

Valuation Guide
Apartment / Multi-Residential

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Multi-Residential Valuation Guide

1.0 Introduction

Multi-residential buildings are structures that contain many dwelling units, each with its own set of rooms. This could include a wide variety of real estate from duplexes to luxury, high rise apartment complexes.

The valuation methods described in this guide are designed to suit the following types of properties:

multiple residential buildings or apartments of 5 or more rental units

The methods presented here may also apply to other types of residential property such as duplexes, triplexes, fourplexes, rented condominiums, and townhouses. However, the material presented in this valuation guide does not directly address these other types of multiple family dwellings.

Multi-residential buildings are properties that return revenues in the form of rents to their owners. They are typically purchased for investment purposes, and thus the properties' ability to earn income is the critical element affecting its value from a market point of view. The potential income from an apartment building is affected by many factors including demand for space, economic conditions, and the risk associated with the operation of the property. All these conditions affect how the market views a multi-residential property, and thus its market value.

This valuation guide presents a practical valuation tool utilizing the *income approach* to value multi-residential buildings.

1.2 Scope of Valuation Guide

This valuation guide is designed as an aid in the valuation of multi-residential buildings, containing 5 or more units, for assessment purposes.

It sets out an *income approach* based upon the direct capitalization method to derive market value for larger and more complex apartment buildings.

It sets out an *income approach* based upon gross income multipliers (GIMs), for smaller multi-residential properties.

With the accompanying spreadsheets, the valuation guide provides a practical tool to evaluate and determine market values.

Valuation parameters will provide the guidelines and controls needed to establish statistically sound values.

The valuation guide is designed as a tool to aid the assessor; it is not intended to replace the assessor's judgment in the valuation process.

The methods presented in this valuation guide are aimed at deriving values for a number of different classes of multi-residential facilities.

2.0 Analysis of Valuation Approaches Multi-Residential Properties

2.1 Approaches

Market Sales Comparison

Apartment buildings sell with some degree of regularity. However, there are many types of apartments and it may not always be possible to obtain a sufficient number of sales for a particular type of property, e.g., older, walk-up apartments, or luxury high-rises, in every assessment valuation period. Where the sale information is present and applicable, the *market sales comparison approach* may be considered. If the sales information is not sufficient then other approaches to value should be considered.

Income Approach

Multi-residential buildings generate rental income. Rental information is generally available for all types of apartment properties, however, and especially for smaller properties, Income and Expense Statements and other financial information may be more difficult to obtain.

With the appropriate financial information it is possible to establish the valuation parameters and capitalization rates needed to complete a *direct capitalization* valuation method on certain types of larger multi-residential properties. The rental information that is typically available for other less complex and smaller types of apartment buildings indicates that a gross income multiplier should generally be used.

Cost Approach

Apartment rents vary with general economic conditions, the supply of residential units, and the demand for such. As a result, the value of multi-residential buildings tends to fluctuate over time. Without close analysis of inflationary and deflationary pressures, of changes in land values, and the proper application of depreciation, the *cost approach* does not deal well with such fluctuations. Therefore, the *cost approach* is not recommended for the valuation of multi-residential properties.

2.2 Recommendation

Because multi-residential properties are bought, sold, and developed on the basis of expected income, the *income approach* to value reflects the manner in which the market views these properties. Also the *income approach* applies well in a mass appraisal environment. Since this approach relies upon the valuation parameters generated from market sales data, all such data should be investigated and recorded. Based upon this rationale, the following recommendation is made:

The *income approach* is recommended for the valuation of multi-residential properties for assessment purposes in Alberta.

2.3 Application of the Income Approach

Income Approach Methods

In general, there are two methods available to convert future income into a present value:

- 1) Direct capitalization¹, and
- 2) Discounted cash flow analysis.

Either type of analysis recognizes that money has a time value. That is, given a choice, people would rather receive \$100 today than \$100 one year from now. However, certain people would rather receive \$110 (\$100 + 10%) in one year than \$100 today. The interest rates applied to convert future dollars to cash in the pocket today reflect the time value of money.

¹ Re: Campeau Developments Ltd. and the Regional Assessment Commissioner Region No. 29 (1982) 144 D.L.R. (3d) 632 (C.A.) Leave to appeal to S.C.C. refused 51 N.R. 154 m.

British Columbia v. 359042 B.C.Ltd. [1997] BC No. 1459

The valuation technique commonly used by assessors across Canada is based upon the direct capitalization method. It is widely accepted as a mass appraisal technique and under existing jurisprudence². Also, it is relatively easy to use. The valuation approaches presented in this guide employs two variations of the direct capitalization method. Both methods rely upon the same principles:

- 1) *Capitalization of Net Operating Income, and*
- 2) *Gross Income Multiplier.*

Overview of the Direct Capitalization Method

The analysis in this section presents a direct capitalization method that is suited for mass appraisal applications, therefore the analysis focuses upon typical properties.

Direct capitalization converts or capitalizes the expected level of current net earnings into an estimate of market value using a capitalization rate. Therefore, the conversion factor or capitalization rate is a reflection of all of the investor's relative and comparative feelings and aspirations about the property in light of the investment characteristics offered by the asset and in comparison to other investment opportunities on the market.

In its most basic form, the direct capitalization method is an elementary mathematical ratio involving the estimation of current net operating income (NOI), which is then capitalized into value to produce an estimate of current market value. The overall capitalization rate should capture the return of and return on investment.

² Bramalea Ltd. v. British Columbia Assessor Area # 9, Vancouver (1990) 76 D.L.R. (4th) 53. (C.A.) Leave to appeal to S.C.C. refused 79 D.L.R. (4th) vi. 135 N.R. 318 m.

The Direct Capitalization Method

Market Value	=	$\frac{\text{Net Annual Operating Income}}{\text{Capitalization Rate}}$	V	=	$\frac{\text{NOI}}{R}$
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For example:

$$\begin{aligned} \text{NOI} &= \$100,000 \\ \text{Cap Rate (R)} &= 10\% \\ \text{Market Value} &= \$100,000 \div 0.10 = \$1,000,000 \end{aligned}$$

Although there are other methods of converting expected future income into an estimate of current value (e.g., discounted cash flow), the direct capitalization method lends itself to mass appraisal applications. It is possible to ascertain market values under this formula through proper evaluation of the expected net income and through the selection of an appropriate capitalization rate. However, there are two reasons why it is difficult to achieve precise accuracy with the direct capitalization method:

A large number of investment characteristics that must be evaluated within the selection of the overall capitalization rate, and

The value outcome is predicated on a snapshot of the income that is expected to be produced from the property.³

The capitalization rate employed in the valuation of multi-residential buildings must also reflect the investment characteristics of the property in comparison to other investment opportunities in the market.

Overview of the Gross Income Multiplier Method

Where the direct capitalization method capitalizes net operating income, the gross income multiplier derives values on the basis of gross income, or gross rent. **Accordingly, these multipliers are used when data on operating expenses are unavailable.**

By convention, a gross *rent* multiplier (GRM) is the factor applied to the gross monthly rent, and a gross *income* multiplier (GIM) is the factor applied to the gross annual rent.

³ Manufacturers Life Insurance Co. v British Columbia [1996] B.C.J. No. 3046 p.14

The Gross Income Multiplier Formula

$$\text{Market Value} = \text{Gross Annual Income} \times \text{Gross Income Multiplier}$$

A GIM is developed through the analysis of sales of similar properties and relates market value evidence to the gross income produced by those properties as indicated by the following formula:

$$\text{Sales price} \div \text{Gross Annual Income} = \text{Gross Income Multiplier}$$

As a general rule, the higher the similarity and the more robust the sales data, the more accurate the result of a GIM valuation procedure. A logical extension of this statement is that a GIM procedure works best with less complex properties that are easier to compare, than properties with a range and variety of different components and attributes.

2.4 Practical Approach

In this valuation guide the *income approach* has been developed into a practical valuation tool utilizing spreadsheets.

