

Appendix F

WAREHOUSE MODEL

IDENTIFICATION of MODEL AREA

The Warehouse model is an income model that values the majority of the warehouse and industrial properties in Regina. Properties that are considered special purpose in nature for which there is little or no available market data (rents or sales), and properties where there is a substantial amount of excess land, are valued outside of this model using the Cost Approach to Value. As well, very small warehouse buildings that are typically used for general commercial purposes such as retailing and small service shops (as opposed to warehousing or manufacturing) are valued using the Retail – Global model.

The Warehouse model is a city-wide model in application. There are seven distinct warehouse neighbourhoods located within the City of Regina municipal boundaries, each with varying types and ages of warehouse buildings, land sizes and locational characteristics. These neighbourhoods are defined on the enclosed map and are individually described below.

Zoning Descriptions

Properties valued by the Warehouse model reflect numerous zoning classifications. The following are the predominant zonings located throughout the various warehouse neighbourhoods in Regina. These are cursory generalized descriptions only and not meant to reflect complete details concerning these classifications:

- IA, IA1 – Light Industrial: manufacturing of finished products or parts, predominantly from previously prepared materials
- IB, IB1 – Medium Industrial: manufacturing, processing, assembly, distribution, service and repair that require outdoor storage
- IC, IC1 – Heavy Industrial: industrial uses which, due to appearance, noise, odour, risk of emission, etc., are incompatible with commercial, residential and other land uses
- IP – Prestige Industrial Service: industrial and related business service uses that incorporate high standards of design, landscaping and open space
- IT – Industrial Tuxedo Park: light to medium industrial uses, including commercial and service, in existing properties 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: to preserve the warehouse character through retention and reuse of existing warehouses

Neighbourhood 5201

Neighbourhood 5201 is located in North central Regina and is bordered on its south side by the CN tracks between 1st Avenue and 1st Avenue North, 5th Avenue North to the north, Albert Street to the west and Winnipeg Street to the east. This is primarily an older single family residential area (Highland Park and North Annex), featuring houses constructed in the 1940s through 1970s, with industrial uses on its fringes.

The industrial areas are located at the southwest corner of this neighbourhood between the CN tracks and 1st Avenue North and abutting Albert Street, and along the east border of this area on Quebec Street between the CN tracks and 5th Avenue North. These properties are zoned IA, IA1 (light industrial) and IB (medium industrial) and feature, for the most part, small light industrial properties with buildings constructed in the 1960s through 1980s reflecting an average year built of 1976.

Lot sizes range from approximately 2,000 square feet to 4.40 acres with an average size of 15,000 square feet. Buildings range in size from approximately 500 square feet to 45,000 square feet with an average size of 5,000 square feet.

Neighbourhood 5203

Neighbourhood 5203 is known as the Ross Industrial Park and is the largest industrial area in the city. This area is in the northeast corner of the city 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 area is almost entirely occupied by the Co-op Refinery Complex, bordered by several large oil tank farms to its immediate south. The remainder of the Ross Industrial Park features a broad mixture of zones including IA (light industrial), IB (medium industrial), IC (heavy industrial) and IP (prestige industrial), and 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) and office industrial uses. The majority of these buildings were constructed in the 1970s and 1980s reflecting an average year built of 1982.

Lot sizes range from approximately 6,200 square feet to 337 acres with an average size of 4.50 acres. Buildings range in size from approximately 300 square feet to 395,000 square feet with an average size of 22,000 square feet.

Neighbourhood 5204

Neighbourhood 5204 is located immediately adjacent to the southwest corner of the Ross Industrial Park and, like Neighbourhood 5201, is primarily an older single family residential neighbourhood (Eastview) bordered by industrial uses.

The industrial areas are located along the west, south and east borders of this neighbourhood, 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 zoned IA, IA1 (light industrial) and IB (medium industrial) and feature, for the most part, small light industrial properties with buildings constructed in the 1950s through 1980s reflecting an average year built of 1967.

