interior, concrete slab floor, minimum electric

service, no plumbing, or heat.

Average: Wood frame, brick veneer, unfinished interior, composition 235 or heavy shingles

or nice metal roof, overhead door, lower quality asphalt or slab floor, minimum

electric service, no plumbing, or heat.

Fair: Light frame, brick veneer, unfinished interior, 235 composition shingles or light

metal roof, overhead door, lower quality light slab floor or board floor, no electric

service, plumbing, or heat.

Substandard: Low cost - brick veneer on wood frame, 235 composition shingles or tin roof,

unfinished interior, overhead door, lowest quality materials, dirt floor, no electric,

plumbing service, or heat.



Shed - Open Car Shed

A structure designed to shelter a vehicle from the elements. It is usually only a roof supported by minimal walls.

The Open Car Shed value is calculated by multiplying the square footage by a price per square foot based on **Table 42** below.

Table 42: Shed - Open Car Shed.

Shed - Open Car Shed												
Construction Quality												
Flat Rate per	Su	perior	Excellent		Good		Average		Fair		Substandard	
Square Foot	\$	39.14	\$	27.23	\$	22.50	\$	16.84	\$	6.73	\$	5.18
	Depreciation Schedule - C											

Quality Notes

Superior: Best materials, gable roof, finished interior, good concrete slab, adequate wiring,

outlets, and water service.

Excellent: Better materials, gable roof, finished interior, concrete floor, and adequate

electric service.

Good: Wood framed, gable roof, unfinished interior, concrete floor, and minimum

electric service.

Average: Good quality metal or average quality wood pole frame, gable roof, unfinished

interior, gravel floor, cheap concrete or asphalt, and minimum electric service.

Fair: Metal or low-cost wood pole frame, unfinished interior, dirt floor, and minimum

electric service.

Substandard: Cheap metal or substandard wood pole frame, unfinished interior, lowest quality

materials, dirt floor, and no electric service.



Residential Detached Garage - Frame/Block

A typical siding or concrete block garage that is free standing and completely separate from the house.

The Residential Detached Garage value is calculated by multiplying the square footage by a price per square foot based on **Table 43** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 43: Residential Detached Garage - Frame or Block.

able 16. Residential Betaeried Carage Trame of Block.													
Residential Detached Garage - Frame or Block													
		Construction Quality											
Size	S	Superior Excellent Good Average Fair Substandard											
0 – 200	\$	120.54	\$	89.21	\$	74.91	\$	56.85	\$	50.38	\$	43.57	
400	\$	90.20	\$	66.76	\$	56.05	\$	42.54	\$	37.70	\$	32.61	
600	\$	79.83	\$	59.08	\$	49.61	\$	37.65	\$	33.37	\$	28.86	
800	\$	75.04	\$	55.53	\$	46.63	\$	35.39	\$	31.36	\$	27.12	
1,000 +	\$	71.84	\$	53.17	\$	44.64	\$	33.88	\$	30.03	\$	25.97	
				Depre	ciat	ion Sched	ule ·	- D					

Quality Notes

Superior: Good wood frame and best siding or stucco, hip or gable roof, heavy

composition or wood shingles, best overhead door, concrete slab floor, few extras, best lighting, electric service, plumbing fixtures, may have electric, or a

wall heater.

Excellent: Good wood frame and better siding or stucco, hip or gable roof, heavy

composition shingles, better overhead door, concrete slab floor, few extras, good

lighting, electric service, plumbing fixtures, may have electric, or a wall heater.

Good: Wood frame, good siding: wood, vinyl, metal, etc. hip or gable roof, heavy

composition shingles, good overhead door, unfinished interior, concrete slab

floor, minimum electric service, no plumbing, or no heat.

Average: Wood frame, board, metal or vinyl siding, composition 235 or heavy shingle or

nice metal roof, unfinished interior, overhead door, lower quality asphalt or slab

floor, minimum electric service, no plumbing, or no heat.

Fair: Light frame, board, or tin siding on exposed studs, 235 composition shingles or

light metal roof, unfinished interior, overhead door, lower quality light slab floor or

board floor, no electric service, no plumbing, and no heat.

Substandard: Low cost - board or tin siding on box frame, 235 composition shingles or tin roof,

unfinished interior, overhead door, lowest quality materials, dirt floor, no electric

service, no plumbing, and no heat.



Residential Detached Garage – Stud Framed Brick Veneer

A brick or stone veneer garage that is free standing and completely separate from the house.

The Residential Detached Garage – Stud Framed Brick Veneer value is calculated by multiplying the square footage by a price per square foot based on **Table 44** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 44: Residential Detached Garage - Stud Framed Brick Veneer.

		Residenti	al D	etached	Ga	rage – Stud	d Fra	med Bric	k V	eneer				
						Construct	ion	Quality						
Size	S	uperior	Ex	cellent		Good	Α	verage		Fair	Sub	standard		
0 – 200	\$													
400	\$	107.31	\$	71.14	\$	58.52	\$	45.79	\$	38.93	\$	29.53		
600	\$	94.97	\$	62.96	\$	51.79	\$	40.53	\$	34.46	\$	26.14		
800	\$	89.27	\$	59.18	\$	48.68	\$	38.09	\$	32.39	\$	24.57		
1,000 +	\$	85.47	\$	56.66	\$	46.61	\$	36.47	\$	31.01	\$	23.52		
				Depre	ciat	ion Sched	ule ·	- D						

Quality Notes

Superior: Good wood frame and best brick or stone veneer, hip or gable roof, heavy

composition or wood shingles, best overhead door, concrete slab floor, few extras, best lighting, electric service, plumbing fixtures, may have electric, or a

wall heater.

Excellent: Good wood frame and better brick or stone veneer, hip or gable roof, heavy

composition shingles, better overhead door, concrete slab floor, few extras, good

lighting, electric service, plumbing fixtures, may have electric, or a wall heater.

Good: Wood frame, good brick veneer, hip or gable roof, heavy composition shingles,

good overhead door, unfinished interior, concrete slab floor, minimum electric

service, no plumbing, and no heat.

Average: Wood frame, brick veneer, unfinished interior, 235 composition or heavy shingles

or nice metal roof, overhead door, lower quality asphalt or slab floor, minimum

electric service, no plumbing, and no heat.

Fair: Light frame, brick veneer, unfinished interior, 235 composition shingles or light

metal roof, overhead door, lower quality light slab floor or board floor, no electric

service, no plumbing, and no heat.

Substandard: Low cost - brick veneer on wood frame, 235 composition shingles or tin roof,

unfinished interior, overhead door, lowest quality materials, dirt floor, no electric or

plumbing service, and no heat.



Attic Over Outbuilding

Attic over outbuilding is an unfinished space with fixed stairs just below the roof of a building.

The attic over outbuilding value is calculated by multiplying the square footage by a price per square foot based on **Table 45** below.

Table 45: Attic Over Outbuilding.

				Attic	Ove	er Outbuil	ding							
	Construction Quality													
Flat Rate per	Sı	uperior	Ex	cellent		Good	Av	erage		Fair	Subs	tandard		
Square Foot	\$	13.47	\$	11.65	\$	10.12	\$	7.73	\$	6.79	\$	5.97		
Depreciation Schedule - D														

Note: The quality of Attic Over Outbuilding is generally commensurate with quality of building the attic is over.

Upper Living (Outbuilding) – Frame Structure Only

A second floor over an outbuilding building. Use the interior finish attributes to account for varying degrees of finish.

The Upper Living (Outbuilding) value is calculated by multiplying the square footage by the upper living area based on **Table 46** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 46: Upper Living (Outbuilding) - Frame Structure Only.

Table 40. Opper			<u> </u>			ding) – Fra	me :	Structure	Onl	у			
						Construct	ion	Quality					
Size	Su	uperior	Ex	cellent		Good	A	verage		Fair	Sub	standard	
0 – 200	\$	68.44 \$ 49.33 \$ 41.05 \$ 33.58 \$ 29.76 \$ 24.											
400	\$	51.22	\$	36.91	\$	30.72	\$	25.13	\$	22.27	\$	18.00	
600	\$	45.33	\$	32.67	\$	27.19	\$	22.24	\$	19.71	\$	15.93	
800	\$	42.61	\$	30.70	\$	25.55	\$	20.90	\$	18.52	\$	14.97	
1,000 +	1,000 + \$ 40.79 \$ 29.40 \$ 24.47 \$ 20.01 \$ 17.73 \$ 14.33												
				Depre	ciat	ion Sched	ule -	- D					



Interior Finish (Outbuilding)

Interior Finish is the additional value added for interior buildouts and can be applied to any outbuilding.

The Interior Finish (Outbuilding) value is calculated by multiplying the square footage by a price per square foot based on the extent of finish. **Table 47** lists the rates for a minimally finished area. **Table 48** lists the rates for a recreational quality finish, and **Table 49** lists the rates for an apartment quality finish.

Table 47: Interior Finish - Minimal Quality.

				Interior F	inisl	h - Minima	l Qu	ality				
						Construct	ion (Quality				
Flat Rate per	Sı	uperior	Ex	cellent		Good	A۱	/erage		Fair	Subs	tandard
Square Foot	\$	14.51	\$	13.34	\$	12.22	\$	10.36	\$	8.86	\$	7.97
Depreciation Schedule - D												

Table 48: Interior Finish - Recreational Quality.

			Inte	rior Finis	sh –	Recreatio	nal (Quality				
						Construct	ion (Quality				
Flat Rate per	Su	perior	Exc	Excellent Good Av						Fair	Sub	standard
Square Foot	\$	30.67	\$	27.28	\$	26.38	\$	23.45	\$	20.11	\$	18.04
Depreciation Schedule – D												

Table 49: Interior Finish - Apartment Quality.

			I	nterior Fin	ish	- Apartme	ent Q	uality				
						Construct	ion (Quality				
Flat Rate per	S	uperior	Excellent Good					/erage		Fair	Sub	standard
Square Foot	\$	161.84	\$	108.52	\$	85.53	\$	65.06	\$	53.94	\$	41.54
Depreciation Schedule – D												

Quality Notes

Interior Finish Minimal Quality: Sheetrock or Paneling

Interior Finish Recreational Quality: Recreational space with sheetrock or paneling, paint and

floor covering, etc.

Interior Finish Apartment Quality: Livable space with sheetrock, paint, and floor covering,

etc.



Residential Pool In-Ground

In-ground concrete, gunite or vinyl residential swimming pools - costs include filter, concrete coping, light, steps, and ladder.

The Residential Pool In-Ground value is calculated by multiplying the square footage by a price per square foot based on **Table 50** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

 Table 50: Residential In-ground Swimming Pool.

	Residential In-ground Swimming Pool														
						Construct	ion	Quality							
Size	S	uperior	Ex	cellent		Good	Α	verage		Fair	Sub	standard			
0 – 300	\$	265.02	\$	221.84	\$	178.67	\$	111.04	\$	88.83	\$	78.65			
450	\$	203.73	\$	170.53	\$	137.35	\$	85.36	\$	68.28	\$	60.46			
525	\$	188.82	\$	158.06	\$	127.30	\$	79.11	\$	63.29	\$	56.04			
650	\$	165.64	\$	138.65	\$	111.67	\$	69.40	\$	55.52	\$	49.16			
800	\$	145.76	\$	122.01	\$	98.26	\$	61.07	\$	48.85	\$	43.26			
800 +	\$	134.16	\$	112.30	\$	90.45	\$	56.21	\$	44.97	\$	39.81			
				Depre	ciati	on Sched	ule -	- A							

Quality Notes

Superior: Concrete / Gunite with high end extras i.e., lights, mosaic tile, built-in features,

etc., may have hot tub.

Excellent: Concrete / Gunite with extras i.e., lights, mosaic tile, built-in features, etc., may

have hot tub.

Good: Concrete / Gunite with low end extras i.e., lights, mosaic tile, built-in features, etc.,

Average: Concrete / Gunite.

Fair: Vinyl.

Substandard: Vinyl - low cost.



Commercial Swimming Pool

Large recreational pools found at parks, schools, hotels, etc. Poured concrete costs include chlorinator, filter, heaters, board, ladders, and coping.

The Commercial Swimming Pool value is calculated by multiplying the square footage by a price per square foot based on **Table 51** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 51: Commercial Swimming Pool.

Commercial Swimming Pool															
	Construction Quality														
Size	Excellent Good Average Fair Substandard														
0 – 4,000	\$														
8,000	\$	93.09	\$	89.45	\$	79.59	\$	74.47	\$	71.57					
8,001 +	8,001 + \$ 89.13 \$ \$ 85.65 \$ 76.21 \$ 71.30 \$ 68.52														
	Depreciation Schedule - C														

Quality Notes

Excellent: Poured concrete with high end extras i.e., lights, mosaic tile, built-in features, etc.,

Good: Poured concrete with extras i.e., lights, mosaic tile, built-in features, etc.,

Average: Poured concrete - standard materials.

Fair: Poured concrete - substandard materials.

Substandard: Poured concrete - low cost.



Bath House

Bath Houses are structures containing small dressing room(s) and/or game room, usually supporting recreational improvements. Lowest quality is a simple cabana without plumbing, while the better quality includes the well-appointed entertainment/guest facility.

The Bath House value is calculated by multiplying the square footage by a price per square foot based on **Table 52** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 52: Bath House.

Bath House													
						Construct	ion (Quality					
Size	S	uperior	Ex	cellent		Good	A۱	verage		Fair	Sub	standard	
0 – 200	\$	224.93	\$	142.13	\$	104.27	\$	76.31	\$	49.11	\$	30.52	
400	\$	202.64	\$	128.05	\$	93.94	\$	68.75	\$	44.25	\$	27.50	
600	\$	198.58	\$	125.48	\$	92.06	\$	67.37	\$	43.36	\$	26.95	
800	\$	192.50	\$	121.64	\$	89.24	\$	65.31	\$	42.03	\$	26.12	
1,000	\$	186.42	\$	117.80	\$	86.42	\$	63.25	\$	40.71	\$	25.30	
1,500	\$	178.32	\$	112.68	\$	82.66	\$	60.50	\$	38.94	\$	24.20	
2,000 +	\$	172.24	\$	108.84	\$	79.84	\$	58.43	\$	37.61	\$	23.37	
				Depre	ciat	ion Sched	ule -	· C					

Quality Notes

Superior: Superior quality materials, brick or stone exterior, high end architectural details,

bathroom, recreational room, indoor and/or outdoor kitchen, fully finished interior

with apartment quality finishes, and package HVAC.

Excellent: Excellent quality materials, brick or stone exterior, some high-end architectural

details, bathroom, recreational room, indoor and/or outdoor kitchen, fully finished

interior with apartment quality finishes, and HVAC.

Good: Good quality materials, typically stucco or siding exterior with some details in

design, bathroom, possible recreational room, finished interior with recreational quality finishes, outdoor kitchen or grilling area, adequate lighting, plumbing, and

HVAC.

Average: Average quality materials, typically cement fiber, wood, or low-cost stucco

exterior, bathroom, typically unfinished storage room, low-cost finishes, minimum

lighting, and plumbing.

Fair: Lower quality materials, typically vinyl siding, no extra architectural details,

changing room only, no kitchen or recreational room, no HVAC.

Substandard: Cabana type, cheap materials, possibly one room with changing room and

storage with unfinished interior, and no HVAC.



Greenhouse

Structure used to grow plants in a residential application.

The greenhouse value is calculated by multiplying the square footage by a price per square foot based on **Table 53** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 53: Greenhouse.

	Greenhouse													
						Construct	ion (Quality						
Size	Su	perior	Ex	cellent		Good	Α	verage		Fair	Sub	standard		
0 – 200	\$	84.98	\$	78.88	\$	72.78	\$	66.68	\$	60.58	\$	54.48		
400	\$	63.59	\$	59.03	\$	54.46	\$	49.90	\$	45.33	\$	40.77		
600	\$	56.28	\$	52.24	\$	48.20	\$	44.16	\$	40.12	\$	36.08		
800	\$	52.90	\$	49.10	\$	45.30	\$	41.51	\$	37.71	\$	33.91		
1,000 +	\$	50.65	\$	47.01	\$	43.38	\$	39.74	\$	36.10	\$	32.47		
	Depreciation Schedule - A													

Quality Notes

Superior: Contractor built, best materials or highest end kit.

Excellent: Contractor built, better materials or high-end kit.

Good: Contractor built, good materials or good quality kit.

Average: Good amateur built or standard kit.

Fair: Fair amateur built or low-cost kit.

Substandard: Poor amateur built or lowest cost kit.



Tennis/Game Court

Tennis/Gaming Courts with concrete or asphalt courts and fencing.

The Tennis/Game Court value is calculated by multiplying the square footage by a price per square foot based on **Table 54** below.

 Table 54: Residential Tennis/Game Court.

			F	Residential Ten	nis/	/Game Court								
	Construction Quality													
Flat Rate per	Excellent Good Average Fair Substan													
Square Foot	\$	11.88	\$	10.94	\$	10.00	\$	9.05	\$	8.11				
Depreciation Schedule - C														

Quality Notes

Superior: Best quality materials, tennis/gaming courts, concrete or better court, posts, net,

striping and fencing, superior lights, and extras.

Excellent: Better-quality materials, tennis/gaming courts, concrete or better court, posts,

net, striping and fencing, adequate lights, and extras.

Good: Good quality materials, concrete court, posts, net, striping, and fencing. A good

court may have minimal lighting, and extras.

Average: Concrete court, posts, net, striping and fencing, no lighting, or extras.

Fair: Light concrete or good asphalt court, posts, net, striping and fencing, no lighting,

or extras.

Substandard: Asphalt court, posts, net, striping and fencing, no lighting, or extras.



Outdoor Fireplace

An outdoor fireplace often consists of a firebox and chimney and usually added to a stone, brick, or concrete patio.

The outdoor fireplace value is calculated by multiplying the number of outdoor fireplaces by the price per item based on **Table 55** below.

 Table 55: Residential Outdoor Fireplace.

		Residen	tial Outdoor F	ireplace										
			Construct	ion Quality										
Flat Rate	Superior Excellent Good Average Fair Substan													
per Item	\$ 16,039.97 \$ 12,737.43 \$ 9,697.39 \$ 7,897.73 \$ 5,410.67 \$ 3,112.13													
Depreciation Schedule - C														

Quality Notes

Superior: Best quality materials, natural stone - custom fireplace.

Excellent: Better-quality materials, good brick, or natural stone - custom fireplace.

Good: Good quality materials brick or cultured stone - custom fireplace.

Average: Standard quality brick or cultured stone, outdoor fireplace.

Fair: Fair quality brick, cultured stone, or block outdoor fireplace.

Substandard: Low-quality brick, cultured stone, or block outdoor fireplace.



Outdoor Kitchen

An outdoor kitchen is a place outside of the house where one can cook or prepare a meal. There is some heating element to the area, such as a stove, a cooktop, or a grill.

The outdoor kitchen value is calculated by multiplying the number of outdoor kitchens by the price item based on **Table 56** below.

Table 56: Residential Outdoor Kitchen.

Table 30. Residential Gatagor Riterien.											
Residential Outdoor Kitchen											
Construction Quality											
Flat Rate	Superior Excellent Good Average Fair Substandard										
per Item	\$ 10,884.46 \$ 9,002.73 \$ 7,270.74 \$ 5,721.42 \$ 4,486.01 \$ 3,662.41										
Depreciation Schedule - C											

Quality Notes

Superior: Best materials, good, heavy-duty spit, with many extras, sink, stainless steel broiler

and hood. All components are high end; however, the value does not include

the building or structure it is within.

Excellent: Better materials, stainless steel finishes, with many extras, sink, and broiler. Wiring

and outlets are adequate. The value does not include the building or structure it

is within.

Good: Good materials, stainless steel finishes, with some extras like a sink, Wiring and

outlets are adequate. The value does not include the building or structure it is

within.

Average: Good materials, stainless steel finishes, with few extras like a sink. Wiring and

outlets are adequate. The value does not include the building or structure it is

within.

Fair: Average materials, good grill with no extras or sink. Wiring and outlets are

minimal. The value does not include the building or structure it is within.

Substandard: Low-quality materials, good grill, no extras, sink, wiring, or outlets. The value does

not include the building or structure it is within.



Non-Sketched Concrete Patio

The value of a non-sketched concrete patio is calculated by multiplying the square footage of the patio by a price per square foot based on the size and quality according to **Table 57** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

 Table 57: Non-Sketched Concrete Patio.

Non-Sketched Concrete Patio														
		Construction Quality												
Size	Superior Excellent Good Average Fair Substandar													
0	\$	14.68	\$	14.68	\$	14.68	\$	10.21	\$	10.21	\$	10.21		
50	\$	13.58	\$	13.58	\$	13.58	\$	9.29	\$	9.29	\$	9.29		
100	\$	12.79	\$	12.79	\$	12.79	\$	8.83	\$	8.83	\$	8.83		
200	\$	12.44	\$	12.44	\$	12.44	\$	8.55	\$	8.55	\$	8.55		
300 +	\$	12.10	\$	12.10	\$	12.10	\$	8.26	\$	8.26	\$	8.26		
				Depre	ciat	tion Sched	ule	– E						

Quality Notes

Superior - Good: A ground level patio made from a poured concrete slab with

extra ornamentation.

Average – Substandard: A ground level patio made from a poured concrete slab.



Non-Sketched Brick Patio

The value of a non-sketched brick patio is calculated by multiplying the square footage of the patio by a price per square foot based on the size and quality according to **Table 58** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 58: Non-Sketched Brick Patio.

