

# 2019

## ASSESSMENT METHODOLOGY

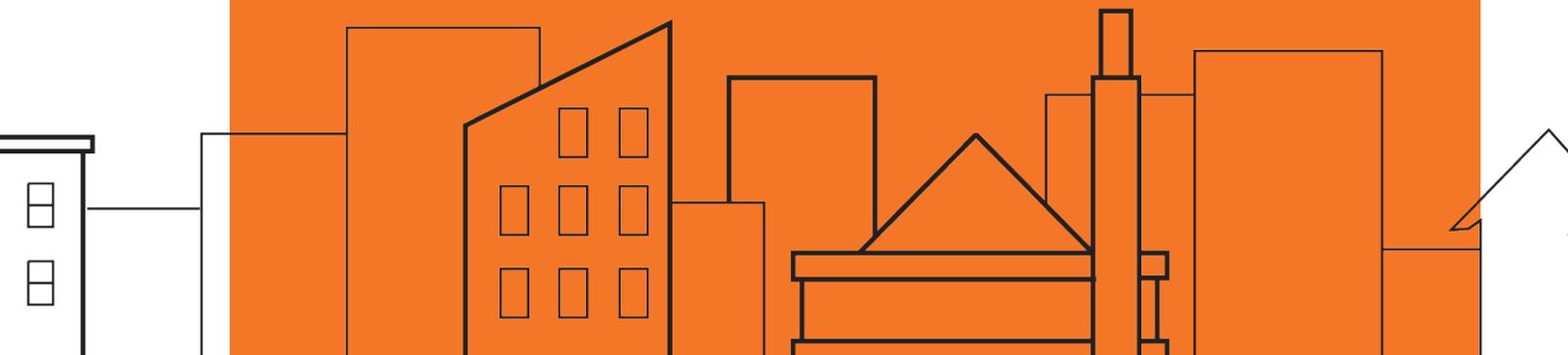
### GOLF COURSES

A summary of the methods used by the City of Edmonton in determining the value of industrial land properties in Edmonton for assessment purposes.

[edmonton.ca/assessment](http://edmonton.ca/assessment)

*Revised: February 21, 2019 (see revision history)*

Edmonton



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## Scope

This guide is an aid in explaining how golf course properties are valued for assessment purposes. The guide is intended as a tool; it is not intended to replace the assessor's judgment in the valuation process.



This icon signifies when legislation is quoted.

## Introduction

Property assessments in the City of Edmonton are prepared in accordance with the requirements of the *Matters Relating to Assessment and Taxation Regulation, 2018, Alta Reg 203/2017*, (hereinafter "MRAT"). This regulation establishes the valuation standard to be used, defines the procedures to be applied, and proposes objectives for the quality to be achieved in the preparation of assessments. The legislation requires the municipality to prepare assessments that represent *market value* by application of the *mass appraisal process*. All assessments are expected to meet quality standards prescribed by the province in the regulation.

Property assessments represent:

- an estimate of the value
- of the fee simple estate in the property
- as it existed on December 31, 2018
- would have realized if it had been sold on July 1, 2018
- on the open market and under typical market conditions
- from a willing seller to a willing buyer

The assessment is a prediction of the value that would result when those specific, defined conditions are met.

*"Fee simple interest [is] absolute ownership unencumbered by any other interest or estate...leased fee interest [is] the ownership interest held by the lessor, which includes the right to the contract rent specified in the lease plus the reversionary right when the lease expires....leasehold interest [is] the interest held by the lessee (the tenant or renter) through a lease conveying the rights of use and occupancy for a stated term under certain conditions."*

Appraisal Institute of Canada, *The Appraisal of Real Estate Third Canadian Edition*, Vancouver, Canada, 2010, page 6.4.

Both *market value* and *property*, along with additional terms are defined in the *Municipal Government Act*, RSA 2000, c M-26 (hereinafter the “MGA”) and *MRAT* :



s.284(1)(r) “**property**” means

- (i) a parcel of land
- (ii) an improvement, or
- (iii) a parcel of land and the improvements to it

MGA .s.284(1)(r)

s.1(k) “**regulated property**” means

- (i) land in respect of which the valuation standard is agricultural use value,
- (ii) designated industrial property, or
- (iii) machinery and equipment

MRAT s.1(k)

s.9(1) the **valuation standard** for the land and improvements is market value unless subsection (2)... applies

MRAT s.9(1)

s.1(1)(n) “**market value**” means the amount that a property, as defined in section 284(1)(r), might be expected to realize if it is sold on the open market by a willing seller to a willing buyer