Lot sizes range from approximately 3,100 square feet to 1.75 acres with an average size of 11,000 square feet. Buildings range in size from approximately 3,000 square feet to 30,000 square feet with an average size of 4,400 square feet.

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 these properties are zoned IA and IA1 (light industrial) and feature, for the most part, small light industrial properties with buildings constructed from the 1910s to 2010 with the majority built in the 1950s through 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 (Old Warehouse) to preserve the character of these buildings, many of which are now used for restaurant, nightclub, office and residential uses.

Lot sizes range from approximately 2,200 square feet to 22.50 acres with an average size of 29,000 square feet. Buildings range in size from approximately 400 square feet to 333,000 square feet with an average size of 13,000 square feet.

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, now occupied by the City's Transit Operations and the local Food Bank, among other uses.

This neighbourhood features a mixture of IA (light industrial) and IB (medium industrial) zoning and generally medium to large property sizes featuring mostly warehousing and manufacturing uses. The majority of these buildings were constructed in the 1950s through 1980s reflecting an average year built of 1976.

Lot sizes range from approximately 11,000 square feet to 31 acres with an average size of 4.40 acres. Buildings range in size from approximately 400 square feet to 197,000 square feet with an average size of 37,500 square feet.

Neighbourhood 5207

Neighbourhood 5207 is known as Tuxedo Park and is located in East central Regina immediately south of Neighbourhood 5204 and the southeast 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 of IA1 (light industrial) zoning in its west arm, and one IC (heavy industrial) site. 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 these buildings were constructed in the 1970s and 1980s, reflecting an overall average year built of 1979.

Lot sizes range from approximately 1,800 square feet to 12.30 acres with an average size of 1.10 acre. Buildings range in size from approximately 300 square feet to 170,000 square feet with an average size of 12,400 square feet.