Non-Sketched Brick Patio													
	Construction Quality												
Size	Superior Excellent Good Average Fair Substanda											standard	
0	\$	25.57	\$	25.57	\$	25.57	\$	16.73	\$	11.86	\$	11.86	
50	\$	24.62	\$	24.62	\$	24.62	\$	16.11	\$	11.42	\$	11.42	
100	\$	23.68	\$	23.68	\$	23.68	\$	15.49	\$	10.98	\$	10.98	
200	\$	23.20	\$	23.20	\$	23.20	\$	15.18	\$	10.76	\$	10.76	
300 +	\$	22.25	\$	22.25	\$	22.25	\$	14.55	\$	10.32	\$	10.32	
				Depre	ciat	ion Sched	ule ·	- E					

Quality Notes

Superior – Good: A ground level patio made from brick pavers with extra ornamentation.

Average: Standard flat ground level patio made of brick pavers.

Fair - Substandard: Low-quality possibility amateur built flat ground level patio made of brick

pavers.



Non-Sketched Flagstone Patio

The value of a non-sketched flagstone patio is calculated by multiplying the square footage of the patio by a price per square foot based on the size and quality according to **Table 59** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 59: Non-Sketched Flagstone Patio.

Non-Sketched Flagstone Patio													
	Construction Quality												
Size	Superior Excellent Good Average Fair Substanda											standard	
0	\$	31.90	\$	31.90	\$	31.90	\$	20.84	\$	13.76	\$	13.76	
50	\$	30.72	\$	30.72	\$	30.72	\$	20.07	\$	13.25	\$	13.25	
100	\$	29.54	\$	29.54	\$	29.54	\$	19.30	\$	12.74	\$	12.74	
200	\$	28.94	\$	28.94	\$	28.94	\$	18.91	\$	12.48	\$	12.48	
300 +	\$	27.76	\$	27.76	\$	27.76	\$	18.14	\$	11.97	\$	11.97	
				Depre	ciat	ion Sched	ule -	- E					

Quality Notes

Superior - Good: A ground level patio made from flat stone or other high-end material with

extra ornamentation.

Average: Standard flat ground level patio made of flat stone or other high-end

material.

Fair - Substandard: Low-quality possibility amateur built flat ground level patio made of flat

stone or other high-end material.



Non-Sketched Masonry Stoop

The value of a non-sketched masonry stoop is calculated by multiplying the square footage of the masonry stoop by a price per square foot based on the size and quality according to **Table 60** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

 Table 60: Non-Sketched Masonry Stoop.

Non-Sketched Masonry Stoop													
	Construction Quality												
Size	Superior Excellent Good Average Fair Substand											standard	
0	\$	36.59	\$	36.59	\$	36.59	\$	27.62	\$	24.85	\$	24.85	
50	\$	33.14	\$	33.14	\$	33.14	\$	23.01	\$	19.88	\$	19.88	
100	\$	31.53	\$	31.53	\$	31.53	\$	19.38	\$	15.74	\$	15.74	
200	\$	28.42	\$	28.42	\$	28.42	\$	17.30	\$	13.94	\$	13.94	
300 +	\$	25.31	\$	25.31	\$	25.31	\$	15.23	\$	12.15	\$	12.15	
				Depre	ciat	ion Sched	ule -	- E					

Quality Notes

Superior - Good: A small, often raised, porch or step at the entrance of a building

constructed of high-end masonry or with extra ornamentation, often brick.

Average: A small, often raised, porch or step at the entrance of a building

constructed of masonry, often brick.

Fair - Substandard: A small, often raised, porch or step at the entrance of a building

constructed of low-end masonry, often brick.



Non-Sketched Wood Deck

The value of a non-sketched wood deck is calculated by multiplying the square footage of the deck by a price per square foot based on the size and quality according to Table 61 below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 61: Non-Sketched Wood Deck.

				Non-S	cetc	hed Wood	d De	ck			
						Construct	ion (Quality			
Size	Su	perior	Ex	cellent		Good	A	verage	Fair	Sub	standard
0	\$	49.25	\$	49.25	\$	49.25	\$	40.28	\$ 36.59	\$	36.59
50	\$	37.51	\$	37.51	\$	37.51	\$	29.46	\$ 26.70	\$	26.70
100	\$	28.54	\$	28.54	\$	28.54	\$	21.77	\$ 19.38	\$	19.38
200	\$	23.61	\$	23.61	\$	23.61	\$	17.64	\$ 15.62	\$	15.62
300 +	\$	18.69	\$	18.69	\$	18.69	\$	13.50	\$ 11.87	\$	11.87
				Depre	ciat	ion Sched	ule -	- E			

Quality Notes

Superior - Good: A flat elevated platform made of wood with extra ornamentation, high-

> end wood, or synthetic wood product that is often connected to a house or built in a garden. Decks are usually supported by posts, beams, and

joints, and are generally enclosed by railings for safety.

A flat elevated platform made of wood that is often connected to a Average:

house or built in a garden. Decks are usually supported by posts, beams,

and joints, and are generally enclosed by railings for safety.

Fair - Substandard: Low-quality possibility amateur built flat elevated platform made of wood

that is often connected to a house or built in a garden. Decks are usually supported by posts, beams, and joints, and are generally enclosed by

railings for safety.



Non-Sketched Open Porch

The value of a non-sketched open frame porch is calculated by multiplying the square footage of the porch by a price per square foot based on the size and quality according to **Table 62** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 62: Non-Sketched Open Porch.

		·		Non-Sk	cetc	hed Oper	n Por	ch			
						Construct	ion	Quality			
Size	Su	perior	Ex	cellent		Good	Α	verage	Fair	Sub	standard
0	\$	75.16	\$	75.16	\$	75.16	\$	57.62	\$ 47.37	\$	47.37
50	\$	68.72	\$	68.72	\$	68.72	\$	50.30	\$ 39.92	\$	39.92
100	\$	65.72	\$	65.72	\$	65.72	\$	45.35	\$ 34.58	\$	34.58
200	\$	61.11	\$	61.11	\$	61.11	\$	41.91	\$ 31.54	\$	31.54
300 +	\$	56.52	\$	56.52	\$	56.52	\$	38.49	\$ 28.50	\$	28.50
				Depre	ciat	tion Sched	ule ·	- E			

Quality Notes

Superior - Good: A structure like a poured slab or wood deck with a roof and open

supports constructed with high-end wood or masonry, synthetic wood product, or structure with extra ornamentation. Walls are not enclosed.

Average: A structure like a poured slab or wood deck with a roof and open

supports. Walls are not enclosed.

Fair - Substandard: Low-quality possibility amateur built structure like a poured slab or wood

deck with a roof and open supports. Walls are not enclosed.



Non-Sketched Enclosed Porch

The value of a non-sketched enclosed porch is calculated by multiplying the square footage of the porch by a price per square foot based on the size and quality according to **Table 63** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 63: Non-Sketched Enclosed Porch.

				Non-Ske	tch	ed Enclose	ed P	orch			
						Construct	ion	Quality			
Size	Su	perior	Ex	cellent		Good	Α	verage	Fair	Sub	standard
0	\$	98.64	\$	98.64	\$	98.64	\$	70.16	\$ 56.75	\$	56.75
50	\$	92.19	\$	92.19	\$	92.19	\$	62.84	\$ 49.29	\$	49.29
100	\$	89.20	\$	89.20	\$	89.20	\$	57.87	\$ 43.95	\$	43.95
200	\$	84.59	\$	84.59	\$	84.59	\$	54.45	\$ 40.91	\$	40.91
300 +	\$	79.99	\$	79.99	\$	79.99	\$	51.03	\$ 37.87	\$	37.87
				Depre	ciat	ion Sched	ule ·	- E			

Quality Notes

Superior - Good: A structure like a poured slab or wood deck with a roof and open

supports constructed with high-end wood or masonry, synthetic wood product, or structure with extra ornamentation. Walls are enclosed.

Average: A structure like a poured slab or wood deck with a roof and open

supports. Walls are enclosed.

Fair - Substandard: Low-quality possibility amateur built structure like a poured slab or wood

deck with a roof and open supports. Walls are enclosed.



Calculation of Replacement Cost New

Residential Farm Outbuildings

Residential farm outbuildings replacement cost new are calculated using the tables on the following pages.

Replacement Cost New Defined

Replacement Cost New (RCN) — The current cost of producing a building or improvement, or item of personal property with the same utility with modern materials, design, and workmanship. This cost is less than the amount indicated by the reproduction cost new method. It implies that the cost is based on a modern improvement that affords utility equivalent to that provided by the subject property (Lisa A. Hobart, et al., 2022).



Loft Area – Over Structure

Loft Areas are predominantly used for storing hay. Costs include floor structure and supports only.

The Loft Area Over Structure value is calculated by multiplying the square footage by a price per square foot based on **Table 64** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 64: Loft Area - Over Structure.

Table 64. LOIT ARE	<i>Ju</i> – (over struc	iuiC.	Loft A	ea	– Over Stru	ıctu	re			
						Construct					
Size	Su	uperior	Ex	cellent		Good	A	verage	Fair	Sub	standard
0 – 500	\$	28.86	\$	19.62	\$	14.24	\$	10.54	\$ 9.96	\$	6.76
750	\$	28.20	\$	19.17	\$	13.92	\$	10.30	\$ 9.73	\$	6.61
1,000	\$	27.55	\$	18.73	\$	13.59	\$	10.06	\$ 9.51	\$	6.45
1,500	\$	26.24	\$	17.84	\$	12.95	\$	9.59	\$ 9.06	\$	6.15
2,000	\$	25.71	\$	17.48	\$	12.69	\$	9.39	\$ 8.87	\$	6.02
2,500	\$	24.66	\$	16.76	\$	12.17	\$	9.01	\$ 8.51	\$	5.78
3,000	\$	23.87	\$	16.23	\$	11.78	\$	8.72	\$ 8.24	\$	5.59
3,500	\$	23.35	\$	15.87	\$	11.52	\$	8.53	\$ 8.06	\$	5.47
4,000	\$	23.09	\$	15.69	\$	11.39	\$	8.43	\$ 7.97	\$	5.41
5,000	\$	22.56	\$	15.34	\$	11.13	\$	8.24	\$ 7.79	\$	5.28
5,001 +	\$	22.04	\$	14.98	\$	10.87	\$	8.05	\$ 7.61	\$	5.16
				Depre	ciat	ion Sched	ule -	- B			

Quality Notes

Superior: Heavy timber construction with top-grade tongue and groove flooring or

premium plank flooring, built with exceptional craftsmanship and materials.

Excellent: Solid heavy timber with durable tongue and groove flooring or high-quality plank

flooring, closely aligned with the quality of the main structure, but with less

emphasis on exceptional detail compared to the Superior grade.

Good: Sturdy and reliable support, typically using a good plank floor or quality plywood,

with attention to durability but not premium materials.

Average: Adequate support and construction, often employing basic plank or plywood

flooring, built to match the overall functional quality of the main structure without

added emphasis on superior materials.

Fair: Basic support with a functional but lighter floor, designed to meet minimum

structural needs, consistent with the lower-end construction of the main structure,

but still reliable for simple storage.

Substandard: Minimal structural support with a lightweight floor, barely meeting the functional

requirements, typically reflecting poor craftsmanship and materials.



Barn - Traditional Flat or Loft

These are a range of styles of buildings that may be used for the care of livestock or grain/hay storage. Loft areas are not included in the rates below.

The Barn – Traditional Flat or Loft value is calculated by multiplying the square footage by a price per square foot based on **Table 65** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 65: Barn - Traditional Flat or Loft.

Table 65. balli -	IIaui	tionarnat	OI LUI					-			
				Barn -	Irac	litional Fla	t or l	_oft			
						Construct	ion (Quality			
Size	Sı	uperior	Ex	cellent		Good	A	verage	Fair	Sub	standard
0 – 500	\$	50.05	\$	32.03	\$	25.21	\$	20.85	\$ 17.50	\$	11.86
750	\$	48.91	\$	31.30	\$	24.63	\$	20.38	\$ 17.10	\$	11.59
1,000	\$	47.77	\$	30.57	\$	24.06	\$	19.90	\$ 16.70	\$	11.32
1,500	\$	45.50	\$	29.12	\$	22.92	\$	18.96	\$ 15.91	\$	10.79
2,000	\$	44.59	\$	28.53	\$	22.46	\$	18.58	\$ 15.59	\$	10.57
2,500	\$	42.77	\$	27.37	\$	21.54	\$	17.82	\$ 14.95	\$	10.14
3,000	\$	41.40	\$	26.49	\$	20.85	\$	17.25	\$ 14.47	\$	9.81
3,500	\$	40.49	\$	25.91	\$	20.39	\$	16.87	\$ 14.15	\$	9.60
4,000	\$	40.04	\$	25.62	\$	20.16	\$	16.68	\$ 14.00	\$	9.49
5,000	\$	39.13	\$	25.04	\$	19.71	\$	16.30	\$ 13.68	\$	9.27
5,001 +	\$	38.22	\$	24.46	\$	19.25	\$	15.92	\$ 13.36	\$	9.06
				Depre	ciat	ion Sched	ule -	- B			

Quality Notes

Superior: Good frame or masonry, lap siding or high-quality metal siding, gable roof,

unfinished interior with or without windows, concrete slab or plank flooring, stalls,

adequate wiring and outlets, water service, but no heat.

Excellent: Wood frame or concrete block, good quality siding, gable roof, unfinished interior

with or without windows, some concrete slab or plank flooring, stalls, few outlets,

water service, but no heat.

Good: Light frame or pole frame, metal siding or board siding, gable roof, unfinished

interior, lower quality or dirt floor, cheap stalls, minimum electric service, and

plumbing, but no heat.

Average: Pole frame, metal siding or board siding, gable roof, unfinished interior, dirt floor,

cheap stalls, minimum electric service, and plumbing, but no heat.

Fair: Pole frame, metal siding, unfinished interior, dirt floor, no electric service or

plumbing, but no heat.

Substandard: Low-cost pole frame and metal siding, unfinished interior, dirt floor, no electric

service or plumbing, but no heat.



Livestock Stable/Horse Barn

Stables or stall barns designed for the care and housing of horses or livestock.

The Livestock Stable/Horse Barn value is calculated by multiplying the square footage by a price per square foot based on **Table 66** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 66: Livestock Stable Horse Barn.

Table 66: Livesto	UN SIG	able Horse	ван	1.							
				Livesto	ck S	Stable Hors	se B	arn			
						Construct	ion	Quality			
Size	Su	perior	Ex	cellent		Good	Α	verage	Fair	Sub	standard
0 – 500	\$	63.78	\$	38.61	\$	33.09	\$	25.57	\$ 22.30	\$	16.00
750	\$	62.33	\$	37.73	\$	32.34	\$	24.99	\$ 21.80	\$	15.64
1,000	\$	60.88	\$	36.85	\$	31.59	\$	24.41	\$ 21.29	\$	15.27
1,500	\$	57.99	\$	35.10	\$	30.09	\$	23.25	\$ 20.28	\$	14.55
2,000	\$	56.83	\$	34.39	\$	29.48	\$	22.78	\$ 19.87	\$	14.25
2,500	\$	54.51	\$	32.99	\$	28.28	\$	21.85	\$ 19.06	\$	13.67
3,000	\$	52.77	\$	31.94	\$	27.38	\$	21.15	\$ 18.45	\$	13.24
3,500	\$	51.61	\$	31.23	\$	26.78	\$	20.69	\$ 18.04	\$	12.94
4,000	\$	51.03	\$	30.88	\$	26.47	\$	20.46	\$ 17.84	\$	12.80
5,000	\$	49.87	\$	30.18	\$	25.87	\$	19.99	\$ 17.44	\$	12.51
5,001 +	\$	48.71	\$	29.48	\$	25.27	\$	19.53	\$ 17.03	\$	12.22
				Depre	ciati	ion Sched	ule	– B			

Quality Notes

Superior: Wood frame or masonry, brick veneer or best siding, some windows, high quality

stalls, finished tack room, flooring, good lighting and water outlets, may have

restroom, but no heat.

Excellent: Wood frame or masonry, stucco or wood siding, nice trim, wainscot in stalls,

concrete flooring in tack and feed room, adequate lighting, and water outlets,

but no heat.

Good: Wood frame or pole frame, good metal siding or wood siding, wainscot in stalls,

flooring in tack and feed room, adequate lighting, and water outlets, but no

heat.

Average: Pole frame, wood or metal siding, unfinished interior, low cost or dirt floor, open

stalls, minimal or no lighting and water outlets, but no heat.

Fair: Pole frame, metal siding, unfinished interior, dirt floor, rough stalls, minimal or no

lighting and water outlets, but no heat.

Substandard: Pole frame, metal siding, shed or low gable roof, rough stalls, dirt floor, minimal

hobby stable, no lighting or water outlets, but no heat.



Estate Type Stables (High Value)

Stables or stall barns that are designed for the care and housing of horses. High-value stables are the estate-type equine barns, with better qualities being the custom luxury breeding facilities where cost is not an issue.

The Estate Type Stables value is calculated by multiplying the square footage by a price per square foot based on **Table 67** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 67: Estate Type Stables (High Value).

Table 67: Estate	туре	stables (11	igii v	raiue).							
				Estate Typ	oe S	tables (Hi	gh V	'alue)			
						Construct	ion	Quality			
Size	S	uperior	Ex	cellent		Good	Α	verage	Fair	Sub	standard
0 – 500	\$	290.66	\$	199.50	\$	137.73	\$	94.68	\$ 88.11	\$	85.58
750	\$	284.05	\$	194.97	\$	134.60	\$	92.53	\$ 86.10	\$	83.63
1,000	\$	277.45	\$	190.43	\$	131.47	\$	90.38	\$ 84.10	\$	81.69
1,500	\$	264.24	\$	181.37	\$	125.21	\$	86.08	\$ 80.10	\$	77.80
2,000	\$	258.95	\$	177.74	\$	122.70	\$	84.35	\$ 78.49	\$	76.24
2,500	\$	248.38	\$	170.48	\$	117.69	\$	80.91	\$ 75.29	\$	73.13
3,000	\$	240.45	\$	165.04	\$	113.94	\$	78.33	\$ 72.89	\$	70.79
3,500	\$	235.17	\$	161.41	\$	111.43	\$	76.61	\$ 71.28	\$	69.24
4,000	\$	232.53	\$	159.60	\$	110.18	\$	75.75	\$ 70.48	\$	68.46
5,000	\$	227.24	\$	155.97	\$	107.68	\$	74.02	\$ 68.88	\$	66.90
5,001 +	\$	221.96	\$	152.35	\$	105.17	\$	72.30	\$ 67.28	\$	65.35
				Depre	ciat	ion Sched	ule ·	- D			

Quality Notes

Superior: Face brick or stone veneer, heavy roof, custom trim, cupolas, custom stalls, best

quality interior finish, extensive fixtures, and custom hardware throughout, but no

heat.

Excellent: Face brick or stone veneer, heavy roof, custom trim, cupolas, custom stalls, best

quality interior finish, high quality fixtures and custom hardware throughout, but

no heat

Good: Fine quality siding or good veneer, shake, or metal roofing, finished stalls, custom

electrical and plumbing fixtures.

Average: Good siding or masonry veneer, trim, insulated, small estate type, finished stalls,

may have lounge and restrooms, good finishes, high-level electrical and

plumbing.

Fair: Small estate type, insulated, some trim, nice roof, finished stalls, nice finishes, and

electrical and plumbing fixtures.

Substandard: Very small estate type stable, minimal finish on stalls, insulation, trim, electrical and

plumbing fixtures.



Lean-To

Lean-Tos are side extensions of a shed, barn, pole building, etc.

The Lean-to value is calculated by multiplying the square footage by a price per square foot based on **Table 68** below.

Table 68: Lean-To.

						Lean-To								
						Construct	ion (Quality						
Flat Rate per	Superior Excellent Good Average Fair Substan													
Square Foot	\$	11.86	\$	8.29	\$	6.36	\$	5.84	\$	4.72	\$	3.77		
				Depre	ciat	ion Sched	ule -	- A						

Quality Notes

Superior: Side extension with pole framing, better metal, or good siding quality siding,

finished concrete slab, may have windows and walk-door, unfinished interior,

adequate lighting, and electric, along with possible water faucet.

Excellent: Side extension with pole framing, good metal siding but most likely open with no

siding, asphalt, or concrete slab, may have sliding door, unfinished interior,

minimal lighting, and electric, along with possible water faucet.

Good: Side extension with pole framing, metal siding but most likely open with no siding,

cheap asphalt or light concrete slab, unfinished interior, minimal lighting, and

electric, along with possible water faucet.

Average: Side extension with pole framing, average metal siding but most likely open with

no siding, dirt or gravel floor, unfinished interior, no lighting, or electricity.

Fair: Side extension with lower quality pole framing, minimal siding but most likely open

with no siding, dirt or gravel floor, no interior finish, no lighting, or electricity.

Substandard: Side extension with low quality pole framing, open with no siding, dirt floor, no

interior finish, no lighting, or electricity.



Milking Parlor

Dairies or Milking Parlors are farm buildings designed for the milking of cows, first stage milk processing and short-term storage. Cost includes the entire building, but not the milking machines or tanks. Permanently installed piping and electrical circuits are included.