Guidelines and instructions follow on:

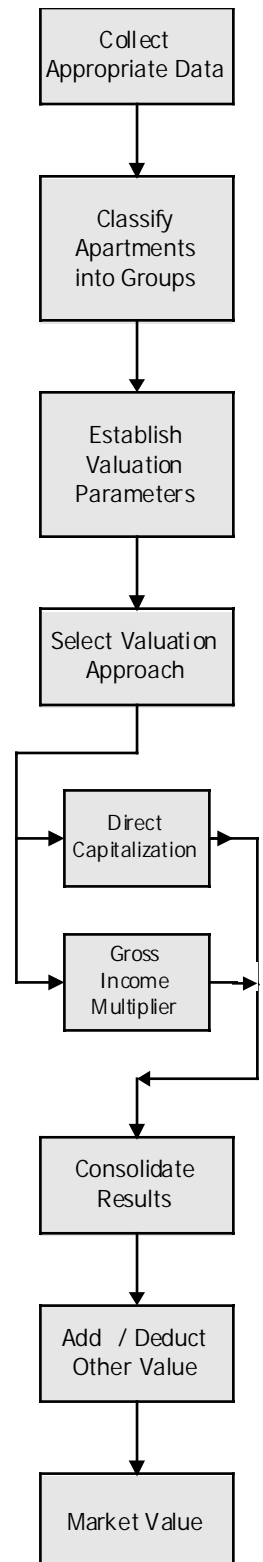
- Using the spreadsheets,
- Collecting data,
- Analyzing information,
- Applying valuation techniques,
- Development of the valuation parameters,
- Developing market value, and
- Controlling the quality of assessment values.

3.0 Multi-Residential Valuation Process

Overview of the Procedure

- 1) **Collect appropriate information.**
- 2) **Classify multi-residential buildings into homogeneous groups.**
- 3) **Determine mean, median, and range of gross market rents for each class and sub-class of multi-residential property.**
- 4) **Select valuation process:**
Direct capitalization method, or
Gross income multiplier method.
- 5) **Apply method(s) to derive value.**
- 6) **Consolidate findings.**
- 7) **Add / deduct for other value, if required.**
- 8) **Reach a MARKET VALUE conclusion.**

Both valuation approaches have Steps 1 through 3 and 6 through 8 in common. That means that all of these steps should be completed regardless of the approach being used to value the multi-residential properties.



3.1 Collect Appropriate Information

More than any other factor the type and quality of information available dictates the methods that can be used to value properties. The efforts put in at the information collection stage will determine the quality of the final analysis.

Helpful sources of information that can be used in the valuation of multi-residential buildings include: assessment records, owners, real estate consultants and brokers, real estate publications, title registration offices, and government sources such as Canada Mortgage and Housing Corporation (CMHC).

Types of Information to be Collected

- Property information,
- Rents and financial information,
- Typical vacancy rates, and
- Sales data.

Property Information

To compare, classify, and develop useful GIMs or other valuation parameters for multi-residential properties, it is necessary to obtain pertinent physical and descriptive information. The information collected should be entered on Form MR-1: Multi-Residential Data Entry. (See Figure 1.)

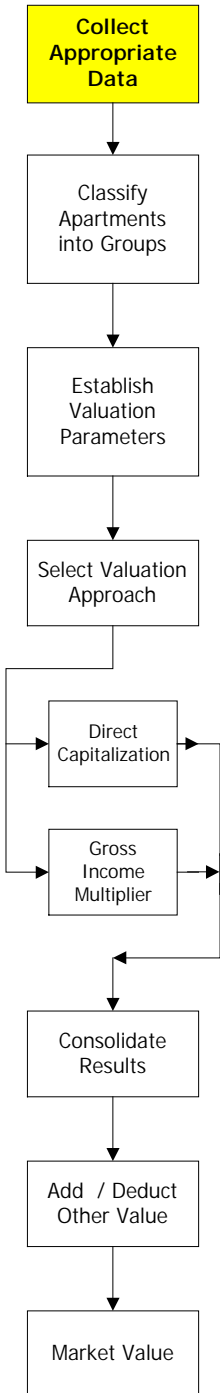


Figure 1: Form MR1 – Multi-Residential Data Entry

LINE					
1.1	Address		Value Date		
1.2	Municipality				
1.3	Roll #		Multi-Res Class		
	Building Data		Unit Types	No.	No. of Rooms
1.4	Year built		Bachelor/ Studio		
1.5	Renovations		One bedroom		
1.6	Sites area (Sf)		Two bedroom		
1.7	Building Area (Sf)		Three bedroom		
1.8	Density (Land/Bldg)		Other		
1.9	Number of Floors		Commercial (Sf)		
1.10	Number of Units		Totals		
1.11	Parking Indoor spaces		Average number of rooms /unit		
1.12	Parking Outdoor spaces		Average unit size (sf)		
	Inspection Notes		Amenities	Yes/No	Comment
1.13	Inspection date		Air Conditioning		
1.14	Condition (Fair, Avg, Good)		Carpeting		
1.15	Location (Fair, Avg, Good)		Pool		
1.16	Quality (Fair, Avg, Good)		Tennis courts		
1.17	Rental Appeal		Exercise facilities		
1.18			Other		
1.19	Included in Rent	Yes/No	Meeting room		
1.20	Heat		Laundry		
1.21	Electricity		Furnished Apt.?		
1.22	Water / sewage		Refrigerator		
1.23	Parking		Stove		
1.24	Cable		Other Furnishings		
1.25	Location comment				
1.26	Site comment				
1.27	Other comment				
	Sales Data	1	Market sale ?		
1.28	Sales Price		Price @ 100% Interest		
1.29	Sales Date		Financing		
1.30	Instrument Number		Effect of Financing (+/- %)		
1.31	Interests Transferred		Final Price @ Mkt.		
1.32	Vendor Name		Financing		
1.33	Vendor Address				
1.34	Purchaser Name				
1.35	Purchaser Address				

Information from Assessment Records

There should be some historical information on file in the assessment records. Where possible, the assessor should verify this information when inspecting the property. When the information is not available or obtainable from inspection, the property owner should be contacted to complete the following:

Year built,

Size,

- area of site
- floor area
- number of units
- number of rooms
- number of floors

Unit mix (commercial, bachelor, 1 bedroom, 2 bedroom, etc.), and

Age of improvement.

Property Inspection

To keep records up to date, all assessed properties should be inspected from time to time. Along with the physical measurements the following items should be noted when inspecting a multi-residential property:

Condition of improvement (fair, average, good),

Location within municipality (fair, average, good),

Quality of finishes: units, public areas, etc. (fair, average, good),

The personal property included in the rent (fridge, stove, etc.),

Rental appeal (fair, average, good),

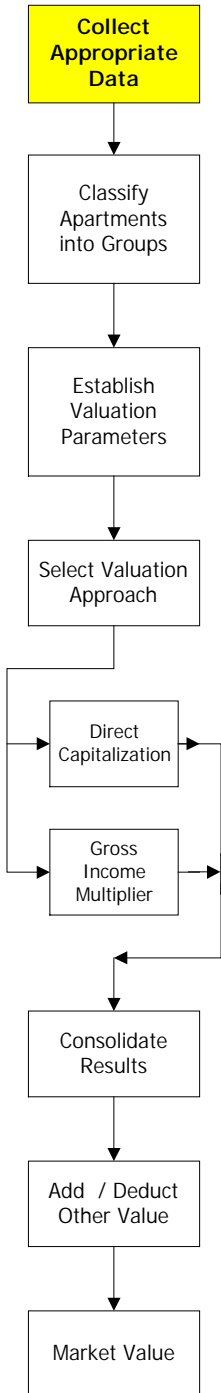
Level of occupancy,

Photograph of property,

Recent renovations,

Amenities:

- Parking
 - Spaces indoor
 - Spaces outdoor
- Air conditioning
- Carpeting



- Pool, tennis courts, sauna, public rooms, etc.

Where there appears to be surplus land, the assessor should note this on the record and review the zoning use by-laws governing the property.

Rents and Financial Information

To collect the appropriate financial information contact the property owner and/or send a Multi-Residential Request for Information Form, (*refer to section 6.2*) to the property owner.

Obtain Income and Expense and other financial statements, if available. At a minimum, try to ensure the following information is included.

Typical rent by type of unit,

Total gross rent per annum,

Rental income from commercial units,

Income from parking,

- Typical charge for interior space,
- Typical charge for exterior space,

Laundry income,

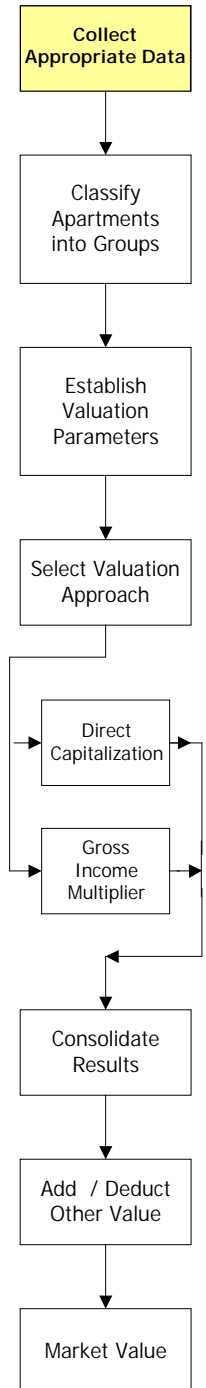
Other income,

Income collected to cover operating expenses: hydro, cable, etc. (could be included in gross rent),

Total operating expenses,

Estimated vacancy and collection loss over past year, and

Real estate taxes.



