

## MASS APPRAISAL

*Mass appraisal* is a methodology for valuing individual properties, which involves the following process:

- properties are stratified into groups of comparable property
- common property attributes are identified for the properties in each group
- a uniform valuation model is calibrated for each group using market information incorporating the property attributes

### Mass Appraisal and Single Property Appraisal

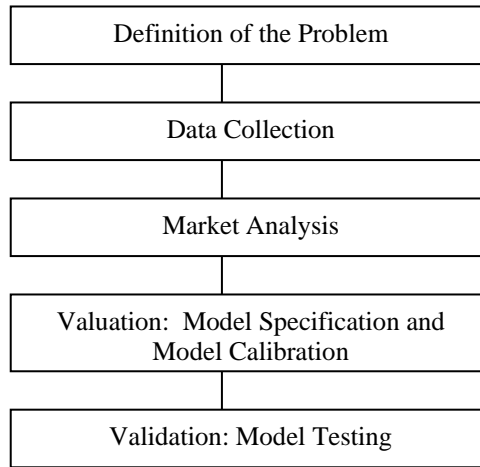
The appraisal process recommended by the Appraisal Institute of Canada is essentially the same for mass appraisals and single-property appraisals. Such differences as do exist are the results of differences of scale. The following two quotations indicate how the International Association of Assessing 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.*

The International Association of Assessing Officers, *Property Appraisal and Assessment Administration*, Chicago, Illinois, 1990, pg.88-89.

The appraisal process, as followed for both mass appraisal and single-property appraisal, consists of the following stages:



PROCESS	MASS APPRAISAL	SINGLE APPRAISAL
<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 attributes 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 Specification and Calibration</b>	Valuation procedures are predicated on groups of comparable properties.	The subject property is the central focus of the valuation procedures. The analysis of comparable properties is restricted to a few properties – 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.

## Mass Appraisal Approaches

- ◆ **Cost Approach**
- ◆ **Sales Comparison Approach**
- ◆ **Income Approach**

The International Association of Assessing Officers (IAAO) and the Appraisal Institute of Canada recognize the applicability of all three approaches to value for use in mass appraisal. Each approach may be appropriate in certain circumstances. For the purposes of the 2012 Annual Assessment the sales comparison approach was employed. There is ample data from which to derive reliable value estimates and only a portion of the inventory is traded based on its ability to generate income. A large percentage of industrial property in Edmonton is owner-occupied, and as such has no income attributable to it.

Support for the sales comparison approach comes from several reputable sources:

When sufficient valid sales are available, this approach tends to be the preferred valuation method.

IAAO, *Standard on Mass Appraisal of Real Property*, Chicago, Illinois, 2002, section 4.3.

The Direct Comparison approach is applicable to all types of real property interests when there are sufficient recent, reliable transactions to indicate value patterns or trends in the market. For property types that are bought and sold regularly, the direct comparison approach often provides a supportable indication of market value. When data are available, this is the most straightforward and simple way to explain and support a value opinion.

Appraisal Institute of Canada, *The Appraisal of Real Estate, Second Canadian Edition*, Vancouver, British Columbia, 2002, page 17.3.

## APPLICATION OF MASS APPRAISAL PROCESS

### Group:

#### Commercial/Industrial:

- ◆ Warehouses

### Group Parameters:

Properties in this group are standard industrial warehouses.

Warehouses are defined as buildings used to store, manufacture and distribute products. They can be constructed of different materials such as wood, concrete, or metal and can be single or multiple-user in nature. Special Purpose properties or large manufacturing plants are not included.

### Sales Comparison Model:

Sales occurring from January 2008 through June 2011 were used in model development and testing. Through the review of sales the collective actions of buyers and sellers in the market place are analyzed to determine the contributory value of specific property characteristics that drive market value. Once these values have been determined through the mass appraisal process, they are applied to the inventory to derive the most probable selling price. Value estimates were calculated using multiple regression analysis, which replicates the forces of supply and demand in the market place.

Sales were validated by conducting site inspections and interviews, and by reviewing title transfers (change of ownership), sales validation questionnaires, and four data collection sources (Alberta Data Search, The Network, Anderson Data Online, and Bourgeois & Company).

**Factors found to affect value in the warehouse inventory were: the location of the property, the size of the lot, the age and condition of the buildings, the total area of the main floor (per building), amount of finished area on the main floor as well as developed upper area (per building).**

*It is important to note that the contributory value of the developed upper area is less than that of the main floor area. When making comparisons between properties this must be recognized and taken into consideration.*

The overall condition of the buildings has been rated using the following categories:

**Poor:** Deterioration to a point where major repairs and/or replacements are required.

**Fair:** Discernable deterioration; deferred maintenance requiring rehabilitation and/or replacement; reduced utility with signs of structural decay.

