Cumberland County Regional Assessing
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Introduction to Property Valuation in Yarmouth for Tax Year 2025-2026

This document describes the mass appraisal theory and techniques used by Vision Government Solutions (VGSI) to establish the proposed 2025 property tax valuations in Yarmouth. A more comprehensive document, with finalized pricing schedules and grading metrics, will be provided in the form of an appraisal manual by VGSI after taxes are committed. Once complete, this manual will be made available for public review.

Basic Valuation Theory

The primary goal of a property tax appraisal is to develop an opinion of market value as of the valuation date (in this case, April 1, 2025). The process begins with the assessor identifying the specific properties to be valued, including not only their physical attributes but also the legal property rights associated with them.

Highest and Best Use

A crucial step in valuation is determining the property's "highest and best use." This refers to the most profitable, legal, and physically possible use of the property. Once the highest and best use is established, the appraiser can begin to collect and analyze the relevant market data. This involves studying economic forces like supply and demand and analyzing specific details about the property and comparable properties.

The data considered includes:

- Physical attributes (e.g., size, number of bedrooms)
- Details about cost, income, and expenses
- Information on the property's sale or transfer history

This information allows an appraiser to establish neighborhood boundaries and group properties in a cohesive way to analyze the market forces that impact value.

The Three Approaches to Value

Assessors use three primary analytical techniques, known as the "approaches to value," to develop an opinion of a property's value. When possible, using all three approaches provides the most reliable valuation, as each method serves as a check on the others.

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1. The Sales Comparison Approach

This approach is based on the **principle of substitution**, which states that a buyer will not pay more for a property than what it would cost to purchase a similar property of equal desirability. The appraiser analyzes the sale prices of recently sold, comparable properties ("comps") to provide evidence of value for the subject property.

Because no two properties are identical, the appraiser makes a series of adjustments to the sale prices of the comps to account for differences in features, location, and market conditions, effectively bringing them into conformity with the property being appraised.

2. The Cost Approach

The Cost Approach is also based on the assumption that a property's value is equivalent to the cost of acquiring a similar site and constructing a building of equivalent utility, after accounting for depreciation. The formula is:

Value = Land Value + Replacement Cost of Improvements - Accrued Depreciation

The replacement cost is the cost to build a structure of similar function and utility, not necessarily an exact replica. This cost data is typically derived from published manuals and localized information.

3. The Income Approach

The Income Approach recognizes that value is created by the expectation of future benefits, typically in the form of income. This approach is most relevant for income-producing properties like apartment buildings.

The process involves:

1. Estimating the property's potential gross income.
2. Subtracting allowances for vacancy and collection losses to arrive at the effective gross income.
3. Deducting qualifying operating expenses to determine the net operating income (NOI).
4. Dividing the NOI by a market-derived "capitalization rate" to find the property's value.

Example:

- Net Operating Income = $34,000
- Capitalization Rate = 10%
- **Property Value = $34,000 / 0.10 = $340,000**

The different values from each approach are then evaluated and "reconciled" into a final opinion of value. Finally, the review appraiser examines every property record in town to help ensure accuracy and consistency in both methodology and valuation.

Mass Appraisal: Valuing Many Properties

While a standard appraisal focuses on a single property, mass appraisal is the process of valuing a large number of properties at once, such as for an entire municipality's tax assessment. Mass appraisal uses the same fundamental valuation principles but emphasizes data management and statistical analysis.

The Role of Technology

Mass appraisal requires the use of an automated valuation model (AVM), most often referred to as a **Computer Assisted Mass Appraisal (CAMA)** system.

- **What is CAMA?** A CAMA system is a software program that uses mathematical models to produce an estimate of market value. It analyzes real estate characteristics, location, and market conditions based on previously collected data.
- **Data is Key:** The quality of the values produced by a CAMA system is depends in part on the quality and accuracy of the data entered into it. The system relies on the skills of the assessor or analyst to manage the data and interpret the results correctly.

The market-derived information from the three approaches to value (sales, costs, and income) forms the basis for the database tables that allow the CAMA system to generate property values.

