20 Day Submission
BOR Received: April 25, 2018

2017-28122 (lead) et al.

CITY OF REGINA
BOARD OF REVISION

BETWEEN:

Abcomp Holdings Ltd.

APPELLANT

- and –

THE CITY OF REGINA

RESPONDENT

****

WRITTEN SUBMISSION ON BEHALF OF
THE APPELLANT

HEARING DATE: MAY 15th, 2017

****

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Appeal #	Appellant	Civic Address	Roll #	2017 Assessment
28122	Abcomp Holdings Ltd.	610 Henderson Drive	10018730	$6,163,100
28125	Acklands-Grainger Inc.	680 McLeod Street	10018652	$4,767,400
28089	101161069 Saskatchewan Ltd.	1735 Francis Street	10218234	$17,836,100
28084	Whiterock Chestemere Regina Inc.	155 N. Leonard Street	10018732	$8,638,000
28108	Whiterock 402 McDonald Street Regina Inc.	402 McDonald Street	10018639	$6,762,500
28121	Whiterock 603 Park Street Regina Inc.	603 Park Street	10022484	$10,422,300
28124	Whiterock 651 Henderson Drive Regina Inc.	651 Henderson Drive	10018737	$9,522,400
28102	Whiterock 651 Henderson Drive Regina Inc.	310 Henderson Drive	10018701	$30,715,800
28086	Ecco Heating Products Ltd.	1600 E Ross Ave	10112642	$6,728,200
28119	Consumers Co-operative Refineries Limited	580 Park Street	10018674	$5,945,700
28123	Sherwood Co-operative Association Limited	615 N Winnipeg Street	10008850	$7,829,200
28127	855 PARK STREET PROPERTIES GP LTD.	855 Park Street	10022488	$15,132,100
28111	JOHN DEERE CANADA ULC	455 Park Street	10018672	$14,252,800
28074	N & T Properties Ltd.	115 and 111 McDonald Street	10018734	$5,658,500
28087	Loblaw Properties West Inc.	1700 Park Street	10033930	$10,107,600
28094	101143561 SASKATCHEWAN LTD.	2101 Fleming Road	10247034	$104,355,400
28129	Loblaw Properties West Inc.	921 Broad Street	10151105	$5,214,600
28126	MASTERFEEDS GP INC	745 Park Street	10022485	$6,405,700
28085	1575 ELLIOTT STREET PROPERTIES LTD.	1575 Elliot Street	10033463	$5,727,300
28098	2201 - 1ST AVENUE HOLDINGS LTD.	2201 1st Avenue	10022119	$6,867,100
28077	Hoopp Realty Inc.	12202 Ewing Avenue	10264262	$22,529,800
28103	Tiger Fera Investment Inc.	316 E 1st Avenue	10241453	$8,648,100

Appeal #	Appellant	Civic Address	Roll #	2017 Assessment
28076	605114 Saskatchewan Ltd.	1155 Park Street	10028466	$7,175,500
28092	Postmedia Network Inc.	1964 Park Street	10033929	$9,834,800
28083	101055353 Saskatchewan Ltd	1450 Park Street	10027989	11,383,200
28078	Ralph McKay (Canada) Limited	130 Hodsman Road	10013949	$5,421,200
28081	WestRock Company of Canada Inc.	1400 1st Avenue	10022143	$8,064,500
28097	Saskatchewan Telecommunications Holding Corporation	2133 1st Avenue	10022117	$10,152,600
28099	3346286 Manitoba Limited	221 N Winnipeg Street	10018625	$10,919,900
28114	Warner Bus Industries Ltd.	301 1st Ave (515 1st Ave)	10022404	$9,133,500
28116	Western Limited	555 Henderson Drive	10018759	$9,652,100
28107	Sachick Holdings Ltd	4000 E Victoria Avenue	10268997	$8,921,200
28101	CWS Logistics Ltd.	250 Henderson Drive	10014005	$25,977,600

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I. INTRODUCTION

1. This appeal stems from issues surrounding the 2017 assessment for industrial properties in the City of Regina. Specifically, the City of Regina's use of multiple regression, the site coverage adjustment, the size adjustment to income sales data (capitalization rate building size adjustment) and what appears to be a more reflective building size adjustment threshold for the sales.

2. The subject is 54,600 square foot industrial property located at 610 Henderson Drive in Regina. The site comprised 5,000 square feet of unheated warehouse, 1,600 square feet of upper floor warehouse space and 48,000 square feet of storage warehouse. The subject is located in the Ross Industrial neighbourhood and is zoned as medium industrial IB. The site has a lot size of 329,473.995 square feet with a building footprint of 53,000 square feet resulting in a site coverage ratio of 16.086%[1]

3. The method used in the valuation of the subject is the Income approach through the use of the City of Regina Industrial Market Model.[2] The property assessment Income SPSS Detail Report lists the number of units, vacancy, shortfall, space classification and the corresponding assessment values.[3]

4. Altus intends to demonstrate that assessor has erred in the following regard:

a. the application of a single property assessment capitalization rate is unwarranted pursuant to legislation and case law,

b. the site coverage calculation omits relevant market variables, legal requirements, surplus land utility and other attributing market factors,

c. that the building size capitalization rate adjustment threshold of 50,000 square feet is too low and should be expanded up to 65,000 square feet.

[1] Appendix A – pg.24 - Property Map & Pictures
[2] Appendix B – pg.29 – City of Regina Industrial Model
[3] Appendix C – pg.48 – Subject Property SPSS Report

II. LEGISLATIVE AND ASSESSMENT BACKGROUND

5. The relevant provisions of *The Cities Act* are as follows:

6. 163 In this Part:

(f.1) "market valuation standard" means the standard achieved when the assessed value of property:

(i) is prepared using **mass appraisal**;

(ii) is an estimate of the market value of the estate in fee simple in the property;

(iii) reflects typical market conditions for **similar properties**; and

(iv) meets quality assurance standards established by order of the agency;

(emphasis added)

(f.2) "market value" means the amount that a property should be expected to realize if the estate in fee simple in the property is sold in a competitive and open market by a willing seller to a willing buyer, each acting prudently and knowledgeably, and assuming that the amount is not affected by undue stimuli;

(f.3) "mass appraisal" means the process of preparing assessments for a group of properties as of the base date using standard appraisal methods, employing common data and allowing for statistical testing; *(emphasis added)*

(f.4) "non-regulated property assessment" means an assessment for property other than a regulated property assessment;

165(1) An assessment shall be prepared for each property in the city using only mass appraisal.

(2) All property is to be assessed as of the applicable base date.

(3) The dominant and controlling factor in the assessment of property is equity.

(3.1) Each assessment must reflect the facts, conditions and circumstances affecting the property as at January 1 of each year as if those facts, conditions and circumstances existed on the applicable base date.

(5) 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.

203(1) Boards of Revision are not bound by the rules of evidence or any other law applicable to court proceedings and have power to determine the admissibility, relevance and weight of any evidence.

226(1) After hearing an appeal, the appeal board may:

(a) confirm the decision if the board revision;

(b) modify the decision of the board of revision to ensure that:

i. errors in and omissions from the assessment roll are corrected;

ii. an accurate, fair and equitable assessment for the property is placed on the assessment roll.

III. ASSESSMENT ROLL BACKGROUND

7. The capitalization rate (CAP) is a ratio developed by taking the Modeled Net Operating Income and dividing it by the Adjusted Sale Price.

$$\text{Capitalization Rate} = \frac{\text{MODELED INCOME}}{\text{ADJUSTED SALE PRICE}}$$

8. The Model indicates the following stratification (pg.45) :

Overall Capitalization Rates

Description	Rate
Base Cap Rate	6.862
Condo	-1.101
Site Coverage Adjustment, Less than 30%, to minimum 9%	-.060
Area Adjustment, from 10,000, per 1000sqft, to 50,000	.044
Industrial Light Manufacturing Type Adjustment	-.940

9. The sales stratification adjustment for site coverage applies a negative 0.060 per every percent below the 30% industry standard imposed by the City of Regina to a minimum of 9%. In effect, the model applies a maximum of 21% difference in site coverage before a lump sum value for excess is derived. 21 x -0.060 = -1.26 added to the base CAP rate of 6.862% results in a CAP rate of 5.602%, when site coverage is the only factor.

10. The sales stratification adjustment for building size applies a positive 0.044 per 1,000 square feet of building area starting at 10,000 square feet up to a threshold cut-off of 50,000 square feet. A maximum capitalization rate adjustment for building size is +1.76 applied to the base constant capitalization rate of 6.862 resulting in a combined maximum capitalization rate value of 8.622%.

11. The rent model developed by the City applies a negative $2.53 per square foot adjustment for single tenant properties greater than or equal to 65,000 square feet. There is a zone between 50,000 square feet and 65,000 square feet of building area where size is not accounted for by either the rental analysis or sales analysis.

12. The City of Regina relied on multiple regression analysis (MRA), which is a statistical tool used to derive the value of criterion from several independent or predictor variables. It is the simultaneous combination of multiple factors to assess how and to what extent they affect a certain outcome. The statistic used to ascertain how well the model fits the data is the R-Squared value. MRA does not use medians but rather averages in establishing the Beta Coefficients (Predictor Variables) that are either included or excluded depending on the confidence of the model; which relates to where the significant variables fall in relation to the indicated alpha statistic.[4]

IV. APPEAL TO THE BOARD OF REVISION

13. Altus raises four grounds of appeal to the Board of Revision[5]:

A. The subject assessment appears to have been developed in error through a misapplication of the capitalization rate adjustment for building size. Moreover, the CAP rate size threshold established by the Assessor is maximized or capped at 50,000 square feet appears notwithstanding 65,000 square feet appears to be more appropriate.

B. The subject property is considered by the Assessor to be a non-regulated property pursuant to subsection 163(f.4) of the Cities Act(the Act). As such, the Appellant is alleging that the subject property has been over assessed as a result

[4] Appendix D – pg.50– MRA Sources
[5] Appendix E – pg.62 – Altus' Lead Notice of Appeal

of the subject's base CAP rate being adjusted in error within the Assessor's assessed value calculation. Subsequently, site coverage has been calculated while failing to account for areas and features that directly limit the availability of extra or excess land.

C. Equity has not been achieved pursuant to subsection 165(5) of the Act. This legislation speaks to the application of the market valuation standard which in turn speaks to the use of Mass Appraisal. As such, the Appellant is alleging that with the Assessor using site specific Cap Rate, he has moved away from the concept of Mass Appraisal.

D. The Market Valuation Standard has not been achieved for the subject property. The appellant is alleging here again that with the Assessor using site specific Cap Rates, he has moved away from the concept of Mass Appraisal.

V. SITE COVERAGE MASS APPRAISAL

14. This portion of Altus's submission pertains to an issue of legality as to whether the City of Regina's new methodology of attempting to recognize extra or excess land on a site, by developing a site specific Cap Rate, is conducted in accordance with the Legislation and Saskatchewan case law.

15. The City of Regina has employed a new methodology whereby a special site specific coverage adjustment is being applied to the Assessor's Modeled Base Cap Rate with the intention of reflecting excess or extra land that is on a site.

16. In determining the percentage of site coverage, being a major factor within the site specific coverage formula, the Assessor only considers the foot print of the buildings that are located on site. Such areas of a site that are covered with canopy's, fuel tanks(above or below ground), business signage, garbage bins, etc. are not being considered within the site specific coverage formula.

17. An example of this footprint issue is that the property that is found in Appendix X, is that there is around 4,840 square feet of total canopy area and 5 underground tanks and one horizontal tank. All of which occupy land area but have not been considered in the site coverage calculation.

Yet, as seen on the SPSS Report, there is also a cost value for the canopies and tanks, which means on one hand they are being recognized for valuation purposes but not recognized for site coverage calculation.

18. Subsection 163 (f.1) of the Cities Act (the Act) states: market valuation standard means the standard achieved when the assessed value of property is prepared using mass appraisal.

19. Subsection 163 (f3) of the Act defines the term mass appraisal as: the process of preparing assessments for a group of properties as of the base date using standard appraisal methods, employing common data and allowing for statistical testing.

20. Subsection 165 (1) of the Act states: An assessment shall be prepared for each property in the city using only mass appraisal.

21. Subsection 210 (1.1) of the Act states: ……. a non-regulated property assessment shall not be varied on an appeal using single property appraisal techniques.

22. In the Saskatchewan Court of Appeal case, Sasco Developments Ltd. vs. The City of Moose Jaw, 2012 SKCA 24[6], the Court on pg. 5, made it clear of its understanding of mass appraisal vs site specific values when it stated on pg. 5, the techniques associated with mass appraisal are grounded in data common to a group of properties, whereas the techniques associated with single property appraisal are grounded in the main in data specific to a particular property.

23. The Court in the Sasco case basically ruled that the Board of Revision had originally erred when it revised the property's 2009 assessment by using the property's own site specific income/expense/occupancy data.

[6] Appendix F – pg.68 – Sasco Developments Ltd. COA Decision

VI. ARGUMENT

Site Coverage Issue

24. When Altus first became aware of the site specific cap rate method at an informational meeting with the Regina Assessors, we were told that this methodology was being used in other jurisdictions in Canada. Notwithstanding Altus has been unable to establish who are these others jurisdictions, in para. 54 of the Sasco case, the Court said "these provisions prohibiting variation using single property appraisal techniques appear to be unique to Saskatchewan."

25. In para. 12, under the heading of The New Assessment Scheme, the Court spoke in detail of the process surrounding Mass Appraisal. It emphasized such terms as "a group of properties"; a group of "similar" properties; and, "the term "common data" may be taken to mean pieces of information in the form of facts and statistics pertaining to market value and common to a group of similar properties."

26. Altus certainly understands how the Assessor derived the City's base Cap Rate for the Industrial Model though the use of Multi- Regression. From our perspective, this was being consistent with the Mass Appraisal process.

27. It's when that City then went further by adjusting the base Cap Rate, that had been derived from a grouping of similar properties, to setting a site specific Cap Rate that concerns Altus.

28. Put another way, this act of deriving a site specific cap rate, for whatever reason, the Assessor has moved away from the grouping concept that is fundamental to the Mass Appraisal according to the Court of Appeal in Sasco.

29. From Altus's perspective, the Assessor seems to be moving to using single property appraisal techniques which the Court in Sasco observed that the prohibition to use same appears to be unique to Saskatchewan.

30. Should the Board of Revision not agree with Altus on this matter by concluding the Assessors site specific Cap Rates does fall within the frame work of Mass Appraisal, Altus then has concerns with the methodology itself. Altus will address these concerns as follows.

Surplus Land, Required Storage & Bylaw Requirements

31. The local market demonstrates that industrial land leased for storage rents at significantly lower levels than what the City of Regina's Industrial model applies. This is illustrated through industrial land leases[7] and indicated through assessment and real estate authorities.[8]

32. Authorities have demonstrated that Surplus Land typically may reflect lower value than excess land[9] in addition to the restrictions and limited availability due to market influencers[10] such as:

- Site dimensions
- Site location
- Geotechnical issues
- Topography proximity to sensitive uses
- Access
- Zoning
- Development applications
- Required Exterior Storage for Industrial Properties

33. The adjustments derived by the City of Regina in its Industrial model appear to have omitted zoning restrictions, required exterior storage areas and other market predictors in determining the site coverage.

[7] Appendix G– pg.100 – Confidential: Land Leases
[8] Appendix H – pg.127 - SAMA Warehouse Handbook Excerpts
[9] Appendix I – pg.141– Sauder School of Business – Chapter 10 "Land and Site Analysis"
[10] Appendix J – pg.171– Municipal Property Assessment Corporation (MPAC) – "Valuing Land in Transition in Ontario"

34. The subject is zoned IB Medium Industrial.[11] This is found on Henderson Drive in Ross Industrial, north of Ring Road and just south of McDonald Street. The Industrial Zoning Bylaw Chapter 5 describes the classification, permitted and discretionary uses as well as limitations for Industrial properties.[12]

35. Parking and Loading Regulations[13] from Bylaw 9250 Chapter 14 explicitly points to the minimum dimension requirements for industrial properties. Specifically, Table 14.7 discusses off-street parking requirements. Section 14C describes Loading Regulations For All Land Uses and in Table 14.8 provides the specific dimensions required for Industrial docking locations. This necessary land use in support of the existing improvement is legally binding pursuant to legislation passed by local council. This area is not accounted for in the determination of the site coverage calculation. Further, these industrial locations in many instances require outdoor area for storing supplies. As directed by industry authorities, surplus land is different from excess land. As a result, much of the area found in the sites in question, ie: *the sales*, do not in fact have extra land.

36. Land attributed to the zoning regulations and parking requirements are functionally required for the operation of the property and therefore should be accounted in the site coverage calculation as neither surplus nor excess land.

