

Appendix V

Pkt 1970 RGE SUBSTRATIFICATION

MARIL WHITNEY

RECORD OF DECISION

CITY OF SASKATOON, BOARD OF REVISION

APPEAL NO.: 46-2014

ROLL NO.: 514805350

RESPONDENT: City of Saskatoon

In the matter of an appeal to the City of Saskatoon, Board of Revision by:

APPELLANT: Altus Group Limited on behalf of
Northstar Innovative Developments

respecting the assessment of: 611 Avenue O South

Legal Description: Parcel No. 119886227

Civic Address: 611 Avenue O South

for the year 2014

BEFORE Adrian Deschamps, Panel Chair
Dave Gabruch, Board Chair
Asit Sarkar, Member

Appeared for the Appellant Garry Coleman, Altus Group
Jesse Faith, Altus Group

Appeared for the Respondent Travis Horne, City of Saskatoon (Advocate)
Amy Huang, City of Saskatoon

The appeal was heard in the Council Chambers, City Hall, in the City of Saskatoon on May 1, 2014.

PRELIMINARY ISSUES:

The Panel Chair reviewed the hearing proceedings with the Appellant and Respondent.

The parties were advised that the proceedings were being recorded for the purposes of the Board and the Panel Clerk. The Chair introduced the Board members and the Panel Clerk.

Affirmation of truth statements were orally administered to all participants engaged in submitting evidence and testimony.

Mr. Faith stated that Grounds for this appeal relates to the issues dealt with in Appeal 44-2014 – therefore, no new testimony will be provided with regard to this ground. Instead, he requested that evidence and arguments provided in Appeal 44-2014 be carried forward to this appeal.

Mr. Horne indicated that the City's position is similar to what was presented in Appeal 44-2014 – therefore, the respondent will agree that evidence and arguments in Appeal 44-2014 be forwarded to this appeal.

GROUND AND ISSUES:

The Grounds and Facts are presented as outlined in A.1, as follows:

The assessment valuation is in excess and should be lower to reflect market value.

Ground 1: The assessor erred in the calculation of the capitalization rate used to determine the property assessment. Supporting facts are:

- a. The capitalization (CAP) rate of 7.95% currently applied to the property is too low, and in error.
- b. The sales used to determine the current CAP rate that are not comparable to the subject are as follows: 626 Weldon Ave, 608/616 Duchess St, 518 44th St E, 509 44th St E, 2206 Speers Ave, 2236 Avenue C N, 2225 Hanseiman Ct, 2409 Thayer Ave, 307 Ontario Ave, 1939 Avenue B N, 318 Avenue K S.
- c. The median sale price per square foot of properties built 1970 and prior is approximately half of the median price per square foot of properties with an effective year built lower than 1970.
- d. The subject's year built is 1964.
- e. 608-616 Duchess Street is a retail building that was used by the assessor to develop the 7.95% cap rate. As this building is retail, it should be removed from the warehouse cap rate analysis.

Ground 2 – The current stratification for warehouses that are less than 34,150 square feet and have a site coverage of greater than 0.47% is in error. Supporting facts are:

- a. The current stratification does not accurately represent the realities of the marketplace.

- b. The sales used by the assessor to develop the 7.95% cap rate indicate that properties built 1970 and prior have a median cap rate that is significantly higher than the current cap used to determine the estimated market value.
- c. Re-stratifying the sales by effective year built results in a significantly more accurate market estimate and is supported by a lower COD for both new stratifications.

EXHIBITS:

The following were entered into the record:

- A.1 - Notice of Appeal from Altus Group, received February 7, 2014
- A.2 – Written Submission from Altus Group, (for use in 44, 46, 47, and 48-2014 only), received April 8, 2014
- R.1 - Assessment Report, Warehouse & Automotive Response (for use in 44, 46, and 47-2014 only), received April 22, 2014
- R.2 – 2014 General Law and Legislation Brief, (for use in 44, 46, and 47-2014 only), received April 22, 2014

FACTS

Salient Facts:

Property Description:

Roll Number:	514805350
Civic Address:	611 Avenue O South
Legal Description:	Parcel: 119886227; 119886238; Plan H771 Block 7 Lot 15-16
Land: Lot/Parcel Size:	
Building:	
Zoning:	
Predominant Property Type:	Industrial, Flex Bld, Single Storey
Geographic Name	
Geographic Code	
Current Assessment	\$286,900
Current Taxable Assessment	\$286,900
Total Assessment	\$286,900
Percentage of Assessment	100%

APPELLANT'S EVIDENCE & ARGUMENTS

As agreed by both the appellant and the respondent, the following has been carried forward from Appeal 44-2014.

APPELLANT'S EVIDENCE & ARGUMENTS

Mr. Garry Coleman presented no new evidence on behalf of the Appellant except to draw attention to the following:

- *The assessment of this property was appealed in 2013 (Appeal 392-2013). The Board of Revision sustained the appeal and directed that a cap rate of 08.94% be applied to the subject property.*
 - *All other issues were denied.*
 - *City of Saskatoon appealed the Board decision to the Saskatchewan Municipal Board. That appeal is still to be decided.*
- 1) *The Assessor grouped 19 sales together to develop the 7.95% warehouse cap rate. The main issue before the Panel is to determine if the sale of 608-616 Duchess Street (Duchess Street Property) is a warehouse property that can be included in the determination of warehouse cap rate of 7.95%.*
 - 2) *The Duchess Street property is designed as a retail strip commercial property and acts like a neighbourhood shopping centre. Historically, the tenants in this property included retail establishments, professional services providers and non-profit organizations.*
 - 3) *The Marshall and Swift costing manual describes warehouses as buildings "designed primarily for storage". The Duchess Street property is neither designed primarily for storage, nor used primarily for storage purposes.*
 - 4) *The Market Value Assessment Handbook guides the assessor in establishing a cap rate by observing the "Economic conditions, competition and expected changes in competition, location, property age, property condition and property design." The design of the Duchess Street property is that of a retail commercial strip building.*
 - 5) *It is the appellant's contention that when the Duchess Street property sale is excluded from the cap rate determination process, the new cap rate will be 8.94%. This is the cap rate that should be applied in the assessment of the subject property.*

ASSESSOR'S EVIDENCE & ARGUMENTS

The Respondent was represented by Mr. Travis Home of the City of Saskatoon Assessment Branch. Mr. Home agreed that the grounds of appeal and the evidence for this appeal were identical to those in Appeal 392-2013 and he did not speak further to the evidence that is on record. The following is a summary of his testimony, evidence and arguments:

- 1) *The Duchess Street property is located in a commercial/industrial area and is zoned MX1 whose purpose is to facilitate reinvestment in core neighbourhoods and industrial areas of the city by encouraging mixed uses in new development as well as promoting rehabilitation of existing structures. The MX1 district is intended to facilitate a broad range of compatible, industrial, institutional, cultural, and residential uses, including live/work units.*
- 2) *The Duchess Street property, upon inspection, was found to have the elements of a warehouse design such as masonry bearing walls, concrete floor, 12-foot ceiling and overhead door entries. Historically, this property has always been assessed as a warehouse.*
- 3) *Although the Duchess Street property has a variety of tenants, one of them – Medi-Chair – occupies the largest area (65%) of the building and 53% of the space occupied by this tenant is storage warehouse.*
- 4) *Although the Appellant may have a different interpretation of the Marshall-Swift manual, as long as the City applies it consistently, there is no error. The reference to SMB decision in Cadillac Fairview Corporation was used to justify the Appellant's discretion in including the sale of the Duchess Street property in determining the warehouse cap rate.*

Mr. Faith presented the following evidence with regard to Ground 2.

- 1) *Reference was made to BofR decision in 16-2013 (Exhibit A2, page 13). In this decision, the Board found it appropriate for stratification based on age of the property in order to determine the market value of a similar property. The Board noted that the model applied by the Assessor did not capture the obsolescence for age. Specifically, Board came to the following conclusion with regard to obsolescence – There is evidence of variances in the pre-1970 sales and there may be greater variances demonstrated if there were sales available of much older buildings (Exhibit A2, Appendix M, Page 196). Based on this, the Appellant argued that based on recalculation of the CAP rate after taking into account two age groups (1970 and before; post-1970), a CAP rate of 13.48% was obtained for sales of property with effective ages prior to 1970 (Exhibit A2, Appendix O, page 180). It was also argued that there was improvement in CODs for both the groups – from 34.9 for the unified group, 18.28 for 1970 and prior group, and 14.73 for post-1970 group (Exhibit A2, Appendix O, page 180).*
- 2) *The Appellant further argued that restratification based on the effective age of the property could be justified by using the Mann-Whitney Test. The results of the Mann-Whitney test were presented in Exhibit A2, Appendix P, page 182. It concluded that two groups were deemed to be independent samples.*
- 3) *The Appellant then argued that the CAP rate for the subject property should be set at 13.48% and this would result in a reduced value of assessment from \$1,417,739 to \$836,129. (Exhibit A2, paragraph 38, page 13). An alternative would be to apply an obsolescence of 48.71% based upon the variance of the median sale price per*

square foot, resulting in an assessed value of \$727,158 (Exhibit A2, paragraph 39, pages 13-14).