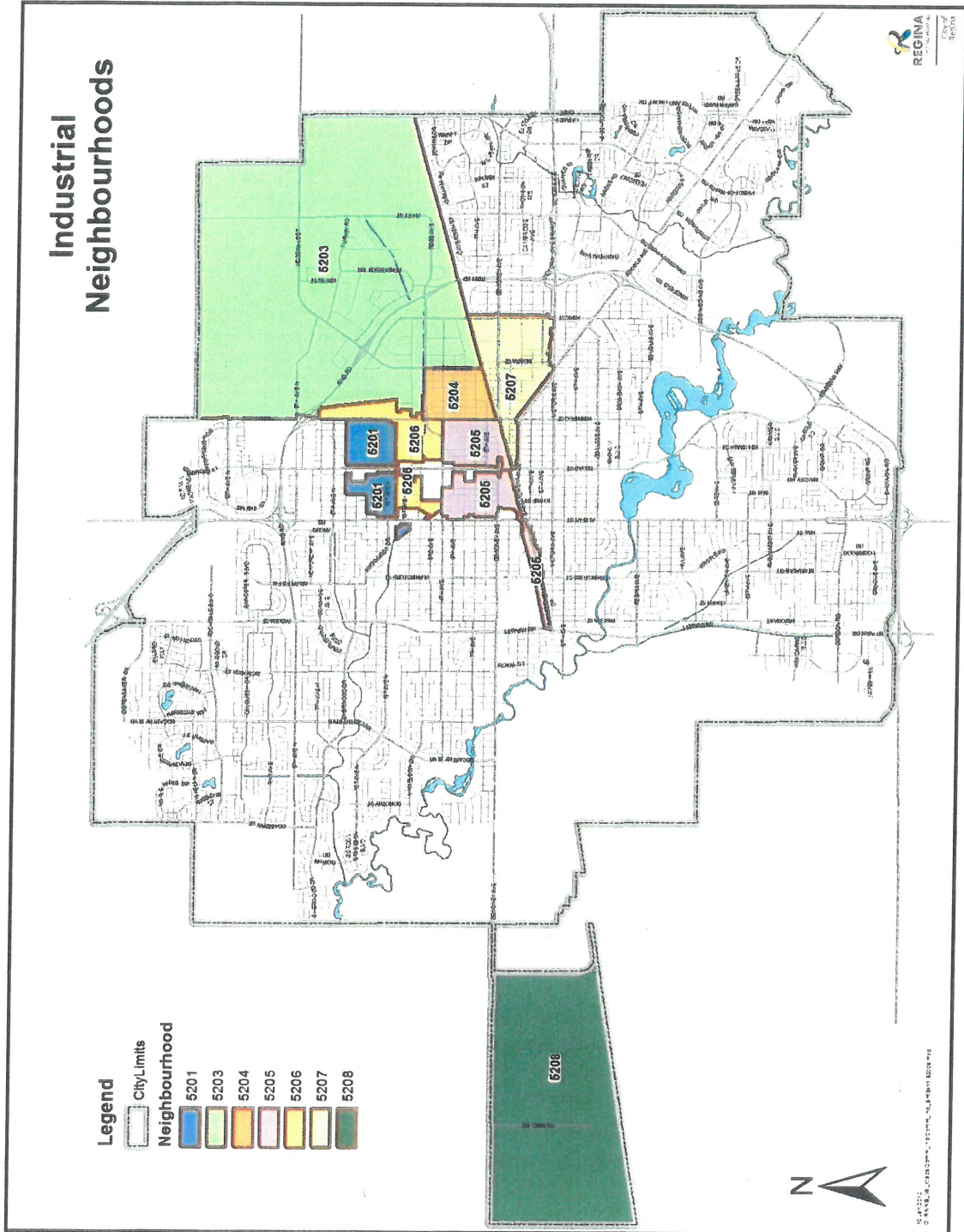
Neighbourhood 5208

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

The southern portion of this area bordering the CP rail tracks is zoned RR (railroad). 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. Loblaw developed and operates a one-million+ square foot inter-modal shipping centre

here. Other developments include CP Rail's relocated intermodal facility, the Emterra Recycling Plant, and a FastFrate distribution and truck transit facility. Projects currently under construction include distribution warehouses for Morguard Investments and the Saskatchewan Liquor and Gaming Authority.

MAP



EXECUTIVE SUMMARY

Warehouse Model

Appraisal Cycle Date – January 1, 2013 to December 31, 2016

Effective Date of Valuation – January 1, 2011

Date of Report – October 16, 2014

Rent Model

Description:	Rate (\$/sqft)
Base Rent	\$6.28
Additional Adjustments to Base Rent:	
Single-tenant Warehouse lease space >= 100,000 sqft	-\$2.52
Bldgs built in 1990 or newer	\$1.25

Additional Adjustments to Net Rent:	
Shell warehouse space (unheated, uninsulated)	-50%
Upper floor space (above main floor)	-17%

Vacancy and Shortfall:

Vacancy = 0.43%

Shortfall = 0.12%

Overall Capitalization Rates

Strata	Cap Rate
Buildings < 25,000 sqft with eff year built 1970 or newer	6.77%
Buildings < 25,000 sqft with eff year built pre1970	10.18%
Buildings >= 25,000 sqft	9.43%

Additional Adjustments:

Strata	Adjustment (%)
Loft Warehouse	-28%
Unheated Adj (25% of area or more must be unheatable)	-16%

Assessment to Sales Summary Results

Number of Sales	21
Median Assessment-to-Sales Ratio (ASR)	1.00
Coefficient of Dispersion (COD)	9.60%

SCOPE of DATA and ANALYSIS

Warehouse 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 these returned rent rolls.

A total of 176 warehouse net rents 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 and effective age of building. The following table provides a breakdown of these rents along with statistical measurements.