The Milking Parlor value is calculated by multiplying the square footage by a price per square foot based on **Table 69** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 69: Milking Parlor.

lable 69: Milking	Panoi.							
				Milking Parlor				
				Constructi	on C	Quality		
Size		Good		Average		Fair		Substandard
0 – 500	\$	36.64	\$	28.47	\$	20.87	\$	15.19
750	\$	35.80	\$	27.83	\$	20.40	\$	14.84
1,000	\$	34.97	\$	27.18	\$	19.92	\$	14.50
1,500	\$	33.31	\$	25.89	\$	18.98	\$	13.81
2,000	\$	32.64	\$	25.37	\$	18.60	\$	13.53
2,500	\$	31.31	\$	24.33	\$	17.84	\$	12.98
3,000	\$	30.31	\$	23.55	\$	17.27	\$	12.56
3,500	\$	29.64	\$	23.04	\$	16.89	\$	12.29
4,000	\$	29.31	\$	22.78	\$	16.70	\$	12.15
5,000	\$	28.64	\$	22.26	\$	16.32	\$	11.87
5,001 +	\$	27.98	\$	21.74	\$	15.94	\$	11.60
			Dep	reciation Schedu	ıle -	В	20.87 \$ 20.40 \$ 19.92 \$ 18.98 \$ 18.60 \$ 17.84 \$ 17.27 \$ 16.89 \$ 16.70 \$ 16.32 \$	

Quality Notes

Good: Good quality materials, pole frame, metal siding, concrete milking floor,

adequate lighting and plumbing services, and pipe stanchions.

Average: Standard quality materials, pole frame, metal siding, concrete milking floor,

minimal electric, and plumbing services.

Fair: Fair quality materials, pole frame, cheap siding, light concrete floor, minimal

electrical, and plumbing services.

Substandard: Low-quality materials, pole frame, cheap siding, light concrete floor, minimal

electrical, and plumbing services.



General Purpose Building Quonset Type

Quonset Type Buildings are prefabricated metal structures made of corrugated steel that have a semi-circular cross-section. This involves self-supporting lengths of steel, usually connected in a semi-circular shape.

The General Purpose Building Quonset Type value is calculated by multiplying the square footage by a price per square foot based on **Table 70** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 70: General Purpose Building Quonset Type.

Table 70. Genera	CII	pece bane				Building (Quoi	nset Type			
						Construct	ion	Quality			
Size	Sı	uperior	Ex	cellent		Good	Α	verage	Fair	Sub	standard
0 – 500	\$	47.42	\$	31.85	\$	25.65	\$	20.20	\$ 16.95	\$	11.57
750	\$	46.34	\$	31.13	\$	25.06	\$	19.74	\$ 16.56	\$	11.30
1,000	\$	45.26	\$	30.40	\$	24.48	\$	19.28	\$ 16.18	\$	11.04
1,500	\$	43.11	\$	28.96	\$	23.32	\$	18.37	\$ 15.41	\$	10.52
2,000	\$	42.24	\$	28.38	\$	22.85	\$	18.00	\$ 15.10	\$	10.30
2,500	\$	40.52	\$	27.22	\$	21.92	\$	17.26	\$ 14.48	\$	9.88
3,000	\$	39.23	\$	26.35	\$	21.22	\$	16.71	\$ 14.02	\$	9.57
3,500	\$	38.36	\$	25.77	\$	20.75	\$	16.34	\$ 13.71	\$	9.36
4,000	\$	37.93	\$	25.48	\$	20.52	\$	16.16	\$ 13.56	\$	9.25
5,000	\$	37.07	\$	24.90	\$	20.05	\$	15.79	\$ 13.25	\$	9.04
5,001 +	\$	36.21	\$	24.32	\$	19.58	\$	15.43	\$ 12.94	\$	8.83
				Depre	ciati	on Sched	ule -	- C			

Quality Notes

Superior: Best quality self-framing Quonset panels, pedestrian, and overhead doors finished

concrete floor, interior finished with cabinets and shop area, good lighting,

outlets, and water.

Excellent: Better quality self-framing Quonset panels, pedestrian and overhead door,

concrete floor, unfinished interior, may have some cabinets, good lighting,

outlets, and water.

Good: Good quality pre-engineered Quonset panels, metal siding, pedestrian and

overhead door, unfinished concrete, or asphalt floor, may have some cabinets,

adequate lighting, outlets, and water.

Average: Average quality pre-engineered Quonset panels, metal siding, sliding entry door,

gravel or basic concrete flooring, unfinished interior, adequate lighting, outlets,

and water.

Fair: Basic quality self-framing Quonset panels, open end/ends, gravel flooring,

unfinished interior, some minimal lighting, and electrical service.

Substandard: Light metal self-framing Quonset panels, open end/ends, gravel or dirt flooring,

unfinished interior, no electrical service, or lighting.



General Purpose Steel Frame Buildings - Four Sides Open

General Purpose Building Steel Frame – Four Sides Open: Farm Utility Shelters; example: Hay Sheds or Equipment Sheds

The General Purpose Building Steel Frame – Four Sides Open values are calculated by multiplying the square footage by a price per square foot based on **Table 71** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 71: General Purpose Steel Building - Four Sides Open.

Table 71. Genera	AT 1 GI					l Building	– Fo	ur Sides C)pe	n		
						Construct	ion	Quality				
Size	Sı	uperior	Ex	cellent		Good	Α	verage		Fair	Sub	standard
0 – 500	\$	20.15	\$	17.96	\$	16.18	\$	12.76	\$	9.08	\$	7.43
750	\$	19.69	\$	17.55	\$	15.81	\$	12.47	\$	8.87	\$	7.26
1,000	\$	19.23	\$	17.14	\$	15.44	\$	12.18	\$	8.67	\$	7.09
1,500	\$	18.32	\$	16.33	\$	14.71	\$	11.60	\$	8.26	\$	6.76
2,000	\$	17.95	\$	16.00	\$	14.41	\$	11.36	\$	8.09	\$	6.62
2,500	\$	17.22	\$	15.35	\$	13.82	\$	10.90	\$	7.76	\$	6.35
3,000	\$	16.67	\$	14.86	\$	13.38	\$	10.55	\$	7.51	\$	6.15
3,500	\$	16.30	\$	14.53	\$	13.09	\$	10.32	\$	7.35	\$	6.01
4,000	\$	16.12	\$	14.37	\$	12.94	\$	10.20	\$	7.26	\$	5.94
5,000	\$	15.75	\$	14.04	\$	12.65	\$	9.97	\$	7.10	\$	5.81
5,001 +	\$	15.38	\$	13.71	\$	12.35	\$	9.74	\$	6.93	\$	5.67
				Depre	ciati	ion Sched	ule -	- C				

Quality Notes

Superior: No walls, good frame, concrete slab, good lighting, water, and outlets with few

extras.

Excellent: No walls, good frame, concrete slab, good lighting, water, and outlets.

Good: No walls, steel columns and trusses, gravel floor, good lighting, water, and outlets.

Average: No walls, steel columns and girders, gravel or dirt floor, adequate lighting, water,

and outlets.

Fair: No walls, light steel posts and girders, dirt floor, minimum lighting, and outlets.

Substandard: No walls, steel posts and girders, dirt floor, no lighting, water, or outlets.



General Purpose Steel Frame Buildings - Three Sides Open

General Purpose Building Steel Frame – Three Sides Open: Farm Utility Shelters or Equipment Sheds

The General Purpose Building Steel Frame – Three Sides Open values are calculated by multiplying the square footage by a price per square foot based on **Table 72** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 72: General Purpose Steel Building - Three Sides Open.

Table 72. Genera	al I UI	pose siec	Dunc	allig – Itilic	. C 3/(асз орсн.						
		Gene	eral F	Purpose S	teel	Building -	- Thr	ee Sides (Эре	en		
						Construct	ion	Quality				
Size	Sı	uperior	Ex	cellent		Good	Α	verage		Fair	Sub	standard
0 – 500	\$	24.10	\$	19.82	\$	17.54	\$	14.08	\$	10.20	\$	8.20
750	\$	23.55	\$	19.37	\$	17.14	\$	13.76	\$	9.97	\$	8.01
1,000	\$	23.00	\$	18.92	\$	16.74	\$	13.44	\$	9.74	\$	7.83
1,500	\$	21.91	\$	18.02	\$	15.95	\$	12.80	\$	9.28	\$	7.46
2,000	\$	21.47	\$	17.65	\$	15.63	\$	12.54	\$	9.09	\$	7.31
2,500	\$	20.59	\$	16.93	\$	14.99	\$	12.03	\$	8.72	\$	7.01
3,000	\$	19.93	\$	16.39	\$	14.51	\$	11.64	\$	8.44	\$	6.78
3,500	\$	19.49	\$	16.03	\$	14.19	\$	11.39	\$	8.25	\$	6.63
4,000	\$	19.28	\$	15.85	\$	14.03	\$	11.26	\$	8.16	\$	6.56
5,000	\$	18.84	\$	15.49	\$	13.71	\$	11.00	\$	7.98	\$	6.41
5,001 +	\$	18.40	\$	15.13	\$	13.39	\$	10.75	\$	7.79	\$	6.26
				Depre	ciati	on Sched	ule ·	- C				

Quality Notes

Superior: Best steel frame and trusses, good metal siding, concrete floor, good lighting,

water, and outlets along with a few extras.

Excellent: Better steel frame and trusses, good metal siding, concrete floor, good lighting,

water, and outlets along with a few extras.

Good: Steel frame and trusses, metal siding, unfinished interior, concrete slab, adequate

lighting, water, and outlets with minimal extras.

Average: Steel frame, metal siding, unfinished interior, unfinished concrete or asphalt floor,

adequate lighting, water, and outlets.

Fair: Light steel frame may be slant, metal siding, sliding door entry, unfinished interior,

cheap concrete or gravel floor, minimum lighting, water, and outlets.

Substandard: Light steel slant frame, metal siding, sliding door entry, unfinished, dirt or gravel



General Purpose Steel Frame Buildings - Two Sides Open

General Purpose Building Steel Frame – Two Sides Open: Farm Implement Equipment Sheds or Utility Storage Sheds

The General Purpose Building Steel Frame – Two Sides Open values are calculated by multiplying the square footage by a price per square foot based on **Table 73** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 73: General Purpose Steel Building - Two Sides Open.

Table 73. Genera						el Building	– Tw	o Sides C	pei	า		
						Construct	ion	Quality				
Size	Sı	uperior	Ex	cellent		Good		verage		Fair	Sub	standard
0 – 500	\$	28.06	\$	21.69	\$	18.90	\$	15.41	\$	11.33	\$	8.97
750	\$	27.42	\$	21.19	\$	18.47	\$	15.06	\$	11.07	\$	8.77
1,000	\$	26.78	\$	20.70	\$	18.04	\$	14.71	\$	10.81	\$	8.56
1,500	\$	25.51	\$	19.72	\$	17.19	\$	14.01	\$	10.30	\$	8.16
2,000	\$	24.99	\$	19.32	\$	16.84	\$	13.72	\$	10.09	\$	7.99
2,500	\$	23.97	\$	18.53	\$	16.15	\$	13.16	\$	9.68	\$	7.67
3,000	\$	23.21	\$	17.94	\$	15.64	\$	12.74	\$	9.37	\$	7.42
3,500	\$	22.70	\$	17.55	\$	15.29	\$	12.46	\$	9.16	\$	7.26
4,000	\$	22.44	\$	17.35	\$	15.12	\$	12.32	\$	9.06	\$	7.18
5,000	\$	21.93	\$	16.95	\$	14.78	\$	12.04	\$	8.85	\$	7.01
5,001 +	\$	21.42	\$	16.56	\$	14.43	\$	11.76	\$	8.65	\$	6.85
				Depre	ciat	ion Sched	ule -	- C				

Quality Notes

Superior: Best steel frame and trusses, good metal siding, concrete floor, good lighting,

water, and outlets along with a few extras.

Excellent: Better steel frame and trusses, good metal siding, concrete floor, good lighting,

water, and outlets along with a few extras.

Good: Steel frame and trusses, metal siding, unfinished interior, concrete slab, adequate

lighting, water, and outlets with minimal extras.

Average: Steel frame, metal siding, unfinished interior, unfinished concrete or asphalt floor,

adequate lighting, water, and outlets.

Fair: Light steel frame may be slant, metal siding, sliding door entry, unfinished interior,

cheap concrete or gravel floor, minimum lighting, water, and outlets.

Substandard: Light steel slant frame, metal siding, sliding door entry, unfinished, dirt or gravel



General Purpose Steel Frame Buildings - One Side Open

General Purpose Building Steel Frame – One Side Open: Farm Feeder Barn, Farm Implement Equipment Sheds, or Utility Storage Shed

The General Purpose Building Steel Frame – One Side Open values are calculated by multiplying the square footage by a price per square foot based on **Table 74** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 74: General Purpose Steel Building - One Side Open.

Table 74. Genera	able 74. General Purpose steer building – One side Open.												
		Ger	eral	Purpose	Ste	el Building	- O	ne Side O	per	1			
						Construct	ion	Quality					
Size	Sı	uperior	Ex	cellent		Good		Average		Fair	Substanda		
0 – 500	\$	32.02	\$	23.56	\$	20.27	\$	16.74	\$	12.45	\$	9.74	
750	\$	31.29	\$	23.02	\$	19.81	\$	16.36	\$	12.16	\$	9.52	
1,000	\$	30.56	\$	22.49	\$	19.35	\$	15.98	\$	11.88	\$	9.30	
1,500	\$	29.11	\$	21.42	\$	18.43	\$	15.22	\$	11.32	\$	8.86	
2,000	\$	28.52	\$	20.99	\$	18.06	\$	14.91	\$	11.09	\$	8.68	
2,500	\$	27.36	\$	20.13	\$	17.32	\$	14.30	\$	10.64	\$	8.32	
3,000	\$	26.49	\$	19.49	\$	16.77	\$	13.85	\$	10.30	\$	8.06	
3,500	\$	25.90	\$	19.06	\$	16.40	\$	13.54	\$	10.07	\$	7.88	
4,000	\$	25.61	\$	18.84	\$	16.21	\$	13.39	\$	9.96	\$	7.79	
5,000	\$	25.03	\$	18.42	\$	15.84	\$	13.08	\$	9.73	\$	7.61	
5,001 +	\$	24.45	\$	17.99	\$	15.48	\$	12.78	\$	9.50	\$	7.44	
				Depre	ciati	ion Sched	ule -	- C					

Quality Notes

Superior: Best steel frame and trusses, good metal siding, concrete floor, good lighting,

water, and outlets along with a few extras.

Excellent: Better steel frame and trusses, good metal siding, concrete floor, good lighting,

water, and outlets along with a few extras.

Good: Steel frame and trusses, metal siding, unfinished interior, concrete slab, adequate

lighting, water, and outlets along with minimal extras.

Average: Steel frame, metal siding, unfinished interior, unfinished concrete or asphalt floor,

adequate lighting, water, and outlets.

Fair: Light steel frame may be slant, metal siding, sliding door entry, unfinished interior,

cheap concrete or gravel floor, minimum lighting, water, and outlets.

Substandard: Light steel slant frame, metal siding, sliding door entry, unfinished, dirt or gravel



General Purpose Steel Frame Buildings - No Sides Open

General Purpose Building Steel Frame – No Sides Open – Four Sides Closed: Farm Implement or Utility Building or Equipment Shop

The General Purpose Building Steel Frame – No Sides Open – Four Sides Closed values are calculated by multiplying the square footage by a price per square foot based on **Table 75** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 75: General Purpose Steel Building - No Sides Open.

able 75: General Pulpose steel Building – No sides Open.												
		Ger	neral	Purpose	Ste	el Building	– N	o Sides O	pen			
						Construct	ion	Quality				
Size	Sı	uperior	Ex	cellent		Good		Average		Fair	Substandard	
0 – 500	\$	38.77	\$	33.09	\$	23.47	\$	19.43	\$	15.37	\$	11.31
750	\$	37.89	\$	32.34	\$	22.94	\$	18.99	\$	15.02	\$	11.06
1,000	\$	37.01	\$	31.59	\$	22.40	\$	18.55	\$	14.67	\$	10.80
1,500	\$	35.25	\$	30.09	\$	21.34	\$	17.67	\$	13.98	\$	10.29
2,000	\$	34.54	\$	29.48	\$	20.91	\$	17.31	\$	13.70	\$	10.08
2,500	\$	33.13	\$	28.28	\$	20.05	\$	16.60	\$	13.14	\$	9.67
3,000	\$	32.07	\$	27.38	\$	19.41	\$	16.07	\$	12.72	\$	9.36
3,500	\$	31.37	\$	26.78	\$	18.99	\$	15.72	\$	12.44	\$	9.15
4,000	\$	31.02	\$	26.47	\$	18.77	\$	15.54	\$	12.30	\$	9.05
5,000	\$	30.31	\$	25.87	\$	18.35	\$	15.19	\$	12.02	\$	8.84
5,001 +	\$	29.61	\$	25.27	\$	17.92	\$	14.84	\$	11.74	\$	8.64
				Depre	ciati	on Sched	ule -	- C				

Quality Notes

Superior: Best steel frame and trusses, good metal siding, concrete floor, good lighting,

water, and outlets along with a few extras.

Excellent: Better steel frame and trusses, good metal siding, concrete floor, good lighting,

water, and outlets along with a few extras.

Good: Steel frame and trusses, metal siding, unfinished interior, concrete slab, adequate

lighting, water, and outlets with minimal extras.

Average: Steel frame, metal siding, unfinished interior, unfinished concrete or asphalt floor,

adequate lighting, water, and outlets.

Fair: Light steel frame may be slant, metal siding, sliding door entry, unfinished interior,

cheap concrete or gravel floor, minimum lighting, water, and outlets.

Substandard: Light steel slant frame, metal siding, sliding door entry, unfinished, dirt or gravel



Pole Building - Four Sides Open

Pole Building - Four Sides Open: Farm Utility Shelters; example: Hay Sheds or Equipment Sheds

The Pole Building – Four Sides Open values are calculated by multiplying the square footage by a price per square foot based on **Table 76** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 76: Pole Building - Four Sides Open.

Table 76. Pole Bu	manig	1 0 dr 3 d C 3			Fou	r Sides Open				
						truction Qualit				
Size	Ex	cellent	Good Average Fair		ellent G		Good Aver		Suk	ostandard
0 – 500	\$	13.09	\$	11.30	\$	9.35	\$ 6.91	\$	4.95	
750	\$	12.79	\$	11.05	\$	9.13	\$ 6.76	\$	4.83	
1,000	\$	12.49	\$	10.79	\$	8.92	\$ 6.60	\$	4.72	
1,500	\$	11.90	\$	10.28	\$	8.50	\$ 6.29	\$	4.50	
2,000	\$	11.66	\$	10.07	\$	8.33	\$ 6.16	\$	4.41	
2,500	\$	11.18	\$	9.66	\$	7.99	\$ 5.91	\$	4.23	
3,000	\$	10.82	\$	9.35	\$	7.73	\$ 5.72	\$	4.09	
3,500	\$	10.59	\$	9.14	\$	7.56	\$ 5.59	\$	4.00	
4,000	\$	10.47	\$	9.04	\$	7.48	\$ 5.53	\$	3.96	
5,000	\$	10.23	\$	8.84	\$	7.31	\$ 5.40	\$	3.87	
5,001 +	\$	9.99	\$	8.63	\$	7.14	\$ 5.28	\$	3.78	
				Depreciation	ı Scl	hedule – B				

Quality Notes

Excellent: Farmer built, utility type, concrete floor, adequate electrical service, and

plumbing.

Good: Farm utility shelter, farmer built, composition or steel gable roof on wood rafters

and post, dirt floor, and minimal services.

Average: Farm utility shelter, farmer built, steel shed or flat roof on wood post and girders,

dirt floor, and no services.

Fair: Farm utility shelter, farmer built, lower quality materials, shed or flat roof on wood

post and girders, dirt floor, and no services.

Substandard: Farm utility shelter, farmer built, substandard materials, shed or flat roof on wood

post and girders, dirt floor, and no services.



Pole Building - Three Sides Open

Pole Building - Three Sides Open: Farm Utility Shelters; example: Hay Sheds or Equipment Sheds

The Pole Building – Three Sides Open value is calculated by multiplying the square footage by a price per square foot based on **Table 77** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 77: Pole Building - Three Sides Open.

Table 77. Fole bu	man ig	771100 0100		hre	e Sides Oper	า			
			С	ons	truction Qualit	ty			
Size	Ex	cellent	Good		Average		Fair	Substandard	
0 – 500	\$	15.60	\$ 13.16	\$	10.89	\$	7.83	\$	5.85
750	\$	15.25	\$ 12.86	\$	10.64	\$	7.65	\$	5.71
1,000	\$	14.89	\$ 12.56	\$	10.39	\$	7.47	\$	5.58
1,500	\$	14.19	\$ 11.97	\$	9.90	\$	7.12	\$	5.32
2,000	\$	13.90	\$ 11.73	\$	9.70	\$	6.97	\$	5.21
2,500	\$	13.33	\$ 11.25	\$	9.30	\$	6.69	\$	5.00
3,000	\$	12.91	\$ 10.89	\$	9.00	\$	6.47	\$	4.84
3,500	\$	12.62	\$ 10.65	\$	8.81	\$	6.33	\$	4.73
4,000	\$	12.48	\$ 10.53	\$	8.71	\$	6.26	\$	4.68
5,000	\$	12.20	\$ 10.29	\$	8.51	\$	6.12	\$	4.57
5,001 +	\$	11.91	\$ 10.05	\$	8.31	\$	5.98	\$	4.46
			Depreciation	ı Sc	hedule – B				

Quality Notes

Excellent: Farmer built, utility type, concrete floor, adequate electrical service, and

plumbing.

