



Industrial Land Data Exploration, Analysis, and Demand Estimates

Prepared by:

**City of Saskatoon
Mapping & Research**

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Executive Summary

The City of Saskatoon's Mapping & Research team produced this *Industrial Land Data Exploration, Analysis, and Demand Estimates* report (Market Study) to support the Riel Industrial Sector Plan Amendment project (underway at time of writing). This Market Study offers an in-depth analysis of the current state and future projections concerning the industrial market in Saskatoon, which includes methodically assessing current market supply, vacancy rates, absorption trends, new supply additions, rental rate fluctuations, employment statistics, and the pivotal drivers of the industrial market.

The Market Study is comprised of two main sections followed by conclusions:

- The industrial market – including an overview of Saskatoon's industrial market, industrial vacancy rates, industrial floorspace absorption and new supply, industrial rental rates, exploration of Saskatoon's industrial business licensing data, and perspectives from the North American and global industrial market.
- Analyzing and estimating future supply and demand – including industrial demand analysis, review of business license data to make employment projections, comparison of demand with planned supply in the Riel Industrial Sector, cumulative industrial land demand, estimated tax revenue, and projections for future light and heavy industrial based on previous Sector Plan assumptions.

Key findings:

- Saskatoon has an inventory of 23,658,108 square feet of industrial floorspace according to Colliers Q3 2023 data, with a vacancy rate of 1.6% (373,852 square feet). Airport Industrial and North Industrial are the highest vacancy (2.0%) and Sutherland Industrial is the lowest vacancy (0.7%).
- A balanced industrial vacancy rate would fall between 3 and 5%, though Canadian and Saskatoon supplies of industrial floorspace have recently fallen below this threshold. No Saskatoon industrial areas are within the recommended vacancy range.
- 392,000 square feet of Saskatoon industrial floorspace is absorbed on average (5-year), meaning that without additional industrial floorspace being added in the short term, the remaining supply could be absorbed in 2024.
- The leading industrial businesses in Saskatoon are Wholesale Trade, Retail Trade, and Construction. Manufacturing, Construction, and Wholesale Trade account for nearly half of the 39,119 industrial jobs in Saskatoon.
- The vast majority of industrial floorspace is within IL1 (General Light Industrial – 65.1%) and IH (Heavy Industrial – 28.8%) zoning.
- Market demand is growing for e-commerce (business-to-consumer) development, including warehousing and distribution centres (e.g., Amazon-style warehouses) and cold storage warehousing (e.g., grocery delivery).
- A previous study of Saskatoon's Industrial market was completed in 2011 by MXD and provided guidance for this Market Study's projections.
- A triangulation approach looking at population growth, employment growth, and historic absorption rates for industrial floorspace was used to project Saskatoon's cumulative industrial floorspace demand from 2024 to 2054 when Saskatoon is expected to reach a population of 500,000. Cumulative demand could hit 4.4-million square feet by 2034, 7-million square feet in 2041, 9.7-million square feet in 2048, and 12.3-million square feet in 2054.
- An estimated 24 jobs per hectare of developed industrial land is anticipated from future development, with light industrial providing 25 jobs per hectare and heavy industrial at 21 jobs per hectare. There are some notable outliers in this calculation but the weighted

average of 24 jobs per hectare appears to be representative of the market, as well as correlating with previous assumptions from the 2015 Sector Plan.

