Valuation Update

Tax Year 2021

Town of Moultonborough, NH

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SECTION A

LETTER OF TRANSMITTAL

June 22, 2022

Board of Selectmen
Town of Moultonborough, NH
6 Holland Street
Moultonborough, NH 03254

LETTER OF TRANSMITTAL

Dear Municipal Official:

The following report is intended to document the mass appraisal completed and the associated data collection, review, analysis and reporting necessary to render a credible opinion of value(s) in accordance with RSA 21-J:14-b, and the Uniform Standards of Professional Appraisal Practice (USPAP, 2020).

The Intended Use of this Appraisal and Report is to provide a basis for the revaluation of all real property in the Town of Moultonborough as required by the contract signed between the Town of Moultonborough and Whitney Consulting Group, LLC. A copy of this contract is provided in Appendix "A".

The Intended Clients of this Report are the Assessing Officials of the Town. Other Users of the report include the public, property owners, municipal officials, and the New Hampshire Department of Revenue Administration (DRA).

The effective date of value of the Appraisal and Report is April 1, 2021, as required by RSA 74:1 and RSA 76:2.

TYPE AND DEFINITION OF VALUE

The type of value expressed in this report is "market value" and is defined in RSA 75:1 as: "the property's full and true value as the same would be appraised in payment of a just debt due from a solvent debtor".

The most relevant definition of "Market Value" is contained within the Administrative Rule Rev 602 Rules", establishes the market value of a property must meet the following criteria:

    (a) Is the most probable price, not the highest, lowest or average price;

    (b) Is expressed in terms of money;

    (c) Implies a reasonable time for exposure to the market;

    (d) Implies that both buyer and seller are informed of the uses to which the property may be put;

    (e) Assumes an arm's length transaction in the open market;

    (f) Assumes a willing buyer and a willing seller, with no advantage being taken by either buyer or seller; and

    (g) Recognizes both the present use and the potential use of the property. (NH Department of Revenue Administration), Property Appraisal Division, "600 Rules").

PROPERTY RIGHTS APPRAISED

The property rights appraised in this mass appraisal is fee simple. Fee Simple Estate is defined as:

"Absolute ownership unencumbered by any other interest or estate; subject only to the limitations imposed by the government powers of taxation, eminent domain, police power, and escheat (the right of government to take title to property when there are no apparent heirs)." (The Dictionary of Real Estate Appraisal, Third Edition, 1993, Page 140.)

EXTENT OF PROPERTY INSPECTIONS

As required by the contract signed between the Town of Moultonborough and Whitney Consulting Group, LLC, a measure and list was conducted for the sales properties specified by the Town of Moultonborough.

Cyclical inspections were completed on approximately 448 properties. 443 properties were inspected due to building permits open or completed building permits.

CERTIFICATION OF VALUE

The undersigned certifies that, to the best of my knowledge and belief:

1) The statements of fact contained in this report are true and correct.

2) The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, impartial, and unbiased professional analyses, opinions and conclusions.

3) I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest with respect to the parties involved.

4) I have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.

5) My engagement in this assignment was not contingent upon developing or reporting predetermined results.

6) 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, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.

7) The analyses, opinions and conclusions were developed, and this report has been prepared in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP) 2020 version.

8) I have not made a personal inspection of the properties that are the subject of this report other than the sale properties and the properties which had a building permit issued in the last year. These individuals, and anyone providing significant mass appraisal assistance to the individual signing this report, are identified in Appendix "B", at the back of this report.

9) My opinion of the total market value, pursuant to RSA 75:1, and the NH Department of Revenue Administration, Property Appraisal Division "600" Rules, Rev. 601.14, for the assessed properties identified in Section G of this report, as of April 1, 2021 is:

$3,944,997,576

See the Summary Report of Values, MS-1 Report for details of value in Appendix D. Utility values were calculated by application of the RSA 75:8-d in this appraisal, which represented $31,938,489 in taxable value.

Stephan W. Hamilton, CNHA

Whitney Consulting Group, LLC

June 22, 20222

SECTION B

SCOPE OF WORK

IDENTIFICATION OF ASSUMPTIONS AND LIMITING CONDITIONS

The following Assumptions and Limiting Conditions apply only to the sale data utilized to complete the sales analysis, and to establish the basis for the statistical benchmarks incorporated into the analysis. Any exceptions to the following Assumptions and Limiting Conditions will be documented on the individual property record cards, when applicable.

1) I have not been provided deeds to the assessed properties. Therefore, no responsibility is assumed for the legal description provided or for matters pertaining to legal issues and/or title.

2) I have not been provided deeds to the assessed properties. Therefore, the properties were assumed to be free of any and all liens and encumbrances. Each property has also been appraised as though under responsible ownership and competent management. Some limited deed research was completed when required to understand property rights.

3) I have not been provided surveys of the assessed properties. Therefore, I have relied upon tax maps and other materials provided by the Municipality in the course of estimating physical dimensions and the acreage associated with assessed properties.

4) I have not been provided surveys of the assessed properties. Therefore, I have assumed that the utilization of the land and any improvements is located within the boundaries of the property described, and there is no encroachment on adjoining properties.

5) I have assumed that there are no hidden or unapparent conditions or rights associated with the properties, subsoil, or structures, which would render the properties (either the land and/or improvements) more or less valuable.

6) I have assumed that properties are currently and have been in full compliance with all applicable federal, state, and local environmental regulations and laws.

7)   I have assumed that properties currently comply with all applicable zoning and use regulations.

8)   I have assumed that all necessary licenses, certificates of occupancy, consents, or other instruments of legislative or administrative authority from local, state, or national government entity have been obtained for any use on which the value opinions contained within this report are based.

9)   I have not been provided a hazardous condition's report, nor am I qualified to detect hazardous materials. Therefore, evidence of hazardous materials, which may or may not be present on a property, was not observed. As a result, the final opinion of value is predicated upon the assumption that there is no such material on any of the properties that might result in a loss or change in value.

10)   Information, estimates and opinions furnished to the appraiser and incorporated into the analysis and final report, was obtained from sources assumed to be reliable and reasonable efforts have been made to verify such information. However, no warranty is given for the reliability of this information.