Good: Farm utility shelter, farmer built, composition or steel gable roof on wood rafters

and post, dirt floor, and minimal services.

Average: Farm utility shelter, farmer built, steel shed or flat roof on wood post and girders,

dirt floor, and no services.

Fair: Farm utility shelter, farmer built, lower quality materials, shed or flat roof on wood

post and girders, dirt floor, and no services.

Substandard: Farm utility shelter, farmer built, substandard materials, shed or flat roof on wood

post and girders, dirt floor, and no services.



Pole Building - Two Sides Open

Pole Building - Two Sides Open: Farm Implement Equipment Sheds and/or Utility Storage Sheds

The Pole Building – Two Sides Open value is calculated by multiplying the square footage by a price per square foot based on **Table 78** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 78: Pole Building - Two Sides Open.

able 18: Pole Bullding – Two Sides Open.											
			Po	ole Building –	Two	o Sides Open					
				С	ons	truction Qualit	ty				
Size	Ех	cellent		Good		Average		Fair	Substandard		
0 – 500	\$	18.13	\$	15.03	\$	12.43	\$	8.75	\$	6.76	
750	\$	17.72	\$	14.69	\$	12.14	\$	8.55	\$	6.61	
1,000	\$	17.31	\$	14.35	\$	11.86	\$	8.35	\$	6.45	
1,500	\$	16.49	\$	13.67	\$	11.30	\$	7.96	\$	6.15	
2,000	\$	16.16	\$	13.39	\$	11.07	\$	7.80	\$	6.02	
2,500	\$	15.50	\$	12.84	\$	10.62	\$	7.48	\$	5.78	
3,000	\$	15.00	\$	12.43	\$	10.28	\$	7.24	\$	5.59	
3,500	\$	14.67	\$	12.16	\$	10.05	\$	7.08	\$	5.47	
4,000	\$	14.51	\$	12.02	\$	9.94	\$	7.00	\$	5.41	
5,000	\$	14.18	\$	11.75	\$	9.71	\$	6.84	\$	5.28	
5,001 +	\$	13.85	\$	11.48	\$	9.49	\$	6.68	\$	5.16	
				Depreciation	ı Sc	hedule – B					

Quality Notes

Excellent: Farm implement buildings, farmer built, metal on pole frame, unfinished, light

concrete or asphalt floor with adequate water, electrical service, and outlets.

Good: Farm implement buildings, farmer built, composition or steel gable roof on wood

rafters and posts, unfinished, light floor, with few extras, and minimum services.

Average: Farm implement building or equipment shed, farmer built, steel shed or flat roof

on wood posts and girders, unfinished, gravel floor, with few extras, and minimum

services.

Fair: Farm utility storage shed or feeder barn - shed, farmer built, shed or flat roof on

wood posts and girders, unfinished, no doors, dirt floor, no lighting, plumbing, or

heat.

Substandard: Farm utility storage shed or feeder barn - sheds, farmer built using substandard

materials, shed or flat roof on wood posts and girders, unfinished, dirt floor, no

doors, lighting, plumbing, or heat.



Pole Building - One Side Open

Pole Building - One Side Open: Farm Implement Equipment Sheds and/or Utility Storage Sheds

The Pole Building – One Side Open value is calculated by multiplying the square footage by a price per square foot based on **Table 79** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 79: Pole Building - One Side Open.

Table 77.1		3		Pole Building	g –	One Side Op	en			
				С	ons	truction Quali	ty			
Size	Ex	cellent	Good			Average		Fair	Substandard	
0 – 500	\$	20.66	\$	16.90	\$	13.97	\$	9.68	\$	7.67
750	\$	20.19	\$	16.52	\$	13.65	\$	9.46	\$	7.50
1,000	\$	19.72	\$	16.13	\$	13.33	\$	9.24	\$	7.32
1,500	\$	18.79	\$	15.37	\$	12.70	\$	8.80	\$	6.98
2,000	\$	18.41	\$	15.06	\$	12.44	\$	8.62	\$	6.84
2,500	\$	17.66	\$	14.44	\$	11.93	\$	8.27	\$	6.56
3,000	\$	17.09	\$	13.98	\$	11.55	\$	8.00	\$	6.35
3,500	\$	16.72	\$	13.67	\$	11.30	\$	7.83	\$	6.21
4,000	\$	16.53	\$	13.52	\$	11.17	\$	7.74	\$	6.14
5,000	\$	16.15	\$	13.21	\$	10.92	\$	7.56	\$	6.00
5,001 +	\$	15.78	\$	12.91	\$	10.66	\$	7.39	\$	5.86
				Depreciat	ion	Schedule - B				

Quality Notes

Excellent: Farm implement building or equipment shed, farmer built, metal on pole frame,

unfinished, light concrete or asphalt floor, some cabinets, adequate water,

electrical service, and outlets.

Good: Farm implement equipment building or shed, farmer built, composition or steel

gable roof on wood rafters and posts, unfinished, light floor, few extras, and

minimum services.

Average: Farm implement building or equipment Sheds, farmer built, steel shed or flat roof

on wood posts and girders, unfinished, gravel floor, few extras, and minimum

services.

Fair: Farm utility storage shed or feeder barn - shed, farmer built with substandard

materials, shed or flat roof on wood posts and girders, unfinished with dirt floor

and, no doors, lighting, plumbing, or heat.

Substandard: Farm utility storage shed or feeder barn - shed, farmer built with substandard

materials, shed or flat roof on wood posts and girders, unfinished with dirt floor

and, no doors, lighting, plumbing, or heat.



Pole Building - No Sides Open

Pole Building - Four Sides Closed: Farm Utility Shelters; example: Hay Sheds or Equipment Sheds

The Pole Building – Four Sides Closed value is calculated by multiplying the square footage by a price per square foot based on **Table 80** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 80: Pole Building - No Sides Open.

Table 60. Fole bo			ole Building –	No	Sides Open				
			С	onsi	ruction Qualit	ty			
Size	Ex	cellent	Good	Average		Fair		Su	bstandard
0 – 500	\$	29.37	\$ 20.19	\$	15.89	\$	12.30	\$	8.73
750	\$	28.70	\$ 19.73	\$	15.53	\$	12.02	\$	8.53
1,000	\$	28.03	\$ 19.27	\$	15.17	\$	11.74	\$	8.33
1,500	\$	26.70	\$ 18.36	\$	14.45	\$	11.19	\$	7.94
2,000	\$	26.16	\$ 17.99	\$	14.16	\$	10.96	\$	7.78
2,500	\$	25.09	\$ 17.25	\$	13.58	\$	10.51	\$	7.46
3,000	\$	24.29	\$ 16.70	\$	13.14	\$	10.18	\$	7.22
3,500	\$	23.76	\$ 16.34	\$	12.86	\$	9.95	\$	7.06
4,000	\$	23.49	\$ 16.15	\$	12.71	\$	9.84	\$	6.98
5,000	\$	22.96	\$ 15.78	\$	12.42	\$	9.62	\$	6.82
5,001 +	\$	22.42	\$ 15.42	\$	12.13	\$	9.39	\$	6.66
			Depreciation	ı Sc	nedule – B				

Quality Notes

Excellent: Farm implement (equipment shop) buildings, farmer built, utility type, unfinished

interior, concrete or asphalt floor, adequate water, electrical service, and outlets,

but no heat.

Good: Farm utility building, farmer built, composition or steel gable roof on wood rafters

and posts, unfinished walls, cheap asphalt or slab floor, adequate wiring and

outlets, water service, but no heat.

Average: Farm utility building, farmer built, steel shed or flat roof on wood posts and girders,

unfinished interior, dirt floor, and minimum services.

Fair: Farm utility building, farmer built, shed or flat roof on wood posts and girders,

unfinished interior, dirt floor, and no services.

Substandard: Farm utility building, farmer built, substandard materials, shed or flat roof on wood

posts and girders, unfinished interior, dirt floor, and no services.



Silo Conventional

Silo Conventional are bins and tanks used for utility type bulk grain or feed storage found on farms and ranches. Concrete Stave Silo cost includes foundation, chute, ladder, and dome roof.

The Silo Conventional value is calculated by multiplying the capacity by a price per bushel based on **Table 81** to the right. When the capacity falls between two charted points the rate will be calculated by interpolation.

Table 82: Silo Porcelain (Harvestore).

Silo Porcelain	(Harvestore)								
Size	Base Rate								
0 – 3,000	\$ 9.20								
6,000	\$ 7.77								
9,000	\$ 5.91								
15,000	\$ 5.07								
21,000	\$ 4.20								
27,000	\$ 3.79								
40,000	\$ 3.49								
40,001 + \$ 3.16									
Depreciation Schedule - C									

Storage Grain Bin

A round corrugated steel structure in varying heights and diameter. Generally used to store dry corn and soybeans. Value is per bushel with a concrete foundation.

The Storage Grain Bin value is calculated by multiplying the capacity by a price per bushel based on **Table 83** to the right. When the capacity falls between two charted points the rate will be calculated by interpolation.

Table 81: Silo Conventional.

Silo Conv	ventional								
Size	Base Rate								
0 – 3,000	\$ 5.00								
6,000	\$ 4.17								
9,000	\$ 3.12								
15,000	\$ 2.78								
21,000	\$ 2.50								
27,000	\$ 2.27								
40,000	\$ 2.08								
40,001 +	\$ 1.67								
Depreciation Schedule - C									

Silo Porcelain (Harvestore)

Silo Porcelain (Harvestore) are bins and tanks used for utility type bulk grain or feed storage found on farms and ranches. Silo Porcelain (Harvestore) cost includes foundation, chute, ladder, dome roof, but not unloader.

The Silo Porcelain (Harvestore) value is calculated by multiplying the capacity by a price per bushel based on **Table 82** to the left. When the capacity falls between two charted points the rate will be calculated by interpolation.

Table 83: Storage Grain Bin.

Storage	Grain Bin
Size	Base Rate
0 – 3,000	\$ 3.04
6,000	\$ 2.64
9,000	\$ 2.52
12,000	\$ 2.46
18,000	\$ 2.39
30,000	\$ 2.06
60,000	\$ 1.95
120,000	\$ 1.90
120,001 +	\$ 1.86
Depreciation	Schedule - A



Poultry – Broiler Confinement

Broiler poultry houses are used to raise broiler chickens for commercial meat production.

The Poultry Building value is calculated by multiplying the square footage by a price per square foot based on **Table 84** below.

Table 84: Poultry - Broiler Confinement.

	Poultry – Broiler Confinement												
Construction Quality													
Flat Rate per	Good	Good Average Fair											
Square Foot	\$	\$ 13.49 \$ 12.32 \$ 11.27											
Depreciation Schedule – B													

Quality Notes

Good: Good quality pole framing, metal siding, insulated interior, shutters or vents,

plywood interior walls, dirt floor, some subdivided areas, adequate lighting, and

water.

Average: Average quality pole framing, metal siding, insulated interior, curtain sidewalls,

sidewall top open screen, unfinished interior, dirt floor, adequate lighting, and

water.

Fair: Lower quality pole framing, metal siding, sidewall top open, no screen, insulated

ceiling, unfinished interior, dirt floor, minimum lighting, and water.

Poultry - Dark

Poultry houses that are no longer being used to produce poultry are classified as dark. They are valued at 10% of the poultry boiler confinement rate.

The Poultry – Dark value is calculated by multiplying the square footage by a price per square foot based on **Table 85** below.

Table 85: Poultry - Dark

Poultry – Dark										
	Construction Quality									
Flat Rate per	Excellent		Good	Average						
Square Foot	\$	1.34	\$ 1.23	\$	1.12					
No Depreciation										



Poultry – Egg Layer (Breeder)

Breeder poultry houses are used to hatch eggs before being sent to broiler houses.

The Poultry – Egg Laying value is calculated by multiplying the square footage by a price per square foot based on **Table 86** below.

Table 86: Poultry – Egg Layer (Breeder).

Poultry - Egg Layer (Breeder)											
Construction Quality											
Flat Rate per	Good	Average	Fair								
Square Foot	\$ 14.91	\$ 13.75	\$ 12.70								
	Depreciation Schedule - B										

Quality Notes

Good: Good quality pole framing, metal siding, insulated interior, shutters or vents,

plywood interior walls, dirt floor, some subdivided areas, adequate lighting, and

water.

Average: Average quality pole framing, metal siding, insulated interior, curtain sidewalls,

Sidewall top open screen, unfinished interior, dirt floor, adequate lighting, and

water.

Fair: Lower quality pole framing, metal siding, sidewall top open, no screen, insulated

ceiling, unfinished interior, dirt floor, minimum lighting, and water.



Livestock Confinement (Hog Barns or Sheds)

For breeding, nursery, farrowing, and finishing of swine. Costs are averages of several types of buildings including open sheds, modified open and totally enclosed curtain, and environmental buildings.

The Livestock Confinement Hog Barn or Shed value is calculated by multiplying the square footage by a price per square foot based on **Table 87** below. The rate will be calculated by interpolation when the square footage falls between two charted points.

Table 87: Livestock Confinement (Hog Barns or Sheds).

Table 07. LIVESTO	able 67. Evestock Confinement (nog bains of sneds).											
Livestock Confinement (Hog Barns or Sheds)												
		Construction Quality										
Size	Sı	uperior	Excellent		Good		Α	verage		Fair	Sub	standard
0 – 10,000	\$	42.80	\$	32.68	\$	28.30	\$	22.05	\$	14.73	\$	12.52
12,000	\$	41.94	\$	32.02	\$	27.73	\$	21.60	\$	14.43	\$	12.26
14,000	\$	41.08	\$	31.37	\$	27.16	\$	21.16	\$	14.14	\$	12.01
16,000	\$	39.80	\$	30.39	\$	26.31	\$	20.50	\$	13.69	\$	11.64
18,000	\$	38.52	\$	29.41	\$	25.47	\$	19.84	\$	13.25	\$	11.26
20,000	\$	37.23	\$	28.43	\$	24.62	\$	19.18	\$	12.81	\$	10.89
20,001 +	\$	35.95	\$	27.45	\$	23.77	\$	18.52	\$	12.37	\$	10.51
				Depre	ciat	ion Sched	ule -	- A				

Quality Notes

Superior: Pole frame with good metal siding or block, fully insulated, ventilated, insulated

ceiling, interior sheathing, slab floor, subdivided, good lighting, and water service.

Excellent: Pole frame with metal siding or block, insulated, ventilated, insulated ceiling,

plywood interior, slab floor, some subdivision of interior, along with adequate

lighting, and water service.

Good: Pole frame with metal siding or block, some insulation, side curtains or vents, some

wainscot, slab floor, some subdivision, minimal lighting, and water service.

Average: Pole frame, metal siding, natural ventilation, slab floor, some subdivision of interior,

along with minimal lighting, and water service.

Fair: Pole frame, metal siding, natural ventilation, unfinished interior, partial floor, and

minimal services.

Substandard: Low-cost pole frame, cheap metal siding, natural ventilation, unfinished interior,

dirt floor, and minimal services.



Depreciation and Obsolescence

Obsolescence is divided into two types:

- Functional Obsolescence: Arises when property features become outdated or undesirable due to changes in style, technology, or usage standards.
- External Obsolescence: A loss in value caused by external factors, such as neighborhood changes or economic shifts.

Functional Obsolescence

Functional obsolescence occurs when a property loses value due to inherent design flaws or outdated features. This loss can be:

- Curable: The cost to update or replace the issue is equal to or less than the expected increase in value (e.g., upgrading outdated heating systems).
- Incurable: The cost to correct a deficiency or super-adequacy exceeds the expected increase in value. An example is an old residential house in an area with modern residential houses.

External Obsolescence

External obsolescence refers to a loss in value caused by factors beyond the property's boundaries, which are often incurable. These external factors can include neighborhood decline, changes in zoning laws, or economic conditions. Examples of external obsolescence include:

- A residential home located near a busy highway.
- A residential house in an area with commercial businesses.
- A decline in demand for certain property types due to changes in the local economy.

Depreciation Defined

Physical depreciation refers to the reduction in utility due to the natural wear and tear from use, weather, pests, or deferred maintenance. Historically, market appreciation tends to outpace physical depreciation.



Physical Depreciation is divided into two types:

- Curable Physical Depreciation: Damage or deterioration that can be repaired in a cost-effective way, increasing the property's present worth. Examples include replacing a roof or repainting.
- Incurable Physical Depreciation: Deterioration that is not economically feasible to repair, where the cost to fix exceeds any increase in value.

Condition (CDU)

Accurate depreciation assessment relies on selecting the appropriate property condition. While the condition tables provide a guideline for depreciation, precise accuracy is not necessary. The market tends to treat similar properties built around the same time and in the same neighborhood as having similar conditions.

The year built and effective year built for each structure must be recorded. Routine maintenance, repairs, and replacements (e.g., a new water heater) do not typically affect the condition, as these items do not significantly increase overall market value or extend the building's useful life.

Physical Depreciation Tables

The tables on the following pages show the base percentage adjustments for physical condition (CDU) based on a property's effective age and condition rating for dwellings, manufactured homes, and outbuildings.

The tables give appraisers a guideline for evaluating a building's physical depreciation based on condition and effective age.



Site Built and Modular Dwelling Physical Condition Depreciation Table

Table 88 on the following pages show the base percentage adjustments for physical condition (CDU) based on a property's effective age and condition rating for site built and modular dwellings.



Dwelling Condition Depreciation Table

 Table 88: Dwelling Condition Depreciation Table.

able 88: Dwelling Condition Depreciation Table. Dwelling Condition Depreciation Table										
Effective				Condition						
Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor			
1	0%	0%	0%	0%	0%	1%	2%			
2	0%	0%	0%	1%	1%	3%	4%			
3	0%	0%	1%	1%	2%	4%	6%			
4	0%	1%	1%	2%	3%	5%	9%			
5	0%	1%	2%	2%	4%	7%	12%			
6	1%	1%	2%	3%	5%	9%	14%			
7	1%	2%	3%	4%	6%	10%	17%			
8	1%	2%	3%	4%	7%	12%	19%			
9	2%	3%	4%	5%	8%	14%	22%			
10	2%	3%	4%	5%	9%	16%	25%			
11	2%	4%	5%	6%	10%	18%	28%			
12	3%	4%	5%	7%	11%	20%	31%			
13	3%	4%	6%	8%	12%	22%	34%			
14	3%	5%	6%	8%	13%	24%	37%			
15	3%	5%	7%	9%	15%	26%	40%			
16	4%	6%	7%	10%	16%	28%	43%			
17	4%	6%	8%	10%	17%	30%	46%			
18	4%	6%	8%	11%	18%	32%	50%			
19	5%	7%	9%	12%	19%	34%	53%			
20	5%	7%	9%	13%	20%	37%	56%			
21	6%	8%	10%	13%	21%	39%	59%			
22	6%	8%	10%	14%	22%	42%	62%			
23	6%	9%	11%	15%	23%	44%	65%			
24	7%	9%	12%	16%	24%	47%	68%			
25	7%	10%	13%	17%	25%	50%	71%			
26	7%	11%	14%	18%	26%	52%	74%			



Table 88: (continued). Dwelling Condition Depreciation Table (Continued)										
	Dwe	lling Cond	lition Depre		le (Continu	ied)				
Effective		Condition								
Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor			
27	8%	11%	15%	19%	27%	55%	75%			
28	8%	12%	16%	20%	28%	57%	77%			
29	9%	13%	17%	21%	29%	59%	78%			
30	9%	13%	18%	22%	30%	62%	79%			
31	10%	14%	19%	23%	31%	64%	80%			
32	10%	15%	20%	24%	32%	67%	80%			
33	11%	15%	21%	25%	33%	69%	80%			
34	11%	16%	22%	27%	34%	71%	80%			
35	12%	17%	23%	28%	35%	72%	80%			
36	12%	17%	24%	29%	36%	74%	80%			
37	13%	18%	25%	30%	37%	75%	80%			
38	14%	19%	27%	32%	38%	77%	80%			
39	14%	19%	28%	33%	39%	78%	80%			
40	15%	20%	29%	35%	40%	79%	80%			
41	15%	20%	30%	35%	42%	80%	80%			
42	16%	21%	30%	36%	44%	80%	80%			
44	17%	22%	31%	36%	45%	80%	80%			
46	18%	23%	32%	37%	47%	80%	80%			
48	19%	24%	33%	37%	49%	80%	80%			
50	20%	25%	34%	38%	50%	80%	80%			
55	21%	26%	35%	38%	53%	80%	80%			
60	22%	27%	36%	39%	55%	80%	80%			
65	23%	28%	37%	40%	57%	80%	80%			
70	24%	29%	38%	41%	60%	80%	80%			
75	26%	31%	39%	42%	62%	80%	80%			
80	27%	33%	40%	43%	65%	80%	80%			
90	29%	35%	41%	44%	68%	80%	80%			
100	32%	37%	42%	45%	68%	80%	80%			



Manufactured Home Physical Condition Depreciation Tables

Table 89 on the following page shows the base percentage adjustments for physical condition (CDU) based on a property's effective age and condition rating for manufactured homes.



Manufactured Home Condition Depreciation Table

 Table 89: Manufactured Home Condition Depreciation Table.