Warehouse Rent Statistics

Strata	Count	Mean	Median	Minimum	Maximum
Overall	176	\$6.41	\$6.33	\$3.25	\$11.15
Single-tenant Warehouse lease space >= 100,000 sqft	6	\$3.76	\$3.58	\$3.25	\$4.54
Pre 1990 Buildings < 100,000 sqft	139	\$6.28	\$6.25	\$3.25	\$10.50
Buildings built in 1990 or newer	31	\$7.53	\$7.00	\$4.00	\$11.15

Vacancy and Shortfall

Typical 2011 base date vacancy and shortfall adjustments were estimated from the returned rent rolls from property owners. The estimates are as follow:

Rent_Type	N	Sum (sqft)
OWNER	26	164,763
TENANT	240	2,960,877
VACANT	12	13,624
Total	278	3,139,264

$$\text{Vacancy} = 13,624/3,139,264 = 0.0043 \text{ (0.43\%)}$$

The typical operational costs reported as a ratio to typical net rents for warehouse properties is 33%. The typical ratio of costs associated with vacant space in comparison to costs associated with occupied space (dark space ratio) is approximately 88%. The shortfall adjustment is calculated as follows:

$$\begin{aligned} \text{Shortfall} &= (\text{op cost/net rent ratio}) \times (\text{dark space ratio}) \times (\text{typical Vacancy}) \\ &= 0.33 \times 0.88 \times 0.0043 \\ &= 0.0012 \text{ (0.12\%)} \end{aligned}$$

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 adjusted sale prices. Sales used in this analysis occurred between January 1, 2008 and December 31, 2010. These sales were verified by mailing questionnaires to both vendors and purchasers.

Sales were adjusted for non-realty items and other factors when warranted. Sales were also adjusted to the base date of January 1, 2011. The indicated time adjustment was approximately 5.8% per month for the first 10 months (January 2008 to October 2008) and no further adjustment for sales occurring after October 2008.

The economic capitalization rate analysis involved 21 sales, detailed in the following table.

Sales

Account	Address	mm	yy	Adjusted Sale Price	Predicted Income	Economic Cap Rate
10033823	305 E DEWDNEY AVENUE	6	2009	\$1,150,071	\$122,400	10.64%
10013959	145 HENDERSON DRIVE	12	2010	\$1,999,950	\$144,200	7.21%
10123934	1205 E PETTIGREW AVENUE	12	2010	\$749,981	\$43,000	5.73%
10218234	1735 FRANCIS STREET	11	2010	\$2,474,939	\$222,600	8.99%
10018653	665 MCDONALD STREET	2	2008	\$706,459	\$38,700	5.48%
10027265	1636 6TH AVENUE	7	2008	\$1,036,226	\$88,300	8.52%
10123934	1205 E PETTIGREW AVENUE	7	2008	\$627,657	\$43,000	6.85%
10014001	230 N LEONARD STREET	6	2008	\$920,914	\$62,400	6.78%
10027932	521 E 6TH AVENUE	7	2008	\$734,240	\$74,300	10.12%
10093003	390 N LONGMAN CRESCENT	6	2008	\$801,885	\$61,800	7.71%
10013931	204 HODSMAN ROAD	10	2008	\$579,986	\$39,200	6.76%
10018722	381 MAXWELL CRESCENT	9	2008	\$1,428,265	\$99,900	6.99%
10027931	485 E 6TH AVENUE	8	2009	\$849,979	\$87,100	10.25%
10013973	450 N LONGMAN CRESCENT	9	2009	\$454,989	\$29,900	6.57%
10027167	1135 8TH AVENUE	9	2009	\$2,449,939	\$255,000	10.41%
10013983	90 KRESS STREET	8	2009	\$819,980	\$49,900	6.09%
10033822	335 E DEWDNEY AVENUE	1	2010	\$1,699,958	\$113,589	6.68%
10014014	144 HENDERSON DRIVE	4	2010	\$4,399,891	\$415,000	9.43%
10033801	1625 MCARA STREET	5	2010	\$339,992	\$24,900	7.32%
10013920	320 HODSMAN ROAD	7	2010	\$599,985	\$40,400	6.73%
10027429	1440 MCDONALD STREET	9	2010	\$659,984	\$35,900	5.44%

The reconciliation process for determining economic capitalization rate strata primarily involved Multiple Regression Analysis, which was supported by a consultation process with individuals active in the Regina real estate market. Recognized published capitalization rate data were also reviewed. The economic capitalization rates are as follow:

Strata	Cap Rate
Buildings < 25,000 sqft with eff year built 1970 or newer	6.77%
Buildings < 25,000 sqft with eff year built pre 1970	10.18%
Buildings >= 25,000 sqft	9.43%

Additional Adjustments:

Strata	Adjustment (%)
Loft Warehouse	-28%
Unheated Adj (25% of area or more must be unheatable)	-16%

MODEL TESTING

In mass appraisal, the most effective means of evaluating the accuracy of appraisals is a ratio study. A ratio study compares the appraised 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-sale study to be within the range of 0.95 to 1.05.