**Average:** Normal deterioration for age; moderate maintenance; somewhat less attractive, average to good utility; minor repairs or rehabilitation of some components required.

**Good:** Slight evidence of deterioration in minor components; well maintained; attractive, desirable, and high utility.

Other adjustments such as rear building and lot configuration may be applied to properties on a site specific basis to recognize various influences on value.

#### **Unit of Comparison and Site coverage:**

The most common unit of comparison for industrial properties is value per *square foot of building area*. When comparing properties on this basis, it is imperative that the site coverage be a key factor in the comparison.

Site coverage expresses the relationship between the main floor area of the building and the amount of land associated with it. Properties with a larger amount of land in relation to the building footprint will see a higher value per square foot, as each square foot has to account for the additional value attributable to the larger land area.

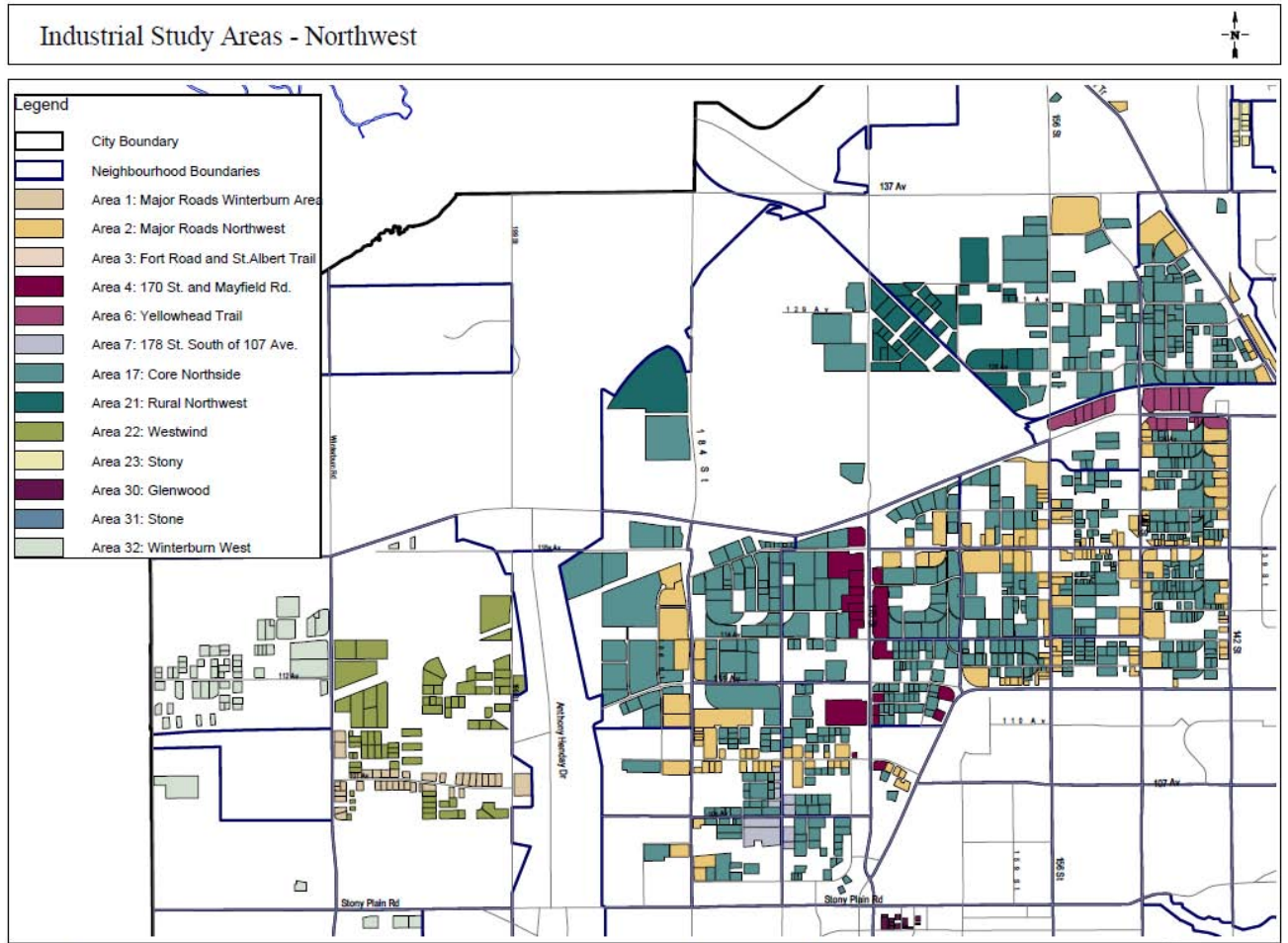
### **Summary**

Industrial Warehouse properties are assessed using the Industrial Warehouse model, which adjusts for attributes that impact market value, in order to arrive at a typical market value for properties in this class.