	Mar	nufactured	Home Cor	ndition Depr	eciation Ta	ible	
Effective				Condition			
Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor
1	1%	1%	1%	1%	1%	2%	3%
2	2%	2%	2%	2%	2%	3%	4%
3	3%	3%	3%	4%	4%	4%	6%
4	4%	4%	4%	5%	6%	7%	9%
5	5%	5%	5%	6%	7%	9%	12%
6	6%	7%	7%	8%	8%	11%	14%
7	7%	8%	9%	10%	11%	14%	17%
8	8%	10%	11%	11%	12%	16%	19%
9	9%	11%	13%	13%	14%	18%	22%
10	10%	12%	15%	15%	16%	21%	25%
11	11%	14%	17%	17%	19%	24%	28%
12	12%	15%	19%	19%	21%	26%	31%
13	13%	17%	21%	22%	24%	29%	34%
14	14%	18%	23%	24%	26%	32%	37%
15	16%	20%	25%	26%	29%	35%	40%
16	18%	22%	27%	28%	31%	39%	45%
17	20%	24%	29%	31%	34%	42%	48%
18	22%	26%	31%	34%	37%	46%	53%
19	24%	28%	33%	36%	40%	49%	56%
20	26%	30%	35%	39%	43%	53%	61%
21	28%	32%	37%	42%	46%	57%	66%
22	30%	34%	39%	45%	50%	60%	69%
23	32%	36%	41%	48%	53%	63%	72%
24	34%	38%	43%	52%	57%	66%	76%
25	36%	40%	45%	55%	61%	69%	79%
26	38%	42%	47%	58%	64%	73%	80%
27	40%	44%	49%	61%	67%	75%	85%
28	42%	46%	51%	64%	70%	77%	
29	44%	49%	54%	68%	75%	80%	
30	46%	51%	57%	70%			
31	48%	54%	60%				
32	50%						



Outbuilding Physical Condition Depreciation Tables

Table 90, **Table 91**, **Table 92**, **Table 93**, and **Table 94** on the following pages show the base percentage adjustments for physical condition (CDU) based on a property's effective age and condition rating for outbuildings. The specific depreciation table used for each outbuilding is listed on the last row of each outbuilding table. For example, Table 87 Livestock Confinement Hog Barn or Shed uses outbuilding depreciation table "A."



Outbuilding Condition Depreciation Table A

 Table 90: Outbuilding Condition Depreciation Table A.

Outbuilding Condition Depreciation Table A.												
Effective	Condition											
Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor					
1	2%	2%	3%	3%	5%	8%	10%					
2	4%	4%	6%	7%	10%	16%	20%					
3	5%	6%	9%	11%	15%	24%	30%					
4	7%	9%	12%	15%	21%	33%	40%					
5	9%	12%	15%	20%	27%	42%	50%					
6	11%	14%	18%	24%	32%	51%	60%					
7	13%	17%	22%	28%	38%	61%	70%					
8	15%	19%	25%	33%	45%	70%	80%					
9	17%	22%	29%	38%	51%	76%	85%					
10	20%	25%	32%	43%	57%	79%						
11	22%	28%	36%	48%	63%	80%						
12	24%	31%	40%	53%	69%							
13	26%	34%	44%	57%	74%							
14	29%	37%	48%	61%	75%							
15	32%	40%	52%	66%								
16	34%	43%	55%	70%								
17	37%	46%	59%									
18	40%	50%	63%									
19	43%	53%	65%									
20	45%	56%										
21	48%	60%										
22	50%											



Outbuilding Condition Depreciation Table B

 Table 91: Outbuilding Condition Depreciation Table B.

Outbuilding Condition Depreciation Table B										
Effective				Condition						
Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor			
1	1%	2%	2%	3%	3%	5%	8%			
2	2%	4%	4%	6%	7%	10%	16%			
3	3%	5%	6%	9%	11%	15%	24%			
4	4%	7%	9%	12%	15%	21%	33%			
5	6%	9%	12%	15%	20%	27%	42%			
6	7%	11%	14%	18%	24%	32%	51%			
7	8%	13%	17%	22%	28%	38%	61%			
8	10%	15%	19%	25%	33%	45%	70%			
9	11%	17%	22%	29%	38%	51%	76%			
10	13%	20%	25%	32%	43%	57%	79%			
11	14%	22%	28%	36%	48%	63%	82%			
12	15%	24%	31%	40%	53%	69%	85%			
13	17%	26%	34%	44%	57%	74%				
14	19%	29%	37%	48%	61%	77%				
15	21%	32%	40%	52%	66%	79%				
16	23%	34%	43%	55%	70%	80%				
17	25%	37%	46%	59%	73%					
18	27%	40%	50%	63%	75%					
19	28%	43%	53%	67%						
20	30%	45%	56%	70%						
21	32%	48%	59%							
22	34%	51%	62%							
23	36%	54%	64%							
24	38%	57%	65%							
25	40%	60%								
26	43%									
27	45%									
28	47%									
29	49%									
30	50%									



Outbuilding Condition Depreciation Table C

 Table 92: Outbuilding Condition Depreciation Table C.

	Outbuilding Condition Depreciation Table C											
Effective	Condition											
Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor					
1	1%	1%	1%	2%	2%	3%	5%					
2	2%	2%	3%	4%	4%	6%	10%					
3	3%	3%	4%	5%	6%	9%	15%					
4	4%	4%	5%	7%	9%	12%	21%					
5	5%	6%	7%	9%	12%	15%	27%					
6	6%	7%	9%	11%	14%	18%	32%					
7	7%	8%	10%	13%	17%	22%	38%					
8	8%	10%	12%	15%	19%	25%	45%					
9	10%	11%	14%	17%	22%	29%	51%					
10	11%	13%	16%	20%	25%	32%	57%					
11	12%	14%	18%	22%	28%	36%	63%					
12	13%	15%	20%	24%	31%	40%	69%					
13	15%	17%	22%	26%	34%	44%	74%					
14	16%	19%	24%	29%	37%	48%	77%					
15	17%	21%	26%	32%	40%	52%	79%					
16	19%	23%	28%	34%	43%	55%	82%					
17	20%	25%	30%	37%	46%	59%	85%					



Table 92: (continued).

1able 92: (Co	Outbuilding Condition Depreciation Table C (Continued)								
	Outbui	lding Cond	dition Depre	eciation Tab	ole C (Cont	inued)			
Effective		Condition							
Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor		
18	22%	27%	32%	40%	50%	63%	85%		
19	24%	28%	34%	43%	53%	67%			
20	25%	30%	37%	45%	56%	71%			
21	26%	32%	39%	48%	59%	73%			
22	28%	34%	42%	51%	62%	76%			
23	29%	36%	44%	54%	65%	77%			
24	31%	38%	47%	57%	68%	79%			
25	33%	40%	49%	59%	70%	80%			
26	35%	43%	52%	62%	74%				
27	37%	45%	54%	65%	75%				
28	39%	47%	57%	68%					
29	41%	49%	59%	69%					
30	44%	52%	62%	70%					
31	45%	54%	65%						
32	47%	56%							
33	49%	58%							
34	50%	60%							



Outbuilding Condition Depreciation Table D

 Table 93: Outbuilding Condition Depreciation Table D.

76. Oat	bullaling Conal	-		n Depreciati	on Table D		
Effective			_	Condition			
Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor
1	1%	1%	1%	1%	2%	2%	3%
2	1%	2%	2%	3%	4%	4%	6%
3	2%	3%	3%	4%	5%	6%	9%
4	3%	4%	4%	5%	7%	9%	12%
5	4%	5%	6%	7%	9%	12%	15%
6	4%	6%	7%	9%	11%	14%	18%
7	5%	7%	8%	10%	13%	17%	22%
8	6%	8%	10%	12%	15%	19%	25%
9	7%	10%	11%	14%	17%	22%	29%
10	8%	11%	13%	16%	20%	25%	32%
11	9%	12%	14%	18%	22%	28%	36%
12	10%	13%	15%	20%	24%	31%	40%
13	11%	15%	17%	22%	26%	34%	44%
14	12%	16%	19%	24%	29%	37%	48%
15	12%	17%	21%	26%	32%	40%	52%
16	13%	19%	23%	28%	34%	43%	55%
17	15%	20%	25%	30%	37%	46%	59%
18	16%	22%	27%	32%	40%	50%	63%
19	17%	24%	28%	34%	43%	53%	67%
20	18%	25%	30%	37%	45%	56%	71%
21	19%	26%	32%	39%	48%	59%	73%



Table 93: (continued).

1able 93: (C)	Outbuilding Condition Depreciation Table D (Continued)									
Effoctive		Condition								
Effective Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor			
22	20%	28%	34%	42%	51%	62%	76%			
23	21%	29%	36%	44%	54%	65%	77%			
24	23%	31%	39%	47%	57%	68%	79%			
25	24%	33%	40%	49%	59%	71%	82%			
26	25%	35%	43%	52%	62%	74%	85%			
27	26%	37%	45%	54%	65%	75%				
28	28%	39%	47%	57%	68%	77%				
29	29%	41%	49%	59%	69%	78%				
30	31%	44%	52%	62%	71%	79%				
31	32%	45%	54%	64%	72%	80%				
32	34%	47%	56%	67%	74%					
33	35%	49%	58%	69%	75%					
34	37%	51%	60%	70%						
35	38%	53%	64%							
36	40%	55%	65%							
37	41%	57%								
38	43%	59%								
39	45%	60%								
40	47%									
41	49%									
42	50%									



Outbuilding Condition Depreciation Table E

Table 94: Outbuilding Condition Depreciation Table E.

	Outbuilding Condition Depreciation Table E						
Effective				Condition			
Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor
1	0%	0%	0%	0%	0%	1%	2%
2	0%	0%	0%	1%	1%	3%	4%
3	0%	0%	1%	1%	2%	4%	6%
4	0%	1%	1%	2%	3%	5%	9%
5	0%	1%	2%	2%	4%	7%	12%
6	1%	1%	2%	3%	5%	9%	14%
7	1%	2%	3%	4%	6%	10%	17%
8	1%	2%	3%	4%	7%	12%	19%
9	2%	3%	4%	5%	8%	14%	22%
10	2%	3%	4%	5%	9%	16%	25%
11	2%	4%	5%	6%	10%	18%	28%
12	3%	4%	5%	7%	11%	20%	31%
13	3%	4%	6%	8%	12%	22%	34%
14	3%	5%	6%	8%	13%	24%	37%
15	3%	5%	7%	9%	15%	26%	40%
16	4%	6%	7%	10%	16%	28%	43%
17	4%	6%	8%	10%	17%	30%	46%
18	4%	6%	8%	11%	18%	32%	50%
19	5%	7%	9%	12%	19%	34%	53%
20	5%	7%	9%	13%	20%	37%	56%
21	6%	8%	10%	13%	21%	39%	59%
22	6%	8%	10%	14%	22%	42%	62%
23	6%	9%	11%	15%	23%	44%	65%
24	7%	9%	12%	16%	24%	47%	68%
25	7%	10%	13%	17%	25%	50%	71%
26	7%	11%	14%	18%	26%	52%	74%
27	8%	11%	15%	19%	27%	55%	75%
28	8%	12%	16%	20%	28%	57%	77%
29	9%	13%	17%	21%	29%	59%	78%
30	9%	13%	18%	22%	30%	62%	79%



Table 94: (continued).

Table 94: (continued). Outbuilding Condition Depreciation Table E (Continued)							
Ecc. II		9 33		Condition			
Effective Age	Excellent	Very Good	Good	Average	Fair	Poor	Very Poor
31	10%	14%	19%	23%	31%	64%	80%
32	10%	15%	20%	24%	32%	67%	80%
33	11%	15%	21%	25%	33%	69%	80%
34	11%	16%	22%	27%	34%	71%	80%
35	12%	17%	23%	28%	35%	72%	80%
36	12%	17%	24%	29%	36%	74%	80%
37	13%	18%	25%	30%	37%	75%	80%
38	14%	19%	27%	32%	38%	77%	80%
39	14%	19%	28%	33%	39%	78%	80%
40	15%	20%	29%	35%	40%	79%	80%
41	15%	20%	30%	35%	42%	80%	80%
42	16%	21%	30%	36%	44%	80%	80%
44	17%	22%	31%	36%	45%	80%	80%
46	18%	23%	32%	37%	47%	80%	80%
48	19%	24%	33%	37%	49%	80%	80%
50	20%	25%	34%	38%	50%	80%	80%
55	21%	26%	35%	38%	53%	80%	80%
60	22%	27%	36%	39%	55%	80%	80%
65	23%	28%	37%	40%	57%	80%	80%
70	24%	29%	38%	41%	60%	80%	80%
75	26%	31%	39%	42%	62%	80%	80%
80	27%	33%	40%	43%	65%	80%	80%
90	29%	35%	41%	44%	68%	80%	80%
100	32%	37%	42%	45%	68%	80%	80%



Commercial and Industrial Appraisal and Valuation

This segment of the 2025 Union County Schedule of Values addresses the valuation of Commercial and Industrial properties. The valuation of the classes of property accepts, and adheres to the fundamental procedures, concepts, principles, and techniques underlying the Appraisal Process (as presented in the Residential segment of this document). However, due to the nature and complexities of these properties, it is necessary that valuation tables be separately developed and referenced.

Schedules Used in Mass Appraisal Programs

The implementation phase of the Union County 2025 Mass Appraisal Program involved the valuation of industrial/commercial properties in an orderly, quick, and equitable manner. This was accomplished by developing and utilizing schedules and guidelines for use in various appraisal areas. Schedules were developed or obtained for:

- Land Valuation
- Cost Estimation
- Depreciation Calculation
- Improved Property Valuation
- Income and Expense Ratio Determination (where applicable)
- Capitalization Rate Determination (where applicable)

Methods of Valuation

There are three industry accepted methods utilized to value commercial and industrial properties:

- The Cost Approach to Value: uses the value of the land plus the depreciated cost of the building and other improvements to determine value.
- The Sales Comparison Approach to Value: uses sales of similar properties, that have occurred during a given time period, to determine value.
- The Income Approach to Value: uses capitalization to convert the anticipated benefits of the ownership of property into an estimate of present value.

Union County employs all approaches to value. We rely most heavily on the Cost Approach to value many of the improved commercial and industrial properties within the county. Union County transitioned to the Income Approach to value most income producing properties. The Sales Comparison Approach to value was mainly used to develop land values. A further description of each approach and the degree of use is provided on following pages.



The Cost Approach to Value – Commercial and Industrial

As previously stated, this method determines a separate value for improvements and land. Then combines the two to derive an overall value.

This can be expressed in the formula:

 $Cost\ to\ Construct\ Improvement\ New-Deprection=Total\ Cost\ of\ Improvement$

 $Total\ Cost\ of\ Improvements + Land\ Value = Total\ Value$

The steps taken to achieve this method are:

1. Improvement Valuation:

a. Data Collection

This is accomplished through the listing process that physically gathers information regarding the building improvements located on a property. Various characteristics of the improvements are gathered, stored, and maintained in our CAMA system. On occasion, we rely on aerial mapping to confirm and review data. This is particularly helpful with properties that are inaccessible. The most common characteristics that affect the cost to construct include:

- Age of the structure determines the amount of depreciation.
- Size or square footage of the structure.
- Building materials used to construct the structure i.e. metal, masonry, wood, etc.
- Quality of materials and workmanship.
- Building height.
- Occupancy of the structure i.e. bank, apartment, retail, etc.
- Attributes of the structure i.e. mezzanine, elevator, canopies, etc.
- Site Improvements i.e. fencing, paving, outbuilding, etc.

b. Determine and Apply Cost Rates

The cost rates for 2025 were determined with the consultation of Marshall & Swift Valuation Service using the June 2024 (2nd Quarter) rates. Marshall & Swift is considered the industry standard for a cost reporting services and has been in the business for over 90 years. They survey builders and developers nationally and locally to determine construction and depreciation rates.



c. Determine and Apply Depreciation or Obsolescence

Depreciation is the deterioration or decline of an improvement's value through physical aging, decreased functionality, or external influences. Depreciation is deducted from the cost rates for all improvements. Obsolescence is a separate adjustment that is not deducted for the cost of improvements new. Marshall & Swift provides tables with rates that calculate depreciation for an improvement's chronological age and effective age (after repairs or updating) based on its remaining economic life expectancy. New properties would have little to no measurable depreciation.

d. Combine the Value of all Structures and Site Improvements

Once the depreciation is subtracted from the cost of improvements new, all individual improvements are combined for a final value of this portion of the Cost Approach.

2. Land Valuation

Vacant and improved land is valued at its Highest and Best Use. The factors needed to determine highest and best use are:

- Legally Permissible
- Physically Possible
- Economically Feasible
- Maximally Productive

a. Gather and Confirm Sales Data

All sales of land are documented, verified, and qualified in order to establish land rates. Sales considered valid, known as 'arm's length' transactions, are viewed as good indicators of market value. Market value is defined as the most probable price a property should bring in a competitive and open market, under conditions that ensure a fair sale which are:

- The buyer and seller are typically motivated.
- Both parties are well informed or well advised, and each is acting in what they consider to be in their own best interest.
- A reasonable time is allowed for exposure in the open market.
- Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.



b. Define Neighborhoods

Commercial and Industrial land is grouped into distinctive neighborhood areas that have boundaries defined by the following factors:

- Geographic Location
- Traffic Patterns
- Land and/or Building Use
- Zoning
- Developmental Boundaries
- Physical Boundaries

Land in each neighborhood may be solely commercial, solely industrial, or a mix of both. Properties with mixed industrial/commercial will have a rate for each category.

Properties with split zoning are valued based on their highest and best use based on zoning options.

c. Determine Land Rates

Once neighborhoods are established, the sales are arranged by neighborhood and used as the basis for the determination of land rates. Factors of comparison for land rates most commonly include:

- Acreage
- Zoning
- Traffic counts and patterns
- Access
- Frontage
- FEMA flood zone designation wetlands
- Shape
- Topography
- Utility right-of-ways
- External factors
- Available utilities
- Intended or planned use
- Other (Unbuildable,etc)

There are seven rating categories for both commercial and industrial. Each category will have its own base rate. A single site may have a single or multiple site ratings based on characteristics like size or shape. **Table 95** on the following page explains the general characteristics associated with each site rating.



Table 95: Commercial and Industrial Land Site Rating Categories.

	Commercial and Industrial Land Site Rating Categories			
Site Rating General Characteristics				
Excellent	Corner Lot – Busy – Highest traffic exposure			
Very Good	One Lot removed from corner lot – High traffic exposure			
Good	Two or more lots removed from excellent - Good traffic exposure			
Average	Typical for the neighborhood - Moderate traffic exposure			
Fair	Less than typical for the neighborhood – Limited traffic exposure			
Poor	Marginal for the neighborhood - Little traffic exposure			
Very Poor	Back land - No traffic exposure			

d. Land Value Adjustments

The final step is the individual review of influence factors that are specific to each parcel. Please refer to the Residential Land Valuation Section on page 129 for a more detailed explanation of the application of influence adjustments.

Additional influence factors not found in the residential land section include:

- External Factors Conditions that exist offsite that may impact value such as flight patterns and environmental hazards.
- Size The size may impact the site's ability to be used at its highest and best use according to its zoning.
- Corner Land located at the insection of heavily traveled roads commands a premium.
- Other (i.e. Lack of utilities).
 - Special factors that fall outside of the influence factors presented above. Please refer to the Other – Special Factor Example below for more information.

Other - Special Factor Example

An "other" special factor adjustment is specific to a particular parcel. It is looked at on a case-by-case basis. An example of an "other" special factor comes from in and around the town of Stallings. A parcel lacked utilities even though other parcels in the area had access to those utilities. This occurred because of a temporary shortfall in the local capacity. A reduction in value was applied to the parcel until the utility issue was resolved.



The Sales Comparison Approach to Value – Commercial and Industrial

The Sales Comparison Approach estimates the market value of a property by analyzing sales of comparable properties and adjusting for the differences between those comparable properties and the subject.

The Income Approach to Value – Commercial and Industrial

The Income Approach estimates the market value of a property based on the income it generates. This is considered the most accurate method of valuation for most commercial/industrial properties including apartments and smaller multifamily properties (Duplex, Triplex, Quadraplex), and Hotel/Motel properties. We have incorporated multiple professional reporting sources and surveyed the local market to compile the amount of data required.

This approach calculates a property's value today based on future cash flows that an owner can expect to receive. To achieve this, the following steps are taken:

The steps taken to achieve this method are:

- 1. Estimate Potential Gross Income (PGI).
- 2. Deduct for Vacancy and Collection (V&C) loss.
- 3. Add miscellaneous additional income.
- 4. Derive Effective Gross Income (EGI).
- 5. Deduct operating expenses.
- 6. Derive Net Operating Income (NOI).
- 7. Select appropriate Capitalization Rate (Cap Rate).
- 8. Capitalize the Net Operating Income into an estimated property value.



These steps can be better expressed in the formula:

```
Potential Gross Income (PGI) – Vacancy & Collection (V\&C) + Miscellaneous Income = Effective Gross Income (EGI)
```

 $Effective\ Gross\ Income\ (EGI)-Operating\ Expenses=Net\ Operating\ Income\ (NOI)$

Net Operating Income (NOI) \div Capitalization Rate (Cap Rate) = Total Value

This formula is applied to improved properties that are 100% complete. While under construction, the improvements are valued based on the Cost Approach.

For smaller income producing properties, we have incorporated a Gross Rent Multiplier (GRM) to perform valuations. This is generally used for these types of properties when limited expense information is available and is generally used for properties with five units or less. The GRM examines sales of smaller multifamily properties and the rates that were in place at the time of sale. The ratio of sale price to income is achieved by taking the sale price and dividing it by the gross rent that it can generate.