11)   The Americans with Disabilities Act (ADA) became effective January 26, 1992. I have not made compliance surveys nor conducted a specific analysis of any property to determine if it conforms to the various detailed requirements identified in the ADA. It is possible that such a survey might identify non-conformity with one or more ADA requirements, which could lead to a negative impact on the value of the property(s). Because such a survey has not been requested and is beyond the scope of this appraisal assignment, I did not take into consideration adherence or non-adherence to ADA in the valuation of the properties addressed in this report.

12) Any market forecasts, projections and operating estimates contained within the report are predicated upon current market conditions, and forecasts of short-term supply and demand factors. This information was obtained in the course of interviews with knowledgeable parties, and in published public and private resources. While the information is assumed to be credible and provided by reliable sources, these forecasts are subject to change due to unexpected circumstances, changes in local, regional and/or national supply and demand, or other unforeseeable market changes.

13) The opinions of value in this report apply to an entire property, and any allocation or division of the value into separate fractional or finite interests may invalidate the opinion of value reflected in this report.

14) Information pertaining to the sales of properties utilized in the analysis and subsequent report has been confirmed with either the buyer, seller, or a third party whenever possible and is assumed to be reliable. Validation sources include the recorded deed, the Inventory of Property Transfer (PA-34) forms submitted to NH Department of Revenue Administration, Town of Moultonborough Property Transfer Questionnaires returned to the Town by purchasers and Multiple Lister Services and real estate brokers when available.

15) Possession of this report may not carry with it the right of reproduction, and disclosure of this report may be governed by the rules and regulations of the New Hampshire Assessing Standards Board (ASB) and Department of Revenue Administration (DRA) Portions of the appraisal and report may be subject to jurisdictional exception and the laws of New Hampshire.

SCOPE OF WORK AS IDENTIFIED IN THE CONTRACT

The valuation report that follows is predicated upon the contract signed between the Town of Moultonborough and Whitney Consulting Group, LLC. A copy of the contract is located in Appendix "A" of this report. The scope of work identified in the contract and incorporated into the following report comprised the following steps:

A measure and list of sale properties was part of this valuation. All property transfers within the town spanning a period of two years prior to April 1, 2021 were reviewed and analyzed to determine if the transfer was an "arm's-length" transaction. This was accomplished by interviewing the buyer, seller, buyer or seller broker or agent, or verification of PA 34 forms. The process determined proper description of the sale property features, and verified the sales price, and any terms or conditions surrounding the sale that might have influenced the negotiated price. The combination of inspection/validation/verification provided me with a detailed understanding of all sales property.

The property verification included a review of the highest and best use. Classification of property into like categories is a critical part of the valuation process. Qualified sale data was stratified by use type, such as single-family residential, land, commercial, etc. The sale data was also stratified by neighborhood, in order to isolate more discrete locational differences and/or influences. The verified sale data was utilized to extract meaningful adjustments and/or benchmarks that populate valuation tables, including cost elements, physical depreciation, view influence, water influence, etc. All pertinent factors, including physical, legal, and economic considerations were considered and recognized, subject to the assumptions and limiting conditions referenced above.

Completion of a mass appraisal includes a two-phase approach that involves model specification and model calibration. Specification of the valuation model is largely determined by the structure of the computer assisted mass appraisal (CAMA) system. This valuation update was completed using the Avitar CAMA system. This mass appraisal model relies on individual descriptive data collected on individual property and sets of property valuation tables that assign relative weighting to individual property features.

Once established, the preliminary value benchmarks begin the process of model calibration. That calibration is finalized when the resulting values are compared to the selling prices of property. This statistical study is the process of completing a assessment to sales ratio study in order to make any needed refinements to the base tables and verify the alignment and consistency of the base tables.

Finally, these benchmarks became the basis for the statistical analysis of these properties, and new property values were developed utilizing at least one of the three possible approaches to value (Sales Approach, Cost Approach, and/or Income Approach to value). Overall, every effort was made to help ensure that the values were uniform and equitable.

Upon completion of the final review and approval of the Municipality's values by the Municipality, notices of value were mailed to each taxpayer. These notices included sufficient information (timing and location) to enable taxpayers to attend an informal hearing to ask detailed questions about the new assessed value(s). Hearings were then held at a time and location scheduled by the Municipality, either in person or over the telephone. Numerous inspections were conducted based on reported data errors in order to verify necessary property description changes.

Any individual property changes that arose from the informal hearing process were reflected in the final tax bill for 2021. Additionally, the informal hearings process is a part of the model calibration process. There were instances when common themes of concerns led to a more accurate understanding of values within neighborhoods or distinct groups of properties. When identified, these changes were applied uniformly to affected properties regardless of whether any specific taxpayer requested an informal hearing.

This mass appraisal was completed, and the report was prepared in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP, 2020), as well as the contract signed between the Town of Moultonborough and Whitney Consulting Group, LLC.

DESCRIPTION OF ASSESSED PROPERTIES

In accordance with the contract located in Appendix "A" of this report, the Town of Moultonborough required all the real property in its respective municipal boundaries to be valued except the 15 utility properties. A breakdown of the Municipality's real property by use category is as follows:

Commercial/Industrial	223
Utility	15
Res Waterfront (Included with Res)	2,279
Residential Water Access (Incl with Res)	1,655
Residential Land Only	1,685
Residential Land & Bldg Total	4,769
Condominium (Incl with Residential)	N/A
Current Use Total	260
Exempt	223
Total Parcel Count	7,462

As described above the Town of Moultonborough is very heavily weighted toward residential properties. Improved residential properties including waterfront property makes up the 69% of the total number of properties in the town. Improved residential waterfront properties make up 27% of the parcel count, but as will be described in detail later in the report, they make up more than half of the taxable value of the town. There are very few commercial and industrial properties located in the town.

There are several bodies of water that are found in Moultonborough, providing extensive shore frontage. These include portions of Lake Winnipesaukee, and Squam Lake, as well as the entirety of Lake Kanasatka, Berry Pond, Garland Pond, Lees Pond and Wakonda Pond.