Vacancy Rates

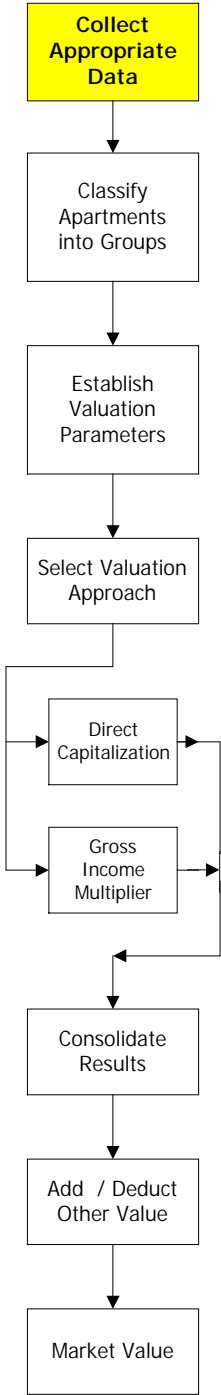
Vacancy rates and collection losses can be established in two ways:

- 1) Analyze and amalgamate information from direct inquiries to multi-residential building owners, and/or
- 2) Use information from studies completed by government agencies, e.g., CMHC.

Sales Data

Sales data should be collected whenever possible. Sales information is useful in generating gross income multipliers and capitalization rates. Data to be collected includes:

- Property address and legal description,
- Sales price,
- Date of transfer,
- Instrument number,
- Name and address of vendor and purchaser,
- Interests transferred (fee simple or other),
- Financing conditions, and
- Value of chattels.



3.2 Classify the Multi-Residential Buildings

The key to a successful market value analysis in a mass appraisal environment is to stratify or classify all the multi-residential properties into groups containing common elements, e.g., new high-rise apartments in primary locations.

Multi-residential buildings should be classified based on the types of properties prevalent in the municipality. As such there is no one correct or appropriate classification system.

The objectives of this classification are:

To stratify the multi-residential properties into specific classes so that comparisons are meaningful, and conversely,

Have broad enough definition of these classes so that there are sufficient numbers within the group to establish values.

The elements that can be used to categorize apartment classes are:

Location,

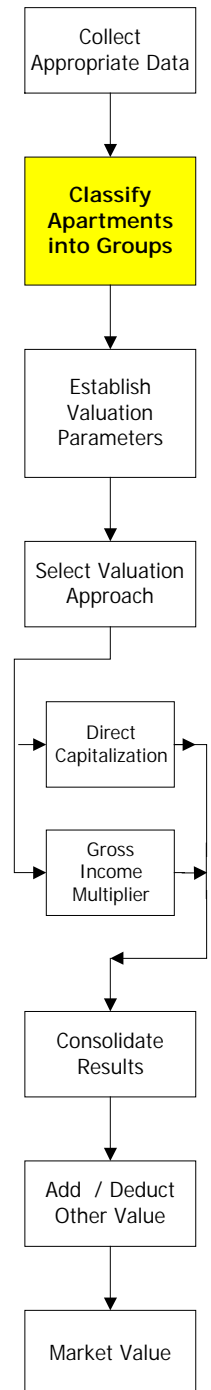
Size,

- Size of site,
- Number of units,
- Number of rooms,
- Number of floors,
- Density of development (land/building ratio),

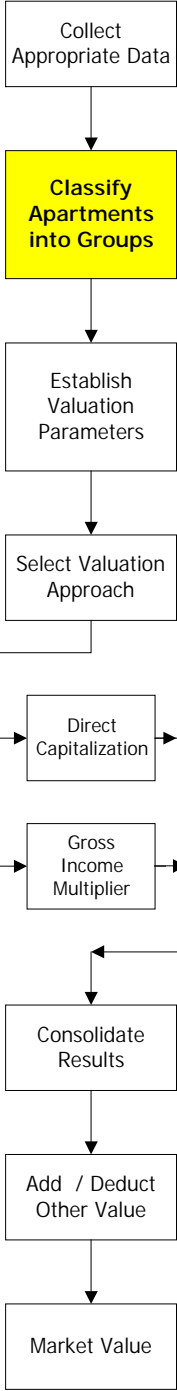
Age/ condition, and

Facilities/ amenities.

The number of potential classes is large. By considering age and location together as a substitute for quality, and size as similar to type, it may be possible to narrow the field of classes. There may be as few as one or two classes of multi-residential buildings in some municipalities and as many as eight or nine in larger cities.



Verify Classes



For the most part the classes of residential property in a municipality can be established by observation.

Observations

Observations can be made to determine the homogeneity of the properties within a class of multi-residential properties.

- Similar properties should have similar rent levels,
- Similar properties should be of a similar size,
- Similar properties should have comparable locations, and

All multi-residential buildings in a particular class should have roughly the same rooms per unit and rents per room.⁴

In addition some empirical statistics such as coefficients of dispersion (CODs) can be generated on these and other physical identifying factors to determine the homogeneity of the properties within a multi-residential class.

⁴ For comparison purposes “rooms” should be counted in the same manner for all properties.

3.3 Determine Market Rents and Valuation Parameters

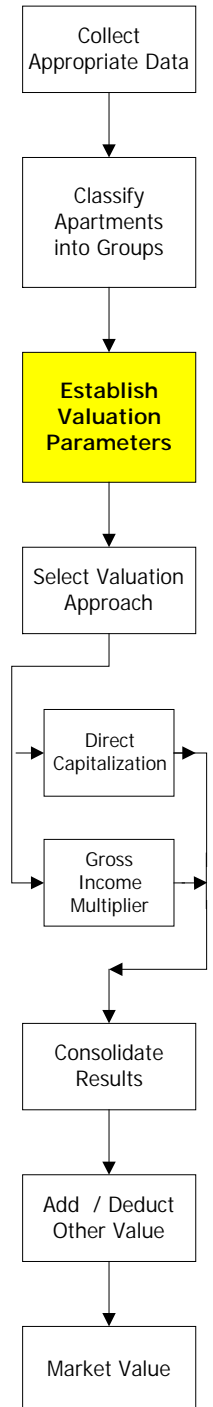
From the data collected it should be possible to determine the mean, median, and range of rents, and other valuation factors by class of multi-residential property.

All Multi-Residential Properties

From records, property inspections, and other sources, a number of statistics should be compiled for each class of multi-residential property. A sample of the results of such analysis is provided below:

Figure 2: Multi-Residential Data – Class 6*

Unit of Comparison	Mean/ Median	Std. Dev.
Number of Units	253	31
Rooms per Unit	4.81	.43
Average Unit Size	988	116
Number of Floors	7.5	1.29
Year Built	1986	3.1
Land/Bldg. Ratio	3.03	.4
Gross Rent per Unit	\$9,554	\$1,060
Total Expenses (% of EGI)	37.7%	n.a.
Number in Class	19	
Vacancy Rates (long term)	2.0%	

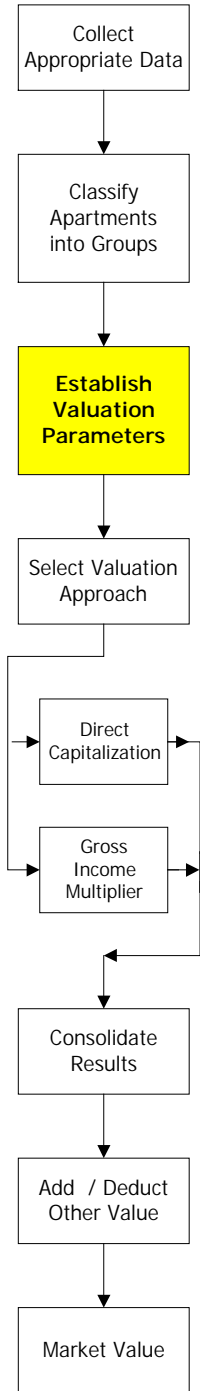


* Sample data for illustrative purposes only – not to be used in the valuation of properties.