The GRM may be expressed in two ways.

Option One

- Formula:
 - Sale Price ÷ Gross Annual Rent = Gross Rent Multiplier (GRM)
- Example:

Sale Price: \$ 200,000.00Gross Monthly Rent \$ 800.00

• Monthly Rent must be annualized by multiplying by 12.

```
\circ $ 200,000.00 \div ($ 800.00 \times 12) = GRM \circ $ 200,000.00 \div $ 9,600.00 = 20.83
```

Option Two

- Formula:
 - Sale Price ÷ Gross Monthly Rent = Gross Rent Multiplier (GRM)
- Example:

Sale Price: \$ 200,000.00
 Gross Monthly Rent \$ 1,600.00
 \$ 200,000.00 ÷ \$ 1,600.00 = 125



Commercial and Industrial Information Sources

The typical rents, expenses, cap rates, multipliers, and other items needed to derive values using the Income Approach have been extracted from market information that we have obtained from surveys and a variety of professional reporting services.

- Apartment Index A locally based, full-service market research firm that publishes market reports for cities in the southeast.
- Costar Provides industry leading, commercial real estate information and analytics.
- Local property owners We also mailed surveys to local property owners who have in turn participated in the process.
- Marshall & Swift Valuation Service, published by the Marshall & Swift Publication Company, 777 S. Figueroa St., 12th Floor, Los Angeles, CA, 90017.
- Trepp The industry's largest commercially available database of securitized mortgages.



General Classification of Real and Tangible Personal Property

It is important to note that our valuation process is for real estate and does not include business personal property. Business personal property is generally considered to be any item that is used for the process, operation, or production of the business operating on the property. The most common examples would be machinery and equipment. **Table 96** contains a list of typical items.

Table 96: General Classification of Real and Tangible Personal Property.

Real	Personal	Asset
Χ		Air Conditioning - Building
	X	Air Conditioning – Manufacturing/Product
	Х	Air Conditioning – Window Units
	X	Airplanes
	Х	Alarm Systems (Security) and Wiring
	X	Alarm Systems (Fire) and Wiring – Computer Room in Office Building
Χ		Alarm Systems (Fire) and Wiring – Required by Code; Data Center
	X	Asphalt Plants
	X	ATM – All Equipment & Self-standing Booths
Χ		Auto Exhaust Systems for Building
	X	Auto Exhaust Systems for Equipment
	X	Awnings
	Х	Balers (Paper, Cardboard, etc.)
Χ		Bank Teller Counters & Lockers – Movable or Built-In
Χ		Bank Night Depository
	X	Bar and Bar Equipment -Moveable or Built-In
Χ		Bathroom Fixtures- All
Χ		Bulk Barns
	Х	Billboards
	Х	Boats & Motors -All
Χ		Boiler – For Service of Building
	X	Boiler - Primarily for Process
	Х	Bookcases – Moveable or Built-In
	Х	Bowling Alley Lanes
	Х	Broadcasting Equipment
Χ		Cabinets (Medical Office - Code MD)



Real	(continued). Personal	Asset
	Х	Cabinets (All Other)
	Х	Cable TV Distribution Systems
	Х	Cable TV Equipment & Wiring
	Х	Cable TV Subscriber Connections
	Х	Camera Equipment
	Х	Canopies – Fabric, Vinyl, Plastic
Х		Canopies - Generally
Χ		Canopy Lighting
	Х	Car Wash – All Equipment, Filters, and Tanks
Χ		Carpet - Installed
	X	Catwalks
	X	Cement Plants
	X	Chairs - All Types
	X	CIP Equipment
	Х	Closed Circuit TV
	X	Cold Storage- Equipment, Rooms, Partitions
	Х	Compressed Air or Gas Systems (Other than Building Heat)
	Х	Computer Room A/C
	Х	Computer Room Raised Floor
	X	Computer Scanning Equipment
	Х	Computer and Data Lines
	Χ	Concrete Plants
	Х	Construction and Grading Equipment
	Х	Control Systems – Building & Equipment
	Х	Conveyor & Material Handling Systems
	Χ	Coolers – Walk-In or Self-Standing
X		Cooling Towers – Primary Use for Building
	X	Cooling Tower - Primary Use in Manufacturing
	Χ	Counter/Reception Desks – Movable or Built-In
	X	Dairy Processing Plants – All Process Items, Bins, Tanks
	Χ	Dance Floors
	Χ	Data Processing Equipment – All Items
	Х	Deli Equipment
	Х	Desks - All



Table 96: (continued).

Real	Personal	Asset
	Х	Diagnostic Center Equipment - Movable or Built-In
	Х	Display Cases - Movable or Built-In
Х		Dock Levelers – Built-in Dock Levelers
	Х	Dock Levelers - Attached
	Х	Drapes & Curtains, Blinds, etc.
Х		Drinking Fountains
Х		Drive-Thru Windows - All
	Х	Drying Systems – Process or Product
	Х	Dumpsters
	Х	Dust Catchers, Control Systems, etc.
	X	Electronic Control Systems
Χ		Elevators
Χ		Escalators
	X	Farm Equipment - All
	X	Fencing - Inside
Χ		Fencing - Outside
	X	Flagpoles
	X	Flooring - Raised, Padded, Special Purpose
	X	Foundation for Machinery & Equipment
	X	Freight Charges
	X	Fuels – Not for Sales (List as Supplies)
	X	Furnaces – Steel Mill Process, etc.
	Х	Furniture & Fixtures
Χ		Gazebos & Pergolas
Χ		Golf Course & Improvements (Drainage/Irrigation)
Χ		Grain Bins (Storage)
Χ		Grease Traps
	X	Greenhouse Benches, Heating System, etc.
Χ		Greenhouses – Structure if Permanently Affixed
	Х	Handrails - If Used for Dividing Areas or Decorative
	X	Heating Systems – Process
	Х	Hoppers – Metal Bin Type (Feed Hoppers)
	X	Hospital Systems, Equipment & Piping
	Х	Hot Air Balloons



Table 96: (continued).

Real	Personal	Asset
	Х	Hotel/ Motel - Televisions & Wiring, Movable Furnishings
	Х	Humidifiers - Process
	Х	Incinerators - Equipment and/or Movable
	Х	Industrial Piping - Process
	Х	Installation Cost
	Х	Irrigation Equipment - Portable
	Х	Kiln Heating System
	Х	Kilns - Metal Tunnel or Movable
	Х	Laboratory Equipment
Х		Lagoons/Setting Ponds
	Х	Laundry Bins
	Х	Law & Professional Libraries
	Х	Leased Equipment - Lessor or Lessee Possession
		Leasehold Improvements (List in Detail Annually)
	Х	Lifts - Other than Elevator
	Х	Lighting - Portable, Movable, Special
Х		Lighting – Yard Lighting, Canned Lighting
	Х	Machinery & Equipment
	Х	Medical Equipment
	Х	Milk Handling- Milking, Cooling, Piping, Storage
	Х	Millwork
Χ		Mineral Rights
	Х	Mirrors (Other than Bathroom)
	Х	Molds
	Х	Monitoring Systems – Building or Equipment
	X	Netting – Driving Range
	Х	Newspaper Stands
	Х	Office Equipment - All
	Х	Office Supplies (List as Supplies)
	Х	Oil Company Equipment – Pumps, Supplies, etc.
	Х	Ovens - Processing/Manufacturing
	Х	Overhead Conveyor System
	Х	Package & Labeling Equipment
	Х	Paging Systems



Table 96: (continued).

Real	Personal	Asset
	Х	Paint Spray Booths
		Painting – No Added Value
X		Paving
	Х	Piping Systems – Process Piping
	Х	Playground Equipment – All
	X	Pneumatic Tube Systems
	Х	Portable Building/Storage Sheds
	Х	Power Generator Systems (Auxiliary, Emergency, etc.)
	X	Power Transformers – Equipment
	Х	Public Address Systems (Intercom, Music, etc.)
X		Railroad Siding (Other than Railroad-owned)
	X	Refrigeration Systems – Compressors, etc.
X		Repairs - Building
	Х	Repairs – Equipment (50% Cost)
	Х	Restaurant Furniture (Inc. Attached Floor or Building)
	Х	Restaurant/Kitchen Equipment – Vent Hoods, sinks etc. (Commercial)
	Х	Returnable Containers
	Х	Roll-up Doors (Inside Wall)
X		Roll-up Doors (Outside wall): Storage Unit Roll-up Doors
X		Roofing
	Х	Rooms – Self Contained or Special Purpose (Walls, Ceiling, Floor)
	Х	Safes - Wall or Self-Standing
	Х	Sales/Use Tax
	Х	Satellite Dishes (All Wiring & Installation to TV & Equipment)
X		Scale House (Unless Movable)
	Х	Scales
	Х	Service Station Equipment – Pumps, Tanks, Lifts, and Related
X		Sewer Systems
	X	Sheds (Storage)
	X	Shelving – Movable or Built-In
	Х	Signs – All Types Including Attached to Building
X		Silos
X		Sinks – Bathroom (Includes Medical & Dental Offices)
	X	Sinks – Kitchen Area



Table 96: (continued).

Real	Personal	Asset
	Х	Software – Purchased from Unrelated 3 RD Party & Capitalized
X		Solar Equipment - Used to Heat & Cool Building
	Х	Solar Equipment – Photovoltaic & Solar Thermal
	Х	Solar Farm - Electricity Generation
	Х	Sound Systems & Projection Equipment
	Х	Spare Parts – List as Supplies
	Х	Speakers – Built-In or Freestanding
	Х	Sprinkle System - Attached to Product Storage Racks
X		Sprinkler System – Building/Fire Protection
	Х	Storage Building – Not on a Permanent Foundation
	Х	Supplies - Office & Other
X		Swimming Pool Filtration Equipment
	X	Swimming Pool Heater Equipment
X		In-ground Swimming Pools
	X	Tanks - All Above & Below Ground
	Х	Telephone Systems & Wiring – Private
	X	Theatre Screens - Indoor
X		Theatre Screens - Outdoor
	Х	Tooling, Dies, Molds
	Х	Towers - Microwave, Equipment, Wiring, Foundation, Building & Fencing
	Х	Towers - TV, Radio, CATV, Two-Way Radio, Wiring & FDN
	X	Towers - Cell & Mobile Communications Equipment Owned by Communication Company- State Assessed
	X	Trailers - Designed to be Pulled Behind Vehicle
	Х	Transportation Cost – All
X		Tunnels – Unless Part of Process System
	Х	Upgrades to Equipment
	Х	Vacuum System – Process
X		Vault
	X	Vault Door, Inner Gates, Vents, & Equipment
	X	Vending Machines
	X	Vent Fans
X		Ventilation Systems – General Building
	X	Ventilation Systems – Needed for Manufacturing Process



Table 96: (continued).

Real	Personal	Asset
	X	Video Tapes, Movies, Reel Movies
X		Wall Covering
	Х	Walls – Partitions, Movable & Room Dividers
	X	Water Coolers - All
	X	Water Lines - For Process Above or Below Ground
X		Water Systems - Residential or General Building
	Х	Water Tanks & System – For Process Equipment
X		Water Wells - If Used for Irrigation Only
	Х	Whirlpool, Jacuzzi, Hot Tubs
	Х	Wiring – Power Wiring for Machinery & Equipment

These items contain their own schedule of values and depreciation tables unique to their use.



Land Valuation

In Ad Valorem Tax appraisals, estimating separate values for land and improvements is essential, even though the final valuation considers them as a single unit. In addition to property tax appraisal requirements, there are several advantages to making a separate estimate of land value:

- 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 selling price in order to derive indications of depreciation through market data analysis. Depreciation here is defined as the difference between the replacement cost new 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 land in the county has been appraised either on a per lot, per square foot, or per acre basis, utilizing the most appropriate unit of measure. Ranges for residential land valuation rates are located on page 132 in **Table 97**. Ranges for commercial and industrial land valuation rates are located on page 132 in **Table 98**. For land designated as agricultural, horticultural, or forestry, within the Present Use Value Program (see page 18 for more information), a use value analysis is performed to apply the appropriate assessments.

In appraising land, we assess the relative desirability of each lot in comparison to other parcels within the appraisal neighborhood or appraisal area. The final value of a specific land unit may be adjusted from its base value, reflecting the unique characteristics of each site. For instance, while a slight hollow can reduce excavation costs and be advantageous for some lots, it may be seen as a liability for others. A list of common adjustments is provided later in this section to guide these evaluations.

Approaches to Land Value

There are six recognized methods for appraising land:

- Abstraction
- Allocation
- Capitalization of Ground Rent
- Cost of Development
- Land Residual Capitalization
- Sales Comparison Method

Not all approaches apply to every property type; the choice of method may depend on the availability of sales data.



For residential land valuations, Union County frequently utilizes the Abstraction, Allocation, and Sales Comparison Method.

- The Abstraction Method The land value is determined by deducting the depreciated value of the improvements from the sales price of the improved property.
- The Allocation Method or Land Ratio Method A portion of the total value of the improved parcel is allocated to the land resulting in a land to building ratio.
- The Sales Comparison Method The value is determined by using sales of similar vacant properties, that have occurred during a given time period.

In contrast, commercial and industrial properties typically employ all six appraisal approaches.

Influence Factors

Some parcels (or portions of parcels) may have additional influences, either positive or negative, that are considered on a case-by-case basis. These adjustments are applied only when the conditions directly impact the highest and best use of the parcel. If a parcel is impacted by multiple factors, it is up to the appraiser's judgment to decide how to apply these influences.

- Shape Adjustments for shape are typically made in extreme cases. The amount of the adjustment will be based on professional judgment of an appraiser.
- Topography Adjustments for topography is typically made where the topography of a parcel is substantially different than the norm for the surrounding area. The amount of the adjustment will be based on professional judgment of an appraiser.
- Access Limited access to a parcel may have a negative effect on the parcel.
 - When a parcel is coded as limited access a -25% adjustment is made to the land.
 - Only parcels with less than 60 feet of road frontage will be considered for this adjustment.
 - Access issues will not be considered if the taxpayer owns adjacent parcels with road access or a deeded easement.
- Utility Right of Ways Any portion of a parcel restricted in use by a major utility right of way will be discounted 45%.
- Lack of Ability to Build Parcels that are not buildable, for whatever reason, will receive the following adjustment:
 - Land valued using a lot or site method is typically discounted 75%.
 - Typically, land valued using a site value plus acreage rate will have the site value removed.
 - Land valued as rural acreage is typically discounted 75% for parcels four acres and less. Parcels over four acres up to ten acres is typically discounted 45%, and parcels over ten acres is typically discounted 25%.



- Scenic Water Frontage Frontage on lakes or rivers may influence a parcel's value. When sufficient sales data is available, separate rates for parcels with water frontage may be established. If there is insufficient data to create distinct rates, a positive 50% adjustment will be applied to the area of the parcel within a 200-foot buffer of the lake or river, with no adjustments for flooding within this buffer.
- Flood Any portion of a parcel within Federal Emergency Management Agency (FEMA) Flood Zone "AE-FW" or "AE" will generally be discounted 45%. Any portion of a parcel in Flood Zone "2% Annual Chance" will generally be discounted 10%. Flood adjustments will not be applied within the portion of a parcel that is adjusted due to scenic water frontage.

Homeowners' Association

Land owned by a Homeowners' Association is typically valued at a nominal amount, usually set at \$100.00.

Condominium Land

Condominium owners generally have an undivided interest in the land that the condominium sits on and all other land in the common area associated with the project. Each project contains a document known as a Declaration of Condominium that is recorded in the Union County Register of Deeds. This declaration outlines the rules and regulations for the property and its owners. It also includes a percent interest ownership in the entire property. Common area land is determined by following the instructions of these documents. The value of the overall site is then transferred to each unit based on the assigned interest.



Land Valuation Ranges

 Table 97: Ranges for Residential Land Valuation.

Ranges for Residential Land Valuation											
Land Type	Unit Type		Low	High							
Acres	Per Acre	\$	100.00	\$	350,000.00						
Lot	Per Lot	\$	100.00	\$	900,000.00						
Primary	Per Acre	\$	100.00	\$	250,000.00						
Secondary	Per Acre	\$	100.00	\$	150,000.00						
Septic Lot	Per Lot	\$	100.00	\$	100.00						
Site plus Acres Per Lot plus Per Acreage Rate (see above for rates)											

 Table 98: Ranges for Commercial and Industrial Land Valuation.

Ranges for Commercial and Industrial Land Valuation									
Land Type	Unit Type	Low		High					
Commercial \ Retail - Excellent Site Rating	Per Acre	\$	100.00	\$	1,300,000.00				
Commercial \ Retail - Very Good Site Rating	Per Acre	\$	100.00	\$	1,100,000.00				
Commercial \ Retail - Good Site Rating	Per Acre	\$	100.00	\$	900,000.00				
Commercial \ Retail - Average Site Rating	Per Acre	\$	100.00	\$	720,000.00				
Commercial \ Retail - Fair Site Rating	Per Acre	\$	100.00	\$	540,000.00				
Commercial \ Retail - Poor Site Rating	Per Acre	\$	100.00	\$	360,000.00				
Commercial \ Retail - Very Poor Site Rating	Per Acre	\$	100.00	\$	226,000.00				
Industrial – Excellent Site Rating	Per Acre	\$	100.00	\$	305,000.00				
Industrial - Very Good Site Rating	Per Acre	\$	100.00	\$	267,000.00				
Industrial - Good Site Rating	Per Acre	\$	100.00	\$	229,000.00				
Industrial - Average Site Rating	Per Acre	\$	100.00	\$	167,000.00				
Industrial - Fair Site Rating	Per Acre	\$	100.00	\$	137,000.00				
Industrial - Poor Site Rating	Per Acre	\$	100.00	\$	123,000.00				
Industrial - Very Poor Site Rating	Per Acre	\$	100.00	\$	85,000.00				



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.

<u>Comment</u>: 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.

<u>Comment</u>: 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

<u>Comment</u>: 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.

<u>Comment</u>: 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.

<u>Comment</u>: 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;

<u>Comment</u>: 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;

<u>Comment</u>: 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;

<u>Comment</u>: 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
 - <u>Comment</u>: 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.



<u>Comment</u>: 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;

<u>Comment</u>: 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.

Employ recognized techniques for calibrating mass appraisal models.

<u>Comment</u>: 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;
 - <u>Comment</u>: 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;
 - <u>Comment</u>: 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
 - <u>Comment</u>: 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.

<u>Comment</u>: 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.

<u>Comment</u>: 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
 - <u>Comment</u>: 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;

<u>Comment</u>: 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;

<u>Comment</u>: 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.



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

<u>Comment</u>: 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;

<u>Comment</u>: 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;

<u>Comment</u>: 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;

<u>Comment</u>: 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

<u>Comment</u>: 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.

(I) 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.
- 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).

<u>Comment</u>: 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 typically 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 Union County Tax Administration Department has used the following sources in determining how to best fulfill its duties.

Fundamentals of Mass Appraisal (Gloudemans & Almay, 2011)

Mass Appraisal of Real Property (Gloudemans R. J., 1999)

Property Appraisal and Assessment Administration (Almay, et al., 1990)

Property Assessment Valuation - Third Edition (Diane M. Ange, et al., 2010)

IAAO Glossary for Property Appraisal and Assessment - Third Edition (Lisa A. Hobart, et al., 2022)

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, Union County uses the 2025 edition due to the effective General Reappraisal date and will continue to use this edition until the next General Reappraisal.