MGA s.1(1)(n)

s.5 An assessment of property based on **market value**

- (a) must be prepared using mass appraisal,
- (b) must be an estimate of the value of the fee simple estate in the property, and
- (c) must reflect typical market conditions for properties similar to that property

MRAT s.5

s.289(2) Each assessment must reflect

- (a) the characteristics and physical condition of the property on **December 31** of the year prior to the year in which a tax is imposed

MGA s.289(2)(a)

s.6 Any assessment prepared in accordance with the Act must be an estimate of the value of a property on **July 1** of the assessment year

MRAT s.6

s.1(g) “**mass appraisal**” means the process of preparing assessments for a group of properties using standard methods and common data and allowing for statistical testing

MRAT s.1(g)

## Mass Appraisal

Mass appraisal is the legislated methodology used by the City of Edmonton for valuing individual properties, and involves the following process:

- properties are stratified into groups of comparable property
- common property characteristics are identified for the properties in each group
- a uniform valuation model is created for each property group



31(c) **“valuation model”** means the representation of the relationship between property characteristics and their value in the real estate marketplace using a mass appraisal process

MRAT s.31(c)

The following two quotations indicate how the International Association of Assessing Officers distinguishes between mass appraisal and single-property appraisal:

*... “single-property appraisal is the valuation of a particular property as of a given date: mass appraisal is the valuation of many properties as of a given date, using standard procedures and statistical testing.”*

*... “Also, mass appraisal requires standardized procedures across many properties. Thus, valuation models developed for mass appraisal purposes must represent supply and demand patterns for groups of properties rather than a single property.”*

*Property Appraisal and Assessment Administration, pg.88-89.*

For both mass appraisal and single-property appraisal, the process consists of the following stages:

	<b>Mass Appraisal</b>	<b>Single Appraisal</b>
<b>Definition and Purpose</b>	Mass appraisal is used to determine the assessment base for property taxation in accordance with legislative requirements	The client specifies the nature of the value to be estimated, including rights to be valued, effective date of valuation, and any limiting conditions
<b>Data Collection</b>	Mass appraisal requires a continuing program to maintain a current database of property characteristics and market information.	The extent of data collection is specific to each assignment and depends on the nature of the client's requirements
<b>Market Analysis</b>	Mass appraisal is predicated on highest and best use	Market analysis includes the analysis of highest and best use
<b>Valuation Model</b>	Valuation procedures are predicated on groups of comparable properties	Subject property is the focus of the valuation. The analysis of comparable properties is generally six or less
<b>Validation</b>	The testing of acceptable analysis and objective criteria	The reliability of the value estimate is more subjective. Acceptability can be judged by the depth of research and analysis of comparable sales

## Valuation Models

A valuation model creates an equation of variables, factors and coefficients that explains the relationship between estimated market value and property characteristics. An assessed value is then calculated by applying the appropriate valuation model to individual properties within a property type.



s.31(a) **“coefficient”** means a number that represents the quantified relationship of each variable to the assessed value of a property when derived through a mass appraisal process

(b) **“factor”** means a property characteristic that contributes to a value of a property;

(d) **“variable”** means a quantitative or qualitative representation of a property characteristic used in a valuation model

MRAT, s.31 (a), (b) and (d)

s.33(3) Information prescribed...does not include coefficients

MRAT, s.33(3)

### Valuation Model

- variables are created from property characteristics
- analysis of how variables affect market value
- factors and coefficients are determined
- the resulting valuation models are applied to property characteristics

## Approaches to Value

The most common approaches to determine market value are the direct sales, income, and cost.

### Direct Sales Approach

Typical market value (or some other characteristic) is determined by referencing comparable sales and other market data. It is often used when sufficient sales or market data is available. It may also be referred to as the Sales Comparison Approach.

### Income Approach

This approach considers the typical actions of renters, buyers and sellers when purchasing income-producing properties. This approach estimates the typical market value of a property by determining the present value of the projected income stream. Often used to value rental or leased property.

### Cost Approach

Typical market value is calculated by adding the depreciated replacement cost of the improvements to the estimated value of land. It is often used for properties under construction or when there is limited market data available.