The median assessment-to-sale ratio and Coefficient of Dispersion for this Warehouse model is provided below:

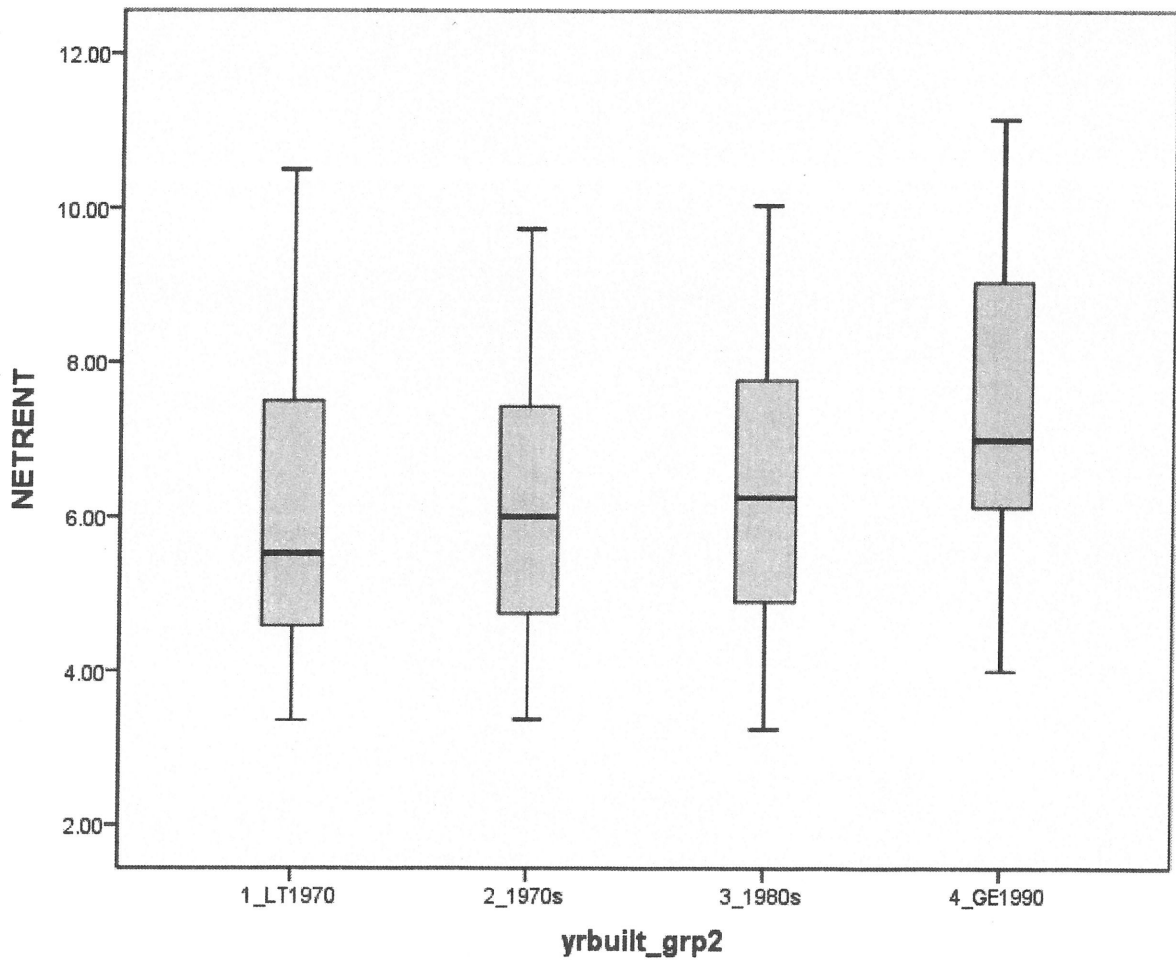
Number of Sales	21
Median Assessment-to-Sales Ratio (ASR)	1.00
Coefficient of Dispersion (COD)	9.60%