The town is a summer recreation destination, with wide fluctuations of population on a seasonal basis. Many of the homes in waterfront areas are second homes, owned by non-residents who are not principally residing in the town.

DETERMINATION OF HIGHEST AND BEST USE

Highest and Best Use is a term defined in Administrative Rule Rev 601.26:

> "Highest and best use" means the physically possible, legally permissible, financially feasible, and maximally productive use of a property, as appraised in accordance with RSA 75:1.

Additionally, the term is defined for the purpose of appraisal as follows:

> "The reasonably probable and legal use of vacant land or improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are: legal permissibility, physical possibility, financial feasibility, and maximum profitability" [3] (The Dictionary of Real Estate Appraisal, Third Edition, 1993, Page 171).

In most cases the existing use is already at its highest and best use and will be evaluated and assessed accordingly. There may be cases when an existing use is not maximally profitable. These determinations are made by the appraiser in the context of examining current legal use patterns and likely changes due to market and economic forces.

There are properties that by their nature anticipate a change in use, including unimproved land ready to be developed. In those cases, the assumption has been made that the land is available for use and will be developed into the maximally profitable legal economic use.

The concept of highest and best use is sometimes limited by law or administrative rule. These limitations are referred to in USPAP as Jurisdictional Exceptions. New Hampshire law generally compiles these limitations in NH Revised Statutes Annotated 75:1. This Mass Appraisal and the report are subject to all of the Jurisdictional Exceptions contained therein, and in this case principally impacts the valuation of open space land, residences in a commercial district and the valuation of telecommunication poles and conduits.

APPROACHES TO VALUE CONSIDERED AND UTILIZED

The residential properties were valued by the Sales Comparison and Cost approaches to value. Commercial properties were valued by the Cost approach to value. The Cost approach was reconciled with the other approaches and was used as the final value for assessment purposes.

APPROACHES TO VALUE NOT UTILIZED

There were limited qualified sales data over the past few years for commercial properties. The few sales that did occur were considered, but there were not enough sales for the various commercial types to rely on the approach for a final value conclusion.

SECTION C

VALUATION PREMISES AND PROCEDURES

DESCRIPTION OF MASS APPRAISAL AND BASIC VALUATION THEORY

The valuation of taxable property in Moultonborough has been completed using a mass appraisal technique. According to USPAP a mass appraisal is:

> "The process of valuing a universe of properties as of a given date, using standard methodology, employing common data, and allowing for statistical testing."

The 2013 IAAO Standard on Mass Appraisal of Real Property definition is nearly identical.

Standardization of data collection and description on individual property assessment record cards and the development and maintenance of valuation tables that reflect the relative impact of property features in the value of property is the hallmark of a mass appraisal.

The universe of properties are all of those elements of land and building that are taxable as real estate pursuant to Chapter RSA 72. The properties have been generally described in the Scope section of this report and are composed of 7,436 parcels (all except for utilities).

There are six basic property rights associated with the private ownership of real estate. The term real estate is defined in statute (See RSA 21:21) and include both the physical nature and any rights associated to the property.

The valuation of the physical property and rights constitute the full value for tax purposes. A description of the rights in real estate includes:

1) the right to use a property,
2) the right to sell it,
3) the right to lease or rent it,
4) the right to enter or leave the property,
5) the right to give the property away, and
6) the right to refuse to do any of these.

These, and other rights, are known as the full "bundle of rights", which is understood to be attached to an ownership with "fee simple" title which has been described in the preceding section. The only limitations on fee simple title are generally the exercise of the governmental

powers of Taxation, Eminent Domain, Police Power (zoning and land use controls) and Escheat (reversion to government under certain conditions).

The New Hampshire Supreme Court has ruled that for the purpose of property taxation, the appraised property rights are assumed to be "fee simple".4 (NH Supreme Court, "Kennard v. Manchester, 68 N.H. 61, 36A, 553 (1894).

The next step is the identification of the "highest and best use" of the property. Refer to the preceding discussion, as well as the discussion on highest and best use in the preceding "Assumptions and Limiting Conditions" section.

The appraiser then begins the process of data collection, studies the market and accompanying economic forces (such as "supply and demand") that pertain to the highest and best use, and assembles the relevant data and statistics for incorporation into the analysis.

Utilizing property descriptive data collected in a single year or over a period of time, the appraiser defines common factors that influence the value of property, such as:

1) Uses of property, such as residential and commercial.

2) Neighborhood boundaries are established in order to identify and value properties that have common attributes.

3) Market-derived information, such as land values, improvement costs and physical depreciation are then entered into the Municipality's CAMA (Computer Assisted Mass Appraisal) system and forms the basis for the database "tables" that enable the CAMA system to generate specific property values.

4) Statistical testing is completed on the resulting values to finish the calibration process.

5) Therefore, a mass appraisal system generally relies upon four primary "subsystems" that include: 1) a data management system, 2) a sales analysis system, 3) a valuation system, and 4) an administration system. Each subsystem is described below:

While each CAMA system is slightly different standard methodology, most utilize a similar pattern of model specification that relies on four basic systems. Accordingly, Avitar system relies on a four-part system described as follows:

The Data Management system is responsible for the data entry and subsequent editing, as well as the organization, storage and security oversight of the data. Essential to the data management system is quality control, as the reliability of the data will have a direct and profound impact on the qualityof the resulting output and values.

The Valuation System generally comprises the statistical application of the three approaches to value (identified in the preceding section). For instance, utilization of the Sales Comparison Approach includes a statistical analysis of current market sales data. The Cost Approach would utilize computerized cost and depreciation tables, and reconciliation of these computerized cost-generated values with market-derived sales information. The Income Approach can utilize computer-generated income multipliers and overall capitalization rates. The Valuation System is also utilized to extract adjustments and/or factors that are utilized in the development of values.