Data Collection and Market Analysis

Accurate valuation depends on a systematic process for collecting, verifying, and analyzing market data.

Data Collection and Verification

- **Data Source:** Property transfer records are typically provided to the municipality's assessing department by the Cumberland County Registry of Deeds. Additional critical information for analysis and qualification comes from the state's Real Estate Transfer Tax Declaration (RETTD) forms for each property transfer. The analysis for this revaluation uses sales data from the preceding two-year period.
- **Sale Qualification:** Each sale is analyzed by staff to confirm it was a qualified "arm's-length" transaction, meaning it was a fair sale between unrelated and unpressured parties.

- **Property Inspection:** As part of this revaluation, after a sale is qualified, an attempt is made by Vision data collectors to inspect the property, both exterior and interior, to update the property record card with the most current and accurate data.

Data Calibration and Adjustments

- **Calibration:** The verified sales data is used to establish valuation benchmarks. The CAMA software helps calibrate these models by grouping data by property type, age, size, and neighborhood, using statistical tests to identify any discrepancies.
- **Adjustments and Factors:** "Adjustments" are mathematical changes applied to account for a property's specific features. These factors can be positive (e.g., waterfront access, proximity to certain amenities) or negative.
- **Deriving Adjustments:** The value of a specific feature is typically derived from sales analysis using two main techniques:
    1. **Extraction (e.g., land residual):** The depreciated value of the improvements is subtracted from the total sale price to determine the underlying land value. This is the most common method.
    2. **Paired Sales Analysis:** A property with a specific feature is compared to a similar property without that feature. The difference in their sale prices helps isolate the contributory value of that feature.

How Land is Valued

Residential land values are developed through a careful analysis of the market. Because there are often a limited number of vacant land sales, a combination of methods is used.

Primary Valuation Methods

1. **Vacant Land Sales Analysis:** Arms-length sales of undeveloped residential land are analyzed.
2. **Land Extraction Technique:** For improved properties that have sold, the depreciated value of the building is subtracted from the sale price. The remaining amount, or "land residual," is considered an indicator of the land's value.

The Land Analysis Process

The valuation process involves several key steps:

- **Data Breakdown:** Land sales data is organized by various characteristics, including street address, parcel ID, neighborhood, sale date, sale price, and parcel size.

- **Developing a Land Curve:** Lots are arranged by size and desirability. By plotting the relationship between parcel size and sale price per square foot, a "land curve" is created. This curve shows that as lot size increases, the price per square foot typically decreases.
- **Establishing Neighborhoods:** Through this analysis, distinct neighborhoods are identified. Each neighborhood is assigned its own unique land curve to reflect differences in location and market desirability.

Statistical Validation

The proposed land values are tested against the land residuals derived from the extraction method. An **Assessment to Sales Ratio (ASR)** is calculated for each qualified sale to compare the proposed value to the market data.

Finally, statistical measures are calculated from these ratios to ensure the values are accurate and equitable:

- **Mean:** The average of all ASRs.
- **Median:** The middle ASR when all ratios are ranked in order. It is not affected by extreme high or low values.
- **Coefficient of Dispersion (COD):** Measures the uniformity of the ratios. A low COD indicates that the values are clustered tightly around the median. According to the International Association of Assessing Officers (IAAO), a COD of 20% or less is acceptable for land ratios in a community like Yarmouth.

Once acceptable statistics are achieved, the land schedules are finalized.

Land Pricing and Condition Adjustments

Once land analysis is complete, values are applied using a structured pricing framework that includes adjustments for a property's unique conditions.

Basic Pricing Structure

Land is typically valued using a two-part system:

1. **Prime Site:** This is the primary building site, often up to a certain size like one acre (43,560 square feet) or the minimum lot size. Its value is determined by the residential land curve, which assigns a specific price per square foot based on its size.

2. **Excess Land:** Any land area over and above the prime site requirement is valued separately, often at a flat rate per acre.

This same basic structure is applied to land for single-family homes and condominiums. For condominiums, the size of each unit's land share is defined in the condo declaration.