37. Sources from the Sauder School Business Land analysis state[14]:

> *"Surplus land is not currently needed to support the existing improvement and cannot be separated from the property and sold off. Surplus land does not have an independent highest and best use and may or may not contribute value to the improved parcel."*

38. Sources from MPAC state[15]:

> *"Surplus land is not currently needed to support the existing improvement, but it cannot be severed or separated from the property and sold off. Surplus land does not have an independent market value and may or may not contribute value to the improved parcel."*

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[11] Appendix B – pg.29– City of Regina Industrial Model – Model Zoning descriptions
[12] Appendix K – pg.197– Zoning Map - Bylaw 9250 Chapter 5 Use & Development Regulations (213-218)
[13] Appendix L – pg.234– Bylaw 9250 - Parking and Loading Regulations – Chapter 14 (265-266)
[14] Appendix I – pg.152– Sauder School of Business – Chapter 10 "Land and Site Analysis"
[15] Appendix J – pg.180&195– Municipal Property Assessment Corporation (MPAC) – "Valuing Land in Transition in Ontario"

Size Adjustment

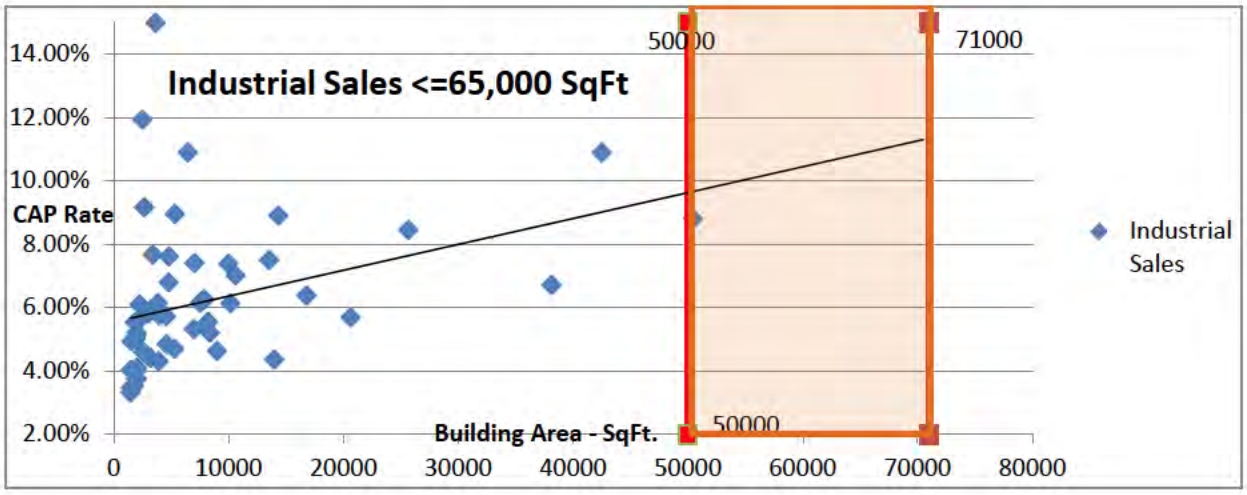
39. The Notice states: *The subject assessment appears to have been developed in error through a misapplication of the capitalization rate adjustment for building size. Moreover, the CAP rate size threshold established by the Assessor is maximized or capped at 50,000 square feet appears notwithstanding 65,000 square feet appears to be more appropriate.*

40. Properties in the size range of 50,000 to 65,000 square feet receive no capitalization rate adjustment. There is no clear indication as to why the 50,000 square foot threshold was imposed.

41. Two sales located at 1110 E Pettigrew, account number 10014003 and 580 Park Street, account number 10018674; are 126,800 and 87,760 square feet respectively. They are larger than the 65,000 square foot single tenant requirement that receive the -$2.53 per square foot adjustment to its modeled income.

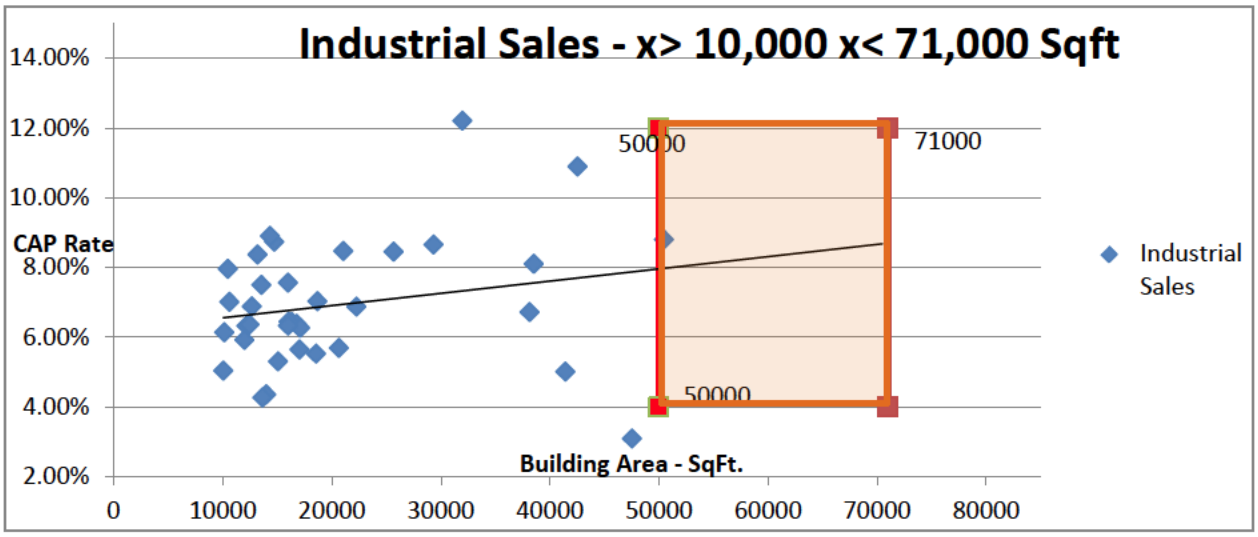
42. Due to the unique adjustment applied to these specific sales they cannot be accurately included in the sales study.[16]

43. Sales less than 71,000 square feet demonstrate an extrapolated trend that continues to increase above the 50,000 square foot size adjustment threshold. The highlighted area represents the range between the sales cut-off and the rental analysis size adjustment benchmark.[17]



[16] Appendix M – pg.270 – IAAO AVMs excerpts
[17] Appendix N – pg.276 – Industrial Sales Effect Area Chart

44. An overview of the Industrial building size beginning at 10,000 square feet and continuing to 71,000 square feet pursuant to Chebyshev's Theorem; clearly shows a continued rise beyond 50,000 square feet for building area.[18]



45. It is clear that capitalization rates continue to trend upward when analyzing building size. The question of why apply the new cut-off at 71,000 square feet is answered through the use of hypothesis testing, confidence intervals and data distribution.

46. Assessment authorities have used extrapolation methods when data is incomplete. Extrapolation is the estimation of a value based on extending a known sequence of value or facts beyond the area that is certainly known. Extrapolation is used to estimate values that go beyond a set of given data or observations.[19]

47. Authoritative information in deriving a break-point can be found in the IAAO Standard on Ratio Studies and in the IAAO textbook Fundamentals of Mass Appraisal. These documents discuss the type of variable data utilized, associated tests and what criteria need to be met. Excerpts from these documents state[20]:

[18] Appendix O – pg.278 – Industrial sales greater than 10,000sqft & less than 71,000 sqft.
[19] Appendix P – pg.280 – Extrapolation Sources
[20] Appendix Q – pg.285 – IAAO textbook Fundamentals of Mass Appraisal excerpts

"To understand the role of confidence intervals, it is important to recall the difference between statistics (such as the mean and standard deviation) and parameters. Statistics are calculated from samples and serve as point estimates of corresponding population parameters. The true value of the parameters is unknown and must be estimated. Confidence intervals quantify the range in which the analyst can conclude that population parameters lie with a stated level of confidence."

48. Additional online sources which state[21]:

"The one-sample t-test is used to determine whether a sample comes from a population with a specific mean. This population mean is not always known, but is sometimes hypothesized."

"The one-sample t-test is used when we want to know whether our sample comes from a particular population but do not have full population information available to us. For instance, we may want to know if a particular sample of college students is similar to or different from college students in general"

49. Common Statistical tools in analyzing a sample population's break point are the Empirical Rule and Chebyshev Theorem. The Empirical Rule, also known as the three-sigma rule of 68-95-99.7 rule, provides an estimate of the spread of data in a normal distribution using the mean and standard deviation. More specifically, the empirical rule states that for a normal distribution[22]:

68% of the data will fall within one standard deviation of the mean.

95% of the data will fall within two standard deviations of the mean.

Almost all (99.7%) of the data will fall within three standard deviations of the mean.

50. If the distribution was not accepted to be normal, the Chebyshev's Theorem should be used to determine the break point. Chebyshev's Theorem is used for the same purpose as the Empirical Rule, but is useful for making inferences about data sets that do not follow a normal distribution.[23]

[21] Appendix R – pg.295 – One-Sample T-test online excerpts
[22] Appendix S – pg.301 – Second Canadian Edition of Statistics textbook excerpts
[23] Appendix T – pg.305 – Normality Excerpts & Default Alpha Statistic of 5%

51. The industrial sales data greater than 10,000 square feet and less than 71,000 square feet when statistically tested for normality in addition to the descriptive statistics outlining the Sample Population Mean and Sample Population Standard Deviation results in the following[24]:

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Total Net Area	.243	37	.000	.795	37	.000

a. Lilliefors Significance Correction

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Total Net Area	37	10057	50462	20593.03	11334.497
Valid N (listwise)	37				

52. The test shows that the data is not normally distributed and therefore requires Chebyshev's Theorem to be used in determining the breakpoint maximum for the capitalization rate size adjustment.

53. The default significance level (alpha) is 5% which corresponds to a 95% confidence level.[25] Assessment in Saskatchewan has relied on the 5% alpha in the past and currently still.[26] In establishing a 95% confidence in determining an appropriate break-point for industrial sales, the following formula is used:

We require a 95% confidence therefore; $0.95 = 1 - \frac{1}{K^2}$ → K = 4.47

Break Point = $\bar{X}$ + K∗ σ → 20593.03 + 4.47 * 11334.497 = **71,258.23 sqft**.

54. Analysis of the sales data using Chebyshev's Theorem indicate an upward threshold or capped building size of 71,258.23 square feet in which the capitalization rate adjustment for size is to be applied. The City of Regina has implemented a rental adjustment to single-tenant properties 65,000 square feet and greater. Given the statistical results and the clear upward trend in

[24] Appendix U – pg.322 – IBM SPSS Normality test & Descriptive Statistics
[25] Appendix T – pg.305 – Normality Excerpts & Default Alpha Statistic of 5%
[26] Appendix V – pg.328 – Authorities 95% Confidence (342, 361-363)

capitalization rates beyond 50,000 square feet it would be appropriate to amend the 50,000 square foot threshold to 71,000 square feet or at minimum 65,000 square feet.[27]

CONCLUSION

55. The Assessor's transition away from Mass Appraisal is apparent through the use of site specific variables and contradicts what the Court has found in the Sasco case. If the Board of Revision finds that the Assessor did not err in its methodology of applying curves then the Appellant asserts that error has been demonstrated by way of exclusion of market factors that limit or reduce the value surplus land, omitting differences in the value achievable for secured storage area as well as the exclusion of bylaw and zoning requirements.

56. The industry has recognized the difference between industrial and surplus land. Various authorities support the consideration and inclusion of site influencing factors including zoning bylaw requirements as well as the recognition that surplus land may or may not add value to the parcel the same way purely vacant land would in the marketplace due to its limited utility.

57. Land lease information provided shows that industrially zoned parcels do not achieve the same level of value that vacant land would garner in the marketplace. It is for this reason that industrial exterior storage areas must be valued in a manner consistent with the reduced utility of the land and its relationship to market value for similar properties.

58. Additionally, if the Board of Revision finds that the Assessor did not err in its methodology of applying curves then the Appellant asserts that error has been demonstrated through the improper capitalization rate size threshold of 50,000 square feet. The sales larger than 65,000 square feet when adjusted to allow for a comparable analysis demonstrate an upward trend resulting in a higher capitalization rate for properties greater than 50,000 square feet.

59. The distribution of the data is clearly identified as being non-normal resulting in the reliance on the Chebyshev statistical theorem. The theorem illustrates that at 95% confidence the appropriate range for the sales indicated in this submission result in a threshold maximum greater than 65,000

[27] Appendix W – pg.368 – Additional IBM SPSS data sets: Normality & Descriptive Analysis

square feet. Therefore, the application of the capitalization rate size adjustment should be applied to at least 65,000 square feet.

VII. SUMMARY

- The sales data illustrate an upward trend in capitalization rates beyond 50,000 square feet when accounting for the unique rental adjustment for single tenant properties greater than or equal to 65,000 square feet.
- At 95% Confidence the extrapolated range in which the capitalization rate size adjustment is to be considered is over 65,000 square feet.
- Assessment Authorities emphasize the difference between surplus and excess land and suggest that the value may or may not be the same between the different types.
- Land leases show that land is being rented for significantly less than what one would achieve if the industrial parcel was completely bare or considered excess land.
- Zoning restrictions and limitations must be considered in the determination of surplus and excess land and in the determination of the site coverage calculation.

VIII. REMEDY

60. That the Board of Revision find the Assessor has erred in the valuation of the subject property and that Altus has met its onus in demonstrating an error with the model.

61. The Appellant respectfully requests the Board of Revision find that the Assessment is found in excess and that variables limiting site coverage and influencing market value be accounted for in the various capitalization rate calculations. That the Assessor extends the building size threshold of 50,000 square feet to 71,000 square feet or at minimum 65,000 square feet to account for the upward trend in capitalization rates as well as the statistical testing establishing an upward limit.

ALL OF WHICH IS RESPECTFULLY SUBMITTED this 25th day of April, 2017.

ALTUS GROUP LIMITED

Per: _____
Agent for the Appellant

APPENDICES

A. Property Map & Pictures

B. City of Regina's Industrial Model

C. Subject Income SPSS Report (Lead)

D. Multiple Regression Analysis Sources

E. Altus' Lead Notice of Appeal

F. Sasco Developments Ltd. COA Decision

G. Confidential: 18(1)(b)

H. SAMA Warehouse Handbook Excerpts

I. Sauder School of Business – Chapter 10 – Land & Site Analysis

J. MPAC – "Valuing Land in Transition in Ontario"

K. Bylaw 9250 – Chapter 5 – Use & Development / Subject Zoning Map

L. Bylaw 9250 – Chapter 14 – Parking & Loading Regulations

M. IAAO AVMs excerpts

N. Industrial Sales Effect Area - Charts

O. Industrial Sales greater than 10,000 square feet - Chart

P. Extrapolation Sources

Q. IAAO textbook *Fundamentals of Mass Appraisal* excerpts

R. One-Sample t-test online excerpts

S. *Second Canadian Edition of Statistics* textbook excerpts

T. Normality Excerpts & Default Alpha Statistic sources

U. IBM SPSS Normality test & IBM SPSS Descriptive statistics

V. Authorities 95% Confidence: Decisions and Appeal Documents

W. Additional IBM SPSS Data Normality & Descriptive tests

X. 460 Albert Street site coverage pictures & SPSS Report (394)

Y. Client Income SPSS Reports (399)

Appendix A

Civic Address: 610 Henderson Drive Account Number: 10018730

Civic Address: 610 Henderson Drive Account Number: 10018730

Civic Address: 610 Henderson Drive Account Number: 10018730

Civic Address: 610 Henderson Drive Account Number: 10018730

Appendix B

Industrial

IDENTIFICATION of MODEL AREA

The Industrial model is an income model that values the majority of properties that are zoned for industrial uses (IA, IA1, IB, IP, IT, RR and WH). Properties with these zoning designations that are considered special purpose in nature or for which there is little or no available market data (rents or sales) are valued outside of this model using the Cost Approach to Value.

The Industrial model is applied to those properties which are primarily located within the City of Regina's (the City's) industrial study areas (5201, 5203, 5204, 5205, 5206, 5207 and 5208). As a result of the market analysis for the 2017 revaluation it was determined that there were five distinct industrial study neighbourhoods located within the City's municipal boundaries, each with varying types and ages of commercial buildings, land sizes and locational characteristics. These neighbourhoods are defined on the enclosed map and individually described below.

Zoning Descriptions

Properties valued by the Industrial model reflect numerous zoning classifications. The following are cursory, generalized descriptions only and are not meant to reflect complete details concerning the predominant zonings found within the City's industrial study area:

- IA, IA1 – Light Industrial: accommodates the manufacturing of finished products or parts predominantly from previously prepared materials. The IA1 zone is confined to existing industrial properties that are located on the fringes of the Inner City
- IB, IB1 – Medium Industrial: allows for manufacturing, processing, assembly, distribution, service and repair activities that require outdoor use and storage. This zoning is restricted to locations on the interior of industrial neighbourhoods along collector roadways
- IC, IC1 – Heavy Industrial: industrial uses which, due to appearance, noise, odour, risk of emission of toxic waste, risk of fire or explosion hazards, etc. are incompatible with commercial, residential and other land uses. Accordingly, new office, business and retail uses within this zone are limited. Development with direct access to local and collector residential streets is not allowed in this zone
- IP – Prestige Industrial Service: accommodates industrial and related business service uses that incorporate high standards of design, landscaping and open space. The IP zone is found in locations that are visible, have adequate facilities and services and will provide a buffer for adjacent residential and commercial uses
- IT – Industrial Tuxedo Park: provides for light to medium industrial uses, including commercial and service, on those properties located in Tuxedo park
- LP – Logistics Park: specialized industrial park that supports transportation and logistics related development and complementary industrial and commercial uses.
- WH – Dewdney Avenue Warehouse: intent is the preservation of the warehouse character through retention and reuse of existing warehouses. Accommodates a wide range of administrative, service, retail, wholesale and light manufacturing uses

- RR – Railway Zone: regulate land uses that are directly associated with transportation by railroad, switching and terminal operations

Neighbourhood 5201

Neighbourhood 5201 is comprised of three small pockets encompassing all industrial zoned parcels located within the boundaries of North Central Regina. The west most pocket is located on the south side of the CN tracks, west of Albert Street and North of 1st Avenue. The central pocket is situated on the north side of the CN tracks between the laneway east of Albert Street and the laneway immediately west of Scarth Street with 1st Avenue North providing its northern boundary. The east pocket is likewise located north of the CN tracks with Winnipeg Street as its eastern boundary and 5th Avenue North as its northern most boundary.

The properties situated in this neighbourhood are zoned IA, IA1 (light industrial) and IB (medium industrial) and feature, for the most part, small light industrial properties.

64% of the industrial buildings found in this neighbourhood were constructed in the 1960s and 1970s reflecting an average year built of 1976. Buildings range in size from approximately 600 square feet to 45,500 square feet with an average size of approximately 7,500 square feet.

Improved lot sizes range from approximately 2,000 square feet to 4.40 acres with an average lot size of 21,500 square feet.

Neighbourhood 5203

Neighbourhood 5203 is known as the Ross Industrial Park and is the largest industrial area in the city. This area encompasses the City's northeast corner and is roughly bordered by Winnipeg Street to the west, the CN tracks to the southwest, CP tracks to the southeast, the eastern municipal boundary of the city to the east and the northern municipal boundary of the city to the north.