- 4) Upon cross-examination by the Assessor, the following additional points were made:
 - a. 19 sales were used in calculating the Mann-Whitney test. Of those, 7 sales were from the pre-1970 group and 12 from the post-1970 group.
 - b. Mann-Whitney test was employed to provide a measure of statistical significance of the stratification based on effective age of the property. In determining the test of significance, p-value was used.
 - c. Break-points other than 1970 were tested and not found to be statistically significant.
 - d. Break-points were not tested for citywide sales data.

ASSESSOR'S EVIDENCE & ARGUMENTS:

Mr. Chad Nunweiler from the City of Saskatoon's Assessment Department made the following points with regard to Ground 2:

- 1) The Appellant's proposed stratification is contrary to the Mass Market Appraisal process. The Effective Age of a building is a citywide phenomenon and cannot be applied to just one market grouping, otherwise, this approach would be known as "sales chasing" (Exhibit R1, p,6). Sales chasing occurs when sales are used in a biased manner to achieve favourable results.
- 2) The Appellant's choice of year 1970 as an age break in justifying an Effective Age variable for Group 3 sales (subject property group) has no supported rationale.
- 3) As shown in Exhibit R1, page 17, three age stratifications (1985 or earlier, 1986-2007; and 2008 and later) were used in the development of the rent model. The adjustments for these stratifications reflected the market, as evidenced by the median ratios of market rent to contract rent (MCR). As all were close to 1.00, it would indicate that there was no bias in the rent model with respect to age.
- 4) When the results of the age stratification bias test was subjected to Mann-Whitney test, the conclusion was that the sales of properties with pre- and post-1977 effective year built did not provide any statistically significant difference. Therefore, it was concluded that there should not be an age break for warehouse cap rates.
- 5) The market valuation standard in the mass appraisal system must reflect typical market conditions for similar properties. Therefore, neither an Effective Age Break nor an obsolescence in age can be applied in the Warehouse Cap Rates to only one sub group, such as properties in Group 3. For equity to be achieved, these variables must be applied and tested to the entire City warehouse population.
- 6) Upon cross examination by the Appellant, it was noted that data for bias testing represented 104 citywide sales of warehouse properties. These were then sub-categorized into 4 groups based on site coverage. Another point coming out from

cross examination was that 1977 break point was used for testing based on the graphical representation of sales.

- 7) Upon questioning from the Panel, the point was made that the reason for choosing 1977 as the breakpoint to conduct the Mann-Whitney Test was because that is where data trends were evident. It was also indicated that possibility of 1970 as the breakpoint was tested, but no trend was evident at that breakpoint.*

Ms. Amy Huang was the next witness for the Assessor. Ms. Huang's evidence dealt primarily with the use of Mann-Whitney test, and the following points were made:

- 1) In order to draw conclusions from Mann-Whitney test results, attention must be paid to the number of data points, and the correct use of statistical measure has to be made.*
- 2) When conclusions on Mann-Whitney test are drawn using p-value, each sample size has to be higher than 9, as per IAAO guidelines. If the number of data points is less than 9, then the use of p-value is not appropriate and conclusions drawn need to be based on u-statistic value.*
- 3) In determining the rationale for a citywide Market CAP rate, the first task is to see which variables are appropriate for any stratification. For that task, size and site coverage were tested and used as stratification criteria. Effective Year Built was also tested by using pre- and post-1977 as break points. But it was not found statistically significant based on Mann-Whitney test. As such, it was not used as a variable for Cap rate determination.*
- 4) Although Effective Year built may be found to be important for a subgroup of warehouse property by using Mann-Whitney Test, the mandate for the Assessor is to set assessment according to the standards of mass appraisal. Therefore, the appropriate use of Mann-Whitney test is only for citywide sales of warehouse properties rather than for a subgroup of sales based on Effective Year Built.*
- 5) The Appellant's evidence on Mann-Whitney test did not have the required minimum of 9 data points in each group; therefore, it was not appropriate to draw conclusions based on p-statistic value. In any case, even when p-value was used for the Effective Year Built variable, no statistically significant difference was found between two age groups.*
- 6) While IAAO standard recommends the use of p-value when there is a minimum of 9 data points, there was no specific recommendation as to which value (p or u) should be used where there are less than 9 data points.*
- 7) Upon cross-examination by the Appellant, it was noted that sales of warehouses that may have been utilized for some retail activity were not excluded in the determination of Cap rate. It was further noted that a particular variable must first be determined to be significant before doing further subgroupings based on this variables and attempting to alter the market cap rate.*

RULES, STATUTES, PRECEDENTS

In the general course of its deliberations, the panel was guided by the principles expressed in Sections 164 and 165 of *The Cities Act*, the Market Value Assessment in Saskatchewan Handbook for non-regulated properties, and the Saskatchewan Assessment Agency Manual for regulated properties.

The relevant sections of *The Cities Act* are as follows:

- Section 165(2) provides that property is to be valued as of the “base date”, which has been established by the Saskatchewan Assessment Management Agency (SAMA) as being January 1, 2011. In determining property value, all facts, conditions and circumstances that are required to be taken into account are to be applied as if they had existed on that base date.
- Section 165(3) directs that equity is the dominant and controlling factor in the assessment of property. Section 165(4) directs that equity in regulated property assessments is achieved by applying the regulated property assessment valuation standard uniformly and fairly. Section 165(5) states that equity in non-regulated property assessments is achieved by applying the market valuation standard so that the assessments bear a fair and just proportion to the market value of similar properties as of the applicable base date. If, as a general matter, the same methodology has been employed in the valuation of the property in question as has been employed in the valuation of other such properties in the municipality, then there is no basis, in general, for varying the valuation on appeal.
- It must be noted this is a “mass assessment” system, not an individualized appraisal system.

ANALYSIS AND CONCLUSIONS

As the evidence and arguments in this Appeal are identical to those in Appeal 44-2014, the Panel has used identical analysis and arrived at identical conclusions. These are provided below:

The Panel was presented with two grounds to consider. With respect to Ground 1, evidence consists of what was carried forward, with agreement of both the Assessor and the Appellant, from Appeal 45-2014. With respect to Ground 2, new evidence was presented.

Ground 1

Ground 1 is similar to that of Appeal 45-2014. In it, the principal issue is same as was presented in Appeal 392-2013. In arriving at the conclusion on Appeal 45-2014, the Board of Revision panel has considered what was presented in Appeal 392-2013 and the additional information presented in Appeal 45-2014. The issue before this panel is whether the information provided would justify arriving at a conclusion different from that in Appeal 45-2014. In reviewing the evidence presented, it is noted that evidence in the current appeal points to identical issues, identical facts and identical arguments. The

Panel has noted the point made by the Respondent that the Duchess Street property has the elements of a warehouse because of the large warehouse at the back, with overhead doors, and the largest tenant's use of considerable space for storage.

In considering the evidence of both parties, the Panel found that in reality, the majority of the tenants are retail or retail related. One tenant's use of some of the property for storage purposes is primarily to support the retail function of their business. As noted by the Panel in Appeal 392-2013, Medi-Chair business requires extended warehouse space due to the nature of their business of selling large bulky goods. The Panel in that appeal commented: "Medi-Chair was not a distributor and required the warehouse as such. The warehouse was exclusive to support the retail function." Further, the Panel in Appeal 392-2013 noted that there was no evidence presented by the Respondent that the Duchess Street property as a distribution warehouse.

In conclusion, from the evidence on record, this panel has not been persuaded to arrive at a decision different from what was reached in Appeal 45-2014.