## Property Group

Golf course properties are part of the special purpose property group. A special purpose property is defined as a property that has limited utility and marketability other than for its original use (The Appraisal Journal, 2015). Often these properties are purpose-built with limited alternative uses. Typically, a special purpose property needs significant investment to be converted to an alternative use, making most conversions financially infeasible. With special purpose properties, it is the property itself, not the use, that is typically unique. Special purpose properties may include churches, schools, hospitals, manufacturing plants, correctional facilities, museums, legislative buildings and recreational facilities.

## Cost Approach

For golf course properties, the assessment is determined using the Cost approach. The Cost approach produces the most accurate assessment for properties that are not actively traded in the marketplace due to their features or use, where there is insufficient or atypical income and expense data available to effectively apply an income approach, or where the property is under construction. The cost approach rationale is that an informed purchaser will pay no more for a property than the cost of building a similar one.

The cost approach determines the replacement cost new of improvements less depreciation plus land value. The replacement cost is determined using a cost manual. The cost manual is a guide for developing replacement cost and depreciated values for buildings and other improvements. The guide contains indexes of the building cost and determines depreciation tables that are applied to the replacement cost. The City of Edmonton uses the Marshall & Swift Valuation Service which is the most comprehensive cost manual and database in the marketplace.

Typically, the land value of a property is determined using the sales comparison approach. For a more detailed explanation refer to the applicable 2019 Land Assessment Methodology Guide and/or the 2019 Cost Methodology Guide.



**Replacement Cost New:** the cost, including material, labor, and overhead, that would be incurred in constructing an improvement having the same utility to its owner as a subject improvement, without necessarily reproducing exactly any particular characteristics

*Glossary for Property Appraisal and Assessment, p.120*

**Depreciation:** loss in value of an object, relative to its replacement cost new

*Glossary for Property Appraisal and Assessment, p.41*

## Zoning

Zoning regulates the use and development of a property and is set by the Edmonton Zoning Bylaw No. 12800. For a zone description, refer to the identified account zoning found in the Land Assessment Methodology Guide.



*s.6.123 **zone:** means a specific group of listed Uses and Development Regulations which regulate the Use and Development of land within specific geographic areas of the City...*

*Zoning Bylaw No. 12800, 2017, s. 6.123*

For zoning information, please see City of Edmonton Zoning Bylaw, No. 12800.

The actual zoning of a property may affect the property's classification; however, not all property conforms to the zoning set out in the Zoning Bylaw. In these cases, an effective zoning is applied to reflect the current use and development of the property. The effective zoning may differ from the actual zoning when the current use differs from the Zoning Bylaw (e.g., a legal nonconforming use).



*643(1) If a development permit has been issued on or before the day on which a land use bylaw or a land use amendment bylaw comes into force in a municipality and the bylaw would make the development in respect of which the permit was issued a nonconforming use or nonconforming building, the development permit continues in effect in spite of the coming into force of the bylaw*

*MGA, s. 643(1)*

In cases where a legal non-conforming use is discontinued for six (6) or more months, any future use must conform to the Zoning Bylaw.



*643(2) A non-conforming use of land or a building may be continued but if that use is discontinued for a period of 6 consecutive months or more, any future use of the the land or building must conform with the land use bylaw then in effect.*

*MGA, s. 643(2)*

## Golf Course Valuation

### Land

The land for golf course properties is assessed based on its use. Typically, golf course land is assessed as park land. Park land refers to all or part of a property that is zoned or permitted to be used as Metropolitan Recreation Zone or Public Parks Zone (A/AP) as per City Zoning Bylaw 12800. If a current permitted use is different from the actual zoning of A/AP, then the appropriate market value rate would apply. Please see the 2019 Agricultural, Development and Dual Use Land Methodology Guide for more information.

### Servicing

In order to account for servicing in valuation, an adjustment based on the cost of providing typical utility servicing to golf course properties may be applied.

There are two levels of servicing: City Standard Servicing and Rural Standard Servicing.

#### ***City Standard Servicing***

The City Standard Servicing level typically includes a full range of municipal utility services that include paved roadway access, water, sanitary and storm sewer, along with electricity, natural gas, telephone, cable television and Internet.

#### ***Rural Standard Servicing***

The Rural Standard Servicing level typically includes a drilled water well, which often includes a cistern(s) for water storage, and a septic field and/or pump out septic tank(s). All shallow utilities (power, natural gas & telephone) are typically provided to Rural Standard serviced parcels.

The Rural Standard Serving level typically does not include municipal water or sewer services and road access typically comprises a gravel or cold rolled surface with drainage ditches and culverts.