With more detailed income and expense information it may be possible to further breakdown rents and expenses into various categories (*see spreadsheet example provided in section 5.0*) – the finer the detail the greater the time requirements in the analysis, but the better the comparison process.

In addition to the type of data shown in Figure 3, when detailed income and expense data is collected the following statistics can be generated: (Sample data for illustrative purposes.)

Figure 3: Multi-Residential Detailed Expense Data – Class 6*



Unit of Comparison	Mean/ Median	Std. Dev.
Rent per Unit	\$9,034	\$895
Parking Income per Unit	\$153	\$11
Recoveries per Unit	\$320	\$55
Other Income per Unit	\$47	\$10
Annual Expenses		
Utilities per Unit	\$1,463	\$133
Administration per Unit	\$574	\$54
Operating Expenses per Unit	\$742	\$124
Management per Unit	\$391	\$27
Taxes per Unit	\$757	\$100

* Sample data for illustrative purposes only – not to be used in the valuation of properties.

The spreadsheets included with this valuation guide will assist in the generation of units of comparison for each property. To establish the valuation parameters for each class of multi-residential property, the data collected on each property should be analyzed, classified and consolidated on one table. It will be necessary to complete a master list of all properties, and all sales in order to complete the analysis.

Sales Data

If sufficient sales data is available, statistics as shown in Figures 2 and 3 on the units of comparison can be compiled. With smaller sample sizes, the median value may reflect the best measure of central tendency. Also, the smaller the sample size the less robust the statistical measures, such as standard deviation and coefficients of dispersion, will be.

The analysis of sales is the only way to generate the gross income multipliers to be applied to a class of multi-residential properties.

In addition, analysis of sales data is the best way of deriving capitalization rates.

The analysis of sales is an essential part of the multi-residential valuation process.

Establishing Valuation Parameters Without Sales Data

All the valuation parameters generated by compiling physical and income data are intended to be property class specific. For those classes where there are no sales data and/or very few observations, it may be possible to interpolate values from other classes. For example, given the analysis presented in the series in Figure 4 some reasonable estimates could be made for the parameters in Class 6.

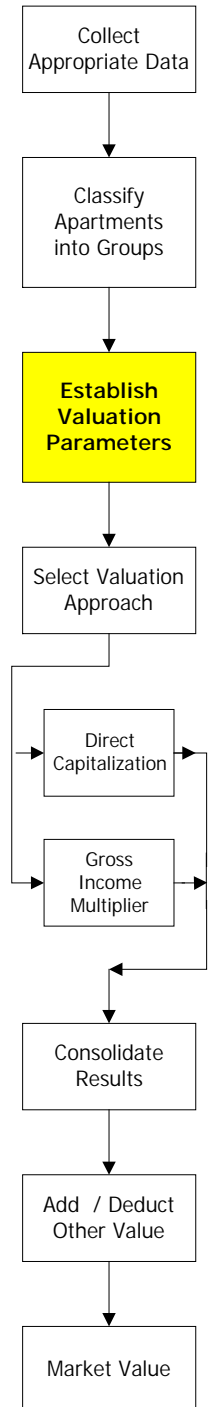
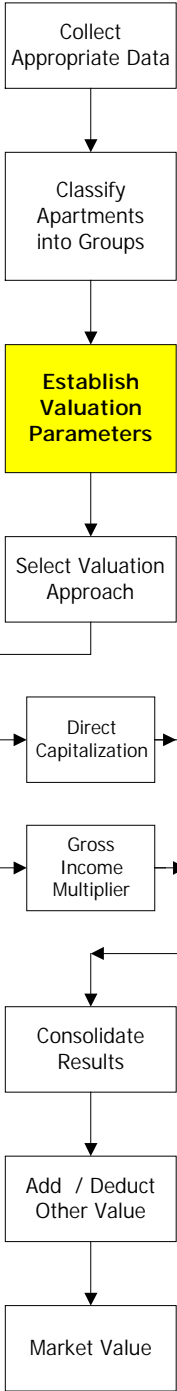


Figure 4: Illustration of Valuation Parameters



Parameters	Class 4	Class 5	Class 6	Class 7
Bldg. Type	Older/fair	Older /avg.	Newer/avg.	Newer/ good
GIM	4.65	5.20	?	5.70
Base Cap Rate	14.1	12.9%	?	11.5%

Analyzing the particular differences in physical characteristics, rents, and expenses between the classes will assist in arriving at the missing valuation parameters.

3.4 Select Valuation Process

Depending upon the income information available, one or both of the following approaches to value can be used:

Direct capitalization,

- Income and expense data

Gross income multiplier,

- Sales data
- Income data

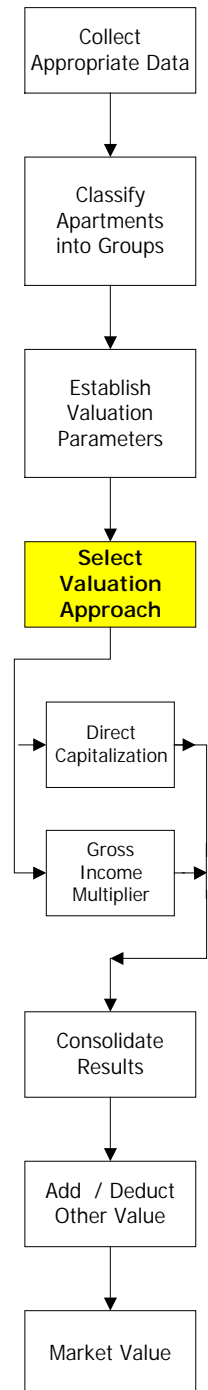
If sales data is insufficient, then it still should be possible to apply the direct capitalization method.

3.5 Apply Method to Derive Value

Apply either gross income multiplier or direct capitalization method to produce a market value estimate.

Review of Gross Income Multiplier Method

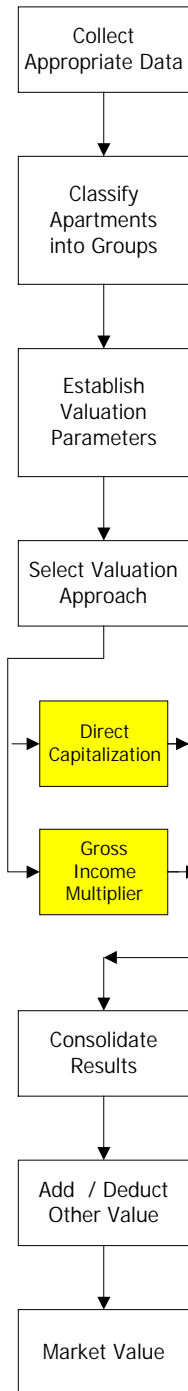
- 1) Establish **actual** gross income utilizing actual rents.
- 2) Estimate **typical** gross income based upon typical rents and income.
- 3) Compare actual gross income with typical gross income. Where actual income falls outside of the range permitted, for example + or – 5% from the median gross income for the class, apply typical gross income.
- 4) Deduct long-term vacancy rate from typical gross income to produce the effective gross income (EGI);
- 5) Multiply the EGI by the gross income multiplier to produce an estimated market value.
- 6) **Where warranted**, adjust the estimated market value to account for any property specific irregularities.



Establish Actual Gross Income

Using the income figures supplied by the property owner determine the actual gross rent on Form MR2: Multi-Residential Income and Expense Analysis (*see section 5 for example*). The part of Form MR3 dealing with the calculation of actual gross income is set out on Figure 5: *Calculation of Effective Actual Gross Income*. If the income figures are unavailable, the **typical** rent and income per unit for that class of multi-residential property should be applied as indicated in Figure 6.