Ground 2

With respect to Ground 2, the principal issue concerns the justification for further stratification of warehouse sales data by considering the Effective Year Built. Specifically, the Appellant asks for a third stratification variable, i.e., Effective Year Built, in addition to the two already adopted by the Assessor, i.e., size and site coverage. In arriving at conclusions regarding this ground, the Panel has considered the following:

- 1) The Appellant provided justification for its request for further stratification from the Board decision in Appeal 16-2013. The Appellant maintained that it was actually following the direction from the decision in Appeal 16-2013. The Appellant's case is based on the statistical significance of the stratification by age, as measured by the Mann-Whitney Test.*
- 2) The Assessor addressed the issue of stratification by age by saying that age was not found to be a statistically significant variable when all the citywide sales of warehouse properties were considered. The Assessor's main contention has been that establishing a market cap rate by introducing a new variable for a sub-group of sales for similar properties is contrary to the mandate of mass market valuation standard and would therefore be against the direction of the Saskatchewan Municipal Board. The appropriateness of a stratification variable must be tested by considering all sales of similar properties.*
- 3) The Panel has not been presented with any evidence that contradicts the Assessor's position that property age (Effective Year Built) was not found to have statistical significance when all citywide sales of similar properties were considered. What the Appellant has presented is a justification for age stratification only for a portion of all citywide sales of warehouses. In particular, the Appellant's arguments are only with respect to Market Group 3 properties consisting of 19 sales that are less than 34,150 square feet and have site coverage greater than 47%. The Appellant has used the Mann-Whitney test as the basis for its justification for two breakpoints based on age for these properties.*

- 4) *In concluding on the issue of whether the Assessor has met the expectations of the Mass Appraisal process, the Panel has relied on the evidence of the Assessor that when all citywide sales were considered, age was not found to be a variable statistically significant enough for stratification. The Panel was also provided the evidence that while the graphical representation of all sales did provide a breakpoint at 1977 for age, the two resulting groups were not found to be statistically significant. Thus, the Panel was presented with the evidence that the Assessor provided valid statistical measure to justify the exclusion of age variable from the stratification. Therefore, the Panel was not persuaded that the Assessor erred by not including age as a separate stratification variable.*
- 5) *The Panel also took note of the evidence provided by the Appellant that at least one group of properties, i.e., Market Group 3 (group in which the subject property belonged) justified further stratification by age. In analyzing the evidence on this argument, the Panel considered two points:*
 - a. *Has the Appellant used the statistically measure appropriately to support its ground? The Panel was presented with evidence that the Appellant had inadequate data points in its statistical measures, and therefore, the conclusions drawn are not supportable. The Panel was not presented with evidence to counter this position.*
 - b. *Even if the debate on the appropriateness of the use of statistical measure is to be ignored, is subgrouping by a variable that was not found significant in the context of all citywide sales appropriate? The Panel was not provided evidence to justify such a substratification. Even though the Appellant referred to previous Board decisions (Appeal16-2013 and Appeal 24-2010), the Panel was not shown how their conclusions supported the Appellant's contention. In Appeal16-2013, the Panel did not address the issue of stratification as it was not a ground of appeal. The Panel in that case did find evidence of variances in sale prices because of the obsolescence factor but that has not been one of the points raised in this appeal. In Appeal 24-2010, the Board addressed issues related to the number of data points, but it did not address the issue of inclusion of a variable for further stratification when it was not found relevant in framing a model using all citywide sales. Therefore, the Panel has not persuaded that the Assessor erred by not including an age variable while assessing a subgroup of sales of warehouses.*
 - c. *There was a residual argument made by the Appellant that since the identification of variables for stratification purpose was an iterative process (e.g., initial split of all sales was by size, then was by site coverage), age of the property could have been the next variable considered. However, the Appellant did not provide their own analytical framework to demonstrate how this would have resulted in age being a variable considered in the market cap determination. In making this point, the Panel took note of the fact that the Appellant's evidence dealt primarily with one sales group of 19 sales out of a total of 104 citywide sales. As such, this argument was also*

not able to persuade the Panel to arrive at a conclusion that the Assessor erred in valuing the property for assessment purposes.

DECISION

The Panel's decision is identical to that in Appeal 44-2014 and provided below:


With respect to Ground 1, the panel rules that sale of the property 608-616 Duchess Street is not to be included in the determination of the warehouse cap rate applicable to the subject property. When the sale of this property is excluded, the resulting cap rate will be 8.94%. This is the rate that should be applied in the assessment of the subject property.

Ground 2 of the Appeal is dismissed.

The filing fee is refunded.

DATED AT SASKATOON, SASKATCHEWAN, THIS 25th DAY OF June, 2014.

CITY OF SASKATOON BOARD OF REVISION



Dave Gabruch, Chair



Asit Sarkar, Member

We concur



Adrian Deschamps, Panel Chair

Dave Gabruch, Member



Warehouse & Automotive Response

2014 Assessment

LEAD APPEAL NO:	44-2014
ROLL NUMBER:	455007990
PROPERTY OWNER(S):	Various
APPELLANT/AGENT:	Altus Group Limited
HEARING DATE:	28/04/2014
CARRY FORWARD APPEAL NO(s):	44-2014,46-2014,47-2014

Contents

Executive Summary	3
Argument	7
Summary of Salient Facts.....	9
Summary of Salient Adjustments.....	10
Valuation Approach	11
Rent.....	12
MRA Rent Model Summary	13
Ratio Statistics for Market Rent / Contract Rent Summary	14
Graphical Analysis	15
Scatter Plot Description	15
Box Plot Description.....	16
Rent – Effective Age	17
Vacancy.....	18
Expenses.....	19
Structural Allowance	19
Non-Recoverables	19
Sales.....	19
Median Assessment to Sale Ratio (ASR)	20
Results Testing	21
Group Bias Test.....	22
Certification.....	23
Appendix A: Property Inventory Cards.....	24
Appendix B: Sales Group 3.....	36
Appendix C: Comparable Assessed Values	37
Appendix D: Photos – 608/616 Duchess Street.....	38
Appendix E: Photos of Subject Property	43
Appendix F: Marshall & Swift Definitions	48
Appendix G: Warehouse Sales - Effective Age Cap Rate Analysis	50
Appendix H: Land Use Map	51
Appendix I: The Cities Act Section 200(4)(b).....	52

Executive Summary

An appeal has been filed with the Saskatoon Board of Revision against the assessed value of 525 43rd Street East. The subject property is assessed as an Industrial Flex Warehouse with 17,400 square feet of leasable area and has an effective year built of 1968.

Following are the appellant's grounds with the Assessment Branch's response to the grounds:

Ground 1: The assessor erred in the calculation of the capitalization rate used to determine the property assessment.

a) The capitalization (CAP) rate of 7.95% currently applied to the property is too low, and in error.

b) The sales used to determine current CAP rate that are not comparable to the subject are as follow:

626 Weldon Ave
608/616 Duchess St
518 44th St E
509 44th St E
2206 Speers Ave
2206 Speers Ave
2236 Ave C N
2225 Hanselman Crt
2409 Thayer Ave
307 Ontario Ave
1939 Ave B N
318 Ave K S

c) The median sale price per square foot of properties built 1970 and prior is approximately half of the median price per square foot of properties with an effective year built newer than 1970.

d) The subject's year built is 1964.

e) 608-616 Duchess Street is a retail building that was used by the assessor to develop the 7.95% cap rate. As this building is retail, it should be removed from the warehouse cap rate analysis.

Ground 2: The current stratification for warehouses that are less than 34,150 square feet and have a site coverage of greater than 0.47% is in error.

a) The current stratification does not accurately represent the realities of the market place.

b) The sales used by the assessor to develop the 7.95% CAP rate indicate that properties built 1970 and prior have a median CAP rate that is significantly higher than the current CAP used to determine the estimated market value.

c) Re-stratifying the sales by effective year built results in a significantly more accurate market estimate and is supported by a lower COD for both new stratifications.

Assessment Response to Ground 1: *Currently Appealed to the SMB*

The subject property is assessed using the Warehouse cap rate of 7.95% which was calculated from the warehouse sales that were analyzed and verified. The sale of 608/616 Duchess Street is a warehouse sale that was used to calculate the 7.95% cap rate. This is not a retail building as the appellant suggests.

The property is located in a commercial/industrial area and is zoned MX1 whose purpose is to facilitate reinvestment in core neighbourhoods and industrial areas of the city by encouraging mixed uses in new development, as well as promoting the rehabilitation of existing structures. The MX1 District is intended to facilitate a broad range of compatible commercial, industrial, institutional, cultural, and residential uses, including live/work units.

The 608/616 Duchess Street sale was analyzed and verified as a valid warehouse sale based upon a September 2011 inspection. The building is coded as an MS-453 Industrial Flex building with 10,706 square feet, masonry bearing walls, concrete floor, a 12-foot ceiling and overhead door entries. It has an effective year built of 1974 and is of good quality. It has office and store-front finish in the front portion with the remaining rear area being warehouse space. The exterior is concrete block (70%) and brick with block back-up (30%). The heating consists of forced air (100%) and air conditioning (46% - none in warehouse areas). Historically, this property has always been assessed as a warehouse.

To classify properties into the specific categories of Warehouse, Retail, and Office, in the City of Saskatoon, the Assessment Branch relies on the information provided by the Marshall and Swift Manual and the Market Value Assessment in Saskatchewan Handbook.

The following are the definitions pertaining to the appellant's grounds. See Appendix F for further information.

Market Value Assessment in Saskatchewan Handbook:

Warehouse Valuation Guide – The primary functions of a warehouse are to store, mix, consolidate, and distribute raw materials, goods, and/or finished products. Warehouses can provide a number of these functions or can be designed for one specific use. Typically, warehouses are an integral part of a manufacturing or retailing operation or act as trans-shipment points for goods and materials. Although there is a wide variety of uses and styles of warehouses, these buildings are generally uncomplicated structures that can be adapted to a number of commercial and many light industrial uses.