The northern one-third of this neighbourhood is almost entirely occupied by the Consumers' Co-operative Refineries (CCRL). Imperial Oil, Enbridge Pipelines and several other large oil tank farms are located along the west boundary of this neighbourhood and abut the southern boundary of the CCRL property. The Ross Industrial Park features a broad mixture of zones with the majority of properties (85%) zoned IA (light industrial) or IB (medium industrial). There are 36 IC (heavy industrial), 15 IP (prestige industrial) and 22 properties zoned RR (railway). This neighbourhood comprises a broad range of property sizes, types and uses from light to heavy and prestige industrial. Property uses include small workshops to large manufacturing operations, chemical processing, mega warehousing (>200,000 square foot buildings), industrial, office, retail and restaurant uses necessary to service the area.

The majority of the buildings situated in this neighbourhood (52%) were constructed in the 1970s and 1980s with a further 29% being constructed since 2000. The average year built for buildings in this neighbourhood is 1982. Buildings range in size from approximately 110 square feet to 395,000 square feet with an average size of 25,500 square feet.

Improved lot sizes range from approximately 6,000 square feet to 337 acres with an average lot size of eight acres.

Neighbourhood 5204

Neighbourhood 5204 is located immediately adjacent to the southwest corner of the Ross Industrial Park and encompasses all industrial zoned properties that are located along its west, south and eastern borders. Specifically along the east side of Winnipeg Street (west border), between the CP tracks and 7th Avenue (south border), and along the west side of McDonald Street (east border). These properties are primarily zoned IA and IA1 (light industrial). Three of the 127 properties in this neighbourhood are zoned IB (medium industrial).

71% of the buildings in this neighbourhood are small industrial buildings which were constructed in the 1950s through 1980s reflecting an average year built of 1969. Buildings in this neighbourhood range in size from approximately 222 square feet to 28,000 square feet with an average size of 4,750 square feet.

Improved lot sizes range from approximately 3,100 square feet to 1.83 acres. The average lot size in this neighbourhood is 12,500 square feet.

The analysis completed for the 2017 revaluation resulted in a decision to combine the 31 available rents for neighbourhood 5204 with the 201 rents from neighbourhood 5205.

Neighbourhood 5205

Neighbourhood 5205 is located in central Regina just north of the downtown core. This area is referred to as the Old Warehouse District and is bordered on its south side by the CP tracks abutting the north side of Saskatchewan Drive, 4th Avenue to the north, Albert Street to the west and Winnipeg Street to the east. This area is somewhat transitional in nature with many properties being used for a mix of general commercial uses including retail, office, nightclubs and residential condominiums.

The majority of the properties on this neighbourhood (85%) are zoned IA, IA1 (light industrial) and IB (medium industrial) and feature, for the most part, small light industrial properties with buildings constructed from the 1910s to 2015 with the majority (64%) being built in the 1950s through the 1980s, reflecting an overall average year built of 1960. The area along Dewdney Avenue abutting the CP rail yards (between Albert and Broad Streets) features larger mill style warehouses constructed in the early 1900s. This section is zoned WH which as noted earlier, is a zoning designation that is intended to preserve the character of these buildings, many of which are now used for restaurant, nightclub, office and residential uses. Five of the properties in this neighbourhood are zoned RR.

Buildings range in size from approximately 150 square feet to 333,000 square feet with an average size of 18,500 square feet. Improved lot sizes range from approximately 2,200 square feet to 22.50 acres with an average lot size of 45,950 square feet.

As noted above, Neighbourhoods 5204 and 5205 have been combined for analysis purposes for the current revaluation. The following data supported the decision to combine these two industrial neighbourhoods for market analysis purposes.

Report

NET_PSF

Study_Area	N	Median	Mean	Minimum	Maximum	% of Total N	Std. Deviation
5204.00	31	8.8836	9.2132	5.08	22.27	13.4%	3.21711
5205.00	201	9.0500	9.1982	1.09	22.75	86.6%	3.62171
Total	232	9.0195	9.2002	1.09	22.75	100.0%	3.56380

Neighbourhood 5206

Neighbourhood 5206 is sandwiched between Neighbourhoods 5201 and 5205 in North Central Regina. This area is roughly bordered by McIntyre Street to the west, Winnipeg Street to the east, the CN tracks to the north and 4th Avenue to the south. As well, this neighbourhood extends north up Winnipeg Street from Ross Avenue (south) to the Ring Road (north). This northerly arm encompasses the former Imperial Oil Refinery site that ceased operations in the late-1970s and is now occupied by the City's Transit Operations and the local Food Bank, among other uses.

This neighbourhood primarily features a mixture of IA (light industrial) and IB (medium industrial) zoning and is generally developed with medium to large property sizes featuring mostly warehousing and manufacturing uses.

This neighbourhood has had the majority of its buildings constructed steadily since the 1950s, reflecting an average year built of 1975. Buildings range in size from approximately 400 square feet to 194,000 square feet with an average size of 60,000 square feet.

Improved lot sizes range from approximately 11,000 square feet to 31 acres with an average lot size of 5.15 acres.

Neighbourhood 5207

Neighbourhood 5207 is known as Tuxedo Park and is located in East Central Regina immediately south of Neighbourhoods 5204 and 5205 and the most southerly portion of Neighbourhood 5203. This area is roughly bordered by Broad Street to the west, Park Street to the east, the CP tracks to the north and 10th Avenue, Arcola Avenue and Victoria Street to the south.

This neighbourhood is predominantly zoned IT (light to medium industrial), features a small pocket (41 properties) of IA1 (light industrial) zoning in its west arm, and three IC (heavy industrial) sites. There is a mixture of small, medium and large property sizes featuring a mixture of industrial and general commercial uses, including retail and office uses. Although there has been steady construction in this neighbourhood from the 1950s to present day, the majority of the buildings (61%) were constructed in the 1960s, 1970s and 1980s, reflecting an overall average year built for this neighbourhood of 1977.

Buildings range in size from approximately 150 square feet to 170,000 square feet with an average size of 16,100 square feet.

Improved lot sizes range from approximately 1,900 square feet to 12.30 acres. The average lot size in this neighbourhood is 1.47 acres.

Neighbourhood 5208

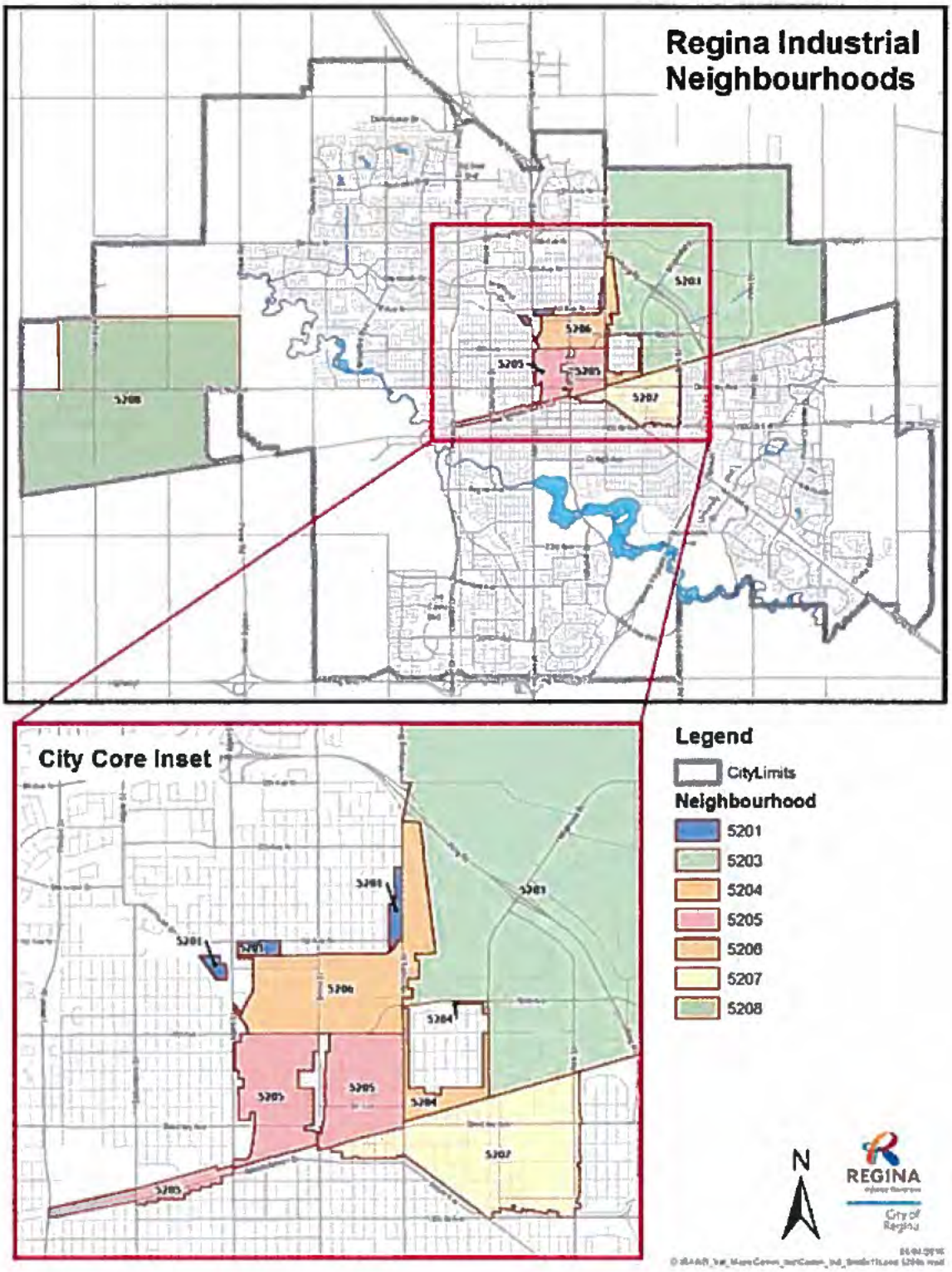
Neighbourhood 5208 is the City's newest industrial area and is located on land annexed to the City extending west of the city along the CP tracks. This area, now referred to as the Global Transportation Hub or GTH, is bordered by West Boundary Road to the west, the Saskimay Reserve to the east, Dewdney Avenue to the north and the CP tracks to the south.

The majority of this neighbourhood is zoned LP (logistics park) and is intended to accommodate inter-modal shipping, trucking and mega-style warehousing on large sites. Loblaws has developed and is operating a one-million+ square foot inter-modal shipping centre in this neighbourhood. Smaller distribution facilities have been developed over the past six years. The southern portion of this neighbourhood is zoned RR (railroad) and houses Canadian Pacific Railway's inter-modal facility.

Buildings range in size from approximately 100 square feet to 1,054,000 square feet with an average size of 252,000 square feet.

Improved lot sizes range from approximately 1,100 square feet to 298.81 acres. The average lot size in this neighbourhood is 58.8 acres.

MAP



EXECUTIVE SUMMARY

Industrial Model

Appraisal Cycle Date – January 1, 2017 to December 31, 2020

Effective Date of Valuation – January 1, 2015

Date of Report – December 8, 2016

Rent Model

Description:	**Rate per sqft**
Base Rent	$8.88
Positive Adjustments to Base Rent:	
Office space In a Loft Building	$6.36
Restaurant or Retail space In a Loft Building	$3.91
All space in a Retail Building	$1.30
All space in an Office Building	$3.81
Fast Food Restaurant Building	$18.90
Buildings built in 1980 to 1999, inclusive	$0.97
Buildings built in 2000 or newer	$2.83
Negative Adjustments to Base Rent:	
Space located in a Basement	-$2.86
Upper Floor space including finished Mezzanine	-$1.79
Buildings Located in Neighbourhood 5201	-$1.20
Buildings Located in Neighbourhoods 5204 and 5205	-$0.60
Buildings built before 1950	-$2.22
Single-tenant Warehouse space >= 65,000 sqft	-$2.53
Other Adjustments:	
Unheated Warehouse space	-43%

SCOPE of DATA and ANALYSIS

Industrial Rent Model

Each year, the City Assessor requests copies of rent rolls for all non-residential properties in the City of Regina. The data for the development of the mass appraisal net rent model came from the data provided in these returned rent rolls.

A total of 882 net and effective net rents were analyzed using multiple regression analysis. The rent model is an additive model that predicts rents based on the lease area size, building and space classification, location and effective age of building. The following table provides a breakdown of these rents along with general statistical measurements.

Industrial Rent Statistics

Strata	Count	Mean	Median	Minimum	Maximum
Overall	882	$9.79	$9.52	$1.09	$36.17
Office Lease Space in a Loft Building	19	$10.83	$12.50	$3.24	$18.00
Restaurant or Retail Lease Space in a Loft Building	24	$9.09	$8.14	$4.60	$16.00
Warehouse Lease Space in a Loft Building	3	$2.33	$1.39	$1.09	$4.50
Single Tenant Retail Lease Space	73	$10.57	$10.68	$4.13	$15.00
Single Tenant Office Lease Space	71	$12.82	$11.44	$2.35	$36.17
Freestanding Fast Food Restaurant	3	$29.36	$29.00	$26.00	$33.09
Single Tenant Warehouse Lease Space	365	$9.25	$9.19	$2.08	$22.75
Single Tenant Industrial Flex Lease Space	313	$9.51	$9.50	$3.20	$21.94
Single Tenant Service Repair Lease Space	6	$9.38	$8.75	$4.07	$17.55
Single Tenant Unheated Warehouse Lease Space	5	$5.68	$5.75	$5.00	$6.36

Vacancy and Shortfall

Typical 2015 base date vacancy and shortfall adjustments were estimated from the returned rent rolls from property owners. The overall industrial vacancy rate were estimated as follows:

Rent Type	N	Sum (sqft)
OWNER	170	1,055,810
TENANT	1,109	7,025,273
VACANT	93	403,808

Total	1,372	8,484,891

Vacancy = 403,808/8,484,891 = 0.0476 (4.76%)

The estimates for main floor vacancies are as follows:

Rent Type	**N**	**Sum (sqft)**
OWNER	150	946,528
TENANT	982	6,181,932
VACANT	71	382,569
Total	1,203	7,511,029

Vacancy = 382,569/7,511,029 = 0.0509 (5.09%)

The upper floor and mezzanine vacancies were determined as follows:

Rent Type	**N**	**Sum (sqft)**
OWNER	12	19,889
TENANT	69	143,859
VACANT	19	20,037
Total	100	183,785

Vacancy = 20,037/183785 = 0.1090 (10.90%)

The typical operational costs reported as a ratio to typical net rents for warehouse properties is 41%. The historic ratio of costs associated with vacant space in comparison to costs associated with occupied space (dark space ratio) was 67%. The shortfall adjustment is calculated as follows:

Shortfall = (op cost/net rent ratio) x (dark space ratio) x (typical Vacancy)

= 0.41 x 0.67 x 0.0476

= 0.0131 (1.31%)

Overall Capitalization Rates and Adjustments

Economic Capitalization Rates were estimated by dividing the predicted base date net operating income (generated from the net rent model) by the adjusted sale prices for all qualified industrial sales. Sales used in this analysis occurred between January 1, 2011 and December 31, 2014. These sales have been confirmed as appropriate for sales analysis purposes through a sales verification process which included the mailing of questionnaires to all vendors and purchasers with further follow-up and field inspection of the sold properties, as required.

Sales have been adjusted for non-realty items and other significant factors, when warranted. Sales were also adjusted to the base date of January 1, 2015. The indicated time adjustment was approximately 1.3% per month for the first 28 months (January 2011 to April 2013) and no further adjustment for sales occurring after April 2013.

The economic capitalization rate analysis involved 136 sales, detailed in the following table.