### Improvements

The City uses the Marshall and Swift Valuation Service Manual (hereinafter the “M & S Manual”) to determine the replacement cost new less depreciation of improvements. For example, a clubhouse constructed on a golf course property is valued using the M & S Manual as per the 2019 Cost Methodology Guide.

### Golf Course Improvements

Golf Course Improvements include fairways, irrigation and drainage systems, tees, greens, bunkers, bridges, cart paths, landscaping, and water features. Golf course improvements add to the value of land for the purposes of a golf course.

Golf course information is provided by owners during the annual Request for Information (RFI) process. Property owners are requested to provide the following via the RFI process:

- A completed Owner Contact and Certification Form
- A completed Golf Course Survey including general course information and golf course improvements/facilities details
- A completed Project Cost Breakdown including building/yard and golf course improvement projects

### *Marshall and Swift Golf Course Classes*

The M & S Manual breaks down cost per hole according to course classification. The costs per hole represent the replacement cost of the golf course improvements.

**Class 1:** Minimal quality, simply developed, budget course on open natural or flat terrain, few bunkers, and small tees and greens.

**Class 2:** Simply designed course on relatively flat terrain, natural rough, few bunkers, small built-up tees and greens, and some small trees.

**Class 3:** Typical private-type club on undulating terrain, bunkers at most greens, average elevated tees and greens, some large trees moved in or clearing of some wooded areas, and a driving range.

**Class 4:** Better championship-type course on good undulating terrain, fairway and greens bunkered and contoured, large tees and greens, large trees transplanted, driving range, may have name architect, and standard course.

### Quality Index System

Additional classification is obtained through the use of a quantitative point system. The City utilizes a modified Quality Index<sup>1</sup> to determine the appropriate golf course classification. This modified system consists of nine golf course attributes that take into consideration difficulty of play, condition, size and cost of construction:

1. Slope rating. In Canada, the slope rating is established by the Royal Canadian Golf Association (RCGA) / Golf Canada, and is the measure of the relative playing difficulty of a course for players who are not experienced golfers. The lowest slope rating in Edmonton is 110 and the highest is 141.
2. Number of bunkers. A bunker is a golf course hazard that is a hole or depression in the ground filled in with sand (or a similar material).
3. Acres of greens. A green is the area of short grass surrounding a hole. Greens can vary widely in shape and size, but are most commonly oval in shape. The larger the greens, the more costly to build them.
4. Number of greens built to United States Golf Association (USGA) specifications<sup>2</sup>. Building to USGA specifications indicates a more expensive course as they are designed for maximum drainage, allowing play to resume quickly after a storm.
5. Number of bridges. A bridge is a costly construction and maintenance expense item that adds interesting features to a golf course.
6. Number of bulkheaded tees and greens. These added features to the course indicate a more prestigious course.
7. Double-row irrigation systems. These systems are advanced irrigation control systems with sprinkler heads that offer an improved efficiency over single-row coverage. Typically, they exist in areas where annual rainfall is minimal. It is a “yes/no” component.
8. Berms. Berms are man-made hills that typically separate fairways between golf holes. This feature can be categorized as above average, average, or below average based on size and placement.
9. Elevated tees and greens. A tee is a cleared space on a golf course, from which the ball is struck at the beginning of play for each hole. A green is the culmination of a golf hole, it is where the flagstick and hole are located. Oftentimes these features are elevated as an added design feature. These features can be categorized as above average, average, or below average based on design and placement.

Figure 1 shows the point system used in the Quality Index.

<sup>1</sup> The Quality Index System is based upon an article by J. George Moore titled *Mass Appraisal of Golf Courses*. Refer to the International Association of Assessing Officers, July/August 1999, Volume 6 – Number 4 Assessment Journal. Although the article has a U.S. context, it can also be applied to Canadian golf courses.

<sup>2</sup> United States Golf Association / Green Section. *USGA Recommendations for a Method of Putting Green Construction*. 2004.

**FIGURE 1. Quality Index Point System**

Slope Rating/ Points	Number of Bunkers / Points	Acres of Greens / Points
110* / 10	0 / 0	1* / 1
112* / 20	10* / 2	1.5* / 2
114 / 30	20* / 3	2 / 3
116 / 40	30 / 4	2.5 / 4
118 / 50	40 / 5	3 / 5
120 / 60	50 / 6	3.5 / 6
122 / 70	60 / 7	4 / 7
124 / 80	70 / 8	
126 / 90	80 / 9	
128 / 100	90 / 10	
130 / 110	100 / 11	
132 / 120	110 / 12	
134 / 130		
136 / 140		
138 / 150		
141 / 160		

\* - Midpoints are proportioned accordingly.