Marshall & Swift Manual definition:

Industrial Flex Buildings – are the modern multi-tenant loft structures, typically of low-rise construction. The lower qualities are purely light industrial buildings having minimal subdivisions and finish per shop space user with overhead door entries. The better qualities have fully finished customer service areas with storefront entries. Display-office areas in the higher qualities have finished floors and ceiling with good restroom facilities.

This property is considered to be a Class C based on having masonry bearing walls. It is considered to be a good quality when the interior finish consists of finished floors, ceilings and display rooms, with some extras. The Mechanicals consists of fluorescent lights, adequate restrooms and plumbing. The heating system is forced air unit and air conditioning.

The definition and physical characteristics of a Class C, good quality industrial flex building as defined by the Marshall & Swift manual meet the Duchess Street property's physical characteristics – overhead door entries, fully finished customer service areas with storefront entries, display office areas with finished floors and ceiling with good restroom facilities.

608/616 Duchess Street has been classified correctly as an Industrial Flex building based on the 2011 inspection, the Marshall & Swift definition, and the Assessment Handbook.

Assessment Response to Ground 2: *New Grounds*

The appellant states that the current stratification for warehouses that are less than 34,150 square feet and have site coverage greater than 47% is in error. This market stratification is known as Market Group 3 which consists of 19 sales which are dispersed throughout the city. The appellant has suggested that this grouping should be further stratified into 2 more groups separated by Effective Age, those that have ages older than 1970 (Pre 1970) and those with ages younger than 1970 (Post 1970).

The problem with this proposed stratification is that the Effective Age of a building is not specific to a single warehouse market sub group such as the Group 3 (subject property group). The Effective Age of a building is a city wide phenomenon and cannot be applied to just one market grouping, otherwise this approach would be known as "Sales Chasing". Sales chasing occurs when sales are used in a bias manor to achieve favourable results. In this case, the appellant has chosen to only use the 19 warehouse sales from Group 3 for the Effective Age variable, and has further chosen the year 1970 as an age break without providing any supported rationale. This is an example of sales chasing, and it is an unethical to practise for appraisers because it is not a true indication of market conditions.

If the warehouse sales are to be properly analyzed they must be analyzed City wide using all 104 Warehouse sales, otherwise the testing will be become bias towards to Group 3 and not truly reflect market conditions.

The Assessment Branch has considered the Effective Age variable for warehouse properties in its statistical testing. Appendix G shows the results of the City wide sales of 104 warehouse properties. As the graph shows, a slight trend emerges around the Effective Year built of 1977, suggesting the possibility of an age break (not 1970 as proposed by the appellant). However when testing the 1977 age break for significance, the Mann-Whitney Test is Accepted with a p-value of 0.46 (much greater than 0.05) meaning there is no significance to suggest independent age samples. This result proves that there should not be an age break for warehouse cap rates. It also proves that obsolescence for age would in fact be captured in the warehouse model, because similar to the Effective Age phenomenon, obsolescence for age would also have to be applied to the City wide warehouse sales. Therefore, we can confirm that because no Effective Age break was found to be significant, no obsolescence for age would be significant as well. It is also important to note, that if any obsolescence was present it would be captured by the Age Variable in the Rent Model. The Box Plot on page 17 shows that no bias was found for buildings that have Effective Ages older than 1985. Three age stratifications were used in the development of the rent model as the median ratios indicated by the mid-points are all close to 1.00.

The Market Valuation Standard in the mass appraisal system must "reflect typical market conditions for similar properties", therefore neither an Effective Age Break nor an obsolescence in age can be applied in the Warehouse Cap Rates to only one sub group because it would selective to the Group 3. For equity to be achieved, these variables must be applied and tested to the entire City warehouse population, and as shown in Appendix G, no significance for an age break in Warehouse Cap Rates was found. Nonetheless the Warehouse model still captures age through its rent model.

If the appellant is suggesting that they are simply making a modeling correction to obtain better statistics when there is no logical support of this, they are chasing statistics. In effect, appraisal logic is being ignored versus what is evident in the bigger picture - all in favour of simple statistics. If there is no logical reason that these sub-groups suggested by the appellant should behave different than our universe of evidence, then it is our position that this is statistics chasing. There is more to mass appraisal and market value than simply obtaining better statistics.

Argument

The Appellant relies on the guidance provided in the Handbook to suggest that the classification of 608/616 Duchess Street as a warehouse is incorrect. The City uses the M&S Manual to classify property. This practice has been accepted by the AAC:

- *Various c/o Altus Group v. Saskatoon (City)* (SMB 2009-0130 et al)
 - As it relates to the agent's position that the sale of 107 Gropper Crescent should not be included in the sales analysis, the assessor argued that the Board did not err in accepting his reliance on the low-rise building descriptors provided by Marshall. He noted that all four units included within 107 Gropper Crescent are at or above grade level and accordingly, has been categorized as a low-rise apartment building pursuant to Marshall's guidelines. He submitted that there is no requirement in the descriptors for a common entranceway and as such, existence of this feature is not a determining factor. According to the assessor, all low-rise apartment buildings have been categorized using these guidelines. [23]
 - The assessor submitted that the issue relating to the inclusion of 107 Gropper Crescent in the sales analysis is similar to an issue recently revisited by the Saskatchewan Court of Appeal (the Court) in its decision for *959360 Alberta Inc. v. City of Regina*, supra. He submitted that the following comment by the Court at paragraph 42 of this decision maintains the assessor's discretion to make reasonable choices in determining assessed values:

"In circumstances where the law does not dictate a particular outcome, discretion is the exercise of a decision-making power to choose one reasonable, just, fair or equitable outcome over another." [24]

- *Various c/o Altus Group v. Saskatoon (City)* (SMB 2010-0077 et al)
 - For the following reasons, the Committee does not accept the agent's position that the sale of 107 Gropper Crescent is not comparable to the low-rise sales included in the assessor's "West WC-North Low-Rise" grouping (the subject neighbourhood). Firstly, the Committee heard the assessor's position that the following description as provided at page 1 of section 12 of Marshall has been used to classify all low-rise apartments in the city:

"Multiple residences, often referred to as garden apartments, are buildings of three or fewer stories, in which each unit has a kitchen and bath, and which are designed for other than transient occupancy. Priced per building, costs include common areas such as lobbies, hallways, laundry, recreation, etc." [10]

The AAC goes on to recognize the Assessors discretion when determining comparability:

- *Various c/o Altus Group v. Saskatoon (City)* (SMB 2010-0077 et al)
 - In deciding the comparability issue the Committee is aware of the following guidance provided by Cadillac Fairview Corporation noted above:

"[36] The word comparable is not defined in the manual! nor are the words compare, comparative, comparison or similar. We must take them to have their ordinary dictionary meaning, subject, of course, to the context in which they are used, that is, the surrounding words and the manual as a whole. The immediate context is that the purpose of the comparison to buildings that have been sold is to measure market influences on the value of any building, and to use the comparison in the determination of a MAF. Subject to this context, which will be considered in detail with the appellants I grounds of appeal, the use of words of such broad and general meaning confer upon the assessor a broad discretion in respect of determining whether buildings are comparable within the meaning of the manual.

...

[42] There can be no question that the grouping of buildings chosen by the assessor, enclosed shopping centres, consists of comparable or similar buildings within the meaning of the manual. The criteria used by the assessor to arrive at the grouping were all relevant to comparability: size, age, specific use, zoning, geographic distribution, and market dominance. While a grouping which included Midtown with all other downtown commercial retail buildings (or other possible groupings) might also be said to consist of comparable buildings within the meaning of the manual by reason of having in common that they are commercial retail use buildings, the choice amongst these possible groupings was clearly left to the discretion of the assessor." (Emphasis added)

Although the Appellant may have a different interpretation of the M&S Manual as long as the City applies it consistently there is no error. The M&S Manual does not have the force of law and therefore cannot be reviewed as though it was.

The Appellant has provided no evidence to indicate that the classification of the Duchess sale was in any way *inconsistent* with the classification of the other sales or inventory.

Summary of Salient Facts

Appeal #	44-2014	46-2014	47-2014
Lead Appeal	44-2014	44-2014	44-2014
Type of Appeal	Regular	Regular	Regular
Roll	455007990	514805350	485004500
Address	525 43rd St. E	611 Ave O S	625 1st Ave N
Legal Description	118998310, 118998309, 118998523	119886227, 119886238	120321717, 120171653, 120171642, 120171631,
Land Size	34,821 ft2	6,018 ft2	28,498 ft2
Building Size	17,400 ft2	4,062 ft2	12,788 ft2
Effective Age	1968	1963	1950
Zoning	IL1	IL1	IL1
Predominant Property Type	3701 – Industrial Flex Building	3701 – Industrial Flex Building	3701 – Industrial Flex Building
Geographic Name	North Industrial	West Industrial	1st Ave North of 25th Street & City Park
Geographic Code	30023	30029	30001
Current Assessment	\$1,417,700	\$286,900	\$1,276,300
Current Taxable Assessment	\$1,417,700	\$286,900	\$1,276,300
Total Assessment	\$1,417,700	\$286,900	\$1,276,300
Percentage of Assessment	100%	100%	100%

Summary of Salient Adjustments

Appeal #	44-2014	46-2014	47-2014
Lead Appeal	44-2014	44-2014	44-2014
Roll	455007990	514805350	485004500
Address	525 43rd St. E	611 Ave O S	625 1st Ave N
Base Rent	\$6.92	\$6.92	\$6.92
Rental Market Area	1 (n/a)	4 (\$ -0.88/sf)	3 (\$1.49/sf)
Vacancy	2%	2%	3%
Occupancy Cost	\$5.20	\$5.20	\$5.20
Structural Allowance	\$0.20	\$0.20	\$0.20
Cap Rate	7.95%	7.95%	7.95%

Valuation Approach

The appraisal method employed for warehouses and automotive properties is the direct capitalization of market net operating income. Direct capitalization is widely used in mass appraisal and achieves good results while being relatively straightforward.