Warehouse Net Rent by age groups:

Case Summaries

NETRENT

yrbuilt_grp2	N	Mean	Median	Minimum	Maximum
1_LT1970	26	6.1851	5.5239	3.36	10.50
2_1970s	63	6.1355	6.0000	3.38	9.73
3_1980s	56	6.2127	6.2500	3.25	10.04
4_GE1990	31	7.5295	7.0000	4.00	11.15
Total	176	6.4129	6.3268	3.25	11.15



Warehouse Net Rents by Building Quality:

Case Summaries

NETRENT

Quality	N	Mean	Median	Minimum	Maximum
4	107	6.4468	6.4997	3.25	11.15
5	69	6.3605	6.0000	3.25	10.93
Total	176	6.4129	6.3268	3.25	11.15

4 = Average

5 = Good

Warehouse Net Rents by Condition Ratings:

Case Summaries

NETRENT

Condition	N	Mean	Median	Minimum	Maximum
ABOVE AVG	14	5.6574	5.2739	3.25	8.27
AVERAGE	153	6.4971	6.4999	3.25	11.15
BELOW AVG	1	4.2410	4.2410	4.24	4.24
GOOD	2	5.4233	5.4233	4.25	6.60
VERY GOOD	6	6.7222	5.5000	4.50	10.50
Total	176	6.4129	6.3268	3.25	11.15

Create a Binary variable for any condition rating better than Average.

Case Summaries

NETRENT

cond_gtavg	N	Mean	Median	Minimum	Maximum
.00	154	6.4824	6.4998	3.25	11.15
1.00	22	5.9265	5.5000	3.25	10.50
Total	176	6.4129	6.3268	3.25	11.15

.00 = Average and less

1.00 = Above Average and better

Inserting Quality and Condition into the rent model confirms that those variables are not significant as both get rejected from the regression model (see below):

Coefficients^a

8

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	
(Constant)	6.278	.146		42.927	.000		
WH_GE100K	-2.518	.719	-.248	-3.502	.001	.992	
AGE_GE1990	1.251	.343	.259	3.653	.000	.992	

a. Dependent Variable: NETRENT

Excluded Variables

8

	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
					Tolerance	VIF	Minimum Tc
RETAIL	.013	.175	.861	.013	.970	1.031	
Qual5	-.019	-.274	.784	-.021	.998	1.002	
WH_GE50KLT100K	-.018	-.254	.800	-.019	.995	1.005	
STUDY_INDUST_EXC5203	-.026	-.369	.713	-.028	.999	1.001	
AGE_LT1970	.001	.012	.991	.001	.963	1.039	
cond_gtavg	-.026	-.364	.716	-.028	.959	1.043	
OFFICE	-.091	-1.251	.213	-.095	.942	1.062	

Overall Model Stats on ASR:

By Quality:

Ratio Statistics for New_value / TASP

Group	Median	95% Confidence Interval for Median			Coefficient of Dispersion
		Lower Bound	Upper Bound	Actual Coverage	
2	.983			.%	.000
4	1.001	.874	1.082	96.5%	.123
5	1.002	.899	1.259	99.2%	.073
Overall	1.000	.983	1.065	97.7%	.102

The confidence interval for the median is constructed without any distribution assumptions.

The actual coverage level may be greater than the specified level.

Mann-Whitney Test

Ranks

	QUALITY	N	Mean Rank	Sum of Ranks
revised_ASR	4	15	11.60	174.00
	5	8	12.75	102.00
	Total	23		

Test Statistics

	revised_ASR
Mann-Whitney U	54.000
Wilcoxon W	174.000
Z	-.387
Asymp. Sig. (2-tailed)	.699
Exact Sig. [2*(1-tailed Sig.)]	.728

Hypothesis Test Summary

Null Hypothesis	Test	Sig.	Decision
1 The distribution of revised_ASR is the same across categories of QUALITY.	Independent-Samples Mann-Whitney U Test	.699	Retain the null hypothesis.