The Sales Analysis subsystem is responsible for the collection of sale data, sale screening, various statistical studies and sales reporting. The following statistical techniques are utilized to calibrate and fine-tune the data assumptions:

"Ratio": refers to the relationship between the appraised or assessed values and market values as determined by a review of sales. The ratio studies, which are the primary product of this function, typically provide the most meaningful measures of appraisal performance and provide the basis for establishing corrective actions (re-appraisals), adjusting valuations to the market, and in administrative planning and scheduling. The requirement, as established by the State of New Hampshire's Assessing Standards Board, is to maintain a Median Ratio between 90% and 110% of market value (A Ratio of 100% is preferred, indicating the assessed value is identical to the market value).

"COD": or "Coefficient of Dispersion", is another important statistical tool utilized in mass appraisal, and refers to the average percentage deviation from the median ratio. As a measure of central tendency, the COD represents the degree to which the data being analyzed clusters around a central data point, such as the median ratio. The requirement, as established by the State of New Hampshire's Assessing Standards Board, is a COD no greater than 20% (a lower COD is preferable to a higher COD).

"PRD": or "Price-Related Differential", is calculated by dividing the mean by the weighted mean. A PRD greater than 1.03 indicates assessment regressivity (when high-value properties are assessed lower, or disproportionate to, than low value properties). A PRD lower than 0.98 indicates assessment progressivity (when high-value properties are assessed higher, or disproportionate to, low-value properties. The requirement, as established by the State of New Hampshire's Assessing Standards Board, is a PRD no greater than 1.03, and no lower than 0.98. Overall, a PRD equal to 1.0 is preferred.

The Administrative System includes such core (often automated) functions as development of the property record cards and assessment roll or property tax base, the preparation of the tax notices, and retention of the appeals and other miscellaneous property files.

These common data elements and standard techniques are utilized to value property as of a single date: April 1, 2021.

SELECTION AND USE OF VALUE TECHNIQUES

There are three classic "approaches" or techniques utilized in the process of the appraisal of real estate in order to estimate an opinion of value. While the cost approach is directly applicable in the valuation of this universe of properties, it is helpful to understand the others and their possible applicability.

The "Sales Comparison Approach" and is based on the premise that the appraiser can utilize the economic theory of substitution to determine if sale prices of similar properties are reasonable evidence of value. In other words, assuming similar market conditions a similar property would sell for a similar price as an appraised property. As no two properties are ever exactly alike, adjustments are made to the selling price of comparable sale property to answer the question: what would the appraised property have sold for if it had been available in the market? While cumbersome to apply to the mass appraisal process, the technique has some general applicability. Generic property descriptions are often used to establish a baseline for comparing similar properties.

The "Cost Approach" is based on a similar use of substitution theory, that there is a likely measurable value relationship between existing property and the cost to reproduce that property. It is the calculated by determining the value of a properties land and adding it to the depreciated replacement cost of all property improvements. The replacement cost of improvements is typically derived from published cost tables, or derived directly from localized information, and should be updated as required by market conditions. Importantly, the assessor typically evaluates the existing improvement based on its utility and function, rather than attempting to duplicate or exactly "replace" the assessed property. This is especially important in the valuation of older property, where construction methods have evolved and become more efficient. The cost approach is the foundation upon which most CAMA systems are designed and deployed, including Avitar CAMA.

NUMBER OF SALES IN ANALYSIS

As previously described, as of the date of this report, there are 7,462 total parcels in the Municipality. The breakdown of the 352 qualified property transfers for 4/1/2018 to 3/31/2020 within the Municipality by "use type" includes some of the following categorises:

Use Type	Sales
Residential Improved	269
Residential Condominium	13
Commercial/Industrial (including Vacant Land)	3
Residential Vacant Land	64
Camping Trailers/Park Models	7
Boatslips/Docks	35

Included in these were a total of 72 vacant and improved waterfront sales. The Residential vacant land count may differ from the counts of all land listed in Appendix J, as non-residential land is included in the Commercial/Industrial count above. While not included in the value analysis, a report listing non-arms-length sales is included as an attachment to this report.

DESCRIPTION OF DATA CALIBRATION METHODS

The sale data is verified for accuracy by submitting each one of these sale properties to a thorough physical (measure and list) and market analysis (by confirming a transaction was "arm's length", with no unusual circumstances that might have influenced the negotiated sale price), including interior inspection whenever possible. Once verified, and the preliminary benchmarks were established, field reviews were conducted in order to refine the base tables and verify the alignment of properties and the tables by "use" type and location, for example. The preliminary values were further "validated" by the statistical testing of the sale data made possible by the CAMA software system. The CAMA software groups and sorts the data by various elements of consideration such as: improvement type, age, size, and neighborhood, and various "ratios" are developed that reveal discrepancies in the underlying valuation model.

SIGNIFICANCE OF ADJUSTMENTS AND FACTORS

"Adjustments" and "factors" are mathematical changes to basic data (for example, a "base" table) to facilitate comparisons and understanding. This process assumes a "causal" relationship among the various factors for which the adjustments are made.

Examples of factors and/or adjustments can include such important elements of consideration as waterfront or view or water access amenities. Importantly, a "feature" can be a positive influence on property value, or a "negative" influence on property value. The specific adjustments or factors applied to properties with amenities such as these, are typically derived from a detailed sales analysis. Once the appropriate sales are identified and confirmed or "qualified", several techniques are utilized to extract, or isolate, the specific factor the appraiser is trying to identify.

One such technique is known as "extraction", this is where the appraiser subtracts the depreciated value of the improvements from the total sale price, to arrive at the underlying value of the specific land component being analyzed. This is the most commonly used method. Another technique, known "matched-pair" comparison analysis; wherein sales of properties that retain these features are compared to sales of properties that do not retain these features and the specific "contributory" value or factor attributable to the feature is isolated.

TIME AND MARKET TRENDING ANALYSIS
EXPLANATION AND DERIVATION OF TIME TRENDING FACTORS

Time trending refers to an analysis of market conditions over a specific period, with two objectives: 1) First, the assessor must identify whether there is demonstrated market-wide appreciation, generally remained stable, or generally declined since the last valuation/reporting period; 2) Secondly, the assessor must determine the actual rate of such activity, typically on a percentage per month basis.