The resulting assessments were tested. The results indicated that our model predictions of value meet Provincial Quality Standards as set out in the *Matters Relating to Assessment and Taxation Regulation, AR 220/2004*.

The assessment models, the process utilized and the results are submitted annually to the Assessment Services Branch of the Department of Municipal Affairs for audit purposes. The audit is used to determine the accuracy of our predictions relative to the market place, and is a direct reflection on the accuracy of our models.

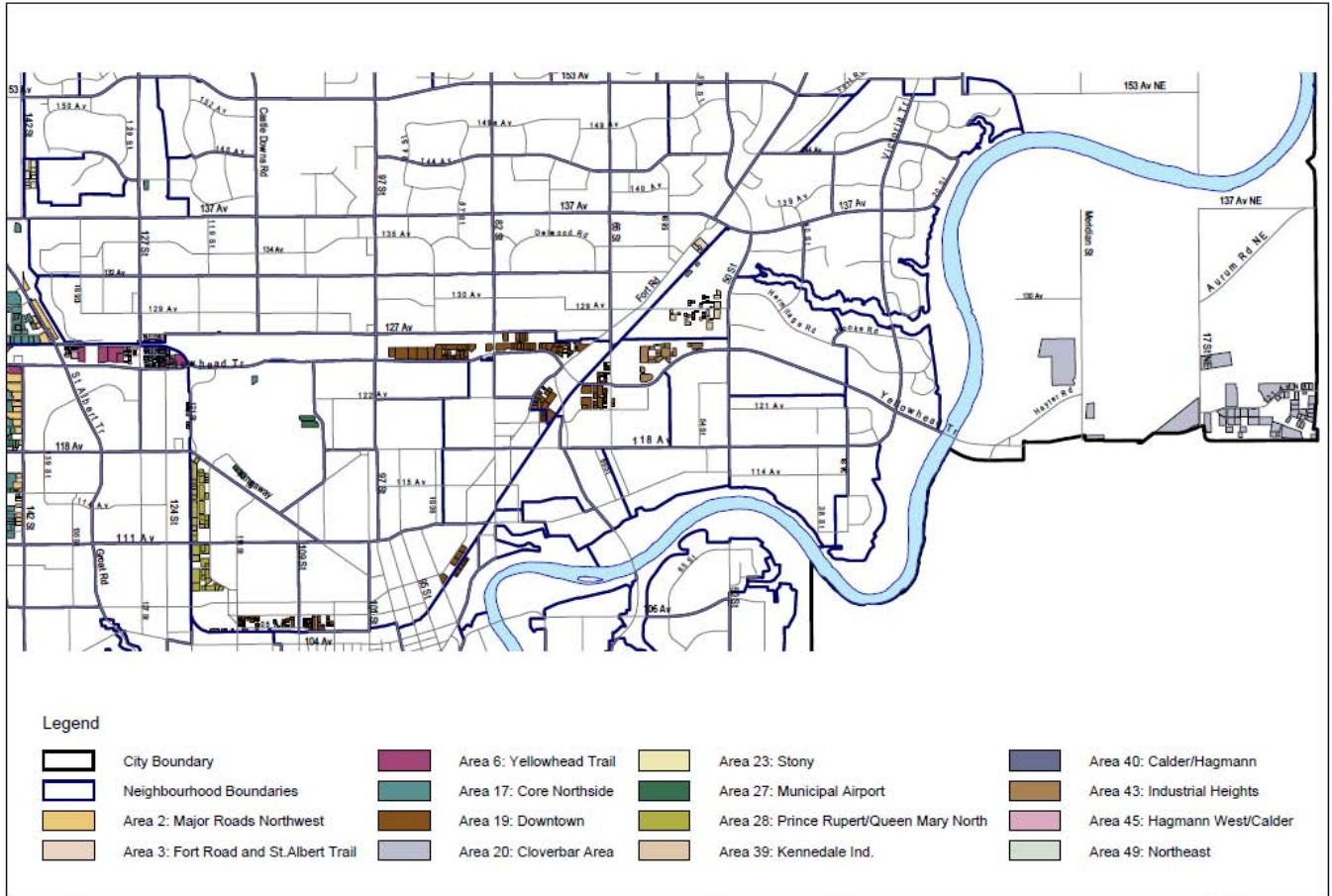
The City of Edmonton has met all governing legislation including regulations and quality standards.



Map compiled by: The Applications Team  
Assessment & Taxation Branch.

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Industrial Study Areas - Northeast



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