ACCOUNT	ADDRESS	SALE YEAR	SALE MONTH	ADJUSTED SALE PRICE	PREDICTED INCOME	ECONOMIC CAP
10013922	290 HODSMAN ROAD	2012	8	1,180,931	57,876	4.90
10013945	315 HODSMAN ROAD	2013	2	1,026,167	64,200	6.26
10013946	325 HODSMAN ROAD	2014	5	999,998	62,000	6.20
10013951	100 N MCDONALD STREET	2012	12	14,005,179	432,300	3.09
10013957	125 HENDERSON DRIVE	2011	3	1,201,585	60,700	5.05
10013976	370 N LONGMAN CRESCENT	2014	5	574,999	29,500	5.13
10013978	350 N LONGMAN CRESCENT	2011	1	992,093	61,300	6.18
10013978	350 N LONGMAN CRESCENT	2012	8	1,194,481	61,300	5.13
10013990	235 N MCDONALD STREET	2014	2	1,649,997	113,600	6.88
10014003	1110 E PETTIGREW AVENUE	2012	11	13,013,865	868,100	6.67
10018417	502 QUEBEC STREET	2011	4	381,754	14,300	3.75
10018420	464 QUEBEC STREET	2013	6	711,999	31,400	4.41
10018435	353 QUEBEC STREET	2014	3	150,000	17,900	11.93
10018441	370 QUEBEC STREET	2014	8	275,000	13,800	5.02

10018633	420 HOFFER DRIVE	2012	2	5,212,196	458,700	8.80
10018657	515 MCDONALD STREET	2011	7	708,258	41,500	5.86
10018662	435 MCDONALD STREET	2011	11	1,382,556	60,300	4.36
10018674	580 PARK STREET	2013	10	8,949,984	502,500	5.61
10018682	264 E 1ST AVENUE	2012	3	1,685,532	99,700	5.92
10018688	909 E PETTIGREW AVENUE	2012	10	2,323,242	123,100	5.30
10018689	1105 E PETTIGREW AVENUE	2011	9	1,821,351	115,200	6.32
10018690	1117 E PETTIGREW AVENUE	2011	6	4,384,509	355,200	8.10
10018693	1405 E PETTIGREW AVENUE	2011	7	2,728,104	153,800	5.64
10018705	380 HENDERSON DRIVE	2013	4	1,579,997	69,700	4.41
10018717	445 MAXWELL CRESCENT	2011	2	2,042,667	88,900	4.35
10018718	435 MAXWELL CRESCENT	2011	4	3,067,669	174,500	5.69
10018733	205 N LEONARD STREET	2013	6	2,794,995	154,300	5.52
10018736	705 HENDERSON DRIVE	2012	7	7,469,747	374,000	5.01
10018744	380 MAXWELL CRESCENT	2011	7	1,606,696	66,300	4.13
10018745	1150 E WEAVER STREET	2011	9	1,246,187	62,700	5.03
10018747	1130 E WEAVER STREET	2011	12	983,649	41,500	4.22
10018752	470 MAXWELL CRESCENT	2013	9	1,149,998	68,300	5.94
10021967	645 ANGUS STREET	2013	11	945,998	50,300	5.32
10021970	620 ANGUS STREET	2012	11	777,632	43,100	5.54

10022100	2350 2ND AVENUE	2013	5	2,599,995	220,285	8.47
10022138	805 TORONTO STREET	2011	10	1,110,330	78,700	7.09
10022390	805 WINNIPEG STREET	2012	6	1,251,660	65,100	5.20
10022453	310 E 4TH AVENUE	2012	3	2,483,941	209,800	8.45
10022463	942 PARK STREET	2012	2	2,186,726	139,500	6.38
10022516	1750 E MACRAE DRIVE	2014	1	849,998	35,200	4.14
10022528	1507 E ROSS AVENUE	2012	3	2,353,830	165,500	7.03
10026892	1835 5TH AVENUE	2013	11	1,249,998	111,300	8.90
10026894	1140 ROSE STREET	2013	6	364,999	16,800	4.60
10026927	1430 MCINTYRE STREET	2012	12	1,579,531	73,100	4.63
10026930	1374 MCINTYRE STREET	2012	9	333,861	11,600	3.47
10026936	1324 MCINTYRE STREET	2011	2	349,772	26,816	7.67
10026940	1333 MCINTYRE STREET	2012	10	226,921	20,800	9.17
10026960	1428 LORNE STREET	2012	10	302,562	15,500	5.12
10026998	1366 CORNWALL STREET	2013	5	384,999	15,800	4.10
10027014	1355 CORNWALL STREET	2012	11	789,366	34,000	4.31
10027017	2139 8TH AVENUE	2013	1	453,745	16,000	3.53
10027056	1431 SCARTH STREET	2013	4	389,999	15,700	4.03
10027119	1255 CORNWALL STREET	2012	2	539,193	31,000	5.75
10027154	1401 ST JOHN STREET	2013	6	1,049,998	77,500	7.38

10027197	1361 HALIFAX STREET	2012	5	461,066	50,200	10.89
10027200	1625 8TH AVENUE	2013	1	1,507,286	76,000	5.04
10027246	1516 6TH AVENUE	2011	4	327,218	29,300	8.95
10027247	1136 ST JOHN STREET	2011	11	871,882	34,200	3.92
10027266	1162 OSLER STREET	2013	2	2,869,572	192,700	6.72
10027267	1148 OSLER STREET	2012	8	1,219,741	79,100	6.48
10027272	215 7TH AVENUE	2013	4	741,999	42,800	5.77
10027290	555 7TH AVENUE	2013	11	159,499	7,400	4.64
10027298	1335 BRODER STREET	2013	5	374,999	23,900	6.37
10027321	1326 ATKINSON STREET	2014	6	250,000	25,100	10.04
10027327	1349 WALLACE STREET	2012	5	219,006	11,400	5.21
10027343	1337 WINNIPEG STREET	2013	3	229,612	12,700	5.53
10027348	980 DEWDNEY AVENUE	2013	4	1,899,997	79,700	4.19
10027354	728 DEWDNEY AVENUE	2014	9	416,999	16,800	4.03
10027919	1025 WINNIPEG STREET	2012	11	357,988	10,500	2.93
10027920	1037 WINNIPEG STREET	2011	5	483,115	29,700	6.15
10027925	135 6TH AVENUE	2013	5	1,628,247	103,600	6.36
10027980	1420 FLEURY STREET	2013	11	2,669,995	183,400	6.87
10027982	1410 FLEURY STREET	2014	11	1,999,996	80,100	4.01
10027987	580 E DEWDNEY AVENUE	2013	8	1,465,997	77,500	5.29

10032066	2825 SASKATCHEWAN DRIVE	2012	6	1,678,362	117,700	7.01
10032088	2901 SASKATCHEWAN DRIVE	2012	9	990,633	44,100	4.45
10032114	1873 CAMERON STREET	2014	5	275,000	41,200	14.98
10032130	3426 SASKATCHEWAN DRIVE	2012	5	945,185	82,600	8.74
10033263	1500 WINNIPEG STREET	2013	3	769,879	37,300	4.84
10033272	1160 9TH AVENUE	2013	10	349,999	11,600	3.31
10033335	1600 TORONTO STREET	2013	12	304,999	18,600	6.10
10033463	1575 ELLIOTT STREET	2013	2	2,154,951	282,300	13.10
10033464	1539 ELLIOTT STREET	2014	9	770,999	57,100	7.41
10033800	1601 MCARA STREET	2012	3	1,052,718	83,800	7.96
10033807	500 E 10TH AVENUE	2014	5	3,599,984	392,000	10.89
10033814	715 E DEWDNEY AVENUE	2011	9	1,310,094	109,700	8.37
10033823	305 E DEWDNEY AVENUE	2011	5	2,113,081	135,800	6.43
10033828	101 DEWDNEY AVENUE	2013	3	1,012,998	62,400	6.16
10033847	1920 MCARA STREET	2012	8	1,006,840	46,900	4.66
10033876	1818 MCARA STREET	2011	12	368,869	20,736	5.62
10033878	1774 MCARA STREET	2011	8	550,272	41,900	7.61
10033885	1705 MCARA STREET	2013	5	474,999	27,600	5.81
10033897		2014	12			

	1842 MACKAY STREET			824,999	47,200	5.72
10033920	1740 FRANCIS STREET	2012	3	650,556	44,200	6.79
10033928	535 E 12TH AVENUE	2012	10	994,130	62,300	6.27
10059440	127 HODSMAN ROAD	2013	6	215,000	9,100	4.23
10059441	129 HODSMAN ROAD	2013	7	180,000	8,900	4.94
10059451	332 HODSMAN ROAD	2014	6	266,865	11,600	4.35
10059725	1135 E WEAVER STREET	2011	12	555,762	33,000	5.94
10065679	1347 WINNIPEG STREET	2013	9	280,000	13,826	4.94
10070876	1168 WINNIPEG STREET	2012	10	270,144	19,000	7.03
10070876	1168 WINNIPEG STREET	2012	11	373,349	19,000	5.09
10070877	1170 WINNIPEG STREET	2013	6	528,999	33,900	6.41
10070879	1180 WINNIPEG STREET	2014	2	499,999	25,500	5.10
10086976	1301 OSLER STREET	2013	10	1,549,997	95,100	6.14
10091137	1330 OSLER STREET	2013	10	1,149,998	63,800	5.55
10091223	1201 LORNE STREET	2013	7	1,399,998	105,000	7.50
10093003	390 N LONGMAN CRESCENT	2012	8	1,718,725	91,200	5.31
10093276	310 E 6TH AVENUE	2012	5	1,757,814	132,900	7.56
10093276	310 E 6TH AVENUE	2014	5	2,099,996	132,900	6.33
10113530	505 PARK STREET	2013	9	2,589,995	166,900	6.44
10113531	535 PARK STREET	2014	1	3,699,993	320,200	8.65

10120535	602 DEWDNEY AVENUE	2013	4	138,000	14,200	10.29
10120676	1800 GARNET STREET	2012	12	579,162	27,200	4.70
10133583	1355 LORNE STREET	2014	10	459,999	17,300	3.76
10136588	722 DEWDNEY AVENUE	2014	2	417,499	16,800	4.02
10147651	2102 E TURVEY ROAD	2012	10	594,318	26,300	4.43
10167385	20 2206 DEWDNEY AVENUE	2012	7	207,805	10,300	4.96
10167387	22 2206 DEWDNEY AVENUE	2012	7	247,119	9,700	3.93
10213813	1660 REYNOLDS STREET	2013	5	848,998	63,200	7.44
10226517	202 SOLOMON DRIVE	2014	2	3,499,994	149,500	4.27
10256290	1 1801 E TURVEY ROAD	2012	2	461,309	28,700	6.22
10256291	2 1801 E TURVEY ROAD	2012	2	461,309	28,400	6.16
10256292	3 1801 E TURVEY ROAD	2012	8	426,909	28,400	6.65
10256294	5 1801 E TURVEY ROAD	2012	10	416,022	28,400	6.83
10256295	6 1801 E TURVEY ROAD	2013	2	399,179	28,400	7.11
10256296	7 1801 E TURVEY ROAD	2013	6	388,999	28,700	7.38
10259150	730 DEWDNEY AVENUE	2014	8	416,999	16,800	4.03
10271843	412 DEWDNEY AVENUE	2014	1	639,999	29,000	4.53
10271844	410 DEWDNEY AVENUE	2012	5	393,382	16,500	4.19
10271845	408 DEWDNEY AVENUE	2012	10	414,423	16,300	3.93
10271846	406 DEWDNEY AVENUE	2013	12	374,999	16,300	4.35

10271847	404 DEWDNEY AVENUE	2013	12	321,599	16,500	5.13
10271848	402 DEWDNEY AVENUE	2013	10	324,999	16,500	5.08
10271849	414 DEWDNEY AVENUE	2014	10	689,999	32,300	4.68
10271850	400 DEWDNEY AVENUE	2014	9	409,999	18,400	4.49

The reconciliation process for determining the industrial economic capitalization rates applied to each property involved the use of Multiple Regression Analysis. The variables that were determined to affect the economic capitalization rate were the Industrial Light Manufacturing building type, effective age, site coverage ratio and total building area <> 10,000 square feet, which was supported by a consultation process with individuals active in the Regina real estate market. Industry recognized published capitalization rate data were also reviewed. The economic capitalization rates are as follows:

Overall Capitalization Rates

Description	**Rate**
Base Cap Rate	6.862
Condo	-1.101
Site Coverage Adjustment, Less than 30%, to minimum 9%	-.060
Area Adjustment, from 10,000, per 1000sqft, to 50,000	.044
Industrial Light Manufacturing Type Adjustment	-.940

Adjustments Outside the Model

Extra Land

Extra Land is the difference between a property's actual parcel size, and the maximum parcel size that would be required to accommodate the existing improvement.

Site coverage in the Industrial model ranges from 6% to 88%. The median site coverage is 30%. When site coverage is less than the median value, the Capitalization Rate for the building is adjusted according to the results of the regressed Capitalization Rate model, to a minimum of 9% site coverage.

When the site coverage ratio is less than 9%, then:

Extra Land Value = (Lot Size-(building foot print / .09))/Lot Size*Land Assessment

MODEL TESTING

In mass appraisal, the most effective means of evaluating the accuracy of assessed values is a ratio study. A ratio study compares the assessed values produced by the valuation models to arm's length sale transactions in the marketplace.

The legislated statistical requirement affecting the assessment of commercial properties in Saskatchewan is for the median ratio of a city-wide assessment-to-sales study to be within the range of 0.95 to 1.05.

The median assessment-to-sales ratio and Coefficient of Dispersion for this Industrial valuation model is provided below:

Assessment to Sales Summary Results

Number of Sales	136
Median Assessment to Sale Price Ratio (ASR)	0.976
Coefficient of Dispersion (COD)	23.20%

Other Adjustments

Extra Land

Extra Land is the difference between a property's actual parcel size, and the maximum parcel size that would be required to accommodate the existing improvement.

Site coverage in the Industrial model ranges from 6% to 88%. The median site coverage is 30%. When site coverage is less than the median value, the Capitalization Rate for the building is adjusted according to the results of the regressed Capitalization Rate model, to a minimum of 9%.

When the site coverage ratio is less than 9%, then:

Extra Land Value = ((9 – site coverage ratio) / 9) x Land Value

Appendix C

City of Regina - Production v7.04 - Taxation and Assessment Suite
Income (SPSS) Detail Report

Account: 10018730 **Nbhd:** 1999 - Ross Industrial **Asmt Period:** 2003 / **Type:** REGULAR **As of:** Jan. 17, 2017

Filing #: 475406600 **Zoning:** IB **EVZ:** IB **LUC1:** **LUC2:** **For:** 2017

Land Use: 3720: (100%) Storage and Warehousing ; TAXABLE (100%)

Mkt Area: **Master:** N **Bldg Only:** N **Reinspect:** 2015 **Approach:** INCOME

Study Area: 5203 **Lease:** N **Mobile Home:** N **Lot Size:** 329,473.995 **UOM:** IMP

Address: 610 HENDERSON DRIVE
REGINA SK
S4N 5X3

Legal: Plan: 78R30133 Block: 15 Lot: 5

Parcel: Plan: 78R30133 Block: 15 Lot: 5

SPSS Calculation Output

Building - 1	Warehouse Main	52,999.99680	521,469
Building - 1	Warehouse Upper	1,599.99990	12,878
Building - 1	Unheat Adjustment	4,999.99969	-21,153
Vacancy - 1	Main Floor and BMT Vacancy	-5.09000	-25,466
Vacancy - 1	Upper Vacancy	-10.90000	-1,403
Shortfall - 1	Shortfall	-1.31000	-6,370
Building - 1	NOI		479,952
Building - 1	Cap Rate	7.78740	6,163,195
Building - 1	Total Building Value		6,163,195

Final Assessment: 6,163,100

Appendix D

Fundamentals of Mass Appraisal

Robert Gloudemans
Richard Almy

International Association of Assessing Officers

Kansas City, Missouri

Chapter 7
Multiple Regression Analysis

Multiple regression analysis (MRA) is a statistical technique for estimating unknown data on the basis of known and available data. MRA is the workhorse of mass appraisal. It can be used to help determine the relationship between two variables, for example, between sale price per unit and time of sale or between percent good and effective age, as illustrated in Chapter 4, "Key Issues in Mass Appraisal." At a more sophisticated level, MRA can be used to estimate market values or income parameters (rent per unit, expense ratios, gross income multipliers, and capitalization rates) from an analysis of many variables. This chapter provides a primer on MRA in mass appraisal and provides the bridge between the mass appraisal concepts and methods described previously and the specification and calibration of MRA models for various property types taken up in Chapters 8, "Land and Residential Models," and 9, "Commercial Models."

MRA models can be additive, multiplicative, or hybrid. Additive models are the least flexible but the simplest and most common. This chapter illustrates MRA using additive model structures and then discusses multiplicative and hybrid models.

The general structure of an additive MRA model in which sale price is the dependent variable is

$$S = b_0 + b_1X_1 + b_2X_2 + \ldots + b_pX_p, \quad (1)$$

where

S = sale price (dependent variable)

$X_1, X_2, \ldots, X_p$ = the independent variables

$b_1, b_2, \ldots, b_p$ = coefficients or prices assigned by the algorithm to the independent variables

b_0 = a constant determined by the algorithm.

This general model structure can be used to estimate any dependent variable, usually abbreviated Y in statistical textbooks. S is used throughout this discussion because it is the dependent variable of interest in sales comparison models.

As a simplified illustration, consider the equation,

$$S = 45{,}600 + 124.20 \times X_1 - 1{,}400 \times X_2$$

where

X_1 = square feet of living area

X_2 = effective age.

In this case, b_0 is 45,600, b_1 is 124.20, and b_2 is −1,400. For a house with 2,00 square feet and an effective age of 15 years, the predicted value is

$$S = 45{,}600 + (124.20 \times 2{,}000) - (1{,}400 \times 15)$$

$$S = 45{,}600 + 248{,}400 - 21{,}000 = 273{,}000.$$

The coefficients calculated for the variables are derived from sales analysis and reflect their respective contributions to the estimation of sale price. A more realistic example would contain additional independent variables.

As with any valuation technique, accurate MRA models require reliable market and property characteristics data. MRA tends to work well when sales are sufficient and property characteristics are coded consistently. Predicted values are particularly accurate for parcels with typical characteristics. Predicted values for parcels with atypical characteristics can have high margins of error and should be reviewed.

Theory and Method

The objective of MRA applications of the sales comparison approach is to model the relationship between property characteristics and value, so that unknown property values can be estimated from known property characteristics. Using the 35 sales in Table 7-1, Figure 7-1 graphs the relationship between living area and sale price and fits a trend line to the data. The sale price of an unsold property can be estimated by noting its size and reading the corresponding estimated sale price from the trend line. For example, to estimate the value of an unsold house with 2,000 square feet of living area, a vertical reference line is drawn at 2,000 square feet. Then a horizontal reference line is drawn through the point at which the vertical line intersects the trend line. This process is illustrated by the dashed lines in Figure 7-2. The estimated value of the house is approximately $170,000.

Regression analysis fits the trend line to the data using the principle that a straight line can be determined by one point on the line and its slope. In fact, the regression equation to estimate sale price based on only one independent variable is

$$S = b_0 + b_1 X_1, \qquad (2)$$

Table 7-1. Regression Data

Sale Number	Square Feet	Sale Price
1	750	109,500
2	778	75,900
3	860	132,000
4	924	105,000
5	1,020	160,000
6	1,116	100,00(
7	1,190	129,90(
8	1,292	945,0(
9	1,350	140,00
10	1,487	128,3(
11	1,500	169,5(
12	1,555	130,0(
13	1,650	119,5
14	1,724	219,0
15	1,750	159,9
16	1,800	185,(
17	1,842	110,
18	1,912	146,
19	2,110	185
20	2,297	145
21	2,450	22(
22	2,504	16(
23	2,524	18
24	2,590	21
25	2,638	14
26	2,773	2(
27	2,876	1
28	2,940	2
29	3,042	2
30	3,110	2
31	3,288	
32	3,430	
33	3,498	
34	3,740	
35	3,910	

is large. One means of minimizing $\sum e_i^2$ is to add additional variables. In Figures 7-1 and 7-2, some points lie below the regression line because they represent properties with negative features, such as minimal construction quality or poor physical condition. Other points lie above the line because they represent properties with positive attributes, such as above-average construction quality or good physical condition.

The model might be respecified as

$$\sqrt{I} = b_0 + b_1X_1 + b_2X_2 + b_3X_3, \quad (4)$$

where

X_2 = construction quality
X_3 = physical condition.