The most direct basis for extracting the rate of market change, whether up, down, or neutral, is to identify property that has sold twice within a reasonable time period with few changes in the property between the two sale dates. In such situations, the rate is calculated by comparing the change in sale price between the two periods. The reliability of this extracted rate of change is

greatly improved when several of such sales are available. There are few re-sales in the two-year period preceding April 1, 2021 and the technique lacked a sample large enough to be reliable.

Another technique, less direct, but generally more statistically reliable due to the number of sales associated with the study is to observe changes in market conditions by examining ratios in a Sale Date Quartile stratification of sales to assessment ratio study. The date range is from 4/1/2019 to 3/31/2021 qualified sales during this time period. Sale Quartile 1 is the period from 4/1/2019 to 9/30/2019, Quartile 2 is from 10/1/2019 to 3/31/2020, Quartile 3 is from 4/1/2020 to 9/30/2020, and Quartile 4 is from 10/1/2020 to 3/31/2020 The results are shown on the following table:

	Overall	Q1	Q2	Q3	Q4
Median Ratio	0.981	0.982	1.0205	0.985	0.9485
Mean (Average) Ratio	1.030587	1.016871	1.048197	1.034101	1.023318
Weighted Mean Overall	0.987016	1.011357	0.985647	1.003427	0.944718

Based on this it appears that while there are some variations in the Quartile ratio results, there is no general predictable time trend indicated.

One other technique is the comparison of equalized valuations (Less Utilities) for the entire municipality over several years period. The NH DRA establishes equalized valuations every year, representing a market value estimate of the entire community as follows:

201 - $ 3,277,023,620

2018 - $ 3,610,712,814   This indicates an overall growth in value of 10% from 2017 to 2018

2019 - $3,857,743,355   This indicates an overall growth in value of 7% from 2018 to 2019

2020 - $4,324,003,943   This indicates an overall growth in value of 12% from 2019 to 2020

The challenge with this approach is that the total equalized value includes all growth in value through building permits, subdivisions of land and new building construction. This method supports an opinion that there has been a 6% to 8% increase in total property value over the two years preceding the date of value of April 1, 2021. This is above and beyond the natural growth in value.

Overall, while there are some indications that there is appreciation in the market, the nature of the increases doesn't appear to be market wide. Additionally, there are counter indications included in the analysis. Therefore, my opinion is that the nature of value for properties through the sales period is generally increasing and time adjustments of 6% were required in the performance of this analysis to compensate for this factor.

EXPLANATION OF LAND VALUATION METHODOLOGY

Land Valuation begins with an understanding that every municipality can be segregated into areas which are differentiated by varying characteristics, such as type and quality of roads, topographic and scenic features such as *views* & waterfront amenities, approved uses of property, and the quality and/or maintenance of such surrounding uses, etc. Typically, these distinguishing characteristics result in differing market responses, in terms of the underlying land value, that can be positive or negative. Therefore, land valuation depends upon using all the available data to establish a "base", or "typical" land rate for a municipality and then creating and applying a "schedule" of positive or negative adjustments corresponding to the degree of difference from that base.

To begin, local sale data is collected and examined. Sales of vacant land provide the most direct and reliable estimate of land value. However, when an insufficient number of vacant land sales are available, a land "extraction" technique can be utilized where the depreciated value of any structures or improvements on the property are deducted from the total sales price, resulting in the contributory value of the underlying land. Additional land value information can also be obtained by interviews with knowledgeable local brokers and real estate agents. However, because of the lack of newer housing stock in Moultonborough and the high depreciation of buildings, it was determined that land extraction would not be practical.

The two primary methods of valuing land are associated with the sales comparison approach. The "comparative unit" method enables the assessor to determine a typical per unit value for each strata of land, by calculating the median or mean sale price per unit. The "base lot" method requires the assessor to establish the value of the standard or "base" parcel in each stratum through a traditional sales comparison approach, with the base lot serving as the subject parcel. Once the base lot value is established, it is used as a benchmark to establish values for individual parcels, with adjustments made to each parcel as a result of their unique or varying characteristics.

The base lot value in Site Index 5 is estimated to be $61,000 per acre and reflects the base land curve is set at 1.30 per square foot, when applied to the Site factor of 1.08. This base rate is applied to all primary lots, and corresponding adjustments are applied based on the locations and feature of those lots.

BASE LAND CURVE

Regardless of the approach or method utilized, a recognition is necessary to adjust land values for an economy of scale. However, at some point differences become too insignificant to be identified in the market, and further adjustment is not justified.

Residential base land curve values were developed both through the analysis of vacant land sales and use of the land extraction technique. Land sales that were considered arms-length transactions were utilized in the analysis. Preference was given to those sales that required no location adjustments and were "typical" for the municipality. These lot sales were analyzed to determine correlations of lot size versus sale price. There was just one arms-length land sale, limiting the analysis through vacant land sales. Adjusted Price is the trended sale price minus the value of any outbuilding on the property.

Taking into account all of the data regarding sales price comparative to lot size, the land curve for the municipality was set as follows:

Acres	LOT PRICE (ROUNDED)	@ 1.08 Neighborhood Factor
0.010	$29,600	$31,968
0.020	$33,700	$36,396
0.100	$38,600	$41,688
0.250	$43,600	$47,088
0.500	$47,500	$51,300
0.750	$53,600	$57,888
1.000	$56,600	$61,128

NEGHBORHOOD ADJUSTMENT

As the Municipality is comprised of various property that have numerous common characteristics requiring adjustment, there are necessary adjustment to provide for reasonable value estimates for all property types. Examples might include location within a subdivision, mountain or water views, specific waterfront locations, etc. These locations are identified by the primary site adjustment known as a Neighborhood Adjustment, which has a corresponding value adjustment associated with it. A list of each Site Index code and corresponding adjustment located in Appendix L labeled Land Tables. Through the land analysis process the following distinct site indexes were developed for residential parcels and coded numerically.