Information Sources

The following is a list of sources used to set value and rate ranges:

- Apartment Index, PO Box 8298, Wise, VA, 24293
- Costar, published by Costar Group, 1331 L Street NW, Washington, DC, 20005
- Marshall & Swift Valuation Service, published by the Marshall & Swift Publication Company, 777 S. Figueroa St., 12th Floor, Los Angeles, CA, 90017.
- Trepp, The Rink at Rockefeller Plaza, 600 5th Ave, New York, NY, 10020



References

- Almay, R., Aubrey, Ph.D, A., Coffman, Ph.D, J. F., Dornfest, A. S., Eckert, J., Friedman, Ph.D, J. P., . . . Thompson, Jr., J. F. (1990). *Property Appraisal and Assessment Administration*. (P. Joseph K. Eckert, Ed.) Chicago, Illinois, United States of America: International Association of Assessing Officers.
- Diane M. Ange, C., Gilliam, CAE, R. L., Hobart, PPS, L. A., Linne, CAE, M. R., Tegarden, CAE, T. K., Thimgan, CAE, G. E., & Thimgan, J. R. (2010). *Property Assessment Valuation* (Third ed.). (C. Garth E. Thimgan, Ed.) Kansas City, Missouri, United States of America: International Association of Assessing Officers.
- Gloudemans, R. J. (1999). *Mass Appraisal of Real Property*. Chicago, Illinois, United States of America: International Association of Assessing Officers.
- Gloudemans, R., & Almay, R. (2011). *Fundamentals of Mass Appraisal.* (B. Simmons, Ed.) Kansas City, Missouri, United States of America: International Association of Assessing Officers.
- Lisa A. Hobart, C. P., Altinger, CAE, R., Dakers, Sr., J., Ryan, CAE, FIAAO, J. F., Seethaler, RES, L.-A., Shepherd, Esquire, W. D., . . . Brown, T. (2022). *IAAO Glossary For Property Appraisal and Assessment, Third Edition*. Retrieved October 2, 2024, from IAAO.org: https://www.iaao.org/media/pubs/IAAO-Glossary_3rd-Ed_final.pdf



Table of Figures

Figure 1: First Floor Base Rate Example	12
Table 1: Percent Complete Guide.	15
Table 2: Union County Grade Adjustments	20
Table 3: First Floor Base Rates.	23
Table 4: Upper Story Base Rates	24
Table 5: Unfinished Area	25
Table 6: Basement - Unfinished	25
Table 7: Basement - Finished	26
Table 8: Basement - Finished - High Quality	27
Table 9: Lower Level or Walkout Basement – Unfinished.	28
Table 10: Lower Level or Walkout Basement – Finished.	29
Table 11: Lower Level or Walkout Basement – Finished – High Quality.	30
Table 12: Slab	31
Table 13: Unfinished Attic	31
Table 14: Finished Attic	32
Table 15: Exterior Wall Cover	33
Table 16: Roofing Material	34
Table 17: Fireplaces.	35
Table 18: Air Conditioning	35
Table 19: Heating	3 <i>6</i>
Table 20: Single Section Manufactured Home.	38
Table 21: Multi-Section Manufactured Home.	39
Table 22: Manufactured Homes Quality Grade Multipliers.	40
Table 23: Manufactured Home Hookup	40
Table 24: Garage - Attached - Standard (Unfinished)	42
Table 25: Garage – Attached – Semi-Finished	42
Table 26: Garage - Attached - Finished	43
Table 27: Garage – Attached – Finished – High Quality	43
Table 28: Garage – Living (Attached)	44
Table 29: Integral Carport (Attached).	44
Table 30: Shed Carport (Attached)	44
Table 31: Concrete Patio.	45
Table 32: Brick Patio.	46
Table 33: Flagstone Patio	47
Table 34: Masonry Stoop	
Table 35: Wood Patio	49
Table 36: Wood Deck	50
Table 37: Open Frame Porch.	51
Table 38: Open Masonry Porch	
Table 39: Enclosed Frame Porch or Frame Utility Room	
Table 40: Enclosed Masonry Porch or Masonry Utility Room.	
Table 41: Residential Shed: Small Utility (Frame) or Utility Shed - Masonry.	5 <i>6</i>
Table 42: Shed - Open Car Shed	
Table 43: Residential Detached Garage - Frame or Block	58



Table 44: Residential Detached Garage – Stud Framed Brick Veneer	59
Table 45: Attic Over Outbuilding	60
Table 46: Upper Living (Outbuilding) – Frame Structure Only	60
Table 47: Interior Finish - Minimal Quality	61
Table 48: Interior Finish – Recreational Quality.	61
Table 49: Interior Finish – Apartment Quality.	61
Table 50: Residential In-ground Swimming Pool	62
Table 51: Commercial Swimming Pool	63
Table 52: Bath House	64
Table 53: Greenhouse	65
Table 54: Residential Tennis/Game Court	66
Table 55: Residential Outdoor Fireplace	67
Table 56: Residential Outdoor Kitchen	68
Table 57: Non-Sketched Concrete Patio.	69
Table 58: Non-Sketched Brick Patio	70
Table 59: Non-Sketched Flagstone Patio	71
Table 60: Non-Sketched Masonry Stoop	72
Table 61: Non-Sketched Wood Deck	73
Table 62: Non-Sketched Open Porch	74
Table 63: Non-Sketched Enclosed Porch	75
Table 64: Loft Area – Over Structure	77
Table 65: Barn - Traditional Flat or Loft	78
Table 66: Livestock Stable Horse Barn	79
Table 67: Estate Type Stables (High Value).)	80
Table 68: Lean-To.	81
Table 69: Milking Parlor	82
Table 70: General Purpose Building Quonset Type	83
Table 71: General Purpose Steel Building – Four Sides Open.	84
Table 72: General Purpose Steel Building – Three Sides Open.	85
Table 73: General Purpose Steel Building – Two Sides Open	86
Table 74: General Purpose Steel Building - One Side Open.	87
Table 75: General Purpose Steel Building - No Sides Open	88
Table 76: Pole Building – Four Sides Open.	89
Table 77: Pole Building - Three Sides Open.	90
Table 78: Pole Building – Two Sides Open	91
Table 79: Pole Building - One Side Open	92
Table 80: Pole Building - No Sides Open	93
Table 81: Silo Conventional.	94
Table 82: Silo Porcelain (Harvestore).	94
Table 83: Storage Grain Bin.	
Table 84: Poultry - Broiler Confinement	95
Table 85: Poultry – Dark	
Table 86: Poultry - Egg Layer (Breeder).	
Table 87: Livestock Confinement (Hog Barns or Sheds)	97
Table 88: Dwelling Condition Depreciation Table	101
Table 88: (continued).	102
Table 89: Manufactured Home Condition Depreciation Table	104



Table 90: Outbuilding Condition Depreciation Table A	106
Table 91: Outbuilding Condition Depreciation Table B.	107
Table 92: Outbuilding Condition Depreciation Table C.	108
Table 93: Outbuilding Condition Depreciation Table D.	110
Table 94: Outbuilding Condition Depreciation Table E	112
Table 95: Commercial and Industrial Land Site Rating Categories	118
Table 96: General Classification of Real and Tangible Personal Property	122
Table 96: (continued)	123
Table 96: (continued)	124
Table 96: (continued)	125
Table 96: (continued)	126
Table 96: (continued)	127
Table 96: (continued)	128
Table 97: Ranges for Residential Land Valuation	132
Table 98: Ranges for Commercial and Industrial Land Valuation.	132
Figure 2: IRV Formula Triangle	161



Glossary of Terms

A complete glossary of terms can be found in the IAAO Glossary for Property Appraisal and Assessment – Third Edition (https://www.iaao.org/media/pubs/IAAO-Glossary_3rd-Ed_final.pdf,) however, for the readers convenience the terms most commonly used in the manual and within the appraisal profession have been extracted and included.

~ A ~

- Abstraction Method A valuation method used when the building value is known and there are no unimproved land sales to support the land value. The application requires the improvements to be recently constructed (or hypothetical) and must represent the highest and best use of the land. The information needed to use this method includes: 1) Net operating income, 2) Building value, 3) Discount rate, 4) Recapture rate, and 5) Effective Tax Rate. See Highest and Best Use and Land Residual Technique.
- Access Right The right of egress from and ingress to a property from an existing highway or street. See Bundle of Rights.
- Accounting Depreciation 1) In appraisal, depreciation is a loss of market value of an asset relative to its cost. Depreciation can stem from any cause that results in actual loss;
 2) In accounting, depreciation is a method providing for systematic allocation or recovery of cost over an asset life.
- Acre A unit of imperial or US customary land measurement equal to 43,560 square feet, 160 square rods or 10 square chains. An acre is a measure under the Weights and Measurements Act of the British Empire and the United States.
- Acreage Land larger than one acre that refers to a large parcel of land. The term acreage can be used to indicate a large parcel of land not necessarily measured in acres. Includes farms, timberland, recreational acreage, idle land, and waste land in rural locations. Excludes vacant platted lots that lie within or adjacent to a municipality and that usually carry a lot/block system designation rather than acreage. Separately assessed timber or mineral rights are omitted from this category.
- Actual Age The number of years that have elapsed since the completed construction of an improvement; also referred to as historical age or chronological age. See Age, Chronological Age, Economic Life, Effective Age, Remaining Economic Life and Useful Life.
- Adjusted Sale Price The sale price that results from adjustments made to the stated sale price to account for the effects of time, personal property, financing, etc.
- Ad Valorem A Latin term translating to "based on value."
- Ad Valorem Tax The amount of property taxes levied based on the value of the property, or a proportion of the property value, subject to taxation. A tax that is measured by value. Note: This term is often used to refer only to property taxes or to general property taxes, although technically it is applicable to income taxes, ad valorem tariffs, special property taxes, etc.



- Age A generic term referring to the length of time a property has existed. See Actual Age, Chronological Age, Economic Life, Effective Age, Remaining Economic Life, and Useful Life.
- Agents of Production The four ingredients available for the production of goods and services that satisfy human wants: 1) Land; 2) Labor; 3) Capital; and 4) Management (coordination). Maximum value is attained when the four ingredients attain the state of equilibrium. See Principle of Balance.
- Allocation by Abstraction A method of separating a whole property value into land and improvement components. The appraiser estimates the improvement's replacement cost new, subtracts an appropriate amount for depreciation, and subtracts the remainder from the whole property value to estimate the land value.
- Allocation by Ratio A method of separating a whole property value into land and improvement components, in which the appraiser develops proportions of land and improvement values for comparable properties and applies those proportions to the subject's whole property value.
- Appraisal The act or process of developing an opinion of value; an opinion of value.
- Appraisal Date In ad valorem taxation, the date as defined by law to estimate a property's value.
- Appraisal Principles The concepts evolved from economic doctrine providing the foundation for the valuation process and highest and best use. See Highest and Best Use.
- Appraisal Ratio 1) The ratio of the appraised value to an indicator of market value; and 2) By extension, an estimated fractional relationship between the appraisals and market values of a group of properties. See Level of Appraisal.
- Appraisal Ratio Study A ratio study using independent expert single property appraisals, and/or sales based on market value as indicators of market value. See Ratio Study.
- Appraisal Sale Price Ratio The ratio of the appraised value to the sale price, or adjusted sale price, of a property; a simple indication of appraisal accuracy. See Adjusted Sale Price, Appraised Value, and Ratio Study.
- Appraised Value The estimate of the value of a property. See Value.
- Appreciation Increase in value of a property, in terms of money, from causes other than additions and betterments. Contrast Depreciation.
- Arm's-Length Transaction A sale between a willing buyer and a willing seller that are unrelated parties, each of whom is reasonably knowledgeable about market conditions and under no undue pressure to buy or sell.
- Assess Determining the value of property for ad valorem taxation. See Ad Valorem Tax and Value.



- Assessed Value The value placed on property subject to taxation at market value or some legally authorized fraction thereof. See Assess, Market Value, and Value.
- Assessment Date See Appraisal Date.
- Assessment Level The relationship between the assessed value of property and its market value, often expressed as a percentage. See Assess, Level of Assessment, Market Value, and Value.
- Assessment Ratio See Appraisal Ratio and Appraisal Ratio Study.
- Attribute Characteristic of a property.
- Average Absolute Deviation (AAD) The arithmetic mean of the absolute deviations of a set of numbers from a measure of central tendency, such as the median. The average deviation of the numbers 4, 6, and 10 about their median (6) is (2 + 0 + 4) ÷ 3 = 2. The average deviation is used in computing the coefficient of dispersion (COD).



- Base Rates The initial set rates for different types of properties used in valuation schedules before adjustments for specific property characteristics.
- Base-Lot Method A method of appraising land parcels whereby each parcel to be appraised (base lot), and differences between the two in terms of location, size, shape, topography, and the like are analyzed by the appraiser in estimating the value of the lot to be appraised.
- Buildable Unit A unit of comparison used when the market indicates that a site is sold on a unit basis.
- Building Capitalization Rate The sum of the recapture and return rates on an income-producing property. The rate applies only to the improved portion of a property. The ratio of building or improvement income to building or improvement value. It can be used to convert a single year's building or improvement income into a building value.
- Building Residual Technique A capitalization technique used when land value is known and residual income to the building or improvement is capitalized to obtain the building or improvement value.
- Bundle of Rights The six basic rights associated with the private ownership of property. They are; 1) The right to sell. 2) The right to lease or rent, 3) The right to use, 4) The right to give away, 5) The right to enter or leave (real property), and 6) The right to refuse to do any of these. Four rights removed from the bundle of rights in favor of government control are: 1) Taxation, 2) Eminent domain, 3) Police power, and 4) Escheat.
- Business Assets Tangible and intangible resources that are employed by a business enterprise in its operation.
- Business Enterprise A commercial, industrial, or service organization pursuing an economic activity.
- Buyer 1) One who purchases property; and 2) In real property sales, the grantee to whom property is transferred by deed or to whom property rights are granted by a trust instrument or other document.



- CAMA See Computer-Assisted Mass Appraisal.
- Capitalization 1) Any rate used to convert an estimate of income to an estimate of market value; the ratio of net operating income to market value, and, 2) For the assessment of personal property and generally accepted accounting principles (GAAP), capitalization refers to the cost of an asset that is placed in the asset category of a balance sheet, rather than as an expense on an income statement.
- Capitalization of Ground Rent Method of estimating land value in the absence of comparable sales. Applicable where there is an income stream; for example, to farmland and commercial land leased on a net basis.
- Capitalization of Income See Income Capitalization.
- Capitalization Rate The annual net operating income of a property divided by its value expressed as a percentage. It converts the estimated net operating income of a property to an estimate of market value. A capitalization rate is composed of: 1) A rate of return on the investment (interest); 2) A rate of return of the investment (recapture); and 3) Effective tax rate. For ad valorem assessments, the inclusion of the effective tax rate in the capitalization rate is referred to as a loaded cap rate.
- Capitalized Value The value of a property estimated by the income approach to value.
- Chattel A term that is synonymous with tangible personal property. See Personal Property.
- Chronological Age The age of an item as measured from when the item was new to a specified date. Often referred to as Historical Age. See Age, Economic Life, Effective Age, Remaining Economic Life, and Useful Life.
- Class A set of items defined by common characteristics; 1) In property taxation, property classes such as residential, commercial, agricultural, industrial, and personal property may be defined; 2) In assessment, building classification systems based on type of building design, quality of construction, or structural type are common; 3) Class use may be subject to regulation and/or law; 4) May have differing tax classes and tax (millage) rates.
- Classification The process of grouping items with common characteristics. See Class.
- Coefficient of Dispersion (COD) Expresses as a percentage the average deviation of the ratios from the median. The COD is used throughout the property assessment field as a measure of appraisal uniformity.
- Computer-Assisted Mass Appraisal (CAMA) A software package used by governmental agencies and assessing offices to establish real and personal property valuations for property tax purposes. It is composed of several applications that systemically value property. Often includes statistical analysis such as multiple regression analysis to assist the appraiser in determining the value of property for property taxation purposes.



- Commensurate Corresponding in size, extent, amount, or degree; proportionate. In appraisal and construction, it refers to something being in alignment with or appropriate to a standard or quality. For example, finishes or upgrades may be described as commensurate with the overall quality or value of a property.
- Comparative Unit Method Estimates the replacement cost new of a property by using a cost per unit of comparison such as per linear foot, per square feet, per cubic feet, or for personal property, per production rate. An appraisal technique that totals direct and indirect costs and divides that sum by the appropriate unit of comparison. The result can then be applied to similar properties to estimate market value.
- Condition (CDU) A qualitative measure of the overall desirability of a property's physical improvements.
- Conservation Easements Legal agreements restricting certain uses of land to preserve its conservation value, often reducing its taxable value.
- Consideration The amount of money and other valuable goods or services on which a buyer and a seller agree to consummate a sale.
- Contract Rent The actual amount of rent that is specified in the lease.
- ▼ Corner Influence 1) The effect of location at, or proximity to, the intersection of two streets upon the value of a lot or parcel; and 2) The increment of value resulting from such location or proximity. Found most often in commercial properties because of greater ease of entry and exit, accessibility to higher volume of traffic, and increased show-window and advertising space.
- Cost Approach 1) One of the three approaches to value, the cost approach is based on the principle of substitution—that a rational, informed purchaser would pay no more for a property than the cost of building an acceptable substitute with like utility. The cost approach seeks to determine the replacement cost new of an improvement less depreciation plus land value; and 2) The method of estimating the value of property by: (a) Estimating the cost of construction based on replacement or reproduction cost new or trended historical cost (often adjusted by a local multiplier); (b) Subtracting depreciation; and (c) Adding the estimated land value. (The land value is most frequently determined by the sales comparison approach.)
- Cost-of -Development Method A method of appraising undeveloped land, whereby an estimate is made of the probable proceeds to be obtained from selling the land as subdivided, developed parcels. The cost of so developing the raw land is subtracted from this estimate to obtain an estimate of the value of the raw land.
- Cost Schedules Charts, tables, factors, curves, or equations intended to help estimate the cost of replacing a structure from a set of known factors such as quality class and structure size and height.
- Cost to Cure Estimated cost to correct or replace a component within an item of real or personal property. The cost to remedy deferred maintenance or functional obsolescence.
- Curable Depreciation That part of depreciation that can be reversed by correcting a deficiency.



- Date of Sale (Date of Transfer) For real property, the actual date of conveyance between grantor and grantee of the bundle of rights. Referred to as the execution date, which may or may not be the date of recordation. For personal property, the date that the buyer and seller convey the property in exchange for money or another item of value.
- Deed A document that when executed and delivered conveys an interest in or legal title to a property.
- Deed Restriction Limitations on property rights, typically on the use of a property, contained in a deed.
- Deferred Maintenance Postponed maintenance and repairs to real or personal property that were not performed and have been delayed.
- Demand The amount of a commodity that consumers would purchase at a given price.
- Depreciable Cost The amount of the cost to the current owner that is to be recovered or allocated in accounting depreciation. It may represent the current cost, including sales tax, freight, installation, and other costs associated with placing the asset into service, and less any estimated salvage value.
- Depreciated Reproduction Cost The reproduction cost of a given property, less the estimated amount of accumulated depreciation on such property. See Reproduction Cost New.
- Depreciation Loss in value of an object from any cause, relative to its replacement cost new, reproduction cost new, or original cost, whatever the cause of the loss in value. Depreciation is sometimes subdivided into three types: physical deterioration (wear and tear), functional obsolescence (suboptimal design in light of current technologies or tastes), and economic (external) obsolescence (poor location or radically diminished demand for the product). See Accounting Depreciation.
- Depreciation, Accrued 1) The amount of depreciation, from any and all sources, that affects the value of the property in question on the effective date of the appraisal; 2) In accounting, the amount reserved each year or accumulated to date in the accounting system for replacement of a building or other asset. When depreciation is recorded as a dollar amount, it may be deductible from total plant value or investment to arrive at the rate base for public utilities.
- Depreciation, Curable That part of depreciation that can be reversed by correcting deferred maintenance and by remodeling to relieve functional obsolescence. See Cost to Cure.
- Depreciation, Incurable See Incurable Depreciation.
- Depreciation, Physical See Physical Deterioration.



- Depreciation Schedules In mass appraisal, tables that provide typical loss in value at various effective ages for different property types. In accounting, a worksheet that summarizes the amount of annual and accumulated depreciation for each depreciable asset.
- Diminished Utility The difference in utility between a new improvement representing the highest and best use of the site and the existing improvement in its current condition.
- Direct Capitalization A method of converting a single year's income into an estimate of value by dividing the expected annual net operating income by an overall capitalization rate. See Income Capitalization and Yield Capitalization.
- Direct Cost The cost that can be traced directly to the construction of an improvement; for example, cost of labor, materials, equipment, and permits used in the construction of an improvement. Referred to as Hard Cost. Contrast with Indirect Cost.
- Discount Rate A rate of return that converts future payments to present value. Referred to as Yield Rate.
- Distressed Sale A sale made to meet the immediate and pressing needs of the seller at whatever price the property will bring. Sale under duress.



- Earnings A general term embracing revenue, profit, or net income.
- Earnings Statement Referred to as an income statement. Also referred to as a Profit and Loss Statement. See Income Statement.
- Easement An interest in land created by grant or agreement that confers a right upon owners to some profit, benefit, dominion, or lawful use of or over the estate of another; it is distinct from ownership of soil.
- Economic Life The total number of years during which the improvements and/or personal property contribute to the total property value. Economic life is equal to the effective age plus the remaining economic life and is often referred to as the Total Economic Life. See Age, Chronological Age, Effective Age, and Useful Life.
- Economic Obsolescence or External Obsolescence A type of temporary or permanent depreciation caused by negative factors outside of the property.
- Economic Rent See Rent, Economic
- Economies of Scale Unit costs fall as the scale of production increases.
- Effective Age The age of a property based on the amount of observed deterioration and obsolescence, which may be less than, greater than, or equal to the chronological age. See Age, Chronological Age, Economic Life, Remaining Economic Life, and Useful Life.
- Effective Date The specific date on which the appraisal value is determined, usually set by statutory requirements, such as January 1 of a General Reappraisal year.
- Effective Gross Income (EGI) The potential gross rent, less vacancy and collection loss, plus miscellaneous (other) income.



- Effective Gross Income Multiplier (EGIM) The factor that can be multiplied by the effective gross income to obtain the market value of a property. See Effective Gross Income (EGI).
- ▼ Effective Tax Rate The rate expressing the ratio between the current tax bill and the property value; the official tax rate of the taxing jurisdiction multiplied by the assessment ratio (statutory level of assessment). It is expressed as a percentage of market value. Differs from nominal tax rate when the assessment ratio (statutory level of assessment) is not 100 percent. The rate may be calculated either by dividing the amount of taxes by market value or by multiplying a property's assessment level by the nominal tax rate.
- Egress An outlet or exit from a property.
- Excise Tax (Revenue Stamps) A tax on the sale of property recorded with the deed, often used to help determine the property's sale price.
- Expense The cost of operations that are incurred to generate revenue. In accounting, generally chargeable against revenue for a specific period of time.
- Expense Ratio See Operating Expense Ratio (OER)
- External Obsolescence A type of temporary or permanent depreciation caused by negative factors outside of the property.