Figure 5: Calculation of Effective Actual Gross Income



Gross Income Analysis			
Rents as of Date:	Jan-97		
Rent by Unit Types	No.	Typical Rent/ Mo.	Potential Annual Rent
Bachelor/ Studio	4	\$500	\$24,000
One bedroom	114	\$689	\$942,552
Two bedroom	201	\$743	\$1,792,116
Three bedroom	48	\$850	\$489,600
Other	-		\$0
Commercial (Sf)	-		
Total Rent	367	\$738	\$3,248,268

Other Income	No.	\$/ Mo.	Annual Income
Parking Indoor spaces	250	\$12.00	\$36,000
Parking Outdoor spaces	100	\$4.00	\$4,800
Operating Expense Recoveries			\$134,060
Laundry Income			\$23,085
Other Income			
Total Gross Income			\$3,446,213

Actual Vacancy Rate	3.0%
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Effective Actual Gross Income	\$3,342,827
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Estimate Typical Gross Income

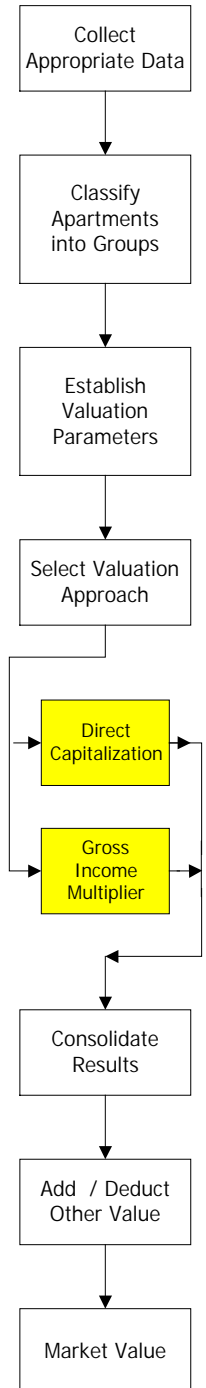
Along with the actual gross income, it will be necessary for the assessor to determine the typical gross income per residential unit for that class of multi-residential property. Typical rents are established through the analysis of all the information collected on the properties contained within a class. The typical income figures for a particular class of multi-residential property is input on form MR3 – Multi-Residential Property Value Summary. The part of Form 3 dealing with gross income is reproduced in Figure 6.

Figure 6. Determination of Typical Gross Income

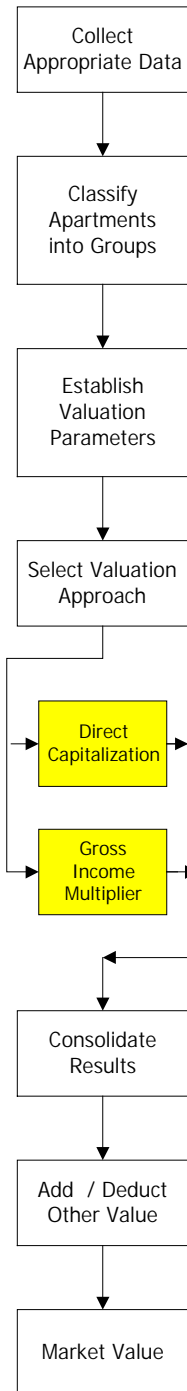
Property Address	1104 12th St SW	Class Statistics		
Roll #	123789	Class	6	
Value Date	1-Jul-97	No. in class	19	

Description	Subject	Difference	Class Average
Number of units	367	45.1%	253
Number of rooms	1,910	56.9%	1,217
Rooms per unit	5.20	8.2%	4.81
Average unit size (sf)	1,057	7.0%	988
Number of floors	12.0	26.3%	9.5
Year built	1983	-0.2%	1986
Land/Bldg density ratio	2.85	-5.8%	3.03

Annual Income per Unit	Actual	Difference	Typical Income
Rent per unit	\$8,851	-2.0%	\$9,034
Parking	\$111	-27.3%	\$153
Recoveries	\$365	14.2%	\$320
Other	\$63	33.8%	\$47
Gross Income	\$9,390	-1.7%	\$9,554
Typical Vacancy Rate %	2.0%		2.0%
Effective Gross Income	\$9,202		\$9,363



Estimate Effective Gross Income



Applying the long-term vacancy and collection loss allowance to the expected gross income produces the normalized effective gross income for the subject property. The long-term vacancy rate should be established by analysis of actual reported vacancy rates or rates as tabulated by various government bodies such as CMHC. Long-term refers to a period of approximately seven years.

Note: Although vacancy rates may be low, a typical landlord still incurs collection problems from time to time and this should be taken into account in the income analysis.

Compare the Actual Gross Income to Typical Gross Income

By inserting a “discrepancy allowance” in Form MR3 the assessor can determine whether the actual income falls within a certain percentage of the typical income. The example provided in Figure 6 indicates a discrepancy allowance of + or – 5%. If the actual gross income falls within this range then the actual income will be applied. If the actual income falls outside the range provided by the discrepancy allowance, or if no income figures were available, then typical income will be applied to establish the effective gross income.

Multiply the Effective Gross Income by the Gross Income Multiplier to Produce a Value Estimate

Once the effective gross income has been established, the market value of the property can be determined by applying the gross income multiplier (GIM). The GIM is determined through analysis of sales of properties displaying similar income, expense and risk characteristics.

$$\text{GIM} = \text{SALES PRICE} \div \text{GROSS INCOME}$$

Note: A GIM developed in the analysis of one class of multi-residential property may not be applicable to other classes of multi-residential property.

Figure 7: Example of Gross Income Multiplier

Valuation by Gross Income Multiplier	
Effective Gross Income	\$3,377,289
GIM	4.75
Market Value Estimate	\$16,042,100

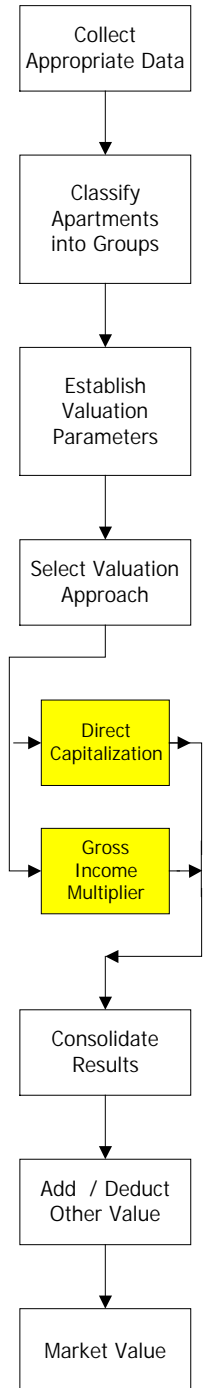
Review of Direct Capitalization Process

The direct capitalization process builds upon the effective gross income established in the gross income multiplier analysis.

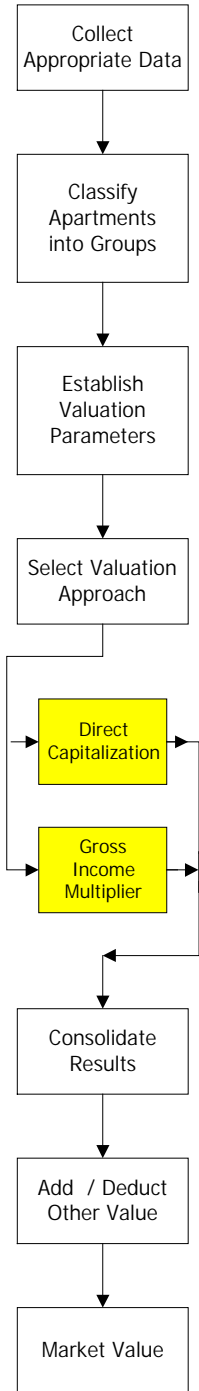
- 1) Determine the effective gross income.
- 2) Deduct expenses to determine net operating income [NOI] attributable to the real estate.
- 3) Establish the base capitalization rate from market sales data and adjust it by the effective tax rate to obtain the overall capitalization rate [OAC].
- 4) Capitalize the NOI by the OAC to derive the estimated market value.
- 5) When warranted, adjust the estimated market value to account for any property specific irregularities.

Effective Gross Income

After entering the actual rent and other information about the subject property and the typical income and expense information on the appropriate class of multi-residential property on Form MR3, the effective gross income per unit is calculated, as per the example in Figure 6. If the actual gross income per unit falls within the range set by the **discrepancy allowance**, for example, 5%, then the actual income is used in the valuation of the property. In all other cases, the typical income per unit for that class of property will be applied.



Expenses



Similarly, the assessor should enter the typical expenses for that class of multi-residential property onto Form MR3 as per example in Figure 8. If the actual expenses fall within the discrepancy allowance, the actual expenses will be used in the valuation of the property. Where actual expense do not fall within the allowed range, the typical expense ratio for that class will be applied.

Deducting the appropriate expenses from the effective gross income produces the net operating income for the property.

Note: The following is an example where expense figures are not available. Therefore the typical expenses as a percentage of effective gross income for that class of properties, 33.9%, is used to determine the net operating income.