SITE INDEX CODE	ADJUSTMENT FACTOR
4	080
5	108
6	115
7	150
8	170
9	800

The factors for codes 4, 5, 6, 7, 8 and 9 were applied based on the appraiser's observation of the desirability of the designated areas. These factors were tested against the trended sales and produced assessment to sales ratios in a range of 0.91-1.04. See the Sales Analysis grouped by Site Index in Appendix J.

Neighborhood 9 represents properties that are located directly on the water. There is a total of 72 waterfront sales in the overall sample. The overall median ratio for that Neighborhood is 1.02.

SITE MODIFIER CODES

The next step is to identify the larger areas of town that might require an overall adjustment to this base value and establish the corresponding boundaries associated with each. As examples, these could be based on such things as geographic location, traffic flow, proximity to commercial or industrial areas, available amenities, zoning or any other homogeneous grouping of parcels that are similar in characteristics. These areas are identified by a Site Modifier Code, which has a corresponding value adjustment associated with it. A list of each code and corresponding adjustment is located in Appendix L labeled Land Tables.

These Site Modifier codes were applied based on the observations and input from the assessors' office and staff during the analysis of sale patterns. They have been carried forward as the boundaries of the designated areas.

The assessed value indicated for each property is modified by the appropriate modifier code. The number of sales that occur in properties with any one of the specific codes is limited, as some are applied to a relatively small number of properties.

Larger samples of all waterfront sales are included in Appendix J and K, demonstrating general market value attainment for Neighborhood N-9 (includes waterfront Site Modifiers).

The following pages provide first the Code, Description and Adjustment Factor for each of the Site Modifier codes These tables are also contained in Appendix L to this report and are replicated here for ease of understanding.

Code	Site Modifiers Description	Factor
A	AVERAGE	100
B	BEST	100
BC1	BLACK CAT ISLAND	225
BCK	BUCKINGHAM ESTATE	170
BLD	BALD PEAK NO VW/WA	425
BM1	BALMORAL - INLAND	135
BM2	BALMORAL-MIDDLE B	82
BM3	BALMORAL-SHANNON B	55
BM4	BALMORAL-WF	110
BP1	BALD PEAK-HIGH RIDG	730
BP4	BALD PEAK -VIEW/WA	490
BP5	BALD PEAK-WF	300
BP6	BALD PEAK-WOOD LAN	190
BY1	BERRY POND-WF	30
C	UND CLEAR	100
DR1	DRIFTWOOD W/DOCKS	270
DR2	DRIFTWOOD-WF	360
E	EXCELLENT	100
F	FAIR	100
FH1	FAR ECHO HARBOR	340
FH2	FAR ECHO-LOC/VIEW	750
FH3	FAR ECHO HRBR-WF	235
G	GOOD	100
GD1	GARLAND POND	20
HC1	HERMIT COVE - WF	135
HC2	HERMIT COVE-NR WF	300
HD1	HARBOURSIDE-WF	165
HD2	HARBOURSIDE-INLAND	250
HT1	HEATHERWOOD	155
IQ	IROQUOIS/GRUNWALD-	275
IS1	ISLAND W/ELECTRIC	75
IS2	ISLAND W/O ELECTRIC	45
KN2	BRCHW-KNSTKA/WINN W	155
KN3	BIRCHWD/KNSATKA/B	125
KN4	LAKE KANASTKA LOC-	65
KW1	KILNWOOD	180
LE1	LEES POND	70
LW1	LEAWARD SHORES-W/	140
LY1	LEDGY POND-WF	35
MBY	MOULTONBORO BAY-	175
N	NATURAL	100
OR1	ORTON LANE - WA	140
PND	HERON/KANASATKA-W	105
SAN	SANDY COVE ASSOC-W	260
SQ1	SQUAM LAKE	430
SQ2	SQUAM LAKE ISLANDS	160
SV1	SUISSEVALE - INLAND	175
SV12	OFF CASTLE SHORE-WF	185
U	UNDEV WOODS	100
W01	WINDERMERE/WILDWO	285
W02	WINNI W/NICE VIEW	223
W05	SMALL WF / NR MARIN	205
W07	LAKE WINNI WF-NCE V	200
W09	COVE/WATER VW	127
W10	CAVALIER COVE WF	120
W12	WF/VIEWS - GOOD SZE	214
W13	WINNIPESAUKEE	250
W14	MLTNBORO BAY-SML L	192
W15	WATERFRNT COVE-NO V	180
W16	BLACKEY COVE- WF	245
W17	GD ACCESS TO WINNI	360
W19	LEES MILLS MBAY-WF	125
WA1	SS/KB/SB - INLAND	220
WA2	STHRLEE SHRES - WF	214
WD1	WILDWOOD INLAND/	190
WIN	EAGLE SHR/STMBT LN	235
WK1	WAKONDAH POND	75
WN1	LAKE & MTN VIEWS	210
WPA	WA/PRTL VW- INLAND	135
WS1	WESTPOINT ASSOC - W	180
XW1	CROSSWINDS-WF NR B	150
XW2	CROSSWINDS-INLAND	415
Y	VERY GOOD	100

Code	Topography Modifiers Description	Factor
1	ABOVE STREET	100
2	BELOW STREET	100
3	LOW	100
4	SWAMPY	100
5	LEDGE	100
F	SEVERE	100
L	LEVEL	100
M	MILD	100
MO	MODERATE	100
R	ROLLING	100
S	STEEP	100

SPECIAL LAND CALCULATION CODES

It is often required to further identify additional characteristics requiring adjustment. With respect to Moultonborough this includes significant properties located on many lakes. These areas are identified by a Special Land Calculation Code. A list of each special calculation code and corresponding adjustment located in Appendix L labeled Land Tables. These special land calculation codes were applied based on the observations of the appraiser and/or assessor during the analysis of sale patterns. The sales of property with a Special Land Calculation designation used for valuation the Sales Analysis was not used due to insufficient sales data.