The analysis starts with estimating the market rents and vacancies for each property. Typical rental agreements for warehouse and automotive properties are 'net'. With net rents, the tenant is responsible for paying all the costs associated with occupying the property such as property taxes, insurance, utilities, routine maintenance, property management, etc.

The only expenses that are not passed on to the tenant are the costs associated with periodic replacement of major building components (such as roof cover or replacement of heating equipment) and costs that cannot be passed on to tenants due to vacancy. In valuation terminology, the first is a "structural allowance", and the second is a "non-recoverable expense".

Once market rents, vacancies, and expenses are determined, a net operating income (NOI) is derived for each property. The NOI is then compared to sales prices, and the sale price is expressed as a percentage of the net operating income.

Each valid sale is analyzed in this manner; then market groups defined and a typical capitalization rate is determined for each market segment. Because market rents, vacancies, and expenses are an integral part of the process, capitalization rates may vary when different market rents, vacancies, or expenses are employed.

Excluded from the analysis are partially completed buildings and those where there is a significant amount of deferred maintenance. There are a relatively large number of sales, so it is more practical to focus the analysis on those sales that are least likely to provide a distorted indication of capitalization rates.

Once typical capitalization rates are determined, they are used to value warehouse or automotive property where realistic market rents, vacancies, and expenses can be estimated.

Using direct capitalization rates in mass appraisal is straightforward when net rents are typical in the marketplace. When net rents are used, the influence of expenses in estimating net operating income is small. Direct capitalization rates are part of the common "language" of commercial real estate and reflect the rates of return negotiated by buyers and sellers. Ultimately, it is sales transactions that indicate capitalization rates.

Rent

Market rents in Saskatoon are usually negotiated on a per square foot per year basis. Our rental surveys ask property owners and managers to report on the amount of rentable space. For warehouses, the amount of space reported is almost always equal to the gross area of the building(s).

Property owners and managers were asked to provide rental information for the years 2008, 2009, and 2010. The data was analyzed using multiple regression analysis (MRA). When sample sizes are relatively large, MRA is the most commonly used analytical tool in the mass appraisal of real estate. MRA is a statistical technique that allows the user to predict one value (rent, etc) from the known values of other multiple variables simultaneously, such as varying contract rents, age, size, etc.

The data was tested for time trends over three years (2008, 2009, 2010) resulting in no significantly measurable changes. It can, therefore, be concluded that the rental data for all three years (2008-2010) is representative of the commercial rental market as of January 1, 2011 (the base year).

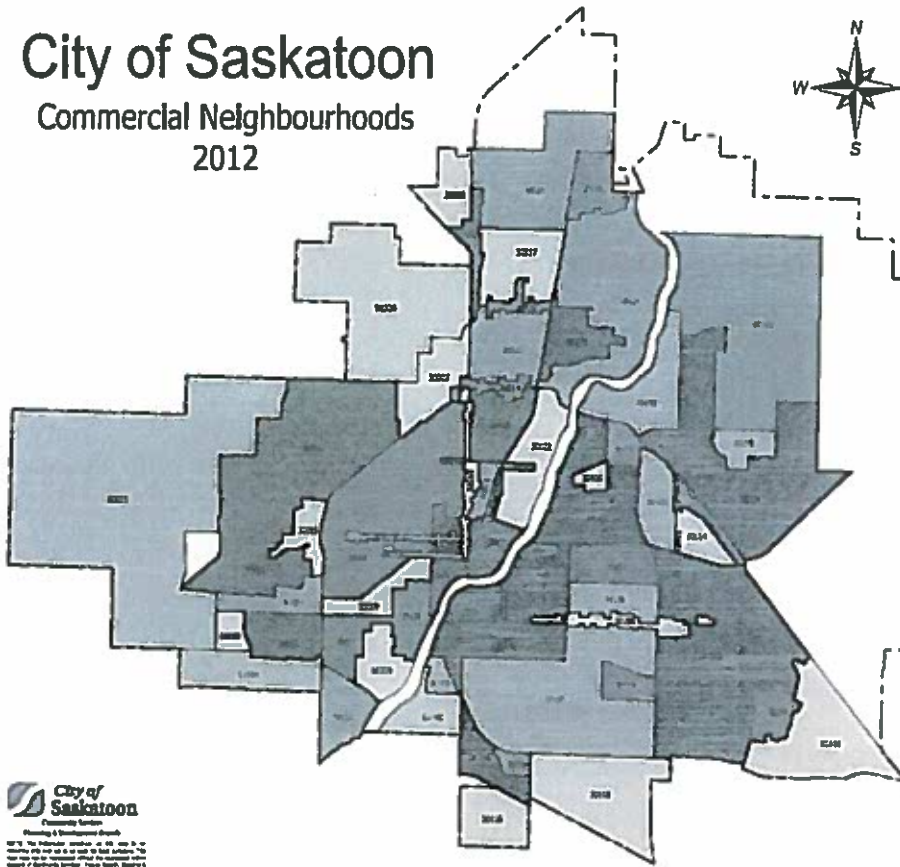
Properties with general use 3300 (Automotive) that are located on arterial roads or in commercial retail neighbourhoods were excluded from this warehouse-auto rent model analysis. They were excluded primarily because they compete in the retail market.

A total of 906 net rents were used for analysis which included warehouse-type properties and automotive-type properties located in industrial areas. Rents used for analysis were based on a lease start date between January 1, 2008 and December 31, 2010.

In order to reflect typical warehouse properties, analysis was done by excluding the following:

- reported rent where lease area was smaller than 850 square foot
- lease start date not between 2008 and 2010
- owner occupied
- gross rent, semi-gross rent
- commercial condo

City of Saskatoon Commercial Neighbourhoods 2012



- WEST COMMERCIAL**
- 20201 - 1st Ave W to 2nd St & City Park
- 20202 - 20th Street West
- 20203 - 23rd Street West
- 20204 - 2nd Avenue North of 23rd Street
- 20205 - 23rd Street West
- 20206 - Agriculture
- 20207 - Airport Business Area
- 20213 - Central Industrial
- 20214 - 23rd Drive
- 20215 - Cumberland St. CC
- 20216 - Hudson Bay Industrial (P&M Service)
- 20217 - Hudson Bay Industrial (P&M Service)
- 20218 - Ingham Drive
- 20219 - Kelby Industrial
- 20220 - Jackson Highway, BC
- 20221 - Market Industrial
- 20222 - North Central Scattered
- 20223 - North Industrial
- 20224 - North Industrial
- 20225 - North Industrial
- 20226 - 15th Avenue Industrial
- 20227 - South West Industrial
- 20228 - West Central Scattered
- 20229 - West Industrial
- 20230 - West of 23rd
- 20231 - Wood Scattered
- 20232 - 11th Street

- EAST COMMERCIAL**
- 20101 - 2nd Street East
- 20102 - Broadway
- 20103 - Central Avenue
- 20104 - 2nd Avenue
- 20105 - 2nd Industrial
- 20106 - East Central Scattered
- 20107 - Broadway Plaza
- 20108 - Lincolnway BC
- 20109 - North East Scattered
- 20110 - Murray BC
- 20111 - Nazare Scattered
- 20112 - Pleasant Country
- 20113 - South East Scattered
- 20114 - St. George Avenue
- 20115 - Southland Industrial
- 20116 - University Highway, BC
- 20117 - Murray and Broadway

- TRANSPORTATION COMMUNICATIONS & UTILITIES**
- 20301 - Airport Management Area
- 20302 - CH Farm
- 20303 - Sand Plains Management Area
- 20304 - CP Farm

- RECREATION & CULTURE**
- 20401 - Candy House Management Area
- 20402 - Can-Bistro & Clonburton Management Area

- INSTITUTIONAL**
- 20501 - 12th S. West Management Area
- 20502 - 11th S. South Management Area
- 20503 - University

- UNDEVELOPED**
- 20601 - Montgomery
- 20602 - NW Development Area
- 20603 - NE Development Area
- 20604 - SE Development Area