Figure 8: Determination of Expenses

Property Address	1104 12th St SW
Roll #	123789
Value Date	1-Jul-97

Class Statistics	
Class	6
No. in class	19

Description	Subject	Difference	Class Average
Number of units	367	45.1%	253
Number of rooms	1,910	56.9%	1,217
Rooms per unit	5.20	8.2%	4.81
Average unit size (sf)	1,057	7.0%	988
Number of floors	12.0	26.3%	9.5
Year built	1983	-0.2%	1986
Land/Bldg density ratio	2.85	-5.8%	3.03

Annual Income per Unit	Actual	Difference	Typical Income
Gross Income	\$9,390	-1.7%	\$9,554
Typical Vacancy Rate %	2.0%		2.0%
Effective Gross Income	\$9,202		\$9,363

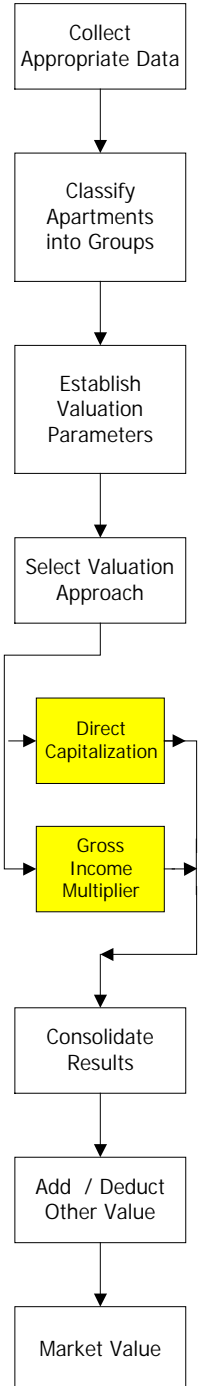
Annual Expenses per Unit	Actual	Difference	Typical Expense
Utilities	\$0	-100.0%	\$1,465
Administration	\$0	-100.0%	\$574
Operating	\$0	-100.0%	\$742
Management	\$0	-100.0%	\$391
Total Expenses	\$0	-100.0%	\$3,172
Expense as % of EGI	0.0%	-100.0%	33.9%

Income and Expense Discrepancy Allowance*	
Between Actual and Typical	5.0%

Income used in Valuation	\$9,202
No. of units	367
Effective Gross Income	\$3,377,289

Expense Rate used in Valuation	33.9%
Annual Expenses	\$1,144,169
Net Operating Income	\$2,233,120

* Discrepancy allowed between Actual and Typical; Typical will be used where Actual is not within allowance



Select Appropriate Capitalization Rate

The value of the income stream is determined by capitalizing the net income. The selection of an appropriate capitalization rate is essential to the estimation of a realistic and equitable market value for the property.

$$\text{VALUE} = \text{NET INCOME} \div \text{CAPITALIZATION RATE}$$

The capitalization rate to be applied to value a multi-residential building arises from analysis of two types of information:

1. The primary source is the analysis of sales of similar properties, e.g., a similar apartment building.
2. A secondary source arises from the fact that as an investment opportunity a multi-residential property competes with other investment opportunities. From an investment point-of-view the more similar the characteristics of the associated income stream, i.e., the frequency of payment, its potential for growth and the risks associated with the income, the more comparable the investment and the more comparable the capitalization rate.

Where multi-residential sales information is not available, capitalization rates are often established in comparison to mortgage rates and a combination of mortgage and equity rates. However, this and other methods of establishing capitalization rates should only be contemplated when appropriate sales data is not available and as a check on the cap rates generated through analysis of sales.

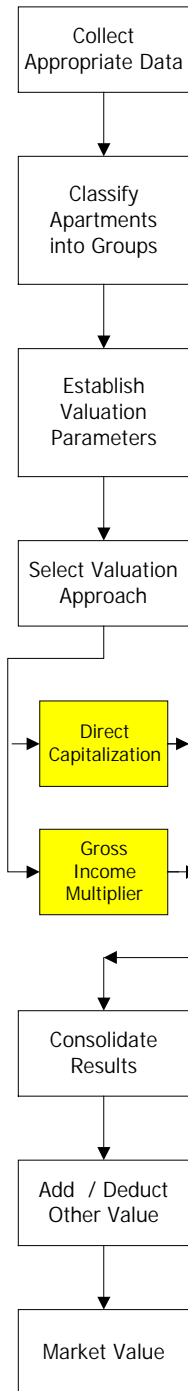
Capitalization Rate Guidelines

Since the income approach is based upon the present worth of future benefits, when applying capitalization rates recognition should be taken of the expected future income at the time of the valuation.

There are a number of influences that could affect the capitalization rate to be applied to a multi-residential building. In general, favourable conditions should lower the capitalization rate and raise the value, and negative conditions should raise the capitalization rate (and lower the value). Some of the issues to consider when establishing a capitalization rate are:

economy

competition, and expected changes in competition



location - roads, parking, access
 property age and condition
 property design

Effective Tax Rate

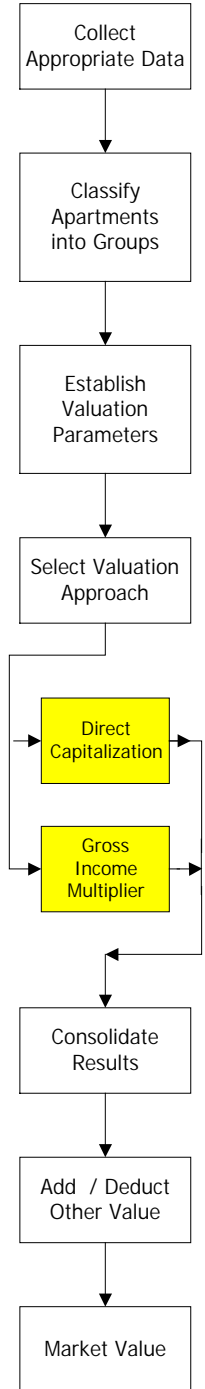
There are two ways to deal with the impact of property taxes when valuing a multi-residential property:

The first is to deduct the actual property taxes charged as part of the fixed expenses (before the determination of net income). Under this approach the “net income” produced is entirely attributable to the rental income stream of the property, and the capitalization rate employed in the valuation process is the “base rate”. The base rate is to be established as outlined above.

The second and recommended method to account for property taxes is to determine the effective tax rate and add this amount to the base capitalization rate. Under this method property taxes are not to be included in expenses.

Effective Tax Rate Calculation

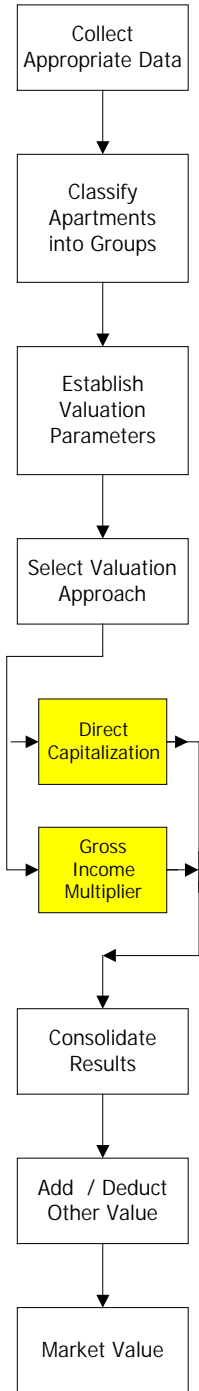
Property taxes	<u>\$280,000</u>
Market value of property	\$10,000,000
Effective tax rate:	$\$280,000 / \$10,000,000 = 2.8\%$



This effective tax rate of 2.8 percent would be added to the base capitalization rate to determine the market value of the income stream as per the example below:

Example of Direct Capitalization Value Calculation

Net income	\$2,233,120
Base cap rate	11.5%
Effective tax rate	2.8%
Total cap rate	<u>14.3%</u>
Value	\$15,616,000



3.6 Consolidation of Findings

If all the data is available and entered on the spreadsheets, MR1 through MR3, two value estimates can be generated for the subject property. If both approaches are applied, it is up to the assessor to determine how much weight to apply to each method in the final estimate of value.