If greens are built to **USGA specifications**, add 10 points. If only a part of the golf course has the USGA greens, points are proportioned based on a number of holes (maximum 10 points).

**Bridges** = 1 point each (Maximum 5 points).

**Bulkheaded Tees and Greens** = 2 points each (Maximum 72 points).

**Double Row Irrigation** = 10 points.

**Berms**

Below Average\*\* = 20 points

Average\*\* = 40 points

Above Average = 60 points

**Elevated Tees and Greens**

Below Average\*\* = 20 points

Average\*\* = 40 points

Above Average = 60 points

\*\* - If the rating is below average to average or average to above average, add 30 or 50 points, respectively.

### ***Golf Courses Classification Using the Quality Index and M & S Manual***

The Quality Index System is used to classify a golf courses into the M & S Manual categories using the following steps:

1. Assign points, as outlined in the Quality Index Point System table.
2. Total all points to arrive at the Quality Index.
3. Establish class boundaries by creating a range of points for each class.
4. Classify the course by matching the calculated Quality Index points with the proper Marshall and Swift classification.

**FIGURE 2. Golf Course Classification**

<b>Quality Index Points</b>	<b>Marshall &amp; Swift Golf Course Class</b>
0 - 99	<b>Class 1</b> (minimal quality course)
100-198	<b>Class 2</b> (simply designed course)
199 - 297	<b>Class 3</b> (typical private-type club course)
298-396	<b>Class 4</b> (better championship course)

### ***Golf Course Component Adjustment***

The M & S Manual suggests a component adjustment be made depending on the presence or absence of certain golf course elements.

### ***Depreciation***

The M & S Manual does not provide a suggested life for the golf course improvements. Accordingly, there is no corresponding depreciation schedule for the golf course improvements. The Marshall Valuation Service rationale is based on the premise that the golf course improvements are in a constant state of repair and, therefore, are not intended to depreciate. Golf course improvements are always in a cyclical state of repair. Therefore, a fixed depreciation of 30% is applied to the golf course improvements.

In practical application, the older the golf course, usually the more prestigious it becomes. In these cases, there is often considerable effort and expense put into upkeep in order to maintain the aesthetic nature of the course to meet the demands of members and tournament requirements.

## Sample Golf Course Improvements Assessment

The following sample illustrates how the City calculates applicable points, determines the appropriate golf course class using the M & S Manual, and calculates the golf course improvements value.

Golf Club is an 18-hole course with the following golf course improvements:

Golf Course Improvements	Input	Points
Slope rating	125	85
Number of bunkers	32	4.2
Acres of greens	1.25	1.5
Greens to USGA specifications	5	2.7
Bridges	3	3
Bulkheaded tees and greens	12	24
Double row irrigation	Yes	10
Berms and undulations	Average	40
Elevated tees and greens	Average	40
<b>Total points</b>		<b>210.4</b>

A total of 210.4 points falls within the range of 199 - 297 points for a Class 3 golf course. The indicated cost range per hole for a Class 3 course is \$154,000 - \$226,000<sup>3</sup>.

Using this information, the interpolated value per hole is determined using the following equation:

$$[(\text{Total Points} - \text{Minimum Points in Range}) / \text{Points Range}] \times \text{Value Range in Class} + \text{Minimum Value in Class} = \text{interpolated value per hole}$$

$$((210.4 - 199) / 98) \times 72,000 + 154,000 = \$162,375.51 \text{ per hole}$$

Based on the Golf Club's overall quality, the interpolated value per hole is \$162,375. Therefore, the total value of the golf course improvements equals \$2,922,750 (\$162,375 \* 18 holes). No component adjustment was warranted for this golf course.

<sup>3</sup> Marshall and Swift Valuation Service provides the cost ranges per hole for each golf course class and updates them annually.

Next, the golf course improvements cost is adjusted by the current cost multiplier of 1.04 and the local multiplier of 1.31<sup>4</sup> which results in \$3,981,954. Finally, after depreciation of 30% is applied, the total golf course improvements value for the Golf Club is \$2,787,000 (Rounded).

## Revision History

February 21, 2019 - removed Provincial Quality Standards section

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<sup>4</sup> The current cost and local multipliers applicable for Edmonton are provided by the Marshall and Swift Service.

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United States Golf Association / Green Section. *USGA Recommendations for a Method of Putting Green Construction*. 2004.