- CENTRAL BUSINESS DISTRICT**
- 20701 - CBD

13

City of Saskatoon
Community Services
Planning & Development Branch
101-10, 10th Avenue North, Saskatoon, SK S0N 0L0
www.cityofsaskatoon.sk.ca
2012-01-01

MRA Rent Model Summary

WAREHOUSE_AUTO RENT MODEL		
Assessment Year	2013	
	\$/ft ²	
Base Rent	6.92	

	Adjustment Amount	Count
Market Area 1 (30023 30016 30017 30114 30032 30006 30007 30020 30021 30024 30026) Base	0.00	727
Market Area 3 (30001,30003,30005, 30018,30102,30110, 30008, 30012)	1.49	35
Market Area 4 (30002,30013,30028, 30030, 30027,30029, 30104, 30103, 30113, 50002)	-0.88	61

Site Coverage < = 80%	0.00	889
-----------------------	------	-----

Age <1985	0.00	731
-----------	------	-----

WH/Flex, WH/Office, Combination, Fitness club, Automotive	0.00	846
---	------	-----

Leasable Area < 20,000 ft ²	0.00	879
--	------	-----

Ratio Statistics for Market Rent / Contract Rent Summary

Number of rents	906
Mean	1.08
Median	1.04

Note the median ratio of the contract rent to the market rent is 1.04, indicating that the rental model successfully reflects typical market rents.

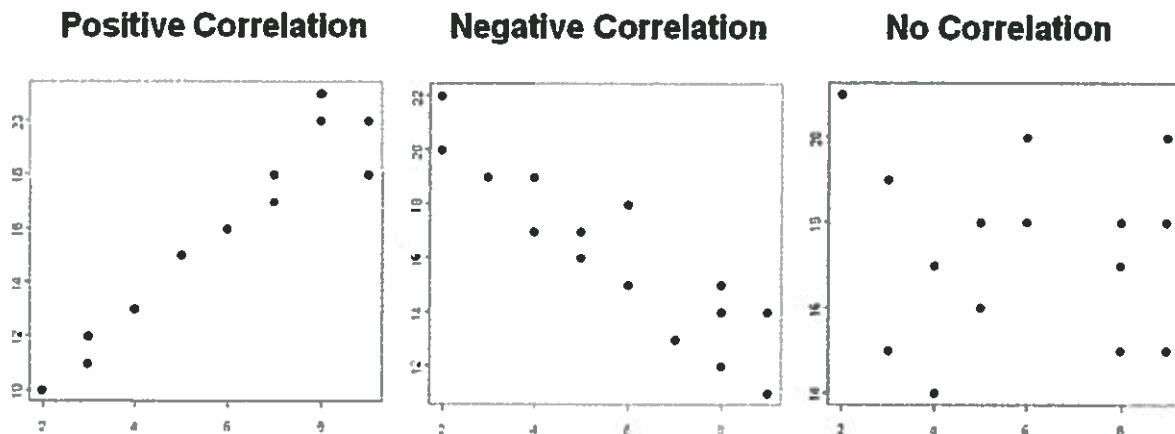
Graphical Analysis

Scatter Plot Description

A bias test is used to check the quality of the regression model. The scatter plot graphically displays the market to contract rent ratio (MCR) of each contract rent in the dataset. The MCR compares the rent predicted by the model (Market Rent) with the contract rent. MCRs are calculated for each contract rent in the dataset and ideally, the MCRs should fall around 1.00.

In this case, the purpose of the bias test is to show how the model represents a particular variable or, property characteristic, by demonstrating if there is over prediction (positive correlation of MCRs) or, under prediction (negative correlation of MCRs). A non bias result is when the MCRs do not show an increasing or decreasing pattern (no correlation; that is, the data points are around 1.00 in the scatter plot).

Scatter plots show graphical relationships between continuous variables, which may show relationships and trends. The relationship between the two variables is called their correlation. The closer the data points come when plotted to making a straight line, the higher the correlation between the two variables.



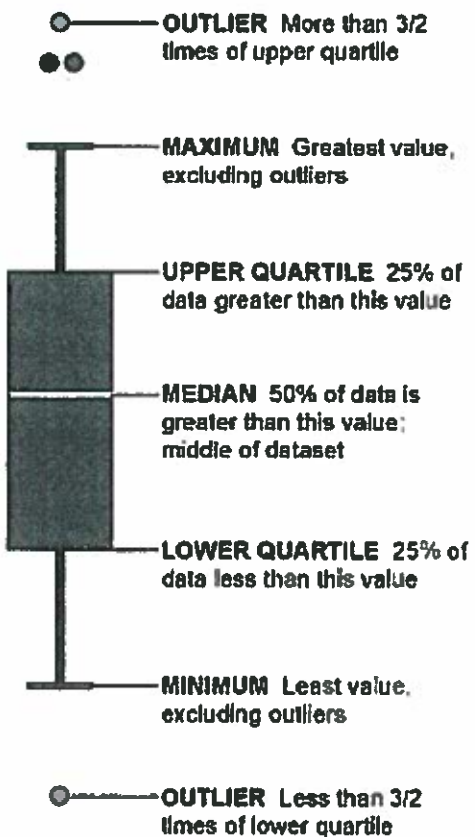
Scatter plots showing a pattern indicates that there is a relationship between the variables. Scatterplots can be used to visualize the relationship between the MCRs. The MCR is on the vertical axis, while the variables examined are on the horizontal axis. The line at 1.00 relative to each point displays the variability of the model application.

Box Plot Description

A bias test is used to check the quality of the regression model. The box plot graphically summarizes the market rent to contract rent ratio (MCR) of each contract and market rent in the dataset. The MCR compares the rent predicted by the model (Market Rent) with the contract rent. MCRs are calculated for each contract rent in the group and ideally, the median ratio is close to 1.00.

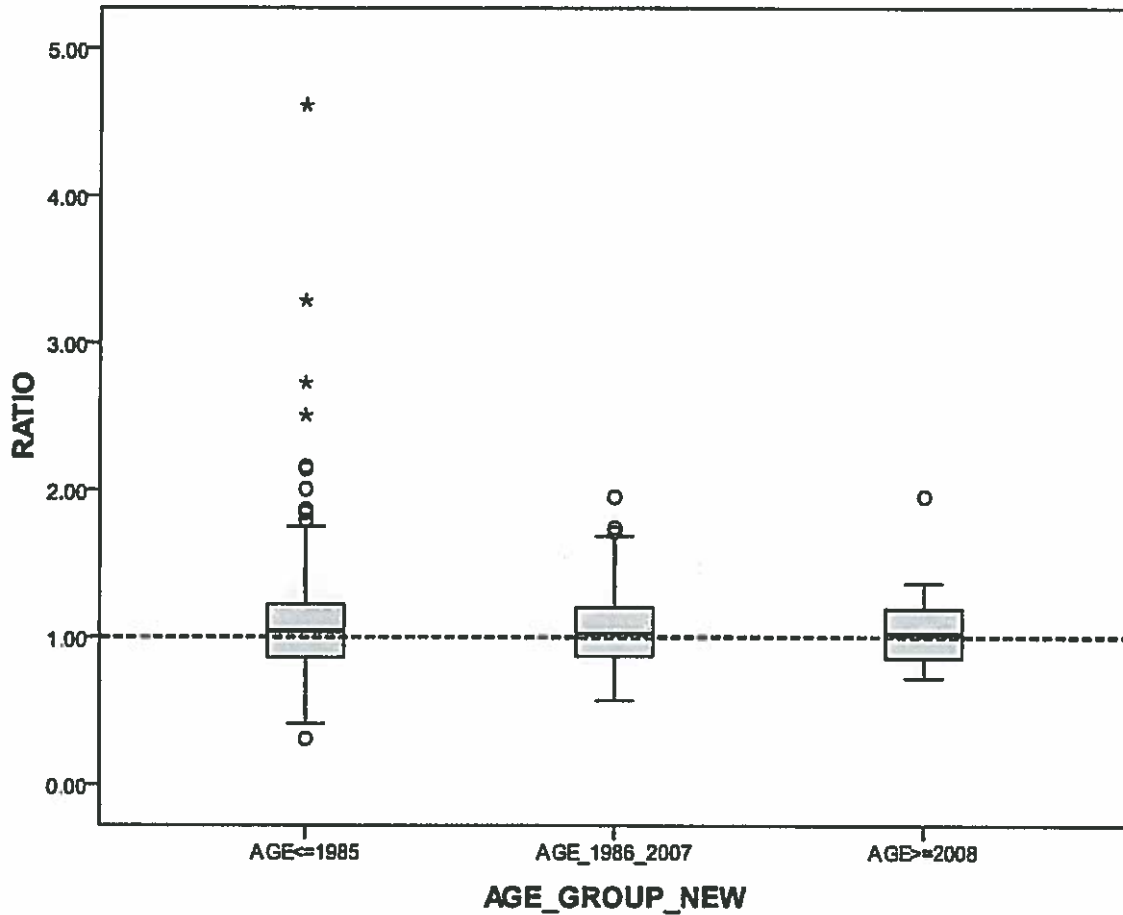
In this case, the purpose of the bias test is to show how the model represents a particular variable or, property characteristic, by demonstrating if there is over prediction (high median MCR) or, under prediction (low median MCR). A non-bias situation exists where the median MCR (middle line in the boxes) is at or near 1.00.