Again, MRA would calculate the regression coefficients b_0, b_1, b_2, and b_3 to minimize $\sum e_i^2$, where, in this case, the predicted values are a function of living area, construction quality, and physical condition. Note that the importance of any one variable in the regression equation is directly related to its contribution in reducing $\sum e_i^2$.

Evaluation of Regression Results

Users of MRA should be familiar with key statistics that help evaluate the accuracy and reliability of models. Some of these are measures of *goodness of fit* and relate to evaluation of the predictive accuracy of the equation. The most important are the coefficient of determination (R^2), the standard error of the estimate (*see*), the coefficient of variation (*COV*), and the average percentage error. In different ways, each indicates how well the equation succeeds in minimizing $\sum e_i^2$ and predicting the dependent variable. Other regression statistics relate to the importance and reliability of individual variables in the model. They include the coefficient of correlation (r), t-statistic, F-statistic, and beta coefficient.

Coefficient of Determination

The coefficient of determination, R^2, is the percentage of the variation in the dependent variable explained by the regression model. Assuming that no records are kept of the physical description, site amenities, or other characteristics of properties, other than sale prices, how would the market value of any given property be estimated? One obvious answer is the average sale price. For properties that have sold, the sum of the squared errors, *SSE*, associated with this estimate is

$$SSE = \sum(S_i - \bar{S})^2 \quad (5)$$

where $\bar{S}$ = the average sale price.

t-Statistic

The *t*-statistic is a measure of the significance or importance of a regression variable in explaining differences in the dependent variable (sale price). It is calculated as the ratio of the regression coefficient, b_j, to its standard error, s_j (not to be confused with *see*):

$$t_j = b_j \div s_j. \tag{16}$$

The standard error of b_j, s_j, is akin to a standard deviation; it measures the error associated with using b_j as an estimator of the true but unknown relationship between X_j and the dependent variable in the model.

When t_j is large, we can be confident that X_j is a significant predictor. Conversely, when t_j is small, we cannot reject the null hypothesis that $b_j = 0$ and thus we cannot conclude that X_j is an important predictor. However, this does not mean that X_j is not correlated with the dependent variable. The *t*-value measures the *marginal contribution* of an independent variable in predicting the dependent variable when all other variables included in the model are held constant. Because some variables duplicate information provided by others, they may be highly correlated with sale price, but are insignificant predictors as indicated by their *t*-values. Conversely, other variables possess the peculiarity of predicting sale prices in combination, although individually none may be highly correlated with sale prices.

The significance of *t*-statistics can be evaluated by reference to a *t* table (see Table A-2 in Appendix A), where degrees of freedom = $n - p - 1$ and p is the number of independent variables in the model. In general, provided that sample size is large (at least 50), a *t*-value in excess of ±2.00 indicates that we can be 95 percent confident that $b_j = 0$ and therefore that X_j is a significant predictor variable. Similarly, a *t*-value in excess of ±2.58 indicates that we can be 99 percent confident that X_j is a significant predictor. Most statistical software reports a probability statistic that indicates the significance of the *t*-value, sparing the need to reference a *t*-table.

For the 35 sales in Table 7-1, the regression coefficient for square feet of living area is 61.884 and the standard error is 6.799 (see Table 7-2). Thus the *t*-value is

$$t = 61.884 \div 6.799 = 9.102.$$

The associated significance value, namely 0.000, is the probability that $b_j = 0$, that is, that square feet of living area is *not* a significant predictor of sale price. Thus, in this case, we can be virtually 100 percent confident that square feet of living area is a significant predictor of sale prices.

F-Value

The *F*-value is direct
individual regressior
F-values are based o

F = variance exp

Additional variance
unexplained variar
variance, the more
can be of the varia
case with the *t*-va
importance of an
all other variables
equation).

In MRA, the

$$F = t^2.$$

That is, the *F*-va
F-values of app
the 95 percent
confidence leve

Some regre
both measure t
one or the oth
changed to *F*-

Beta Coe

Beta coefficie
importance o
variable. Bet
independent
of one. For e
by its standa
or leverage
coefficients
dependent

F-Value

The *F*-value is directly related to the *t*-value and is also used to test whether or not individual regression variables are significant predictors of the dependent variable. *F*-values are based on the ratio

$$F = \text{variance explained by } X_j \div \text{unexplained variance.} \quad (17)$$

Additional variance refers to the amount by which the inclusion of X_j reduces unexplained variance. Obviously, the larger this amount relative to unexplained variance, the more important is X_j in reducing $\sum e_i^2$ and the more confident we can be of the variable's significance in predicting the dependent variable. As is the case with the *t*-value, however, the *F*-value provides a measure of the marginal importance of an individual variable in explaining the dependent variable when all other variables are also taken into account (by including them in the regression equation).

In MRA, the *F*- and *t*-values are mathematically related:

$$F = t^2. \quad (18)$$

That is, the *F*-value is the square of the *t*-value. Provided that sample size is large, *F*-values of approximately 4.0 or larger indicate that a variable is significant at the 95 percent confidence level. Again, the probability statistic indicates the exact confidence level.

Some regression programs report *t*-values, and others report *F*-values. However, both measure the same thing, and some software gives the user the ability to select one or the other (SPSS software reports *t*-values by default, although this can be changed to *F*-values in syntax mode).

Beta Coefficients

Beta coefficients are *standardized* regression coefficients that measure the relative importance of the independent variables in explaining or predicting the dependent variable. Beta coefficients are obtained by transforming the dependent and independent variables so that they all have a mean of zero and standard deviation of one. For each variable, this is accomplished by subtracting its mean and dividing by its standard deviation. A beta coefficient, B_j, thus measures the relative influence or leverage that an independent variable exerts on the dependent variable. Beta coefficients can be loosely thought of as representing the percentage change in the dependent variable associated with a percentage change in the independent variable

with all other variables held constant. Beta coefficients are related to regr coefficients by the formula

$$B_j = b_j \times (s_j \div s_y),$$

where

s_j = the standard deviation of X_j

s_y = the standard deviation of the dependent variable in the model.

(In a one-variable linear regression, B_j equals the correlation coefficient betwe the independent and dependent variables.)

Beta coefficients are useful in evaluating the relative importance of independen variables in the model. Assume the data shown in Table 7-4 for the variables SFLA (square feet of living area), QUAL (construction quality), and EFFAGE (effectiv age). Because all three variables are measured in different units, their regression coefficients cannot be meaningfully compared. However, based on their beta values, we can conclude that SFLA is the dominant variable in the model, followed by EFFAGE, and then QUAL.

Table 7-4. Beta Coefficients for Three Variables

Variable	Mean	Coefficient	Beta
SFLA	1,534	84.68	.585
QUAL	3.48	15,459	.183
EFFAGE	33.10	−2,785	−.266

Stepwise and Backward Regression

Model builders have several options in applying MRA. The default method in most software is automatic inclusion of all candidate variables. Two useful alternatives that filter redundant or otherwise insignificant variables are *stepwise regression* and *backward regression*.

In stepwise regression, variables are entered one at a time until all significant predictors have been included. The variable entered first, say, X_1, is that variable most highly correlated with the dependent variable. A least-squares regression is performed, the residuals (errors) are saved internally, and a search is made to determine the remaining variable most highly correlated with and thus able to reduce the errors from the first model. Suppose that this variable is X_4. A second regression is performed with X_1 and X_4 as independent variables. The remaining

variables are searched to determine which has the highest correlation with the residuals from the second regression. That variable, say, X_6, is then included in a third regression. The process continues until all variables have been included or the remaining variables fail to meet some predetermined significance level for inclusion (0.05, which implies 95 percent confidence, is the most common default level). At each step the algorithm may either add a new variable or delete a variable that falls below a minimum significance level for retention in the model. (The significance level for entry must be set stricter than the significance level for retention to prevent the repeated entry and removal of the same variable.) The procedure eliminates insignificant variables and helps prevent the model from being more complex than necessary.

In backward elimination, the algorithm begins with all variables and iteratively eliminates those that are not significant while adding back any that were previously eliminated but subsequently achieve significance. Aside from the possibility of a variable being deleted and then added back, backward regression leaves the variables in the same order that the modeler listed or entered them. Stepwise regression output, on the other hand, lists variables in the sequence in which they entered the final model, so that the most important or significant variables are listed first and the least significant are listed last.

For illustrative purposes, consider the statistics for 667 residential sales shown in Table 7-5. The mean sale price is $255,898, and there are 16 potential predictor variables. Some of these, such as SFLA and FINBSMT, are quantitative variables. QUAL is a discrete (categorical) qualitative variable. The air conditioning, pool, masonry exterior, and neighborhood variables are binaries, coded 1 if the feature or condition is present and 0 if not. For these variables, the mean represents the percentage of cases with the feature. For example, 29.7 percent of the homes have air conditioning, 9.8 percent have swimming pools, and 10.6 percent have masonry exterior walls. In this example, neighborhood 403 represents the *base*, or *reference*, neighborhood. It is a neighborhood with typical sale prices and good market activity. Regression coefficients determined for the other neighborhoods thus reflect market preferences relative to neighborhood 404.

Table 7-6 displays the correlation matrix for the variables. It shows the correlation coefficients between the independent variables and the dependent variable, PRICE, as well as with each other. The correlations of PRICE with SFLA and QUAL are particularly strong. The matrix also reveals potential information overlaps or interrelationships among the independent variables. For example, QUAL is rather highly correlated with SFLA, UNFBSMT, GARSIZE, and NBHD_406.

Property Appraisal and Assessment Administration

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Robert J. Gloudemans
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The International Association of Assessing Officers

the tax rate is expressed as
lar. For example, a 2 percent
per $100, $20 per $1000, or
dollar.

. The right to extract ore, pe-
:her minerals from a property.

etric. Any of a family of
: of measuring distance. **Eu-**
nce, a member of this fam-
traight-line distances (as the
quared. In mass appraisal
g, Minkowski metric usually
sum of absolute differences
in each dimension, and
uxicab" or city block pattern.
:ives are possible, including
as calculated only for the
greatest difference, but the
tance is most common.

lue most often assumed by
extension for grouped **data**,
hich a plurality of the ob-

esentation of how some-
or purposes of appraisal, a
(in words or an equation)
the relationship between
ted sale price and **variables**
pply and demand factors

The interaction of buyers
ort-term credit instrumen

term used in land survey-
to mean a permanent ob
e ground marking a poi
which is known, or
rth. *See also* **geodetic**

Mortgage coefficient. A component of the basic rate in the Ellwood variant of **mortgage-equity analysis**.

Mortgage constant. Annual **debt service** expressed as a percentage of the initial principal amount of the loan.

Mortgage-equity analysis. A technique used to estimate the value of a property from a knowledge of the equity **yield rate**, typical mortgage terms (including the interest rate, the loan-to-value ratio, the term of the loan, and the amortization provisions), the **holding period**, and the percentage by which the property will **appreciate** or **depreciate** over the holding period.

Moving average. A **statistic** used to smooth the values of a **variable** when those values are erratic over distance or time, as in the case of land values and mortgage commitments. For example, a five-block simple moving average of land values along a major street would assign to block 16 the average of the values for blocks 14–18; it would assign to block 17 the average of the values for blocks 15–19, and so on.

Multicollinearity. The phenomenon of two or more **variables** being correlated. If the two correlated variables are both **independent variables** (note that if they are correlated they are not truly *independent* in the relationship sense) used to predict the value of some other, dependent variable, then modeling problems will arise. If the multicollinearity is perfect, the **multiple regression** algorithms simply will not work; if the multicollinearity is serio imperfect, the coefficients generated b **algorithm** will be individually mear less (although the **model** as a whole still be useful).

Multiple regression, multiple regressi analysis (MRA). A particular statisti technique, similar to **correlation**, used analyze **data** in order to predict the val of one **variable** (the **dependent variable** such as **market value**, from the know values of other variables (called **indepen dent variables**), such as lot size, numbe of rooms, and so on. If only one indepen dent variable is used, the procedure is called simple regression analysis and differs from correlation analysis only in that correlation measures the strength of rela tionship, whereas regression predicts the value of one variable from the value of the other. When two or more variables are used, the procedure is called multiple regression analysis. *See* **linear regression.**

Multiplicative model. A model in which the **coefficients** of **independent vari ables** serve as powers (**exponents**) to which the independent variables are raised or in which independent variables them selves serve as exponents; the results are then multiplied to estimate the value of the **dependent variable**.

Multiplicative transformation. A **trans formation** of a set of **variables** accom plished by multiplying a variable by one or more other variables. For example, room area is a multiplicative transforma tion of length and width.

Linear regression. A kind of statistical analysis used to investigate whether a **dependent variable** and a set of one or more **independent variables** share a linear **correlation** and, if they do, to predict the value of the dependent variable on the basis of the values of the other variables. Regression analysis of one dependent variable and only one independent variable is called simple linear regression, but it is the word *simple* (not *linear*) that distinguishes it from **multiple regression analysis** with its multiple independent variables.

Listing. The process by which the assessor ensures that records for the taxable property identified during **discovery** are preserved with **integrity**, available for use in **valuation** activities, and ultimately reflected in the **assessment roll**.

Locational obsolescence. A component of **economic obsolescence**; loss in value due to suboptimal siting of an **improvement**.

Location variable. A **variable**, such as the distance to the nearest commercial district or the traffic count on an adjoining street, that seeks to measure the **contribution** of locational factors to the total property value.

Logarithm; log. The number that, when used as an **exponent** for another number (called the base), results in a third number of some practical interest (called the antilogarithm). There are two bases that are used with any frequency; the base 10 produces what are called common logarithms, and the base 2.71828 (e) produces what are called natural logarithms. For example, $\log_{10} 100 = 2$; $10^2 = 100$. Logarithms were originally used to simplify complex calculations involving multiplications inasmuch as two numbers can be multiplied by adding their logarithms and taking the antilog of the result. Logarithms are also used as means of transforming variables in regression analysis.

Log-linear relationship. A **correlation** between two **variables** such that if the **value** of one variable changes by a certain percentage, the value of the other changes by a certain amount. (Recall that **logarithms** permit multiplication to be done by means of adding logs.) For example, there is a log-linear relationship between x and y in the following sequence:

x	5	6	7	8
y	20	30	45	67.5

Long run. A planning period long enough for a firm to be able to vary quantities of all resources it uses.

Macroeconomics. The economics of the economy as a whole—the forces causing recession, depression, and inflation together with the forces resulting in economic growth.

Mann-Whitney test. A test in **inferential statistics**, similar to the **Kruskal-Wallis test**, that seeks to determine whether the differences in values between two sets of observations from any population are statistically significant.

Map book and page system. A system for parcel identification in which a code (usually numeric) is used to identify each parcel, each code containing four elements: the volume or book of maps in which the parcel is to be found, the page on which it is to be found, the block, and the individual parcel on the block.

Appendix E

Notice of Appeal to the Regina Board of Revision

(DEADLINE FOR APPEALS IS March 6, 2017)

To the Secretary of the Board of Revision of the City of Regina, Saskatchewan:

Section 1:

I request the: ___Simplified appeal process X_Regular appeal process *(see reverse)*

I appeal against the: (check beside those which apply)

X_Property valuation
___Property classification
___Exemption
___Preparation or content of the Assessment Roll
___Preparation or content of the Notice of Assessment

Of the following property address: 610 Henderson Drive Account Number: 10018730

Assessed Parcel: Lot: 5, Blk: 15, Plan: 78R30133

Section 2:

I make this appeal on the following grounds (nature of alleged error): **(Attach extra sheets if necessary.)**

See Attached Schedule "A"

Section 3:

In support of these grounds, I hereby state the following material facts to be true and accurate: **(Attach extra sheets if necessary.)**

See Attached Schedule "A"

Section 4:

I request that the following change(s) be made to the assessment roll (if known): **(Attach extra sheets if necessary)**

See Attached Schedule "A"

I have discussed my appeal with See Attached (Assessor's name), of the City Assessor's Office, on this date See Attached (month/day/year) and the following is a summary of that discussion: (Include the outcome of the discussion and any details of the facts or issues agreed to by the parties.)

See Attached

OR I have not discussed my appeal with the City Assessor's Office for the following reasons: **(Provide reasons why no discussion was held. Attach extra sheets if necessary.)**

Section 5:

Appellant's Information:

Appellant's Name: Abcomp Holdings Ltd. c/o All Fab Building Components Inc.
E-mail Address: kfriesen@all-fab.com

Mailing Address: 1755 Dugald Road City/Town: Winnipeg, MB Postal Code: R2J 0H3

Home Phone #: N/A Business Phone #: 204-654-5592 Cell #: N/A Fax #: 204-663-4553

If the Appellant is not the owner, what interest does the Appellant have in the property?

Owner

Agent's Information (if applicable):

Agent's Name: Altus Group Limited E-mail Address: archie.fieldgate@altusgroup.com

Mailing Address: 311 Albert Street City/Town: Regina, SK Postal Code: S4R 2N6

Home Phone #: N/A Business Phone #: (306) 359-0672 Cell #: (306) 539-2368 Fax #: (306) 359-0674

Please list address for service for all appeal correspondence:

Mailing Address: 311 Albert Street City/Town: Regina, SK Postal Code: S4R 2N6

Dated this 6th day of March , 2017

Current Assessed Value under Appeal: $6,163,100 $750 (Enclosed Appeal Fee)

Archie Fieldgate
(Appellant's/Agent's name - please print)

(Appellant's/Agent's signature)

*_What is the difference between the regular and simplified appeal process?_

For regular appeals, any written material and photographs you provide in support of your appeal must be submitted to BOTH the Secretary of the Board of Revision and the City Assessor at least 20 days before the date of your hearing.

If you qualify for a simplified appeal process and request it on the Notice of Appeal, you *can* provide any written material and photographs in support of your appeal to the Board of Revision and City Assessor at your hearing. However, to avoid delays at your hearing, you are encouraged to provide your material to BOTH the Secretary of the Board of Revision and the City Assessor at least 20 days before the date of your hearing. You are eligible for the simplified appeal process if your appeal is for:

- a single family residential property or residential condominium; or
- any property that has a current assessed value assessment of 250,000 or less.

The written material you provide for either process should identify why you feel there is an error in your assessment.