- Using the 2015 Sector Plan land use plan and land use mix (majority light industrial, minority heavy industrial, limited arterial commercial), and 2015 assumptions of 25 jobs per hectare and 13.03% site utilization for industrial development vs. 45 jobs per hectare and 30% utilization for arterial commercial, full build-out of the 2015 study area is estimated to create 18.3-million square feet of new industrial/commercial floorspace and approximately 32,480 new industrial/commercial jobs.
- An estimated 875.52 hectares (2,163.46 acres) of new industrial land is required to reach 2054's projected 12.3-million square feet of floorspace demand. There is an estimated 1,270.39 hectares (3,139.20 acres) of industrial land development potential in the Sector Plan study area, which would meet and exceed the 2054 demand.
- This Market Study also looked at estimated tax revenue per industrial business per industrial zoning district. The average industrial business provides \$11,080/year. IL1 businesses average \$7,211/year, followed by IH (\$11,373/year), then IL3 (\$38,502/year), IL2 (\$44,162/year), and IH2 (\$72,117/year).
- The current industrial floorspace mix in Saskatoon is 70% light industrial (65% IL1, 2.5% IL2, and 2.5% IL3) and 30% heavy industrial (29% IH and 1% IH2), suggesting a business-as-usual land use mix for the Riel Industrial Sector Plan Amendment would be 70% light industrial 30% heavy industrial, though there may be benefit in providing a different land use mix.
- If a 70/30 split of light vs. heavy is used for the 1,270.39 hectares (3139.20 acres) of assumedly developable land in the Sector Plan study area, it could yield an estimated 22,223 light industrial jobs and 12.5-million square feet of light industrial floorspace, and 9,529 heavy industrial jobs and 5.3-million square feet of heavy industrial floorspace, totaling 31,762 new industrial jobs and 17.8-million square feet of new industrial floorspace.

Overall, the Market Study reveals that an adequate provision of industrial land that could be developed within the Riel Industrial Sector to meet current and future industrial demand. Although these findings may alleviate some concerns on land availability for the Saskatoon industrial market, continued monitoring of the industrial market and strategic land management by the City of Saskatoon will be important to ensure that supply of industrial land keeps pace with demand in the long-term.

Further study on Saskatoon industrial market demand could include regression analysis on how industrial demand shifts based on variables such as commodity prices, inflation, and employment rates. These areas have not been explored due to time constraints but could form part of broader ongoing research into the drivers of industrial land demand and how they might impact industrial land allocation and industrial planning over time.

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1 Introduction

In 2023, the City of Saskatoon’s Mapping & Research team was requested to complete a review of industrial market supply and demand (Market Study) to support the amendment of the City’s Riel Industrial Sector Plan that will provide future employment area for Saskatoon’s growing population.

2 Industrial Market

Section 2 of the Market Study explores various components of the industrial market, including insights on industrial inventory, vacancy, absorption, new supply, and rental rates. This section also discusses industrial employment and the key drivers of industrial employment in Saskatoon.

2.1 Industrial Market Overview

Based on Collier’s 2023 Q3 Industrial Market Report¹, Saskatoon has an inventory of 23.7-million square feet (SF) of industrial space. Saskatoon ranks as the 8th largest submarket in Canada according to the Cushman and Wakefield Q3 (2023) Marketbeat National Industrial² report behind Ottawa at 27.1-million SF and London, Ontario at 41.4-million SF.

The subareas of industrial space and vacancy rates in Saskatoon are listed in Table 1.

Table 1 – Saskatoon Industrial Floorspace Inventory by Subarea in Square Feet – Q3 2023