LAND PRICING INSTRUCTIONS

Land Line 1:

The base lot is entered on this landline and includes any land up to 43,560 SF. The Site Index, Neighborhood codes, and Special Land Calculation adjustments when applicable, are utilized to adjust for location. Any access, right of way (ROW), allowable use or topography adjustments can be found in the condition factor section using the following guidelines:

Typical Land Adjustments	
Type	**Adjustment**
Building Lots, access, rows, etc.	Minus 5-20%
Vacant buildable lots	No Adjustment
Unbuildable-Size, shape, topography	Minus 75-90%
Landlocked	Minus 75-90%
Excess Acreage- steep/wet	Minus 10 - 90%
Current Use	per State guidelines

Land Line 2: Any excess acreage over the first acre will be priced here at $4,000/acre. In addition, any applicable topography, easements, (condition factor adjustments/considerations) can be adjusted here in the condition factor section as needed. Site Index codes and Neighborhood Calculations are <u>not</u> utilized on excess acreage.

The cost of site improvements above base land value is included in the base rate of building cost improvements. As support and reference see Marshall & Swift, Section 53, Page 10 & Section 85, Page 2.

<div align="center">IMPROVED PROPERTY DATA</div>

PROCESS FOR COLLECTING, VALIDATING AND REPORTING DATA

All property in the Municipality have been data collected in a cyclical manner in order to observe the style, quality, condition, and sub area of each component of the building. A Data Collection Manual has been created and maintained to assure that correct information for all properties, and is contained in Appendix R. The following elements include but are not limited to:

Style Type (Ranch, Colonial, etc.)

Model (Residential, Commercial, etc.)

Grade (Quality)

Stories

Occupancy

Exterior Wall

Roof Structure

Roof Cover

Interior Wall

Interior Floor

Heating Fuel and Type

Air Conditioning Type

Bedrooms, Bathrooms

Year Built

Condition of Property

Functional and Economic Obsolescence

Out Buildings & Extra Features

BUILDING STYLE

Property improvement costs are estimated for each property based on the style of construction. The style costs are developed relying on historical categorization in the municipality, as well as reference to the Marshall Valuation Service descriptions.

BUILDING VALUATION MODEL

The building valuation model is defined as follows: Base Rate +/- Number of Baths etc... +/- Size Adjustment +/- Grade of Construction = Adjusted Base Rate. Adjusted Base Rate X Effective Area - Depreciation Adjustment = Building Value. Story height is descriptive only and does not affect building value. Base rates were developed from Marshall & Swift (August 2018), Section 12, Pages 1-7 & 25-38, and adjusted according to market sales data. Validation of the base rates was completed by comparison to the Marshall and Swift Residential Cost Handbook published by Corelogic, updated through December 2018. These costs were adjusted for location and date of value.

COST/MARKET APPROACH MODELING

Once all the pertinent physical data regarding the improvements have been collected, the replacement cost of the building is obtained. Avitar's cost tables were utilized to develop a replacement cost for the building. Once the cost of the building was developed, depreciation from normal wear and tear and from functional and economic obsolescence was deducted.

EFFECTIVE AREA CODES AND CALCULATION

The cost of individual areas of each building are modified by the factors shown in Appendix M, on page 2. In this way, improved areas of a building that are less intensive than base living area may be properly priced. An example of this would be a colonial style residential dwelling that might have a per square foot cost of $94.00 might have a finished attic area. The attic would be costed at $94.00 X .25 = $23.50 per square foot.

STORY HEIGHT FACTORS AND CALCULATION

Base costs in Avitar's tables are modified slightly to reflect the lower cost for the construction of a multi-story dwelling. The table of these factors is located in Appendix M, page 4. An

example would be a cape style home that might have per square foot cost of $93.00 per square foot that is 1.75 stories high. The base cost would be calculated as $93.00 X .99 = $92.07 per square foot.

DEPRECIATION

Depreciation is the loss in value from any cause and is typically associated with reasons that are "physical" (loss in value due to physical deterioration and/or ageing), "functional" (due to deficiencies in the structure's design) and/or "economic" (loss in value due to factors external to the appraised property). In the appraisal of a single property (not Mass Appraisal), the three primary methods for estimating depreciation are: the "market extraction method", the "age-life" method, and the "breakdown" method. Typically, the market extraction and age-life calculation techniques are utilized to capture the total depreciation in a property from all sources. The "breakdown" method is a more rigorous 'physical, functional, and economic. Typically, in mass appraisal, the identification of depreciation relies upon the application of computer modeling techniques. Importantly, regardless of the methodology utilized to identify depreciation, it is imperative that the final estimate of depreciation reflects the loss in value from fill sources.

The remaining value is considered the Replacement Cost Less Depreciation (RCLD). The market indicated land value and any other outbuilding values are added to give you a final value. This value is compared to market sale prices of similar properties to ensure that the property is appraised at market value for April 1, 2020.

Qualified sales that occurred between 4/1/2018 & 3/31/2020 were utilized. These sales were analyzed based on style, year built, location, sales price, lot size and building size. Refer to the Appendix K for the Building Sales Study Reports.

QUALITY ADJUSTMENT RATING

The quality of construction or grade is an estimation made by the appraiser regarding the materials, construction details and overall design.

Because Avitar Computer Assisted Mass Appraisal System is a combination of Cost/Market Appraisal Systems, quality grades may will vary slightly among similar properties and neighborhoods. Any variations from the pure cost approach quality rating are made when

supportable conclusive market evidence, including neighborhood sales, justify these adjustments. Once the quality grade determinants are determined, the final quality grades should be similar on similar homes within similar neighborhoods. Equitability and consistency are paramount.

Within the Avitar CAMA System, there are quality adjustments available to cover a wide range of possible construction qualities. The quality grades applied to the properties are multipliers, or factors, applied to the basic construction rate, which is derived from the structural components.

What follows are the guidelines in establishing quality grades based purely on a cost approach system, unadjusted for market neighborhood conditions:

QUALITY GRADING GUIDELINES

The general quality specifications for each grade are as follows:

Minimum Grade (B2): Buildings constructed with very cheap grades of materials. No extras, only bare minimum.

Below Average Grade (B1): Buildings constructed with minimum grade materials, usually "culls" and "seconds" with poor quality workmanship resulting from unskilled, inexperienced, "do-it-yourself" type labor. Low-grade heating, plumbing and lighting fixtures.