Schedule A

SECTION 2:
The Assessment is too high and in excess of the market value based on the following grounds:

A. The subject assessment appears to have been developed in error through a misapplication of the capitalization rate adjustment for building size. Moreover, the CAP rate size threshold established by the Assessor is maximized or capped at 50,000 square feet appears notwithstanding 65,000 square feet appears to be more appropriate.

B. The subject property is considered by the Assessor to be a non-regulated property pursuant to subsection 163(f.4) of the Cities Act (the Act). As such, the Appellant is alleging that the subject property has been over assessed as a result of the subject's base Cap Rate being adjusted in error within the Assessor's *assessed value* calculation. Subsequently, site coverage has been calculated while failing to account for areas and features that directly limit the availability of extra or excess land.

C. Equity has not been achieved pursuant to subsection 165 (5) of the Act. This legislation speaks to the application of the market valuation standard which in turn speaks to the use of Mass Appraisal. As such, the Appellant is alleging that with the Assessor using site specific Cap Rates, he has moved away from the concept of Mass Appraisal.

D. The Market Valuation Standard has not been achieved for the subject property. The appellant is alleging here again that with the Assessor using site specific Cap Rates, he has moved away from the concept of Mass Appraisal.

SECTION 3:
In support of these grounds, I hereby state the following material facts to be true and accurate:

A. Size Adjustment

- The Industrial model applies an adjustment for size in the sales capitalization rate analysis and in the rent analysis.
- The CAP rate size threshold is maximized or capped at 50,000 square feet.
- The current maximum capitalization rate adjustment for size is 1.76. An adjustment of 0.044 per every 1,000 square feet above 10,000 square feet.
- The rent model applies a size adjustment of -$2.53 per square foot greater than or equal to 65,000 square feet.
- The sales with site coverage larger than 30% and net building areas greater than or equal to 65,000 square feet less the -$2.53 psf adjustment have cap rates that continue to trend upwards.

- There are no industrial sales between 50,462 square feet and 87,760 square feet with site coverages greater than 30%.

B. Issue of Site Coverage

- The City of Regina has employed a new methodology whereby a special *site specific coverage adjustment* is being applied to the Assessor's Modeled Base Cap Rate with the intention of reflecting extra and excess land that is on a site.

- In determining the percentage of site coverage, being a major factor within the *site specific coverage formula*, the Assessor only considers the foot print of the buildings that are located on site. Such areas of a site that are covered with canopy's, fuel tanks(above or below ground), business signage, garbage bins, docking zones, storage area, etc. are not being considered within the *site specific coverage formula.*

- Nor, what has not been considered within the *site specific coverage formula* is the fact that there are City Bylaws that require a property owner to provide a certain level of parking areas for both tenants and customers. This also means that a certain area of the land would also be required for the movement of automobiles.

C. Equity

- Subsection165 (5) of the Act 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.*

D. Market Value Standard

- Subsection 163 (f.1) of the Act states: *market valuation standard means the standard achieved when the assessed value of property is prepared using mass appraisal.*
- Subsection 163 (f3) defines the term mass appraisal as: *the process of preparing assessments for a group of properties as of the base date using standard appraisal methods, employing common data and allowing for statistical testing.*
- In the Saskatchewan Court of Appeal case, Sasco Developments Ltd. vs. The City of Moose Jaw, 2012 SKCA 24, the Court on pg. 5, made it clear of its understanding of mass appraisal vs site specific values when it stated on pg. 5, *the techniques associated with mass appraisal are grounded in data common to a group of properties, whereas the techniques associated with single property appraisal are grounded in the main in data specific to a particular property.*

Results of Pre-filing Discussion with the Assessor's Office @ City Hall – 9: 30 AM March 3rd, 2017.

Assessor's Present: Gerry Krismer & Aaron Homes - Binns.

Altus Agent's Present: Archie Fieldgate and Ryan Simpson.

Issue: Site Coverage/ Moving Cap Rate

Discussion: Altus is questioning the validity of the moving Cap Rate that is triggered by a site coverage formula.

The City holds the position that what they are doing is correct and claims to have plenty of data to support the Methodology.

Result of Discussion: This issue would need to proceed through the Appeal process.

Altus: Archie Fieldgate

Appendix F

THE COURT OF APPEAL FOR SASKATCHEWAN

Citation: 2012 SKCA 24 Date: 20120306

Between: Docket: CACV1981

Sasco Developments Ltd.

Appellant

- and -

City of Moose Jaw and
Saskatchewan Assessment Management Agency

Respondents

Coram:
Cameron, Jackson and Herauf JJ.A.

Counsel:
Leonard D. Andrychuk, Q.C. for the Appellant
David Gerecke for the Respondents

Appeal:

From:	Assessment Appeals Committee Saskatchewan Municipal Board
Heard:	January 15, 2012
Disposition:	Appeal dismissed
Written Reasons:	March 6, 2012
By:	The Honourable Mr. Justice Cameron
In Concurrence:	The Honourable Madam Justice Jackson The Honourable Mr. Justice Herauf

CAMERON J.A.

[1] This is an appeal from a decision of the Assessment Appeals Committee of the Saskatchewan Municipal Board regarding the 2009 assessed value for municipal tax purposes of the Heritage Inn, a hotel located in the City of Moose Jaw and owned by Sasco Developments Ltd.

[2] The value of the land and building associated with the operation of the hotel was assessed by the Saskatchewan Assessment Management Agency. This agency, known as SAMA, serves by local appointment as the assessor for a number of cities, including the City of Moose Jaw. As such, SAMA assessed the value of the property at $8,777,300. Sasco Developments then appealed to the City's Board of Revision on the ground the valuation was excessive. The Board agreed and reduced it to $5,257,704. With that, the City and SAMA appealed to the Assessment Appeals Committee. The Committee decided the Board of Revision had erred and therefore set aside its decision and restored the original assessment.

[3] Sasco Developments then brought the appeal now before the Court. It did so with leave granted pursuant to section 33.1 of *The Municipal Board Act*, S.S. 1988-89, c. M -23.2, which provides for appeal, with leave, on questions of law or jurisdiction. In general the appeal was taken on the grounds the Committee erred in law, by misinterpreting or misapplying the relevant assessment provisions of *The Cities Act,* S.S. 2002, c. C-11.1, and failed to exercise its jurisdiction properly by failing to fully address the case before it.

I. *The Cities Act*

[4] The relevant assessment provisions of the *Act* are those that call for non-regulated property assessment (which involves estimating the market value of property using standard appraisal methods), as distinct from regulated property assessment (which involves determining the fair value of property using the formulas, rules, and principles found in the Saskatchewan Assessment Manual). The relevant provisions call upon assessors to estimate the market value of property as of a given date by means of mass appraisal and in keeping with a defined market value standard. Unlike single property appraisal, which entails the valuation of a particular property, mass appraisal entails the systematic appraisal of a group of properties based in significant part on market value data common to the group.

[5] It is these provisions that underlie the questions of law to which the appeal gave rise. They are found in sections 163 and 165 of Part X of the *Act*.

> **163** In this Part;
>
> (f.1) **"market value standard"** means the standard achieved when the assessed value of property:
>
> (i) is prepared using mass appraisal;
>
> (ii) is an estimate of the market value of the estate in fee simple in the property;
>
> (iii) reflects typical market conditions for similar properties; and
>
> (iv) meets quality assurance standards established by order of the agency.
>
> (f.2) **"market value"** means the amount that a property should be expected to realize if the estate in fee simple in the property is sold in a competitive and open market by a willing seller to a willing buyer, each acting prudently and knowledgeably, and assuming that the amount is not affected by undue stimuli.

> (f.3) **"mass appraisal"** means the process of preparing assessments for a group of properties as of the base date using standard appraisal methods, employing common data and allowing for statistical testing.
>
> ...
>
> **165**(1) An assessment shall be prepared for each property in the city using only mass appraisal.
>
> (2) All property is to be assessed as of the applicable base date.
>
> (3) The dominant and controlling factor in the assessment of property is equity
>
> ...
>
> (5) 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.

[6] The definitions appearing in paragraphs (f.1) to (f.3) of section 163, together with the provisions appearing in subsections 165(1) and (5), were enacted in 2006 (S.S. 2006, c. 4, ss.13 and 15). They served to introduce the ideas, new to Saskatchewan, of assessing the market value of property using standard appraisal methods. As such, they introduced something of a new scheme of assessment.

II. The New Assessment Scheme

[7] While the scheme was introduced in 2006, it did not take effect until the beginning of 2009, when all properties in the province fell to be revaluated. The scheme contemplates estimating the market value of "the estate in fee simple" in property, a term that is taken in the work-a-day world of assessment to mean the land and building, or the real estate. More particularly, the scheme contemplates estimating market value using standard appraisal methods.

[8] There are three such methods. They are the income method, the cost method, and the comparable sales method. Of the three, the income method is preferred in relation to the assessment of hotel property. This is so because hotels are revenue-producing properties that are typically built or bought based upon their income-producing or investment potential. Hence this method contemplates determining the annual net operating income that a hotel property can be expected to generate in the market place, and then dividing that amount by an appropriate capitalization rate, or a rate, used to convert future income to present value, reflective of anticipated return on investment.

[9] Suppose, for example, that a hotel property may be expected to generate annual net operating income of $600,000 and a capitalization rate of 10%, or .10, is used for this conversion. Dividing the one by the other yields the figure of $6,000,000. Assuming that each of the annual net operating income and the capitalization rate has been determined appropriately, the market value of the property may be taken to be $6,000,000 on the premise this is the amount a prudent and knowledgeable buyer dealing at arm's length could be expected to pay for the property if seeking a return on investment of 10%.

[10] The example begs the question of how a municipal assessor, called upon to estimate the market value of a hotel property using the income method of appraisal, is to determine both annual net operating income and an appropriate capitalization rate. Let us address this subject having regard for the process of mass appraisal and its implications in this regard.

[11] To begin with, the income method draws upon the same basic principles

in relation to both mass appraisal and single property appraisal. However, the appraisal techniques vary appreciably from the one to the other. Among other things, the techniques associated with mass appraisal are grounded in data common to a group of properties, whereas the techniques associated with single property appraisal are grounded in the main in data specific to a particular property. This is of considerable significance for two reasons. First, because the "market valuation standard" defined in section 163 must be met, and can only be met if the assessed value of a property is "prepared using mass appraisal." Second, because subsection 165(1) explicitly states that an assessment shall be prepared for each property "using only mass appraisal."

[12] Mass appraisal is defined in section 163 to mean the process of preparing assessments for a group of properties using standard appraisal methods, employing common data and allowing for statistical testing. Read in context, the term "a group of properties" may be taken on application to mean a group of "similar" properties. And the term "common data" may be taken to mean pieces of information in the form of facts and statistics pertaining to market value and common to a group of similar properties.

[13] Hence, mass appraisal of hotel properties, using the income method adapted to this end, entails gathering such pieces of information for the threefold purpose of (i) classifying and grouping hotel properties by similarity, a process known as stratification; (ii) establishing the common data base requisite to the determination of the annual net operating income that a hotel property in a group of similar properties can typically be expected to generate in the market place; and (iii) selecting an appropriate capitalization rate.

III. SAMA's Response re: Hotel Valuation

[14] With the need in mind to gather such pieces of information for this threefold purpose, SAMA collected a good deal of information pertaining to a good many hotels. To a significant extent it did so in exercise of the powers conferred upon assessors by section 171 of the *Act*, having regard for the fact the base date for assessment was fixed at June 30, 2006, a date that was to remain in effect throughout the 2009-2012 assessment cycle. Thus SAMA collected a plethora of information from hotels located within its assessment jurisdictions, including the Heritage Inn, for the years 2004, 2005, and 2006. The reason it collected this information for each of these years was to give it a stable base of information with which to work in achieving the purpose.

[15] The information it collected extended to hotel location, physical characteristics, amenities, number and kind of rooms available, room charges, occupancy rates, and revenue and expenditure attributable to room rentals. The information also extended to the revenue and expenditure attributable to the operation of hotel dining rooms, lounges, beverage rooms, meeting rooms, and so on, together with their seating capacities. In addition, the information it collected included information regarding the sale and purchase over these three years of a significant number of hotels.

[16] On the whole, this information, together with other information gathered from other sources such as municipal and land titles records, enabled SAMA to meet the threefold purpose for which the information was collected, beginning with stratification.

(i) *stratification*

[17] The information pertaining to such things as hotel location, physical characteristics, amenities, occupancy rates, and so on enabled SAMA to compile the common data needed to classify and group hotel properties by similarity. Based thereon SAMA classified a number of hotel properties as "Primary Accommodations." Some of these, otherwise similar in many respects, offered a limited range of services whereas others offered a full range of services and amenities, meaning they not only had rooms for rent on a daily basis but also had dining rooms and lounges and bars, meeting rooms, and so on. Those that offered services such as these were further classified as "Full Service Hotels", and SAMA placed them into one of two groups, depending in significant part on variations in location and occupancy rates. The two groups were identified as "Major Urban With Rest./Bar" and "Minor Urban With Rest./Bar."

[18] With that, we may turn to the second purpose for which SAMA gathered the information, namely to establish the data base for determining annual net operating income when assessing the value of such hotel properties.

(ii) *annual net operating income*

[19] The information pertaining to the likes of the number and kinds of rooms available, room charges, occupancy rates, and revenue and expenditures attributable to room rentals, enabled SAMA to compile common data related to room rental income and, on analysis, to put the data to use.

Having regard for such common data as room types, median posted room rates, median occupancy rates, and median ratios of income to expense associated with room rentals, the agency was able to generate sets of statistical data, largely in the form of tables reflecting these median indicators of potential net income generation. The tables were established for later use across the board in determining the net operating income that hotel properties in the group identified as "Major Urban With Rest/Bar", for example, could typically be expected to realize from room rental, having regard, of course, for the type and number of hotel rooms specific to each of the hotels within the group.

[20] Similarly, the information regarding such matters as the revenues and expenditures attributable to the operation of hotel dining rooms, lounges, beverage rooms, meeting rooms, and so on, coupled with their seating capacity, enabled SAMA to generate sets of statistical data, again largely in the form of tables reflecting the likes of median ratios of income to expense attributable to each of such operations. As before, the tables were established for later use across the group in determining the net operating income that a hotel in this group could typically be expected to realize from such operations on a per seat basis.

[21] To be sure, this is the briefest account of the process under consideration, and is meant only to illustrate in the most general way how SAMA went about the business of compiling and using common data to lay the foundations for later use in determining the annual net operating income, and ultimately estimating the market value, of each of the hotel properties within the group identified as "Major Urban With Rest./Bar."

[22] The remaining purpose for which SAMA collected the information was to select a capitalization rate for valuing hotel properties in this group.

(iii) *capitalization rate*

[23] To speak of a capitalization rate is to speak about a critical component in converting future income into present value. There are two methods of doing this. One is called the direct capitalization method, the other the discounted cash flow method. The first is more efficient and is therefore generally regarded as the most suitable for use in mass appraisal. Hence, SAMA used the first.

[24] According to standard appraisal practice, an appropriate capitalization rate, using the direct capitalization method, may be determined by means of analyzing the arm's length sale and purchase of similar hotel properties. If a hotel property had been purchased for $6,000,000, let us say, and had been generating annual net operating income of $600,000, the capitalization rate would equal 10% ($600,000 ÷ $6,000.000 = .10 = 10%). If an analysis of the sale and purchase of a significant number of similar hotel properties yielded substantially the same result, the appropriate capitalization would be 10% when estimating the market value of a like hotel using the income method of appraisal.

[25] To further illustrate how this business works, suppose the analysis of the arm's length sale and purchase of similar hotel properties had yielded a capitalization rate of 12%, rather than 10%. Applying a rate of 12% to a hotel

property expected to generate $600,000 in annual net operating income would serve to drive down the market value of the property from $6,000,000 to $5,000,000 ($600,000 ÷ $5,000,000 =.12 =12%). The idea, of course, is that a buyer looking to purchase this property and realize a return on investment of 12%, rather than 10%, would not be willing to pay $6,000,000 but only $5,000,000, or $1,000,000 less.

[26] Mindful of all of this, SAMA collected information regarding the sale and purchase of a number of hotel properties, including a significant number that it regarded as similar. Its analysis of the common data derived from these sales and purchases led it to conclude that a capitalization rate of 10% was appropriate when estimating the market value of hotel properties within the group identified as "Major Urban With Rest./Bar."

[27] Once again, this is but a brief account of this process and is meant only to illustrate in a general way how SAMA went about determining an appropriate capitalization rate.

[28] To digress momentarily we might say, having regard for the whole of the foregoing, that there is much more to the whole than this—more in the way of technical content and precision, and principle and fact—but this will do for the purpose of addressing the case before us. Indeed, at this early stage of working with the new assessment scheme it is unwise to go farther afield than necessary. Much in the way of contending with the provisions of the new scheme lies ahead of us, meaning all of us having a hand in working with it. That said, we may turn to the original assessment and how it was made.

IV. The Original Assessment

[29] The Heritage Inn was built in 1979 on 233,040 square feet of land. It has 104 guest rooms of one kind or another on two storeys. In addition to offering rooms for rent on a daily basis, it also offers food and beverage services. It has a dining room, lounge, and beverage room. It also has a conference room, and so on. The dining room seats 140 persons, the lounge 40, the beverage room 202, and the conference room 750.

[30] SAMA first classified the Heritage Inn as "Primary Accommodation" and then further classified it as a "Full Service Hotel." At that, it placed this hotel property in the group of hotel properties identified as "Major Urban With Rest./Bar." Then, using the income method adapted to mass appraisal, the agency estimated the market value of the property, as of the base date of June 30, 2006, to be $8,777,300. This became the taxable assessment on the combined authority of sections 166 and 167 of *The Cities Act* and sections 12 and 13 of *The Cities Act Regulations*, R.R.S., c. C-11.1, Reg 1.

[31] The assessed value of $8,777,300 reflects potential annual net operating income of $877,730 and a capitalization rate of 10%. SAMA arrived at this amount of income on application of the tables it had earlier established for use in estimating the market value of hotel properties within the group identified as "Major Urban With Rest./Bar". The application of the tables entailed applying their various median values to the number and type of hotel rooms held by the Heritage Inn, together with the seating capacity of each of its dining room, lounge, beverage room, convention room, and so on.