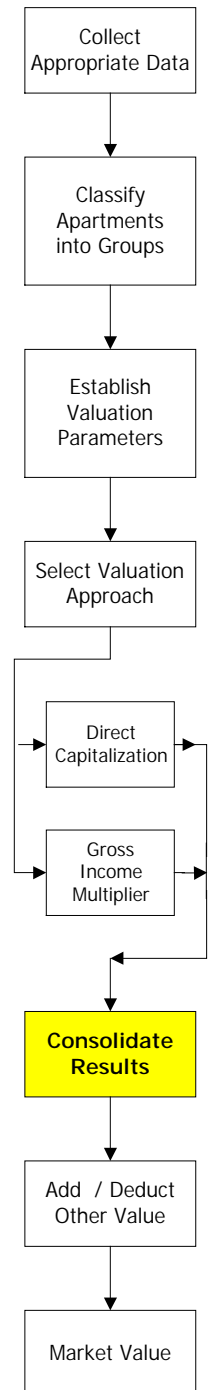
As a general guideline more emphasis should be placed upon methods:

That have superior data,

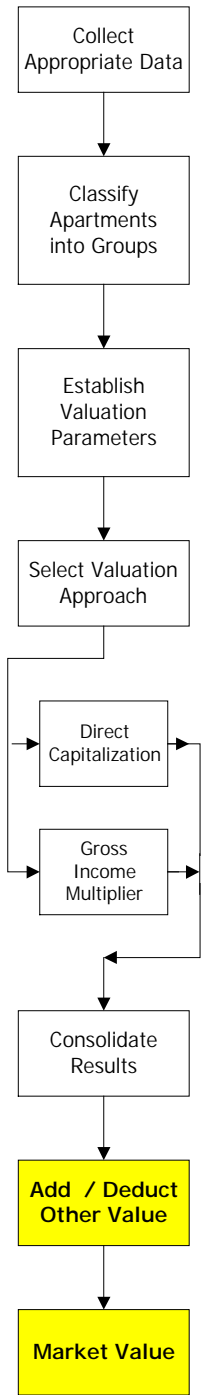
That have data with smaller coefficients of dispersion, and

Where the characteristics are more similar to the subject property.

Note: The presentation of both methods of valuation in this guide is not to be taken as a recommendation that both methods should be employed in all instances. The decision whether to use either or both of the gross income multiplier method and the direct capitalization method is one for the assessor to make. In many municipalities it will likely be neither appropriate nor possible to employ both methods of valuation.



3.7 Add / Deduct Other Value



From time to time there may be properties where the value is not entirely captured by the foregoing application of the income approach and a lump sum adjustment will be required. For example, a single property may encompass a residential apartment, an office, and/or a commercial component. In this instance the value of these other components can be estimated independently and added to the value of the multi-residential property to derive an overall market value for the property.

Adjustments to the Market Value Estimate

If there are extenuating circumstances to suggest that the property may never be able to achieve the typical gross income indicated by the class, the assessor may wish to depart from an assessment based upon typical rents. Applying an adjustment to the market value estimate is one method of accounting for the anomalies in the marketplace. This will cover rare situations where the property may suffer from obsolescence or does not fit suitably within the classes determined.

In addition, sometimes situations arise where the subject property is subject to a one-time extra-ordinary maintenance expense which should be accounted for as part of the value. The “Other Value” line at the bottom of Form MR3 allows for these adjustments to be made.

In other situations there may be surplus lands as part of the property that, because of market conditions, may be undeveloped. This surplus land would have to be valued separately and added to the market value arrived at above.

Market Value of Property

Market value is determined by analyzing the physical and income characteristics of multi-residential properties and compiling this information into homogeneous groups or classes. The value of one property in a class is based upon its actual performance but is bounded by the typical values generated by all the other properties in that class. Then, if required, any additional value is added to this total to produce an overall market value for the property.

An example of this procedure is set out in section 5.0.

4.0 *Validation of Results*

The strength of an assessment system rests on two tenets: its ability to produce appropriate market values, and, its ability to treat similar properties fairly and consistently.

To accomplish these ends, the valuation process should reflect the views and methods used in the marketplace. The process should be applicable to all properties, but it should have enough flexibility to deal with the variations and market conditions encountered. There are three areas where the quality of the results can be ensured quickly and efficiently:

- 1) Valuation parameters,
- 2) Check against sales values, and
- 3) Data filters.

Valuation Parameters

The proposed system sets up a table of valuation parameters. Ideally, this information would be researched, collected and analyzed by local assessors. For each valuation parameter, a median and appropriate range of potential values could be provided.

If the assessor stays within these valuation parameters, the whole system will be applied fairly and consistently i.e., the results of any multi-residential analysis is validated within certain parameters.

The process also requires an assessor to give a reason for applying a different parameter. In this way, the process incorporates flexibility and accountability.

Check Against Sales Values

To ensure that the assessment values developed are in line with the market, the assessor should check them against any sales. Sales have inferences for the values of similar properties. A level of comfort can be developed about the assessment values on a dollar per rental unit measure.

Data Filters

Another way to ensure consistent and reliable results is to place data filters on the input. For example rent fees for Class 5 apartments may fall between \$500 and \$800 per month.

5.0 Example of Multi-Residential Building Valuation

The following three pages present an example of a multi-residential building market value analysis. The analysis is set up on a three-page (or worksheet) spreadsheet. Values and pertinent data are to be entered in the blank (white) cells. All shaded cells are either formulas or “look-up” cells and should not be over-written.

Form MR1 – Multi-Residential Data Entry

On this form, the assessor should enter all the pertinent physical and descriptive data about the subject property. The data entered on this worksheet will be carried forward onto Forms MR2 and MR3 as required.

Form MR2 – Multi-Residential Income and Expense Analysis

The second form analyzes the actual rents, incomes and expenses from a particular building.

Form MR3 – Multi-Residential Valuation Summary

In the third form, the assessor should enter the typical rents and expenses for that class of multi-residential property. Given this information, the typical vacancy rates, and the other valuation parameters, the spreadsheet will calculate the appropriate market value for the subject property.

Figure 9: Form MR1 – Multi-Residential Data Entry – Example

1.1	Address	1104 12th St SW	Value Date	1-Jul-97
1.2	Municipality	Edmonton		
1.3	Roll #	123789	Multi-Res Class	6

Building Data		
1.4	Year built	1983
1.5	Renovations	no
1.6	Sites area (Sf)	136,000
1.7	Building Area (Sf)	388,020
1.8	Density (Land/Bldg)	2.85
1.9	Number of Floors	12.0
1.10	Number of Units	367
1.11	ParkingIndoor spaces	250
1.12	ParkingOutdoor spaces	100

Unit Types	No.	No. of Rooms	Typical Area (sf)
Bachelor/ Studio	4	3.0	750
One bedroom	114	4.0	880
Two bedroom	201	5.5	1,100
Three bedroom	48	7.0	1,325
Other			
Totals	367	1,910	388,020
Average number of rooms /unit			5.20
Average unit size (sf)			1,057

Inspection Notes		
1.13	Inspection date	12-May-96
1.14	Condition (Fair, Avg, Good)	Avg
1.15	Location (Fair, Avg, Good)	Avg
1.16	Quality (Fair, Avg, Good)	Avg
1.17	Rental Appeal	Avg

Included in Rent	Yes/No	
1.19	Heat	yes
1.20	Electricity	no
1.21	Water / sewage	yes
1.22	Parking	no
1.23	Cable	yes

Amenities	Yes/No	Comment
Air Conditioning	no	
Carpeting	yes	
Pool	yes	outdoor
Tennis courts	no	
Exercise facilities	no	
Other	no	
Meeting room	yes	1,450 sf
Laundry	yes	coin operated
Furnished Apt.?	no	
Refrigerator	yes	
Stove	yes	
Other Furnishings	no	

1.25	Location comment	Near centre of town. Part of high density res. neighbourhood
1.26	Site comment	Level & landscaped
1.27	Other comment	

Sales Data	1	Market sale ?	no	
1.28	Sales Price	\$1	Price @ 100% Interest	\$1
1.29	Sales Date	1-Jan-87	Financing	
1.30	Instrument Number		Effect of Financing (+/- %)	0.0%
1.31	Interests Transferred	100.0%	Final Price @ Mkt. Financing	\$1
1.32	Vendor Name			
1.33	Vendor Address			
1.34	Purchaser Name			
1.35	Purchaser Address			

Figure 10: Form MR2 – Multi-Residential Income & Expense Analysis

1104 12th St SW	Roll: 123789	Class: 6	Value Date: 2-Jul-01
-----------------	--------------	----------	----------------------