Standard Land Condition Adjustments

The base value of a lot can be adjusted up or down with a "condition factor" to account for specific characteristics that affect its utility or value. Common adjustments include consideration for topography, access and wasteland. These adjustments ensure the final land value reflects the individual attributes of each parcel.

Adjusting for Location

A property's location is one of the most significant drivers of its value. To account for this, the valuation system uses two main types of location adjustments, which are derived from the analysis of both vacant land sales and improved property sales.

1. Site Indexes

The site index is the primary location adjustment factor. It reflects the general desirability of an area. Each location is assigned a site index rating, which corresponds to a numerical factor that adjusts the base land value up or down. In addition, specific factors may be assigned to desirable locations, such as the oceanfront.

2. Neighborhoods

For some areas, such as subdivisions or residential condominium complexes, the general site index is not enough to capture the unique market value. In these cases, a more specific **neighborhood adjustment** is applied.

These neighborhood codes apply an additional adjustment factor to the land value. They are used to fine-tune values in distinct areas where the market behaves differently, such as specific waterfront communities or subdivisions with unique amenities.

Valuing the Building

The valuation of the building, or "improvement," begins with the data collection and review processes and is finalized by modeling costs and comparing it to the market.

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Data Collection

In a statistical revaluation, to ensure model accuracy, building information on recent sales is collected and verified. This review involves rating the quality, workmanship, and physical characteristics of various building components. Key data points include:

- **Building Style:** (e.g., Ranch, Colonial, Cape Cod)
- **Construction Quality (Grade)**
- **Physical Details:** Year built, condition, number of stories, exterior and interior wall materials, and roof structure.
- **Living Area Details:** Total rooms, number of bedrooms and bathrooms, and occupancy.
- **Systems and Features:** Heating fuel and type, outbuildings, and other extra features.

The system identifies numerous architectural styles to ensure accurate cost estimation. Common styles include:

- **Ranch** (one-story)
- **Colonial** (two-story)
- **Cape Cod** (1.5-story with dormers)
- **Mobile Home** (factory-built)

Cost Approach Modeling

Once this data is collected, a value for the building is determined for each improved parcel using a cost-based model that is checked against the market. The steps of this process are:

1. **Calculate Replacement Cost:** Standardized cost tables are used to calculate the current replacement cost of the building, based on the above attributes.
2. **Apply Depreciation:** An amount for depreciation—resulting from age, wear and tear, and other forms of obsolescence—is deducted from the replacement cost.
3. **Determine RCLD:** The remaining value is known as the **Replacement Cost Less Depreciation (RCLD)**.
4. **Calculate Final Value:** The property's market-indicated land value and the value of any outbuildings are added to the RCLD to arrive at a final value.

This final, cost-derived value is then compared to the sale prices of similar properties to ensure it aligns with the current market as of the valuation date.

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Understanding Depreciation

Depreciation is a loss in a property's value from any cause. In property assessment, depreciation is subtracted from a building's replacement cost to arrive at its current value. It is composed of three distinct elements.

1. Normal Depreciation

This is the loss of value that occurs naturally from the passage of time, age, and normal wear and tear. The amount of normal depreciation is tied directly to the building's age and condition, taking into account any repairs or upgrades that have been made. A depreciation chart based on the property's "effective year built" is often used as a guide, but the review appraiser makes the final judgment.

2. Functional Depreciation (or Obsolescence)

This is a loss of value due to a flaw within the building itself, separate from normal aging. It can be caused by factors that make the property less useful or desirable.

Examples include:

- An inefficient or awkward floor plan
- Outdated components (e.g., insufficient electrical wiring)
- Structural issues

Sometimes these issues can be fixed ("curable"), while other times they are not physically or financially feasible to correct ("incurable").

3. Economic Depreciation (or Obsolescence)

This type of depreciation is caused by negative influences that exist *outside* the property's own boundaries. The property itself may be in excellent condition, but its value is diminished by its surroundings.

Examples include proximity to a landfill or factory, or being located in an area with high crime or declining economic conditions. This type of depreciation is judged by the review appraiser, and a separate adjustment is applied.