[32] In a nutshell, then, this is how SAMA arrived at the market value of $8,777,300 and hence the assessed value.

[33] Sasco Developments was dissatisfied with the assessment, so it appealed to the Board of Revision.

V. The Appeal to the Board of Revision.

[34] The company appealed "the valuation" of the property, as it was entitled to do under section 197 of *The Cities Act.*

[35] On such appeals the function of the Board of Revision is to review the valuation for error by the assessor—error as specifically alleged in the notice of appeal—and, if such error be found to exist, to give effect to it subject to the limitations imposed upon the Board's remedial powers: *Regina (City)* v. *Laing Property Corp.*, [1995] 3 W.W.R. 551 (Sask. C.A), 128 Sask R.29. By error is meant material error of fact, or law, or standard appraisal principle and practice, or some combination of these. And the person who takes the appeal bears the burden of establishing, on a balance of probabilities, the error or errors the assessor is alleged to have made: *Estevan Coal Corp.* v. *Estevan (Rural Municipality No. 5),* 2000 SKCA 82, 199 Sask. R. 57.

[36] The company's notice of appeal did not set out the specific grounds of appeal upon which it alleged the assessor had erred, as required by subsection 197(6)(a) of the *Act*, and in the result the hearing was not as structured or focused as it might otherwise have been. The notice of appeal merely stated

that the appeal was taken on the ground "the assessment valuation is in excess and should be lowered to reflect market value." This was said to be so in light of the fact that in the years 2004 to 2006 the Heritage Inn had not actually generated annual net operating income of $877,730. According to the information the hotel had earlier furnished SAMA, when the agency was collecting information of this kind from various hotels, the hotel's occupancy rate was significantly lower than the median occupancy rate used by SAMA in its calculations; and the hotel's expenses were said to be significantly higher.

[37] Thus the company submitted that SAMA should have estimated the market value of the property based on its actual financial performance, pointing out that this is what the agency had done when assessing the value of a nearby property, namely Temple Gardens Mineral Spa. The company also submitted that the capitalization rate of 10% used by SAMA was inappropriate, suggesting the agency should have determined the capitalization rate by means of the discounted cash flow method instead of the direct capitalization method. In any event it said a capitalization rate in the range of 11% to 12% should have been used, as was the case in other assessment jurisdictions such as Regina and Saskatoon.

[38] In response, SAMA contended that it was precluded from estimating the market value of the Heritage Inn property based on its actual financial performance. To do so would contravene the requirements of the assessment scheme and its call for mass appraisal. As for the Temple Gardens Mineral Spa, SAMA pointed out that this was a unique property—there was not another of

its kind in the province—so the agency was left to estimate its market value on a stand-alone basis, having regard for its actual financial performance. Moreover there was nothing wrong, the agency said, with its use of a capitalization rate of 10%.

[39] The Board of Revision decided that SAMA had erred, not in relation to the capitalization rate but otherwise. Before rendering its decision, however, it asked the agency to perform some fresh calculations based upon the Heritage Inn's "own income and expenses". Then, having received the agency's calculations, the Board rendered its decision:

> The Board concluded that the assessor erred in using median occupancy rates from reported primary accommodations in Moose Jaw, Yorkton, and the R.M. of Prince Albert # 461. Because of the low occupancy for the subject property it warrants a separate assessment as is the case for the Temple Gardens Mineral Spa in order to achieve equity.
>
> Through an undertaking, the Board asked the assessor to calculate a new assessed value to the subject property based on its own income and expenses as reported in the 2004, 2005, and 2006 "Hotel/Motel Information Request Form", using median values and a Capitalization rate of 10%.
>
> It is the decision of the Board that the appeal be upheld and the total assessed value shall be $5,257,704.

[40] With that, the City and SAMA appealed to the Assessment Appeals Committee. So, too, did Sasco Developments.

VI. The Appeals to the Assessment Appeals Committee

[41] The appeals were taken pursuant to section 216 of *The Cities Act,* which allows for appeal "respecting a decision of a board of revision." The function

of the Committee on such appeals is not to rehear the case, in the sense of deciding anew whether the assessor erred, but to review the decision of the Board of Revision for error as alleged in the notice of appeal: *Regina (City)* v. *Laing Property Corp.* (cited earlier). If error be found, which is to say material error which so affects the decision of the Board that its decision cannot stand, the Committee is empowered by section 226 of the *Act* to modify the decision of the Board by adjusting the assessment either up or down. But, according to subsection 226(3), the Committee is not permitted to vary a non-regulated property assessment "using single property appraisal techniques." Nor, according to subsection 226(3.1), is it permitted to do so "if equity has been achieved with similar properties."

[42] The City and SAMA appealed on the grounds, among others, that the Board of Revision erred in law (i) in failing to ensure that the assessed value of the Heritage Inn property met the market value standard prescribed by section 163 of the *Act* and (ii) by so varying the assessment as to create inequity contrary to subsection 165(5). In consequence, they asked for relief in the form of an order setting aside the decision of the Board and restoring the original assessment.

[43] Sasco Developments appealed on the substantive ground that, despite the significant reduction made by the Board of Revision, the assessed value of the property nevertheless remained excessive, given the hotel's actual financial performance. Hence, the company asked for relief in the nature of an order further reducing the assessed value to bring it into line with the

company's analysis of the value of the hotel property based on its own income and expenses.

[44] The Committee first addressed the appeal by the City and SAMA. It allowed their appeal on the primary ground the Board of Revision had erred in law in ordering the agency to revise the assessed value of the property based on the hotel's "own income and expenses." In so holding, the Committee said that, while property owners might reasonably expect the assessed value of their properties to reflect significant variations from the group norm, "to use individual values offends the market value standard as the required statistical testing is no longer possible."

[45] In this same vein the Committee suggested, speaking hypothetically, that by one means or another it might be possible within the context of a mass appraisal model to accommodate individual variations of some kind. But this was a matter beyond the scope of the appeal, it said, meaning consideration of the matter would have to await an appeal focused specifically on alleged deficiencies in the evaluation model employed by SAMA.

[46] From there the Committee went on to fault the decision of the Board of Revision for holding that SAMA should have assessed the value of the Heritage Inn property on the same basis the agency had assessed the value of Temple Gardens Mineral Spa. In doing so, the Committee observed that the assessment of the Temple Gardens property was not before it, making it difficult to know just how that assessment had been prepared. Assuming, however, that the agency had prepared it on the basis in general of Temple

Gardens' "own income and expenses", the Committee suggested the assessed value would not satisfy the market value standard. That said, the Committee held that the Board of Revision had erred in this regard:

> [15] The Board erred when it ordered a revision to the subject assessment based on its own income and expenses to achieve equity with the Temple Gardens Mineral Spa.

[47] The Committee then turned to the appeal of Sasco Developments and dismissed it for the following reasons:

> [16] The owner's appeal is intended to modify the value stemming from the [Board's] decision, so in the normal course it must be dismissed as it is not possible to improve upon an action that should not have been taken in the first place.

[48] In the end, having in the meantime discussed in general some of the challenges and potential pitfalls in working with the new assessment scheme, the Committee said this:

> [34] In conclusion, for SAMA's appeal, the Committee decides that the Board erred in its decision to revalue the subject property based on its own income and expenses. SAMA's appeal is sustained. As the owner's appeal is to revise the value stemming from the Board's incorrect decision, there is no avenue to do so, therefore, the appeal is dismissed.
>
> [35] Given the information in the record, the Committee finds that the value must revert to the original roll value.

VII. The Appeal to the Court

[49] As remarked upon at the outset, Sasco Developments appealed on the grounds in general that the Assessment Appeals Committee erred in law, by misinterpreting or misapplying the relevant assessment provisions of *The*

Cities Act, and failed to exercise its jurisdiction properly by failing to fully address the case before it.

[50] Let us begin with the alleged errors of law. They were raised in the form of questions framed by counsel for the appellant. There are two such questions. Each has to do with whether the Committee misconstrued or misapplied the provisions of sections 163 and 165 of the *Act*.

The First Question

> Did the Committee err in law by interpreting the requirements of the "market valuation standard" and "mass appraisal" under *The Cities Act* to preclude determination of a non-regulated property assessment by taking into consideration some or all of the property's own characteristics?

[51] This question, viewed in the context of the decision of the Assessment Appeal Committee, reduces to whether the Committee erred in law in holding that the Board of Revision had erred in ordering SAMA to revise the assessed value of the Heritage Inn based on "its own income and expenses." This was the primary ground upon which the Committee allowed the appeal from the Board and restored the original assessment. Hence, the question that *arises out of the decision* of the Committee is whether it erred in law in so holding.

[52] We are of the opinion it did not do so. SAMA was required by law to prepare the assessment "using mass appraisal" in the words of the market value standard defined in section 163 of the *Act*. And, in keeping with the market value standard, the assessed value had to reflect "typical market

conditions for similar properties." Not only that, SAMA was required to "use only mass appraisal", in the words of subsection 165(1), which entails preparing assessments "for a group of properties...employing common data and allowing for statistical testing." Hence, it was not open to the agency to estimate the market value of the Heritage Inn property based in general on "its own income and expenses." This would amount, in effect, to single property appraisal, using single property appraisal techniques.

[53] Nor was it open to the Board of Revision to direct that SAMA do so. Boards of Revision are expressly prohibited, when it comes to non-regulated property assessment, from varying an assessment using single property appraisal techniques. Subsection 210(1.1) of *The Cities Act* states that, notwithstanding the power in a board of revision to change an assessment by increasing or decreasing it, "a non-regulated property assessment shall not be varied on appeal using single property appraisal techniques." The same stricture applies, as we have seen, to the Assessment Appeals Committee.

[54] These provisions prohibiting variation using single property appraisal techniques appear to be unique to Saskatchewan. At least they do not appear in the legislation underpinning the decisions from other jurisdictions to which we were referred in argument. Counsel for Sasco Developments referred us to a number of such decisions, suggesting, among other things, that appellate bodies in other jurisdictions are able, using single property assessment techniques, to vary mass appraisal assessments. Whatever the case elsewhere, based on legislation elsewhere, this is not permitted in Saskatchewan by reason of subsections 210(1.1) and 226(3) of the *Act*.

[55] The cases to which we were referred in this and related respects are distinguishable on this basis, or on the basis of other aspects of the legislation underlying them, including such cases as *Assessor Area #09 (Vancouver)* v. *Bramalea Limited*, 1995 Canlii (BCSC); *697604 Alberta Ltd* v. *Calgary (City)*, 2005 ABQB 512; *Chateau Lake Louise Corp.* v. *Improvement District No. 9*, 2004 ABQB 579, 366 A.R. 318; *Edcyn Inc.* v. *Nova Scotia*, 2000 NSUARB 35; *Mountain View (County)* v. *Alberta (Municipal Government Board)*, 2000 ABQB 594, [2001] 2 W.W.R. 398; and *Nova Scotia (Director of Assessment v. van Driel*, 2010 NSCA 87, 296 N.S.R. (2d) 244.

[56] Decisions from other jurisdictions can be helpful to a better understanding of things, but assessment schemes vary from province to province in one respect or another, making it imperative to pay close attention to the legislation underlying these decisions so as not to import ideas that are incompatible with the assessment scheme in place in this province.

[57] Let us be clear as about all of this. We are of the opinion it is not open to assessors in this province, employing the income method of appraisal adapted to mass appraisal, to use singe property appraisal techniques that are incompatible with mass appraisal techniques. In effect, then, it is not open to assessors, employing this method to estimate the market value of a hotel property, to do so on the basis in general of that hotel's "own income and expense." Nor is it open to a board of revision to vary an assessment using such techniques. Hence, we are of the opinion the Assessment Appeals Committee did not err in law in holding that the Board of Revision had erred

in ordering SAMA to revise the assessed value of the Heritage Inn based on "its own income and expenses."

[58] This is not to be taken as having any bearing upon what the Committee had to say, speaking hypothetically, about the possibility by one means or another of accommodating some individual variations from the group norm in the context of a mass appraisal model. As the Committee suggested, this is a complex and multi-faceted subject, the consideration of which it left for a case specifically focused on the evaluation model used by SAMA, or some aspect of the model.

[59] That brings us to the second question of law.

The Second Question

> Did the Committee err in finding that the order of the Board to reduce the assessment of the subject property by basing its assessment on its own income and expenses did not meet the market value standard under *The Cities Act*, notwithstanding SAMA's own conclusion that the assessment of another Primary Accommodation Property hotel on the same basis met the market value standard.

[60] This question, unlike the first, has it genesis in the secondary rather than the primary ground upon which the Assessment Appeals Committee allowed the appeal from the Board of Revision. The secondary ground lay in the Board having ordered a reduction in the assessed value of the Heritage Inn property based on the hotel's own income and expenses so as "to achieve equity with the Temple Gardens Mineral Spa." Given our response to the first question, concerning the primary ground upon which the Committee allowed the appeal,

the need to address the second is doubtful. So we shall keep our remarks to a minimum.

[61] In essence the question concerns the application by the Committee of subsection 165(5) of the *Act*, which reads thus:

> (5) 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.

As a matter of law, this is what the Committee had in mind in faulting the decision of the Board in the respect under consideration.

[62] As a matter of fact, according to the record before the Committee, Temple Gardens Mineral Spa, unlike the Heritage Inn, is a unique property. Assessing the value of unique properties by means of mass appraisal presents its own set of difficulties, as it has done on occasion both here and in Alberta. (See, for example, *Estevan Coal Corp.* v. *Estevan (Rural Municipality No. 5)* and *Chateau Lake Louise Corp.* v. *Improvement District No. 9* (both cited above)). Faced with such difficulties in relation to the 2009 assessment of Temple Gardens Mineral Spa, SAMA ended up assessing the value on a stand-alone basis, based on the income and expenses specific to the property.

[63] This left the Committee with serious reservations about the validity of the assessment of Temple Gardens Mineral Spa. It acknowledged that this assessment was not before it, making it difficult to know just how the assessment had been prepared. But, if SAMA had prepared the assessment based in general upon Temple Gardens' "own income and expenses", as

appeared to be the case, the Committee ventured the view the assessment could not satisfy the market value standard. In other words it thought this assessment had in all probability been prepared in error.

[64] SAMA took heed, it seems, for it acknowledged that it should have taken a different approach to the 2009 assessment of Temple Gardens Mineral Spa, and that it has since done so. Such are the challenges of working with a new assessment scheme, especially when it comes to the assessment of unique properties.

[65] In the light of all of this we are not satisfied the Committee erred in law in faulting the Board for having ordered a reduction in the assessment of the Heritage Inn property based on the hotel's own income and expenses so as "to achieve equity with the Temple Gardens Mineral Spa." In other words we are not satisfied, in the circumstances of the case, that the Committee erred in law by misapplying subsection 165(5) of the *Act*. Equity cannot be achieved by discarding the requisites of mass appraisal, or through compound error of this kind.

[66] This serves to complete our consideration of the issues of law and to bring to the fore the issue of jurisdiction. This issue, too, was raised by way of a question framed by counsel for the appellant.

The Third Question

> Did the Committee err in law or jurisdiction by ordering that the subject property revert to its original assessed value without addressing or

finding any error in the Board of Revision's finding of fact that the subject property was not similar to the properties assessed using SAMA's Primary Accommodation model?

[67] The import of the question is this: The Committee, having set aside the decision of the Board reducing the assessment of the Heritage Inn property from $8,777,300 to $5,257,704, failed to properly exercise its remedial jurisdiction or powers, inasmuch as it restored the original assessment without having had regard for the fact, as found by the Board, that the Heritage Inn property was not similar to the hotel properties within the group identified as "Major Urban With Rest./Bar."

[68] Lest it be thought otherwise, the Committee did have regard for the record of the proceedings before the Board when, in exercise of its remedial jurisdiction or powers, it decided to restore the original assessment. The point finds illustration in the circumstances of the case and the Committee's response. In the circumstances it was not open to the Committee, having set aside the Board-ordered assessment for the reasons it did, to either sustain the Board-ordered assessment or to reduce it, as Sasco Developments had asked it to do. There was no basis upon which the Committee might have done so. This left it with having to restore the original assessment, as the City and SAMA had asked it to do, or alternatively to order SAMA to have another go at it, which no one, most of all the company, had asked the Committee to do. Nevertheless, the Committee appears to have considered and rejected the alternative, for it concluded by saying, "Given the information in the record, the Committee finds the value must resort to the original roll value."

[69] This statement, read in the context of the Committee's reasons as a whole, coupled with the record of the proceedings before the Board, is tantamount to the Committee having held that in the circumstances there was no tenable basis for doing otherwise than restoring the original assessment.

[70] There is yet another procedural twist to all of this. On the appeal to the Court, the appellant sought no other relief than an order quashing the decision of the Committee and restoring that of the Board. However, restoring the decision of the Board is out of the question, given the errors of law the Board made in reducing the assessment. So the best we could do, assuming the Committee somehow erred in the respect under consideration, would be to remit the case to the Committee for reconsideration. But, since we were not asked to do so, we would have to do this on our own motion.

[71] Leaving that aside, at least for the time being, the only conceivable basis upon which we might remit the case to the Committee for reconsideration is this. Contrary to the Committee's view of it, the record demonstrates that the Board found as a fact that the Heritage Inn property was not similar to the hotel properties in the group identified as "Major Urban With Rest./Bar", similar, that is, in the sense contemplated by the assessment scheme. This would be tantamount to the Board having found that SAMA, in the exercise of its judgment and the measure of discretion it enjoys in relation to the process of stratification, had erred in placing the Heritage Inn property in this group because the hotel's occupancy rate was significantly lower than the median occupancy rate derived from data common to the group.

[72] Whatever else may be said of the matter, this much is clear. The Board did not expressly make such a finding of fact. This leaves the matter to implication, beginning with such implication as the Board's identification of the error made by SAMA might suggest. The Board said this of the error:

> The Board concluded that the assessor erred in using the median occupancy rates from reported comparable primary accommodations in Moose Jaw, Yorkton, and the R.M. of Prince Albert # 461. Because of the low occupancy for the subject property it warrants a separate assessment as is the case for the Temple Gardens Mineral Spa in order to achieve equity.

This is all the Board had to say of the error it ascribed to SAMA.