LINE

Based on Actual Income and Expenses

Gross Income Analysis			
Rents as of Date:	Jan-01		
Rent by Unit Types	No.	Typical Rent/ Mo.	Potential Annual Rent
2.2 Bachelor/ Studio	4	\$500	\$24,000
2.3 One bedroom	114	\$689	\$942,552
2.4 Two bedroom	201	\$743	\$1,792,116
2.5 Three bedroom	48	\$850	\$489,600
2.6 Other	-		\$0
2.7 Commercial (Sf)	-		
Total Rent	367	\$738	\$3,248,268
Other Income			
No.	\$/ Mo.	Annual Income	
2.8 Parking Indoor spaces	250	\$12.00	\$36,000
2.10 Parking Outdoor spaces	100	\$4.00	\$4,800
2.11 Operating Expense Recoveries			\$134,060
2.12 Laundry Income			\$23,085
2.13 Other Income			
2.14 Total Gross Income			\$3,446,213
2.15			
2.16 Actual Vacancy Rate			3.0%
2.17			
2.18 Effective Actual Gross Income			\$3,342,827
2.19			
2.20			
Sales Analysis			
		2-Jan-91	
2.22 Adjusted sales price			\$1
2.23 Sales Price per Unit			na
2.24 Sales Price per Room			na
2.25 Gross Income Multiplier			na
2.26 Capitalization Rate (with taxes)			na

Expense Analysis		
	% of EGI	Annual Expense
UTILITIES		
Heat	0.0%	\$0
Water/Sewer	0.0%	
Electricity	0.0%	
Telephone	0.0%	
Cable	0.0%	
Other	0.0%	
TOTAL	0.0%	\$0
ADMINISTRATION		
General Office	0.0%	\$0
Advertising	0.0%	
Leasing	0.0%	
Other	0.0%	
TOTAL	0.0%	\$0
OPERATING		
Repairs	0.0%	\$0
Maintenance	0.0%	
Snow Removal	0.0%	
Security	0.0%	
Insurance	0.0%	
Elevator	0.0%	
Supplies	0.0%	
Garbage	0.0%	
Miscellaneous	0.0%	
TOTAL	0.0%	\$0
FIXED EXPENSE		
Management Fee %		\$0
TOTAL EXPENSE	0%	\$0

Figure 11: Form MR3 – Multi-Residential Property Value Summary

	Property Address	1104 12th St SW	Class Statistics	
3.1	Roll #	123789	Class	6
3.2	Value Date	1-Jul-97	No. in class	19

Description	Subject	Difference	Class Average	
3.3	Number of units	367	45.1%	253
3.4	Number of rooms	1,910	56.9%	1,217
3.5	Rooms per unit	5.20	8.2%	4.81
3.6	Average unit size (sf)	1,057	7.0%	988
3.7	Number of floors	12.0	26.3%	9.5
3.8	Year built	1983	-0.2%	1986
3.9	Land/Bldg density ratio	2.85	-5.8%	3.03

Annual Income per Unit	Actual	Difference	Typical Income	
3.10	Rent per unit	\$8,851	-2.0%	\$9,034
3.11	Parking	\$111	-27.3%	\$153
3.12	Recoveries	\$365	14.2%	\$320
3.13	Other	\$63	33.8%	\$47
	Gross Income	\$9,390	-1.7%	\$9,554
3.14	Typical Vacancy Rate %	2.0%		2.0%
	Effective Gross Income	\$9,202		\$9,363

Annual Expenses per Unit	Actual	Difference	Typical Expense	
3.15	Utilities	\$0	-100.0%	\$1,465
3.16	Administration	\$0	-100.0%	\$574
3.17	Operating	\$0	-100.0%	\$742
3.18	Management	\$0	-100.0%	\$391
	Total Expenses	\$0	-100.0%	\$3,172
	Expense as % of EGI	0.0%	-100.0%	33.9%

Income and Expense Discrepancy Allowance*		
3.19	Between Actual and Typical	5.0%

Income used in Valuation		
3.20	No. of units	367
3.21	Effective Gross Income	\$3,377,289
3.22	Expense Rate used in Valuation	33.9%
	Annual Expenses	\$1,144,169
	Net Operating Income	\$2,233,120

Valuation Parameters Class 6	
GIM	4.75
Base Cap Rate	11.50%
Effective Tax Rate	2.80%
Overall Cap (OAC)	14.30%

Value of Subject: By Gross Income Multiplier	
Effective Gross Income	\$3,377,289
GIM	4.75
Market Value Estimate	\$16,042,100

By Direct Capitalization of NOI	
Net Income	\$2,233,120
Cap Rate	14.30%
Value Estimate	\$15,616,224

3.23	Market Value Conclusion	\$16,000,000
3.24	Other Value	\$0
	Final Market Value	\$16,000,000

Value per Unit	\$43,597
Value per Room	\$8,379
Value per Sq.Ft.	\$41.23

* Discrepancy allowed between Actual and Typical; Typical will be used where Actual is not within allowance

6.0 Appendices

6.1 Example of Multi-Residential Valuation Parameters – 1996

These numbers are for illustrative purposes only - not to be used in property valuations

	Class 1		Class2		Class 3		Class 4		Class 5		Class 6		Class 7	
Profile Summary	Low density, Older, Fair		Low density, Newer, Avg		Low density, Newer, Good		Medium Density, Fair-Avg		Medium Density, Good		High Density, Fair-Avg.		High Density, Good	
Parameter	Mean	Range +/-	Mean	Range +/-	Mean	Range +/-	Mean	Range +/-	Mean	Range +/-	Mean	Range +/-	Mean	Range +/-
Typical Rent Per Month														
Bachelor/ Studio	\$460	\$21	\$525	\$21	\$655	\$39	\$505	\$25	\$575	\$32	\$500	\$31	\$622	\$30
One Bedroom	\$552	\$29	\$720	\$28	\$738	\$32	\$685	\$27	\$722	\$34	\$689	\$29	\$741	\$41
Two Bedroom	\$691	\$35	\$780	\$22	\$804	\$27	\$772	\$22	\$830	\$26	\$743	\$48	\$814	\$45
Three Bedroom			\$921	\$28	\$983	\$22	\$842	\$31	\$960	\$40	\$850	\$45	\$911	\$48
Basement	\$389	\$25					\$420	\$27			\$415	\$38		
Vacancy and Collection Allowance	3.5%		2.5%		2.0%		3.0%		2.0%		2.0%		2.0%	
Expenses as a % of Gross Income	42.0%	5.3%	40.3%		39.6%	3.2%	41.1%	2.9%	39.5%	3.3%	37.7%	2.4%	36.9%	2.8%
Gross Income Multiplier	5.80	0.90			5.95	0.38	5.25	0.36			4.75	0.29	4.60	0.31
Capitalization Rates (Base)	14.1%	2.2%	13.6%		12.7%	1.3%	13.1%	2.0%	12.1%		11.5%	1.9%	11.0%	1.6%

6.2 Request for Information Forms to Multi-Residential Property Owners

THE INFORMATION REQUESTED ON THIS FORM CAN BE SENT IN YOUR OWN FORMAT (HARD COPY)
TO BE FILLED OUT IN CASES WHERE INCOME and EXPENSE STATEMENTS ARE NOT AVAILABLE

Building Name:	
Address:	
Roll Number:	

Detailed Income as of:

% Vacancy in 1997

Type of Income	No. of Units	Monthly Income	Annual Income
Bachelor/ Studio			
One bedroom rent			
Two bedroom rent			
Three bedroom rent			
Other rent:			
Commercial rent			
Parking indoor			
Parking outdoor			
Laundromat			
Vending machines			
Operating recoveries			
Other:			
Total Income			

Included in Rent	Circle One	
Heat	yes	no
Electricity	yes	no
Cable	yes	no
Furniture	yes	no
Refrigerator/Stove	yes	no
Water/Sewage	yes	no
Parking	yes	no
Other:	yes	no

Building Amenities	Circle One	
Air conditioning	yes	no
Carpeting	yes	no
Laundry room	yes	no
Pool	yes	no
Tennis court	yes	no
Meeting room	yes	no
Recreation centre	yes	no

Expense Analysis	Annual Expense
Heat	
Electricity	
Water/sewage	
Cable	
General Office	
Advertising	
Leasing	
Repairs	
Maintenance	
Waste & Snow removal	
Security	
Insurance	
Elevator	
Supplies	
Other:	
Property Taxes	
Management	
Total Expense	

	1996	Current Year
Total Annual Income		
Total Annual Expense		
Net Annual Income		

This questionnaire was completed by: _____

Title: _____

Date: _____

Tel: _____