Box plots are helpful when reviewing non-continuous data (data stratified into specific categories). The MCR is on the vertical axis, while the variables examined are on the horizontal axis. Box plots allow for the graphical display of several statistical measures. The components of the box plots in this document display:



- The lower boundary indicates the 25th percentile, which is the value where 25 percent of the data is lower.
- The upper boundary indicates the 75th percentile, which represents the value that 75 percent of the data falls below.
- The area between the upper and lower boundary gives an indication of the spread of the middle 50 percent of the data.
- The line in the box indicates the median.
- The whiskers of the box plot are the vertical lines of the plot extending from the box, and indicate the minimum and maximum values that are not outliers in the dataset.
- Symbols are used to label outliers. The outliers are cases with the values between 1.5 and 3 box lengths from the 75th percentile or 25th percentile, while the extreme values are cases with the values more than 3 box lengths from the 75th percentile or 25th percentile.

Rent – Effective Age



Note: RATIO= Market rent / Contract rent

Three age stratifications were used in the development of the rent model. The adjustments for these stratifications reflect the market, as the median ratios indicated by the mid-points are all close to 1.00. This indicates that there is no bias in the rent model for these three age stratifications.

Vacancy

When investors purchase property, they gather information on historical and current trends and make judgements about the short to mid-term expectations. Because vacancies have a direct impact on the bottom line, vacancies are a key component of these considerations. A prudent buyer will not project near zero vacancies into the future, as it is realistic to expect that very low vacancies will spur increases in supply which will ultimately increase vacancies.

Similarly, if there is a general trend towards lowering vacancy rates, a purchaser will not base a purchase primarily on unusually high vacancies at any point in time. The above considerations essentially describe the process of stabilization. This is an area of valuation judgement.

The Assessment Branch annually sends requests for information from commercial property owners and managers. These queries include data on tenants, rents, property income and expenses, and vacancies. Both actual annual vacancies and vacant space, as of December, are asked for.

In 2007, 2008, and 2009, fully owner occupied properties were excluded from the survey. In 2010, all properties regardless of occupant type were canvassed. The response rate from our 2010 property survey by location was 93%. The response rates are very high, therefore the results are reliable.

Vacancies are employed in the income approach in order to arrive at a stabilized current estimate of net operating income. The assessor should not be overly optimistic or pessimistic in estimating a stabilized vacancy rate. It is generally acknowledged that unusually low vacancies will encourage development, and this will increase rates.

Accordingly, a minimum vacancy percentage of 2% will be used. The stabilized vacancy rates will be the greater of the average of the December 2009 and 2010 City rates, or 2%. The amounts are rounded. The stabilized rate used in the income approach is as follows:

AO Nbhd	Vacancy
30005, 30006, 30014, 30016, 30017, 30020, 30021, 30023 , 30024, 30026, 30027, 30028, 30029 , 30030, 30100, 30102, 30103, 30106, 30108, 30112, 50002	2%
30001 , 30004, 30007, 30013, 30105, 30109, 30110, 30113, 50000, 70102	3%

Expenses

With net rents, the tenant is responsible for paying all the costs of occupying the property. The only expenses that are not passed on to the tenant are costs associated with periodic replacement of major building components (such as roof cover or replacement of heating equipment) and costs that cannot be passed on to tenants due to vacancy. In valuation terminology, the first is a "structural allowance", and the second is a "non-recoverable expense".

Structural Allowance

A structural allowance is normally provided in real estate valuations to account for periodic replacement of major building components. Considering the life span and cost of roof cover and heating equipment, an allowance of \$0.20/ft² per year is applied.

Non-Recoverables

Tenants in warehouse and automotive properties typically directly pay for utility, grounds, and building maintenance costs. This means that property owners and managers of rented properties have very limited information on those expenses. In order to obtain reliable data on the full range of costs, owner occupants were surveyed for their 2010 annual operating expenses. Non-recoverable expenses may also be known as the occupancy cost.

A total of 434 properties reported a 2010 expense amount. In order to ensure that actual costs were not understated, only data where the stated amount was greater than zero was included in the analysis. The non-recoverable or occupancy costs for this property type are \$5.20/ft².

Sales

Once market rents, vacancies, and expenses are determined, a net operating income (NOI) is derived for each property based on this analysis. The NOI is then compared to sales prices, and the sale price is expressed as a percentage of the net operating income.

Each valid sale is analyzed in this manner, then market groups defined, and a typical capitalization rate determined for each market segment. Because market rents, vacancies, and expenses are an integral part of the process, capitalization rates may vary when different market rents, vacancies, or expenses are employed.

There were a total of 104 warehouse sales that occurred between 2008 and 2010 that were used in a capitalization rate analysis. The 104 sales represent approximately 8% of the inventory.

Median Assessment to Sale Ratio (ASR)

An Assessment to Sale Ratio is a calculation comparing the assessment to the sale price for a particular property.

$$\text{Assessment} \div \text{Sale Price} = \text{Assessment to Sale Ratio}$$

A Median Assessment to Sale Ratio is the median Assessment to Sale Ratio found within a group. It is the middle value of the ratios when arrayed in order of magnitude. It divides the ratios into two equal groups, and is therefore only minutely affected by extreme ratios. The closer this value is to 1.00, the better. The assessment to sales ratio (ASR) study is a common statistical measure used to review the results of mass appraisal.

The goal is to achieve an ASR at or near 1.00. The IAAO Standard on ASRs is a range from 0.90 to 1.10. If the ASR falls within that range the ASR is acceptable and the goal is achieved.

If a grouping has produced an acceptable ASR close to 1.0 the same results may not necessarily be achieved by stratifying that same group differently.

Below is an example of a land market area in the City of Saskatoon for 2014 indicating the original group with an ASR of 1.00. If the grouping were restratified into two groupings based on a reasonable expectation on the influence of size, the applied base land rate and the resulting ASRs would change. The resulting ASR for the larger group of properties achieves an ASR of 1.11 which is outside IAAO standards. These results indicate that the original analysis of a single grouping is correct and achieves a better result than an alternate grouping-

Sale I.D.	Size	SP/ft ²	Asmnt/ft ²	ASR
A	5,435	101.19	60.80	0.60
B	23,530	71.61	60.80	0.85
C	5,042	62.88	60.80	0.97
D	17,872	58.75	60.80	1.03
E	17,495	30.87	60.80	1.97
F	25,278	28.48	60.80	2.13

Original above Median ASR 1.00

Sale I.D.	Size	SP/ft ²	Asmnt/ft ²	ASR
F	25,278	28.48	44.81	1.57
E	17,495	30.87	44.81	1.45
D	17,872	58.75	44.81	0.76
B	23,530	71.61	44.81	0.63

Larger group above Median ASR 1.11

Sale I.D.	Size	SP/ft ²	Asmnt/ft ²	ASR
C	5,042	62.88	82.035	1.3
A	5,435	101.19	82.035	0.81