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

Just Storage Warehouses (Quality 4-Average vs. Quality 5):

Case Processing Summary

		Count	Percent
QUALITY	4	6	60.0%
	5	4	40.0%
Overall		10	100.0%
Excluded		0	
Total		10	

Ratio Statistics for New_value / TASP

Group	Median	95% Confidence Interval for Median			Coefficient of Dispersion
		Lower Bound	Upper Bound	Actual Coverage	
4	.943	.803	1.572	96.9%	.242
5	1.063	.899	1.259	100.0%	.120
Overall	.999	.847	1.312	97.9%	.188

The confidence interval for the median is constructed without any distribution assumptions.

The actual coverage level may be greater than the specified level.

Mann-Whitney Test

Ranks

	QUALITY	N	Mean Rank	Sum of Ranks
revised_ASR	4	6	5.17	31.00
	5	4	6.00	24.00
	Total	10		

Test Statistics

	revised_ASR
Mann-Whitney U	10.000
Wilcoxon W	31.000
Z	-.426
Asymp. Sig. (2-tailed)	.670
Exact Sig. [2*(1-tailed Sig.)]	.762

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of revised ASR is the same across categories of QUALITY.	Independent-Samples Mann-Whitney U Test	.670	Retain the null hypothesis.

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

Analysis of Sale Price Per Sqft for Storage Warehouses Quality 4 vs. Quality 5:

Case Processing Summary

		Count	Percent
QUALITY	4	6	60.0%
	5	4	40.0%
Overall		10	100.0%
Excluded		0	
Total		10	

Ratio Statistics for TASP / netarea_sqft

Group	Median	95% Confidence Interval for Median			Coefficient of Dispersion
		Lower Bound	Upper Bound	Actual Coverage	
4	80.748	37.955	137.501	96.9%	.356
5	91.751	73.250	143.002	100.0%	.249
Overall	86.077	56.977	137.501	97.9%	.306

The confidence interval for the median is constructed without any distribution assumptions.

The actual coverage level may be greater than the specified level.

Mann-Whitney Test

Ranks

	QUALITY	N	Mean Rank	Sum of Ranks
SPPSF	4	6	4.83	29.00
	5	4	6.50	26.00
	Total	10		

Test Statistics

	SPPSF
Mann-Whitney U	8.000
Wilcoxon W	29.000
Z	-.853
Asymp. Sig. (2-tailed)	.394
Exact Sig. [2*(1-tailed Sig.)]	.476

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of SPPSF is the same across categories of QUALITY.	Independent-Samples Mann-Whitney U Test	.394	Retain the null hypothesis.

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

Coefficients^a

8

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	6.278	.146		42.927	.000		
WH_GE100K	-2.518	.719	-.248	3.502	.001	.992	1.008
AGE_GE1990	1.251	.343	.259	3.653	.000	.992	1.008

a. Dependent Variable: NETRENT

Excluded Variables^h

8

	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
					Tolerance	VIF	Minimum Tolerance
RETAIL	.013 ^g	.175	.861	.013	.970	1.031	.965
Qual5	-.019 ^g	-.274	.784	-.021	.998	1.002	.991
WH_GE50KLT100K	-.018 ^g	-.254	.800	-.019	.995	1.005	.988
STUDY_INDUST_EXC5203	-.026 ^g	-.369	.713	-.028	.999	1.001	.991
AGE_LT1970	.001 ^g	.012	.991	.001	.963	1.039	.956
cond_gtavg	-.026 ^g	-.364	.716	-.028	.959	1.043	.959
OFFICE	-.091 ^g	-1.251	.213	-.095	.942	1.062	.938

g. Predictors in the Model: (Constant), WH_GE100K, AGE_GE1990
 h. Dependent Variable: NETRENT