~ F ~

- Fair Market Value The estimated price at which a property would change hands between a willing buyer and seller, neither under any pressure to act.
- Fee Appraisal See Single Property Appraisal.
- Federal Emergency Management Agency Zone (FEMA Zone) A designated area mapped by FEMA that indicates flood risk levels. These zones are used to determine flood insurance requirements and assess the potential risk of flooding for properties.
- Functional Obsolescence The loss of value in a property improvement due to impairment, deficiency in design, changes in style, taste, technology, needs, and demands. Can be either curable or incurable. Functional obsolescence exists when a property suffers from poor or inappropriate architecture, lack of modern equipment, wasteful floor plans, inappropriate room sizes, inadequate heating or cooling capacity, deficiencies, and so on. It is the inability of a structure to perform adequately the function for which it is currently used.

$\sim G \sim$

- General Statute A law enacted by the legislative body of a state, which governs various aspects of property appraisals, taxation, and legal procedures. In North Carolina, property appraisals are guided by several General Statutes, such as NC General Statute 105.
- General Reappraisal See Reappraisal and Reappraisal Cycle.



- ✓ Gross Rent Multiplier (GRM) A factor that can be multiplied by the potential gross rent of a property to obtain the market value. It is the ratio between the sale price of a property and the monthly economic rent. See Rent, Economic and Potential Gross Rent.
- GRM See Gross Rent Multiplier.
- Ground Rent The rent paid for the right of use and occupancy of land.

~ H ~

■ Highest and Best Use — The appraisal principle that requires evaluation of all physically possible, legally permissible, financially feasible, and maximally productive (most profitable) uses of a property to determine the use that provides the owner with the highest net return on investment in the property. Highest and best use is evaluated as if vacant land, and as improved.

~ I ~

- Income Approach One of the three approaches to value that converts expected economic benefits of owning a property into value through a direct capitalization method or yield capitalization process. Also called Income Capitalization Approach.
- Income Capitalization The conversion of annual net operating income and expected rate of return into an estimate of market value. Components include income, rate, and value. They can be used interchangeably using the IRV formula. See Direct Capitalization.
- Income Capitalization Approach See Income Approach.
- Income Statement A financial reporting document that shows an entity's revenues and expenses during a specific revenue period.
- Incurable Depreciation A part of depreciation for which it is not economical to correct the condition, and if corrected, the cost of correcting the condition exceeds the value added. A deficiency or defect in design in which the cost to cure exceeds the increase in value. See Obsolescence and Physical Deterioration.
- Influence An external or internal factor that affects the value of a property. Examples include location, proximity to amenities, topography, flood risk, and other characteristics that may raise or lower a property's market value.
- Ingress Access or entrance to a property.
- Interim Use The temporary use of a property before its highest and best use is realized. This use typically generates income or value for a property while awaiting future development or market changes.
- International Association of Assessing Officers (IAAO) A global organization that provides standards, education, and research for property assessors to ensure fair and equitable property valuation practices.



Interpolation — A mathematical technique used to estimate a value within two known values in a data set. In appraisal, interpolation is often used to estimate property values based on characteristics like square footage when the exact value isn't available on a schedule or table.

IRV — (I)ncome (R)ate (V)alue A mnemonic (formula) as shown in Error! Reference source not found., for the basic equation of income approach:

Income equals the (Capitalization) Rate multiplied times the Value or Value equals the Income divided by the Rate.



o Income (
$$\$$$
) ÷ Rate ($\%$) = Value ($\$$)

• Rate (%)
$$\times$$
 Value (\$) = Income (\$)

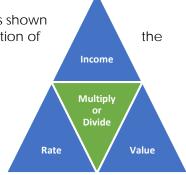


Figure 2: IRV Formula Triangle.

- Land Capitalization Rate (RI) The ratio of land income to land value; can be used to convert a single year's land income into land value.
- Land Ratio The ratio of land area to building area. The land ratio can be an important factor in grouping properties for income approach appraisal by means of direct sales comparisons.
- ✓ Land Ratio Method A technique used to estimate the value of property from a knowledge of normal net income, the discount rate, the remaining economic life of a property, the value of the building, the income path attributable to the building, and the income path attributable to the land. The technique estimates total value by discounting the income stream attributable to the land and adding the result to an independent estimate of the value of the building.
- ✓ Land Residual Technique A value ascribed to land when the building value is known and when there are no unimproved land sales to support land value. For this technique to be valid, the building must be new (the improvements can be hypothetical) and must represent the highest and best use of the land. The information needed to use the land residual technique includes: 1) Net operating income; 2) Improvement value; 3) Proper discount rate; 4) Property recapture rate; and 5) Effective tax rate. See Abstraction Method, Discount Rate, Effective Tax Rate, Net Operating Income, and Recapture Rate.
- Land Residual Value The value of the land after accounting for the depreciation of any improvements. It represents the remaining value attributed to the land alone, often used in the Income Approach when estimating the value of the land separate from structures.



- Land-to-Building Ratio The proportion of land area to gross building (improvement) area. For a given use, the most frequently occurring ratio will be that of a functioning economic unit.
- Land-to-Improvement/Building Ratio See Land-to-Building Ratio.
- Level of Appraisal The common, or overall, ratio of appraised values to market values. Three concepts are usually of interest: 1) The level required by law; 2) The true or actual level; and 3) The computed level, based on a ratio study. See Level of Assessment.
- Level of Assessment The common or overall ratio of assessed values to market values.
- Life, Economic See Economic Life.
- Life, Physical See Physical Life.

~ M ~

- Market Approach See Sales Comparison Approach.
- Market Value The price that property would sell for in the open market between a willing seller and a willing buyer. Both having reasonable knowledge of the market conditions and acting on their own accord with neither under any pressure to act.
- Mass Appraisal The process of valuing a group of properties as of a given date, using standard methods, employing common data, and allowing for statistical testing. Source: IAAO Standard on Mass Appraisal.
- Mean A measure of central tendency. The result of adding all the values of a variable and dividing by the number of values. For example, the mean of 3, 5, and 10 is 18 divided by 3, or 6. Also called arithmetic mean.
- Median A measure of central tendency. The value of the middle item in an uneven number of items arrayed by value. The arithmetic average of the two central items in an even number of items similarly arranged; a positional measure not affected by extreme values.
- Median Ratio A statistic used in mass appraisal to measure the overall level of appraisal accuracy, comparing the appraised values to sale prices.
- Modifier A factor or adjustment applied in appraisals to account for specific property characteristics that either increase or decrease the base value. Modifiers can include factors such as quality, condition, and location.

~ N ~

- Neighborhood or Economic Area A geographic area, typically encompassing a group of neighborhoods, defined on the basis that the properties within its boundaries are more or less equally subject to a set of one or more economic forces that largely determine the value of the properties in question.
- Net Income See Net Operating Income (NOI).
- Net Income Multiplier (NIM) A factor that can be multiplied by the net income (NOI) to obtain the market value of a property. It is the relationship between value and net operating income.



- Net Income Ratio (NIR) The ratio of net operating income to effective gross income. It may also be expressed as a percentage of potential gross income. It is the complement to the operating expense ratio (OER) and can be found by the formula 1 OER. See Effective Gross Income, Net Operating Income, Operating Expense Ratio, and Potential Gross Income.
- Net Operating Income (NOI) The amount of income remaining after operating expenses are subtracted from effective gross income. See Capitalization Rate, Effective Gross Income, Income Approach, Operating Expenses, and Potential Gross Income.
- NIM See Net Income Multiplier.
- NIR See Net Income Ratio.
- NOI See Net Operating Income.
- No Perc A term used in real estate to indicate that a property has not passed a percolation test, meaning the soil cannot adequately absorb water for septic systems. This can significantly impact the value and use of the land.



- OAR See Overall Rate.
- Obsolescence One factor of depreciation characterized by an impairment or limitation in function or design or by a shift in market preferences. See External Obsolescence, Functional Obsolescence, and Superadequacy.
- OER See Operating Expense Ratio.
- Open Market A freely competitive market in which any buyer or seller may trade and in which prices are determined by competition.
- Operating Expense Ratio (OER) The ratio of expenses to effective gross income (EGI). Normally the percentage that operating expenses make up as a percentage of effective gross income. It can also be expressed as a percentage of potential gross income. It is the complement to the net income ratio (NIR) and can be found by the formula 1 NIR. See Operating Expenses and Net Income Ratio.
- Operating Expenses Ordinary and typical expenses that are necessary to keep the property functional. Operating expenses are evaluated to determine which are proper for development of the income approach to value. Typical operating expenses can be classified as: 1) Fixed expenses An expense that does not vary by the rate of occupancy; 2) Variable expenses An expense that varies based on the rate of occupancy; and 3) Reserves for replacement Annual charges for items that have relatively short lives.
- Overall Capitalization Rate See Overall Rate (RO) or (OAR).



Overall Rate (OR) (OAR) — The relationship between a single year's annual net operating income and the property's sale price or value. See Capitalization Rate, Discount Rate, Effective Gross Income, Effective Tax Rate, Net Operating Income, and Recapture Rate.

- Parcel A contiguous area of land described in a single legal description or as one of a number of lots on a plat; separately owned, either publicly or privately; and capable of being separately conveyed. In land ownership mapping for assessment purposes, a parcel is usually held to be a tract of land under one entity ownership. It may be a combination of two or more tracts acquired by separate deeds.
- Parcel Identification Number (PIN) A numeric or alphanumeric description of a parcel that identifies it uniquely. Assessors use various systems, many with common features. A growing number of these systems include geocoding. In the 30 states where it exists, the public land survey system, authorized by the United States government in 1785, is often a basis for parcel identification. In Ontario, Canada, it is a nine-digit number for numerical indexing of legal description-based property identification.
- Parcel Identifier A code, usually numerical, representing a specific land parcel's legal description. The purpose of parcel identifiers is to permit reference to legal descriptions by using a code of uniform and manageable size, thereby facilitating record-keeping and handling. Also called Parcel Identification Number.
- Percent Good An estimate of the value of a property, expressed as a percentage of its replacement cost, after depreciation of all kinds has been deducted.
- Personal Property All property not defined as real property. Generally, includes four categories (inventories, fixed assets, leasehold improvements, and intangibles). Tangible property includes most movable items, but can include sales tax, freight, installation costs, and all other costs required to place the item into service. Intangible property is evidence of ownership. Personal property is assessable unless specifically exempted by statute for each state.
- Physical Depreciation The reduction in a property's value due to physical deterioration or wear and tear.
- Physical Deterioration A cause of depreciation that is a loss in value due to ordinary wear and tear and the forces of nature. The loss in value begins immediately following the completion or installation of a building component. Man-made objects begin to suffer from deterioration as soon as they are created, simply because of the passage of time. Decay may be due to normal chemical changes in materials' composition or may result from mechanical cause. The loss in value may be curable or incurable.
- Physical Life The total period a building lasts or is expected to last. The length of time it could physically exist if allowed to remain standing.
- Potential Gross Income (PGI) The total scheduled annual income for incomeproducing properties at 100 percent occupancy, including other income the property generates (e.g., parking, laundry, pet fees, etc.).
- Potential Gross Rent The total rent a property would produce if 100 percent occupied at market rent.



- Present Use Value (PUV) A property valuation method used for agricultural, horticultural, or forest land that is appraised based on its current use rather than its market value.
- Price-Related Differential (PRD) A statistical measure of vertical property tax equity. The PRD is calculated by dividing the mean ratio by the weighted mean ratio in a ratio study. If the result exceeds 1.03, assessments are considered regressive. If the result is less than 0.98, assessments are considered progressive.
- Principle of Anticipation The principle of value that states that value is the present worth of all the anticipated future benefits to be derived from a property. The benefits, in the form of an income stream or amenities, are those benefits anticipated by the market.
- Principle of Balance The principle of value that states that maximum market value is reached when the four agents of production attain a state of equilibrium. The four agents of production are 1) Land; 2) Labor; 3) Capital; and 4) Management. See Agents of Production.
- Principle of Change The principle of value that states that market value is never constant because physical, environmental, economic, governmental, and social forces are at work to change the property and its environment. When these forces are in balance, the market achieves a temporary state of rest called equilibrium.
- Principle of Conformity The principle of value that states that the value of a property depends to some extent on its relation to its surroundings. The principle of conformity states that maximum market value is achieved when there is reasonable similarity among the improvements, and reasonably homogenous and surrounding land uses are compatible with the use of the specified properties.
- Principle of Consistent Use The principle of value that states that the property must be valued with a single use for the entire property. It is improper to value a property on the basis of one use for land and another use for the improvements.
- Principle of Contribution The principle of value that states that the value of a component of property depends on its contribution to the whole. In other words, the cost of the component does not necessarily equal the value the component adds to the property.
- Principle of Highest and Best Use See Highest and Best Use.
- Principle of Increasing and Decreasing Returns The principle of value that states that when successive increments of one agent of production are added to fixed amounts of the other agents, future net benefits (income or amenities) increase up to a certain point (the point of decreasing returns), after which successive increments decrease future net benefits.
- Principle of Substitution The principle of value that states that a property's market value tends to be set by the cost of acquiring an equally desirable and valuable substitute property, assuming that no costly delay is encountered in making the substitution. This principle underlies each of the three approaches to value: cost, sales comparison, and income.



- Principle of Supply and Demand The principle of value that holds that the price of a property varies directly with demand and inversely with supply. Supply is a function of the four agents of production. Demand is a function of consumer desire to purchase the property. See Principle of Balance.
- Principle of Surplus Productivity The principle of value that is the net income remaining after the costs of labor, management, and capital (in that order) have been satisfied. The surplus productivity is the income earned by the land. The agents of production must be satisfied in the following order: labor, management, capital, and land. As a result, land value tends to be set by the cost of labor, management, and capital. See Principle of Balance, Principle of Contribution, and Principle of Increasing and Decreasing Returns.
- Property Tax Any tax that is imposed on persons on account of their ownership or possession of property; it is measured by the number of units, the value, or some presumptive evidence of number of units or value, of such property.



~ R ~

- Ratio Study A statistical study of the relationship between appraised or assessed values and market values; based on an analysis of the ratio derived by dividing the appraised or assessed values of property by the market values of such property. Sale prices or independent appraisals are used as proxies for market values.
- RCN See Replacement Cost New and Reproduction Cost New.
- RCNLD Replacement/reproduction cost new less depreciation or reproduction cost new less depreciation. See Depreciation, Replacement Cost New, and Reproduction Cost New.
- Real Estate The physical parcel of land and all improvements permanently attached. Compare Real Property.
- Reappraisal The mass appraisal of all property within an assessment jurisdiction accomplished within or at the beginning of a reappraisal cycle. A subsequent (and possibly periodic) mass appraisal of all property of a specified class or classes within an assessment jurisdiction. Factors considered may include changes in physical condition, use, or the market. Also called Reassessment or Revaluation.
- Reappraisal Cycle Time needed, taken, or permitted for a jurisdiction to reappraise all properties of a specified class or classes, as may be mandated by law or rule. See Reappraisal.
- Recapture Rate A portion of the overall rate (Ro) or (OAR) in an income approach representing the return of the owner's investment in property. Expressed as the current year's percentage of the remaining economic life (REL). See Remaining Economic Life.
- Remaining Economic Life (REL) The estimated number of years remaining during which the improvements and personal property continue to contribute to the total property value. Often expressed as a percentage of the total economic life (REL %). See Age, Economic Life, Effective Age, and Useful Life.



- Rent, Economic 1) In appraisal, the annual rent that is justified for the property on the basis of a careful study of comparable properties in the area; market rent; and 2) In economics, the payment received by an owner of something being bought or rented in excess of the minimum amount for which he or she would have sold or rented it.
- Replacement Cost New (RCN) The current cost of producing a building or improvement, or item of personal property with the same utility with modern materials, design, and workmanship. This cost is less than the amount indicated by the reproduction cost new method. It implies that the cost is based on a modern improvement that affords utility equivalent to that provided by the subject property.
- Replacement/Reproduction Cost New Less Depreciation (RCNLD) See Depreciation, Replacement Cost New (RCN), and Reproduction Cost New (RCN).
- Reproduction Cost New (RCN) The cost of producing an exact replica of a building, improvement, or item of personal property using the same or similar materials, design, and workmanship. This cost involves rebuilding the subject property with an inherent faculty design, superadequacies, and inefficiencies. It is an unrealistic method for older, obsolete property due to the cost of reproduction. See Cost Approach.
- Residual The difference between an observed value and a predicted value for a dependent variable.
- Residual Value The value of the property after cleanup of environmental contamination. This may be more or less than the original value, depending on counterbalancing effects of stigma and improvements to property efficiency.
- Residual Value of Improvements See Building Residual Technique.
- Residual Value of Land See Land Residual Technique.
- Revaluation Sometimes used interchangeably with a reappraisal of property, a complete reappraisal of real property as of a specified date. See Reappraisal and Reappraisal Cycle.
- Right-of-Way 1) An easement consisting of a rite of passage through the servient estate (preferred); and 2) By extension, the strip of land traversed by a railroad or public utility, whether owned by the railroad or utility company or used under easement agreement.



- Sales Comparison Approach One of three approaches to value, the sales comparison approach estimates a property's value (or some other characteristic, such as depreciation) by reference to comparable sales. The sales comparison approach compares recently sold properties to the subject property. Adjustments are made to comparable properties to reflect the characteristics of the subject property.
- Sales Ratio/Assessment Ratio The ratio of an appraised (or assessed) value to the sale price or adjusted sale price of a property.
- Sales Ratio Study A ratio study that uses sale prices as benchmarks for market values. A relationship between sales prices and value (market value, assessed value, equalized value), that is used to measure the level of appraisal. Used to evaluate the effectiveness of assessment practices, reappraisals, or revaluations.



- Schedule of Values A document establishing base rates and ranges for appraising property, including adjustments for different types of construction and market conditions.
- Single Property Appraisal Systematic appraisal of properties one at a time. Commonly referred to as a fee appraisal or bank appraisal, which normally determines a value of a particular property as of a given date. Differs from mass appraisal, which systematically appraises groups of properties as of a given date using standardized procedures and statistical testing.
- Site Rating A method of appraising land by assigning ratings (e.g., Excellent, Good, Fair) to parcels based on their characteristics and market desirability.
- Square Foot A unit of area equal to 12 inches (a square one foot) in length on each side.
- Stratification The division of a sample of observations into two or more subsets according to some criterion or set of criteria. Such a division may be made to analyze disparate property types, locations, or characteristics, for example.
- Stratify To divide, for purposes of analysis, a sample of observations into two or more subsets according to some criterion or set of criteria.
- Superadequacy A feature of a property exceeding in quality or amount the corresponding feature in a typical property of the same use. Superinsulation is one example. Superadequacies fall into the larger category of functional obsolescence. See Functional Obsolescence.

~ T ~

- Tax Rate The percentage of a property's assessed value that is levied as property tax.
- Topography The contour of land surface; for example, gently rolling, mountainous, or flat.

~ U ~

- Uniform Standards of Professional Appraisal Practice (USPAP) The generally recognized ethical and performance standards for the appraisal profession in the United States. USPAP was adopted by Congress in 1989 and contains standards for all types of appraisal services, including real estate, personal property, business, and mass appraisal.
- Units of Comparison Property characteristics expressed as value per unit of measure most often used by market participants to estimate a property's total value. A relevant measure of similarity used to calculate the value of a property or establish similarity with another property. Units of comparisons can include land value per square foot, per acre of land area, per front foot, per buildable unit. For commercial property, the unit of comparison may be the square foot of gross building area, usable building area, or rentable building area. For personal property, the unit of comparison may be units of production. The optimal unit of comparison for analysis is typically the one with the lowest coefficient of variation.
- Useful Life The estimated normal operating life in terms of utility to the owner of a fixed asset or group of assets. See Economic Life.



USPAP — See Uniform Standards of Professional Appraisal Practice.



- Vacancy Unoccupied space.
- Vacancy and Collection Loss (V&C) Vacancy is the amount of money deducted from potential annual gross income to reflect the effect of probable vacancy and turnover. Collection loss is the nonpayment of rent by tenants. Vacancy and collection loss is commonly expressed as a percentage of potential annual gross income, and it should be based on market research, not actual rental history of a property.
- ✓ Valuation 1) The process of estimating the value (market, investment, insured, or other properly defined value) of a specific parcel or parcels of real estate or of an item or items of personal property as of a given date; and 2) The process or business of appraising, of making estimates of the value of something. The value usually required to be estimated is market value.
- ✓ Value The relationship between an object desired and a potential owner; the characteristics of scarcity, utility, desirability, and transferability must be present for value to exist; 2) Value may also be described as the present worth of future benefits arising from the ownership of real or personal property; 3) The estimate sought in a valuation; and 4) Any number between positive infinity and negative infinity. See Market Value.



- Water Frontage The length of a property that directly borders a body of water, such as a lake, river, or ocean. This characteristic often affects the value of the property, with higher value typically assigned to properties with more water frontage.
- Weighted Mean (Weighted Average) The weighted mean is a measure of central tendency.

- Year Built The year when the structure or improvement on the property was originally constructed.
- Yield Capitalization The method of converting a series of future net benefits into present value where the future net benefits are discounted at a proper yield rate or discount rate (Yo). Yield capitalization can also be accomplished by developing an overall rate (Ro) that specifically reflects the investment's pattern of income, change in value, and yield rate. See Direct Capitalization, Income Approach, and Income Capitalization.

$$\sim$$
 Z \sim

Zoning — The exercise of the police power to restrict landowners as to the use of their land and/ or the type, size, and location of structures to be erected thereon.