[73] This might suggest that the Board *found as a fact* that, contrary to SAMA's assessment of the matter, the Heritage Inn property was not similar to the other hotel properties in the group identified as "Major Urban With Rest./Bar" because of its lower occupancy rate. It might also suggest that all the Board did was *conclude* that, because the actual occupancy rate was in fact lower than the median occupancy rate used by SAMA, the Heritage Inn property warranted assessment separate from the group, as in the case of the Temple Gardens Mineral Spa, in order to achieve equity. On the face of it, the latter is stronger than the former, but there is an element of ambiguity here.

[74] The ambiguity falls to be resolved having regard for the whole of the record of the proceedings before the Board. On the whole, it is difficult to suppose the Board found as a fact that, contrary to SAMA's assessment of the matter, the Heritage Inn was not similar to the other hotel properties in the group. Indeed, to suppose it did so is to suppose quite a lot.

[75] To begin with, it is to suppose: (i) that the notice of appeal initiating the appeal to the Board specifically alleged that SAMA, in classing and grouping hotel properties according to similarity, erred in placing the Heritage Inn property in the group identified as "Major Urban With Rest./Bar"; (ii) that the evidence before the Board was such as to warrant a finding that SAMA had so erred, bearing in mind not only the burden upon the appellant in this regard but the exercise by the agency of judgment, even a measure of discretion, in so stratifying these hotel properties; (iii) that the Board put its mind to this issue in these contexts; and (iv) that the Board then found, as a matter of fact, that the Heritage Inn property did not qualify for inclusion in the group for it was not similar to the others in the group. The record does not bear this out.

[76] Nor does it disclose a finding by the Board that SAMA had erred in arriving at the median occupancy rate it used for the purposes of both stratification and determining the annual net operating income that the hotel properties in the group could be expected to generate. For the Board to have made such a finding, it would have to have considered whether the agency had arrived at the median occupancy rate by reference, for example, to a hotel property or properties that had driven up the median occupancy inordinately by reason of something atypical to the group. As well, the Board would have to have considered whether the median occupancy rate failed to withstand statistical testing, having regard let us say for the statistical test employing coefficients of dispersion. The record discloses nothing of the kind.

[77] What it does disclose, when it comes to findings of fact made by the Board, is that the Board accepted the uncontested facts: (i) that the self-

reported occupancy rate of the Heritage Inn in the years 2004 to 2006 was significantly lower, at 44.87%, than the median occupancy of 59.51% used by SAMA in its assessment and calculations; and (ii) that SAMA had assessed the value of the Temple Gardens Mineral Spa, a unique property, on a stand-alone basis, having regard in general for the income and expenses specific to Temple Gardens. This is the sum total of the facts found or acted upon by the Board.

[78] Now, the magnitude of the variation between the actual and the median occupancy rates is suggestive of possible error on the part of SAMA in relation to either stratification or the statistical basis for determining net annual operating income that hotel properties in the group could be expected to generate, or both. This raises the possibility of error but does not in itself demonstrate error. Rather it invites inquiry, for it is in the very nature of a median occupancy rate that some hotels within a group of similar hotels will have higher occupancy rates, whereas others in the group will have lower occupancy rates.

[79] The difference might lie in differing levels of management, for instance, making it possible that a lower occupancy rate associated with a particular hotel is attributable to a standard of management below the industry or group norm. This would be so, for example, if furniture, furnishings, and the like were allowed to deteriorate beyond the industry norm. Or the difference might be attributable to an atypical level of competition by reason of an atypical specific location. Aside from such issue of fact, issues of appraisal principle and practice arise, such as how much deviation from the norm is tolerable,

whether some level of deviation can and should be accommodated and, if so, how this might be done consistent with sound mass appraisal technique. Could this be done by means, for example, of using a range of median occupancy rates rather than a fixed median occupancy rate? And so it goes.

[80] The point is this. While a variation of the magnitude present here may suggest error, it does not in itself demonstrate error by the assessor. Instead, it invites inquiry into the underlying issues of fact and appraisal principle and practice. And what invites inquiry, in the event of dispute, invites decision. But nowhere in the record may the Board of Revision be seen to have decided such issues or to have made findings of this sort.

[81] Turning from the detail of all of this to the import of it, we are not satisfied that the Board found as a fact that, contrary to SAMA's assessment of the matter, the Heritage Inn was not similar to the hotels in the group identified as "Major Urban With Rest./Bar", similar in the sense contemplated by the assessment scheme. The *effect* of the Board's decision might be seen as having removed the Heritage Inn property from this group, though even that is debatable. But the effect is not the product of a *finding of fact* by the Board that the Heritage Inn was not similar to the other hotels in the group. Rather, the effect is the product of *error of law* by the Board in thinking that it could order the value of the Heritage Inn property to be assessed on the basis in general of the hotel's "own income and expense" and in thinking that this was called for "so as to achieve equity with the Temple Gardens Mineral Spa."

[82] Hence, we are not satisfied the Committee failed to properly exercise its remedial jurisdiction or power as suggested by the third question.

[83] On the whole, then, and for these reasons, we have decided to dismiss the appeal. This is not to say the 2009 assessment of the Heritage Inn property was without flaw of some kind. Indeed, counsel for the appellant informed us that SAMA substantially reduced the 2010 assessment. But that is immaterial to the case at hand, given the structure of the case throughout. The point is that on this appeal we can find no tenable basis for interfering with the decision of the Assessment Appeals Committee on the ground it erred in law, or failed to properly exercise its jurisdiction, as suggested by the three questions. There will be judgment accordingly. However, there will be no order for costs, given the newness of the assessment scheme and the difficulty everyone, including SAMA, has experienced in adjusting to and working with it.

Dated this 6th day of March 2012.

"Cameron J.A."
Cameron J.A

I concur:

"Jackson J.A."
Jackson J.A

"Herauf J.A."
Herauf J.A.

Appendix G

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Appendix H

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sama
SASKATCHEWAN ASSESSMENT MANAGEMENT AGENCY

Market Value Assessment in Saskatchewan Handbook

Warehouse

Valuation Guide

Date: June 27, 2012

Warehouse Valuation Guide

Market Value Based Assessment Legislation in Saskatchewan

Saskatchewan has different assessment legislation[1] than other jurisdictions in Canada that must be taken into account when valuing properties for assessment and taxation purposes. There are specific definitions in Saskatchewan for "base date", "market value", "Market Valuation Standard" and "mass appraisal". It is important to understand how these definitions relate to one another and the requirement for market value based assessments to be determined in accordance with the Market Valuation Standard.

Base Date is defined as "...the date established by the agency for determining the value of land and improvements for the purpose of establishing assessment rolls for the year in which the valuation is to be effective and for each subsequent year in which the next revaluation is to be effective;" (Refer to the Preface for specific base dates.)

Market Value is defined as the "...amount that a property should be expected to realize if the estate in fee simple in the property is sold in a competitive and open market by a willing seller to a willing buyer, each acting prudently and knowledgeably, and assuming that the amount is not affected by undue stimuli;".

Market Valuation Standard means the "standard achieved when the assessed value of property:

(i) is prepared using mass appraisal;

(ii) is an estimate of the market value of the estate in fee simple in the property;

(iii) reflects typical market conditions for similar properties; and

(iv) meets quality assurance standards established by order of the agency;"

Mass appraisal is defined as "...the process of preparing assessments for a group of properties as of the base date using standard appraisal methods, employing common data and allowing for statistical testing;".

Assessment legislation in Saskatchewan requires that non-regulated property assessments be determined pursuant to the Market Valuation Standard. Throughout this Handbook the term "market value based assessments" is used to refer to non-regulated property assessments. Unlike single property appraisals, market value based assessments must be prepared using mass appraisal and "...shall not be varied on appeal using single property appraisal techniques". All Handbook references to market value are subject to the requirements of the Market Valuation Standard.

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[1] The following Acts provide the statutory basis for property assessment in Saskatchewan:

- *The Assessment Management Agency Act*
- *The Interpretation Act, 1995*
- *The Cities Act*
- *The Municipalities Act*
- *The Northern Municipalities Act, 2010*

For more details on how to access this information refer to Appendix 2: Resources - Section 2a (Queen's Printer).

3.0 Warehouse Valuation Process

3.1 Overview of the Procedure

1) Collect appropriate information.
2) Analyse data and classify warehouses into homogeneous groups.
3) Select the appropriate approach to value:
   - Income approach
   - Sales comparison approach
   - Cost approach
4) Apply method(s) to derive market value based assessments.
5) Add / deduct for other appropriate value, if required.
6) Determine a market value based assessment of the property.
7) Test results.

3.2 Collecting the Appropriate Data

More than any other factor, the type and quality of information available dictate the methods that can be used to value properties. Uniform and accurate valuation of property requires correct, complete, and up-to-date property data. The effort put in at the information collection stage will determine the quality of the final analysis.

Supporting Information

Sources of supporting information include: warehouse building owners/managers, real estate consultants and brokers, real estate publications, industry associations and government sources.

Property Information

To compare, classify and develop valuation parameters for warehouse buildings, it is necessary to obtain pertinent physical and descriptive information. Typical information that could be collected for a property and entered into the assessor's valuation system is shown on the Warehouse Data Entry Example. *(Refer to Figure 5.)*

Assessment Records

Where possible, the assessor will verify the existing assessment record information when inspecting the property. Where the information is not available or obtainable from inspection, the property owner (or the designated contact person) is typically contacted to provide the following information:

- Year built,

- Size,
  - area of site;
  - floor areas;
  - building dimensions;
  - heights;
  - number of floors; and
- Construction dates.

Property Inspection

To keep existing records up to date, all assessed properties are generally inspected from time to time. The following types of items may be noted when inspecting a warehouse property:

- Physical measurements of the warehouse;
- Type of warehouse/goods handled (e.g., storage, cold storage, distribution);
- Quality of building;
- Other buildings/improvements on site;
- Condition of improvement;
- Construction class (materials e.g. wood, concrete or steel);
- Floor loading/floor thickness;
- Wall height;
- Truck door/dock type;
- Quality and amount of office space;
- Type of heating/air conditioning;
- Sprinkler system;
- Location/access;
- Lot size site;
- Site characteristics (topography, drainage and utility lines)
- Layout / design;
- Recent renovations;
- Functionality of property;
- Photograph of the property.

Where there appears to be surplus or excess land, the assessor may note this on the record and review the zoning and land use by-laws governing the property to decide how to value the surplus or excess land.

An analysis of the property information and property inspection information will enable the assessor to arrive at conclusions about:

- The characteristics and nature of the warehouse building market in the jurisdiction and/or market area;
- Typical vacancy and collection loss factors;
- Typical management and operating expenses; and
- Typical market rents for various types of buildings and various types of space (office, retail, storage, etc.).

Income Data

If the income approach is to be used, then income and expense information is collected. However, even if the income approach is not used, information such as market rents and vacancy rates can assist in estimating depreciation and obsolescence. To collect the appropriate property income related information the assessor could send a Request for Information Form to the warehouse building property owner (or the designated contact person). *(Refer to section 9.0 for examples.)* If possible, request the following information.

- Gross leasable areas (GLA);
- Rents and financial information, including other income (if any);
- Records and details of tenant inducements;
- Vacancy rates and collection loss;
- Operating expenses;
- Copies of leases; and
- Unrecovered expenses.

Sales Data

Sales data should be collected whenever possible. Even though there may not be a sufficient number of sales to use the sales comparison approach for a certain class of warehouses, the sales information may still be useful in the development of market-based depreciation schedules in the cost approach, and in the derivation of capitalization rates or discount rates. The assessor can request the following type of information:

- Property address and legal description;
- Sale 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.

Construction Costs

The construction costs of a building can be estimated from a number of different cost publications such as *Marshall Valuation Service* which are complete, authoritative guides for developing estimates of costs and depreciation for commercial buildings and other improvements. Current cost and depreciation data adjusted to the local market is also required for the cost approach.

In determining the value of a particular type of property, it is also useful to analyse local construction costs. Therefore, assessors may ask warehouse owners for construction cost data for all new warehouses and all major reconstruction work. It may also be useful to consider the information provided on any building permit. The analysis of local cost data may assist in confirming rates found in cost publications.

When analysing construction cost data, exercise caution to ensure that the local costs reflect the cost of all assessable items and only those items that are assessable.

An Issue to Consider in the Collection of Data: Measurements

Under ideal conditions, all building areas would be measured and reported in the same manner and all building heights would reflect the same measure. In reality, the reporting of such measures can vary greatly.

Building structures are usually measured by either square footage or volume. It is important that when collecting and analysing this information that the units of comparisons are classified into groups with similar units of measurement.

Heights often reflect either the clear height, which is the distance measured from the top of the floor to the bottom of the lowest hanging overhead obstruction, or the structural height, which is the distance measured from the floor (top or bottom of one floor or ceiling– depending on the cost publication) to the top of the next floor or the structural steel of the roof. The height of the structural steel can vary between one and eight feet in height (depending on the size of the building and the type of construction).

Data Analysis

For the assessor to gain full value from the data collected, the data should be organized in such a way that meaningful comparisons can be made and valuation conclusions drawn. By collecting and organizing the data on a number of warehouse buildings it becomes possible to establish the typical performance, characteristics, and valuation parameters to apply in the valuation of other warehouse buildings.

Collecting and tabulating such data also enables the assessor to distinguish between the typical value of real estate components and the actual performance of a specific property. A market value based assessment determined through mass appraisal methods demands the application of a property's typical performance in the marketplace, not its actual performance. As noted in the Valuation Parameters Guide,

this requirement is established in the Market Valuation Standard mandated in legislation in Saskatchewan's municipal Acts.

3.3 Classifying the Warehouse

The following is a list of various types of warehouses:

- Storage warehouses - Designed primarily for storage; small percentage of total area may be office space;
- Distribution warehouses - Designed to accommodate breakdown and transshipment of goods; a larger percentage of the total area for office/sales;
- Mega-warehouses – Designed as large storage-distribution facilities; interior build-out is typically a small percentage of total area;
- Transit warehouses - Designed for temporary closed storage, freight segregation and loading; will have additional facilities for transient personnel;
- Cold storage warehouses - Designed to keep stored commodities at various temperature levels; and
- Mini-warehouses - Designed primarily to be rented for small self storage or noncommercial storage; may include some office-living space.

To facilitate the valuation process, the assessor groups warehouses into homogeneous classes. This process is commonly referred to as stratification. The ability to compare properties is also crucial in the mass appraisal process because it allows the assessor to determine typical market conditions.

The functionality, viability, and value of a warehouse is largely dependent on its characteristics: area, height, accessibility, location, truck or rail connections, number of truck doors, floor height, turnover or processing abilities, and competition from other warehouses. Therefore, the valuation of a warehouse property is based on the analysis and comparison of similar properties.

Establishing Warehouse Classes

The following characteristics are examples of attributes that can be used to classify warehouses:

- Function;
- Size;
- Age/condition;
- Percent of office space;
- Floor thickness and loading capacity;
- Height;
- Location; and
- Land/building ratio.

Classes

When the cost approach is used the classes can be further stratified by type of construction (steel, wood and concrete) and subdivided according to the quality of the facility for example: (excellent, good, average and low cost).

Figure 2: Net Operating Income Calculation Example

Procedure	Area SF	Rate	Amount
1. Establish PGI with typical net rent	50,000	$5.35	$267,500
2. Deduct typical vacancy		5.0%	- $13,375
3. Establish EGI			$254,125
4. Deduct typical unrecovered operating expense		9.0%	- $22,871
5. Net Operating Income			$231,254

Capitalize the Net Operating Income into Value

The value of the rental income stream is determined by capitalizing the net operating income.

Value = Net Operating Income ÷ Capitalization Rate

Establishing Capitalization Rates

Sales of Warehouse Buildings – Recommended Approach

Turning the equation in the income approach around produces the appropriate formula for establishing capitalization rates:

Capitalization Rate = Net Operating Income ÷ Value (Sale Price)

In the same manner that income and rents are analysed for property valuation purposes, the income and other data should be analysed for warehouse properties that have sold as of the base date in order to establish the capitalization rates to be applied to warehouse buildings.

Other Approaches

If there is insufficient market sales evidence to establish capitalization rates, there are other possible ways such as mortgage-equity or band of investments to derive rates. These other approaches are not suitable for use in mass appraisal valuations in Saskatchewan.

Other Sources

Published capitalization rate studies and similar reports may be used in some markets as a general check on the rates determined by the assessor.

Selection of a Capitalization Rate

Selection of an appropriate capitalization rate is essential to the estimation of an equitable and realistic value for a property. The selection task starts with an analysis of the capitalization rates demonstrated in the sales of similar warehouse properties.

The following comments are guidelines for selecting an appropriate capitalization rate.

A number of factors can affect the capitalization rate to be applied. In general, favorable conditions may lower the capitalization rate and raise the value; negative conditions may raise the capitalization rate and lower the value. Some of the issues to consider when establishing a capitalization rate are:

- Competition, and expected changes in competition,
- Location – access by roads, rail, etc.,
- Age and condition of the property,
- Design of the property, and
- Expansion capabilities.

After a review of the available information, appropriate statistical measures (median, mean, and range, etc.) can be determined for capitalization rates for each type of warehouse building. From this the typical capitalization rates can be determined for the group of properties being valued.

Effective Tax Rate

In some income valuation procedures, the capitalization rate is adjusted for taxation considerations. However, in the examples used in this valuation guide this adjustment is not required because net incomes are being used and taxes have been deducted as an expense.

4.4 Add / Deduct Other Values

There may be certain properties where the entire value of the property is not completely captured by the foregoing application of a given valuation approach. In these situations a lump sum adjustment may be required. For example, a property may have surplus or excess land which is not developed due to current market conditions. This land may be valued separately and added to the market value based assessment for the entire property. A similar lump sum adjustment may also be applied for improvements if warranted.

4.5 Market Value Based Assessment of Property using the Income Approach

When using the income approach, a market value based assessment is determined by establishing the typical net operating income generated through the foregoing analysis and applying the appropriate typical capitalization rate to this. Then if required, any additional value is added to this total to determine an overall market value based assessment for the property.

An example of a warehouse building valuation using the income approach is presented in *Figure 3 – Warehouse Income Analysis Example*.