Average Grades (A0, A1, A2): Buildings constructed with average quality materials and workmanship throughout, conforming to the base specifications used to develop the pricing schedule. Minimal architectural treatment. Average quality interior finish and built-in features. Standard grade heating, plumbing and lighting fixtures. Minor adjustments for variations in features.

Good Grades (A3, A4, A5): Buildings constructed with better than average quality materials and workmanship throughout. Some architectural treatment. Some higher quality interior finish and built-in features. Better than average grade heating, plumbing and lighting fixtures.

Very Good Grades (A6, A7, A8): Buildings constructed with good quality materials and workmanship throughout. Specific architectural design and treatment. Custom interior finish and built-in features. Good grade heating, plumbing and lighting fixtures.

Excellent Grades (E1, E2, E3): Buildings constructed with excellent quality materials and

workmanship throughout. Excellent architectural treatment. Excellent quality interior finish and built-in features. Excellent grade heating, plumbing and lighting fixtures.

Luxurious/Custom Grades (L1 and up): Architecturally significant buildings constructed with the finest quality materials and custom workmanship throughout. Custom interior finish and built-in features. Deluxe heating system, plumbing and lighting fixtures. Variations in the importance of the combination of these factors leads to the designation of actual factor used.

<p style="text-align: center;">**COMMERCIAL VALUATION PROCESS**</p>

The purpose of the mass appraisal is to determine an opinion of the market value of all the commercial properties in the Municipality for 4/1/2021. In the appraisal of real estate, there are three recognized approaches to value. These are: Cost Approach, Sales Approach, and Income Approach.

LAND VALUATION MODELS

The Commercial/Industrial land sales, sales residuals and income residuals were analyzed by street to derive typical land value ranges. Site Index and neighborhood adjustment factors were derived to modify the basic land curve to the market characteristics of each neighborhood.

COST APPROACH METHODOLOGY

The cost approach is based on the theory that an informed buyer would not pay more for a property than the cost to build a reasonable substitute. The cost approach is therefore based on a comparison of the subject property to the cost to produce a new subject property or a substitute property. Items considered in this estimate are the age, condition and utility of the property.

In applying the cost approach, the appraiser will first value the land of the subject based on comparable land sales, sales land residuals or income land residuals. Secondly, the appraiser will estimate the cost to construct the existing structure, along with any site improvements, and then deduct any accrued depreciation from the cost. The land value is added to the cost value to derive an indication of market value by the cost approach.

SALES APPROACH METHODOLOGY

The sales comparison approach is the process of comparing the subject property to other comparable properties, which have sold within a reasonable period, adjusting the sale prices of those comparable properties to compensate for differences, and weighing the value indications developed to arrive at an opinion of market value for the subject property.

The sales comparison approach reflects the actions and reactions of typical buyers and sellers in the marketplace. A comparative analysis process is completed to determine and define similarities and differences of properties and transactions that can affect value. These elements may include property rights appraised, financing terms, market conditions, size, location and physical features.

INCOME APPROACH METHODOLOGY

This approach is based on set of procedures that derives a value by analyzing and determining an income flow from the market, and then capitalizing this stream of income into a value. Income producing property is typically purchased as an investment. Therefore, the premise is the higher the earnings the higher the value. An investor who purchases income producing real estate is trading present day dollars for the expectation of receiving future dollars.

RECONCILIATION

The final step of the appraisal process is the reconciliation. The appraiser considers the strengths and weaknesses of each applicable approach and reconciles the values indicated by these approaches to determine a final value opinion. In this determination, the appraiser weighs the relative importance, applicability, and defensibility of each of the three approaches and relies strongly on the approach that is most appropriate to the nature of the appraisal.

COST APPROACH MODELING

The final assessed values utilized by the Municipality will be broken out by land and building values. The cost approach is the only approach that identifies both components individually. The other two approaches will also be considered and depending on the type of property will be given the most weight in the reconciliation stage.

The Avitar CAMA's cost tables were utilized, supported by national cost valuation services, to develop a replacement cost for a building. Once the cost of the building was developed, depreciation from normal wear and tear and from functional and economic obsolescence was deducted. The remaining value is considered the Replacement Cost Less Depreciation (RCLD). The market indicated land value and any other outbuilding values are added to give you a final value.

SALES APPROACH MODELING

This cost value is compared to market sale prices of similar properties to ensure that the property is appraised at market value for April 1, 2020. There were a limited number of sales that occurred

in the community. This data was considered but based on the small sample size; this approach was not given as much weight as the other approaches.

INCOME APPROACH MODELING

Due to the very limited number of commercial properties that are owned for income producing purposes in Moultonborough, the Income Approach was considered but not applied in this mass appraisal.

FINAL RECONCILIATION

Reconciliation spreadsheets by property type were developed and analyzed. When possible, all approaches to value were reconciled within a range of 0.85 to 1.15 and the cost model was used as the final value estimate. When not possible, the most relevant approach to value for a given parcel was selected. The income approach model was deleted during the reconciliation process when not appropriate to the valuation of a given parcel or property type.

STATISTICAL TESTING OF RESULTS

The mass appraisal completed resulted in a median assessment to sales ratio for the entire sample used of 0.972. Coefficient of Dispersion (COD) for the entire sample is 18.83. (See Appendix J and K for Valuation Result Reports). The same reports indicate a weighted mean of .9912. These results are from the sample of sales from 4/1/2019 through March 31, 2021.

I have included in the report a copy of the Equalization Ratio Study for 2021 as Appendix F. This is the ratio study that DRA will utilize in the determination of the performance of the mass appraisal. This study is completed using sales from October 1, 2020 through September 30, 2021. The Equalization study relied on 202 valid sales that occurred in that time frame and reports a median assessment to sales ratio of 92.51. The COD for the entire sample is 18.74. The Price Related Differential (PRD) is reported to be 1.02. The results of the ratio study are stratified and reflect reasonable consistency in all of the results.

The standard adopted by the NH Assessing Standards Board includes attaining a median ratio of between .90 and 1.10, and a COD of less than 20, and a PRD of between .98 and 1.03. The performance standards have been met in the completion of this mass appraisal.