Smaller group above Median ASR 1.06

Results Testing

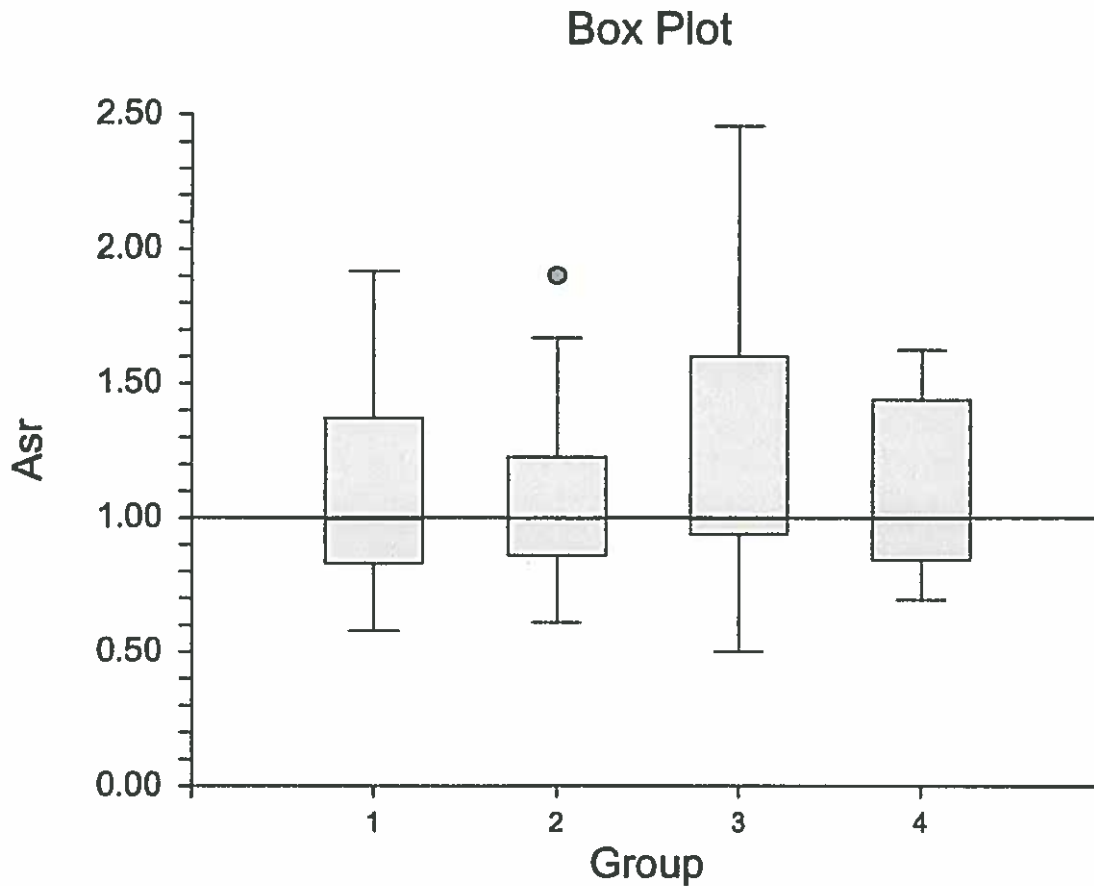
Bias testing was conducted by graphing ASRs versus different factors such as time of sale, size, age, etc. in order to check for biases. The results were satisfactory.

A scatter plot can be used as a test when the data is continuous while box plots can be used to test finite groupings of data.

The sales were stratified into four groups depending on their size and site coverage. The stratification below was applied to the subject property.

Group	# Sales	Site Coverage	Building Size	Median Cap	ASR
3	19	Greater than 0.47	<34,150	7.95%	.999
All	104	N/A	N/A	N/A	.999

Group Bias Test



Note: Group 1 Site Coverage <0.18, <34,150 ft²
Group 2 Site Coverage 0.18 – 0.47, <34,150 ft²
Group 3 Site Coverage >0.47, <34,150 ft²
Group 4 >34,150 ft²

The box plot above indicates no bias due to the city wide stratification by site coverage and size. All four groups have a mid-point close to a median ratio of 1.00 indicating no bias, and therefore reflects the market.

Certification

I certify, to the best of my knowledge and belief; that:

- The statements of fact contained in this report are true and correct;
- I have no present or prospective interest in the property that is the subject of this report and,
- The valuations and conclusions comply with the directions of *The Cities Act*, *The Assessment Management Agency Act* and the Saskatchewan Assessment Manual.

A handwritten signature in black ink, consisting of several overlapping loops and curves, positioned above a horizontal line.

for / Les Smith, City Assessor



Appeal No.: 2015-0034; 0036;0037;0038; 0039; 0040;
0041;0043;0044; 0045;0046;0047 and 0048
YORKT-504903900; YORKT-515052500; YORKT-515053000;
YORKT-514901050; YORKT-484912650; YORKT-515054000;
YORKT-515057100; YORKT-505109000; YORKT-514802000;
YORKT-515101200; YORKT-505200050; YORKT-505201000;
YORKT-514900250; YORKT-505103000; YORKT-505104000.

**SASKATCHEWAN MUNICIPAL BOARD
ASSESSMENT APPEALS COMMITTEE**

Between:

**McDonald's Restaurants of Canada Ltd. et al
C/O ALTUS GROUP**

APPELLANT

- and -

**CITY OF YORKTON
THE SASKATCHEWAN ASSESSMENT
MANAGEMENT AGENCY**

RESPONDENT

WRITTEN SUBMISSION ON BEHALF OF THE RESPONDENTS

**Saskatchewan Assessment Management Agency
45B Palliser Way
Yorkton, Saskatchewan S3N 4C5**

Wallis Test is defined as "A non parametric test of then null hypothesis that three or more groups or subpopulations are equal centered. The test can be used to determine whether three or more property groups have equal appraisal levels. When only two groups are being compared, the appropriate test is the Mann-Whitney test."

[120] In statistics, the M-W test is used to compare the medians between two independent groups. If two property groups are being compared, a significant value of U (which is below 0.05 at 95% confidence level) could indicate that median levels differ significantly between the two groups.

[121] The K-W test is an extension of the M-W test to allow comparison of more than two independent groups. For example, if four property groups are being compared, a significant value of H (which is below 0.05 at 95% of confidence level) could indicate, at one extreme, that median levels differ between two of the groups, or, at the other extreme, that the medians of all four groups are significantly different. If hypothesis testing reject the null hypothesis, it does not necessarily mean that all compared groups have significantly different medians and should be all stratified or analyzed separately.

[122] In mass appraisal the M-W and K-W tests are excellent nonparametric tests to determine if property groups are appraised at the same percentage of market value. As found in the assessment textbook, *Fundamentals of Mass Appraisal (2011), IAAO, Chapter 10 Evaluating the Reliability of Ratio Study Statistics, Section - Testing Horizontal Equity, p.379-385* in Appendix F, these tests are recommended to be used on ratio studies to compare the medians of assessment to sale ratio of different property groups. It is not typical that these tests are to be used for assessment model specification or model building.

[123] Assessment appraisers should not solely rely on or use the M-W, K-W, including Analysis of Variance (ANOVA) and t-test for model stratifications or model building.

[124] First of all, these tests deny any trend or spline relationships that are appropriate for quality class linearization, effective age adjustment or time adjustment. The trend and spline relationship can be easily detected by scatter plots, box plot or properly formulated regression model.

the underlying data. Also called "distribution-free statistic." - *Mass Appraisal of Real Property, IAAO, p. 384.*

[153] The warehouse group is entered in the regression model as base occupancy type and Year Group 1 is entered in the regression model as base year group. The independent variables of office group and year group 3 are the significant variables affecting the variation of cap rate. The significance level of office group and year group 3 are below 0.05.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.130	.011		11.942	.000
	office_grp	-.044	.012	-.512	-3.648	.001
	retail_grp	-.022	.012	-.273	-1.752	.087
	restau_grp	-.001	.018	-.004	-.028	.978
	yrgrp_2	-.014	.011	-.196	-1.291	.204
	yrgrp_3	-.040	.015	-.370	-2.677	.011

a. Dependent Variable: Cap_Rate

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.115	.006		20.763	.000
	office_grp	-.037	.011	-.436	-3.415	.001
	yrgrp_3	-.034	.014	-.309	-2.423	.019

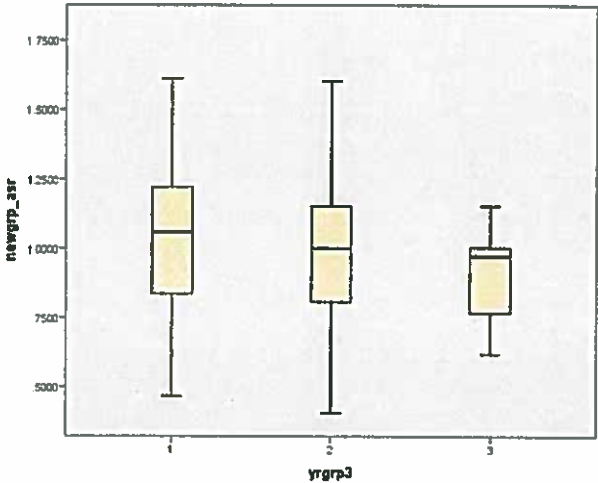
a. Dependent Variable: Cap_Rate

[154] The multiple regression analysis with the two significant variables noted above can provide a predication of the cap rates of the 3 cap rate groups (office group, non office group with year built of 1984 and older, and non office group with year built of 1985 and newer) based on minimizing the model residuals.

[155] Since there is only one office sale in the year group 3, it could be combined with the other office sales as a separate group, then a split by year for the other occupancy types. The assessment model would be as shown below:

	Count	Median Cap Rate	Median ASR	ASR COD
Office	11	7.10%	1	17.0%
Non Office (1984 and older)	32	11.60%	1	24.8%
Non Office (1985 and newer)	5	8.50%	1	15.4%
Overall	48		1	22.0%

[156] With the application of the above 3 cap rate groups (office, non-office 1984 and older and non-office 1985 and newer) stratification, the K-W test supports that the median ASR of the 3 years groups are now equal.



[157] K-W test of NEWGRP_ASR by 3 Year Groups:

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of newgrp_asr is the same across categories of yrgrp3.	Independent-Samples Kruskal-Wallis Test	.811	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

[158] With the application of the above 3 cap rate group stratification, the K-W test supports that the median ASR of the occupancy types are now equal.