

New Kent

C O U N T Y



V I R G I N I A

OVERVIEW OF THE REAL ESTATE ASSESSMENT FORMULA - RESIDENTIAL

Part 1 – Base Real Estate Market Model Formula

The following formula is used to calculate real estate assessments for New Kent County. Each element of the equation references one or more tables in the market model. All tables are re-calibrated each reassessment based upon extensive market analysis. Please note that this model is only for residential properties valued using the market approach. Alternate formulas and tables are used for the cost and income approaches to value.

$$\begin{aligned} &(((1 \text{ AC Value from Land Class and Land Curve Table} * \text{Site Index Adjustment}) * \text{Special} \\ &\text{Calcs}) * \text{Acreage Discount} * ((((\text{Low Unit} * (\text{Low Unit Price} / \text{Low Unit}) + ((\text{High Unit} * \\ &(\text{High Unit Price} / \text{High Unit}) - \text{Low Unit} * (\text{Low Unit Price} / \text{Low Unit})) * (\text{Land Line AC} - \\ &\text{Low Unit}) / (\text{High Unit} - \text{Low Unit}))) / \text{Land Line AC})) * \text{Site Index Adjustment}) / (1 \text{ AC Value} \\ &\text{from Land Class and Land Curve Table} * \text{Site Index Adjustment})) * \text{Condition Factor} * \\ &\text{Neighborhood Factor} * \text{Number of Land Units}) + ((((((\text{Base Price Per Square Foot from} \\ &\text{Style} + \text{Price Per Square Foot Adjustments}) * \text{Size Adjustment}) * \text{Effective Area of Home} + \\ &\text{Flat Value Additions Factored}) * \text{Grade}) + \text{Flat Value Additions Non-Factored}) * \text{Percent} \\ &\text{Good}) + (\text{Outbuilding Unit Price} * \text{Number of Units} * \text{Percent Condition}) + (\text{Extra Feature} \\ &\text{Unit Price} * \text{Number of Units} * \text{Percent Condition}) \end{aligned}$$

The above formula has been *significantly* condensed for ease of reading. Many individual elements of the equation are determined by cross-referencing several tables to determine one value.

For example, to determine the percent good of a residential single family dwelling one must reference the model code, condition rating and actual year built to determine an effective age. Then using the model group and style code, a depreciation table determining the appropriate percent per year of depreciation is identified. Using the effective age against the percent per year of depreciation table, a depreciation value is determined. This depreciation value is further adjusted for any potential functional obsolescence, economic obsolescence, cost to cure adjustments, remodel ratings, etc. The adjusted depreciation value is subtracted from 100 to determine the final percent good used in the equation above.

All rates and tables are compiled into one document for each reassessment and posted on the New Kent County website.

Part 2 – Additions to the Real Estate Market Model Formula

The formula from Part 1 shows the calculation of one home on less than one acre of land with only one extra feature and outbuilding. The following must be added for each additional individual structure (single family dwelling, detached garage, etc.)

$$\begin{aligned} &((((((\text{Base Price Per Square Foot from Style} + \text{Price Per Square Foot Adjustments}) * \text{Size} \\ &\text{Adjustment}) * \text{Effective Area of home} + \text{Flat Value Additions Factored}) * \text{Grade}) + \text{Flat} \\ &\text{Value Additions Non-Factored}) * \text{Percent Good}) \end{aligned}$$

The following must be added for each additional individual land line (woodland, open, swamp and other land uses beyond one acre)

$$\begin{aligned} &(((1 \text{ AC Value from Land Class and Land Curve Table} * \text{Site Index Adjustment}) * \text{Special} \\ &\text{Calcs}) * \text{Acreage Discount} * (((((\text{Low Unit} * (\text{Low Unit Price} / \text{Low Unit}) + ((\text{High Unit} * \\ &(\text{High Unit Price} / \text{High Unit}) - \text{Low Unit} * (\text{Low Unit Price} / \text{Low Unit})) * (\text{Land Line AC} - \\ &\text{Low Unit}) / (\text{High Unit} - \text{Low Unit}))) / \text{Land Line AC})) * \text{Site Index Adjustment}) / (1 \text{ AC Value} \\ &\text{from Land Class and Land Curve Table} * \text{Site Index Adjustment})) * \text{Condition Factor} * \\ &\text{Neighborhood Factor} * \text{Number of Land Units} \end{aligned}$$

The following must be added for each additional individual outbuilding (shed, pier, gazebo, in-ground pool, barn, etc.)

$$(\text{Outbuilding Unit Price} * \text{Number of Units} * \text{Percent Condition})$$

The following must be added for each additional individual extra feature (whole house generator, elevator, etc.)

$$(\text{Extra Feature Unit Price} * \text{Number of Units} * \text{Percent Condition})$$

Part 3 – Considerations of the Real Estate Market Model Formula

The real estate market model formula is complex by necessity. The same formula must be used all residential properties in the County from the poorly maintained 800 square foot home built in 1945 on 30 rolling acres in rural New Kent to the brand new 3,000 square foot home with every upgrade imaginable on a half-acre lot in a premier subdivision overlooking the golf course. Below are some examples of considerations that must be made when valuing land and improvements.

To value land, one must make adjustments for the size of the parcel, location of the parcel, quality of land, land use designations, zoning, access to the property, easements and right of ways affecting the property, topography, proximity and access to various bodies of water, flood plains, proximity to and location on a golf course, influence of Interstate or railroad, etc.

To value improvements, one must consider the style, age, condition, quality of construction and location of a structure; account for size adjustments based upon style to account for buildings larger/smaller than market expectations; and allow for bedroom/bathroom adjustments both through flat value additions as well as positive/negative adjustments for the ratio between the two. Additional adjustments are made for various construction elements such as type of siding, roofing, flooring, heating and air systems, etc. Finally, one must also consider the type, age, quantity, quality, size and condition of various outbuildings and extra features.

Each one of these considerations noted above (and more) is accounted for in the various tables and factors that comprise the real estate market model. Based upon information contained in the real estate record, the market model formula is populated with the appropriate values to generate an assessed value for each residential property in New Kent County as of the same effective date that is equitable and uniform.