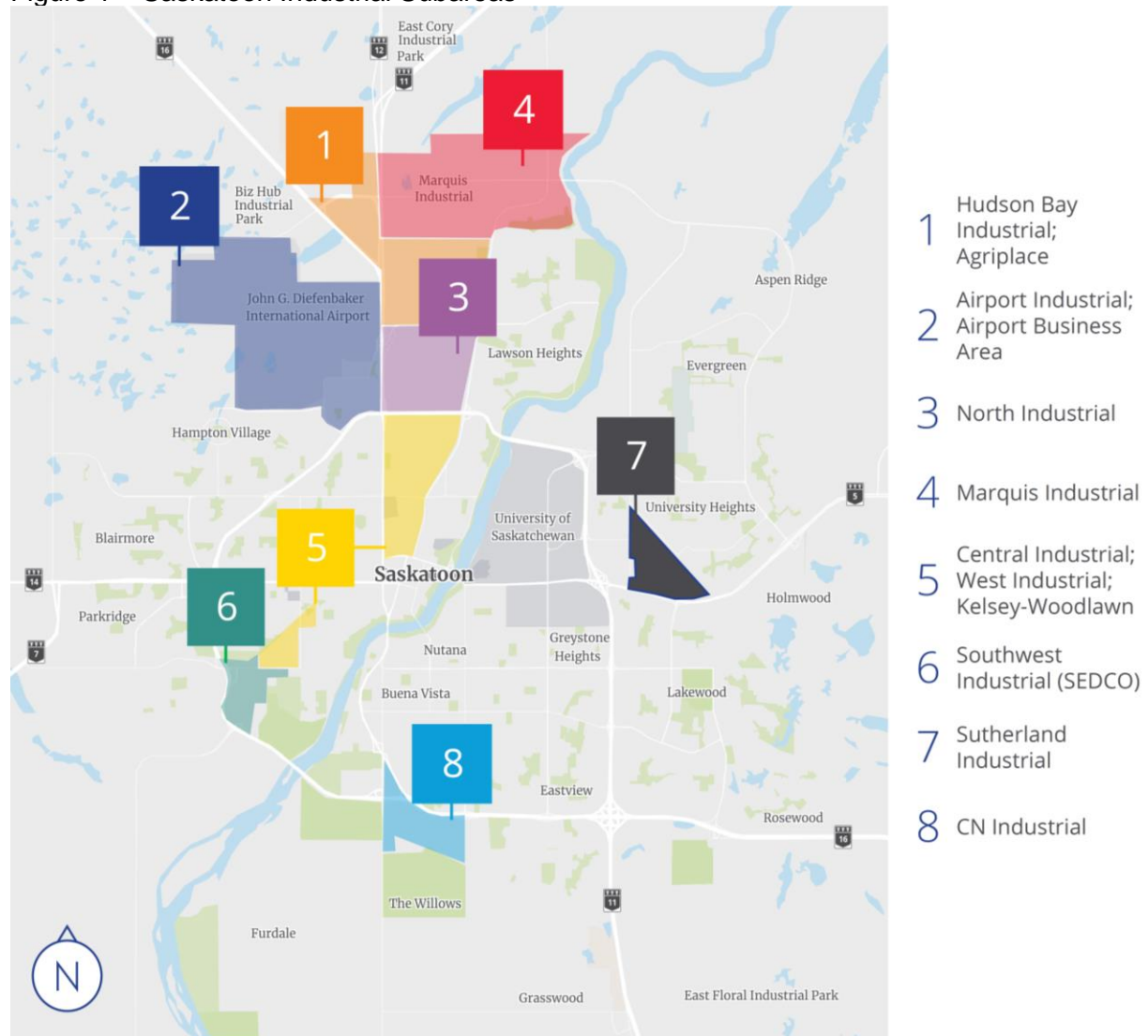
Subarea	Number of buildings	2023 Q3 Square Footage (SF)	Vacancy rate 2023 Q3 (%)	Total vacant space 2023 Q3 (SF)
Hudson Bay/Agriplace	289	5,544,461	1.2%	65,578
Airport Industrial/Airport Business Area	121	1,669,484	2.0%	34,193
North Industrial	317	5,180,533	2.0%	102,865
Marquis Industrial	184	5,458,557	1.4%	76,059
Central Industrial/West Industrial/Kelsey-Woodlawn	121	2,597,160	1.5%	38,357
Southwest Industrial	43	911,189	1.5%	14,000
Sutherland Industrial	69	769,760	0.7%	5,727
CN Industrial	43	1,526,964	2.4%	37,073
Total Number of Buildings and Inventory	1,187	23,658,108	1.6%	373,852

Source: Colliers Saskatoon Industrial Market Report Q3 2023

¹ Saskatoon Industrial Market Report Q3 2023. <https://www.collierscanada.com/en-ca/research/saskatoon-industrial-market-report-2023-q3>

² Q3 2023 Canada Industrial Market Beat Report. <https://www.cushmanwakefield.com/en/canada/insights/canada-marketbeats/industrial-marketbeats>

Figure 1 – Saskatoon Industrial Subareas

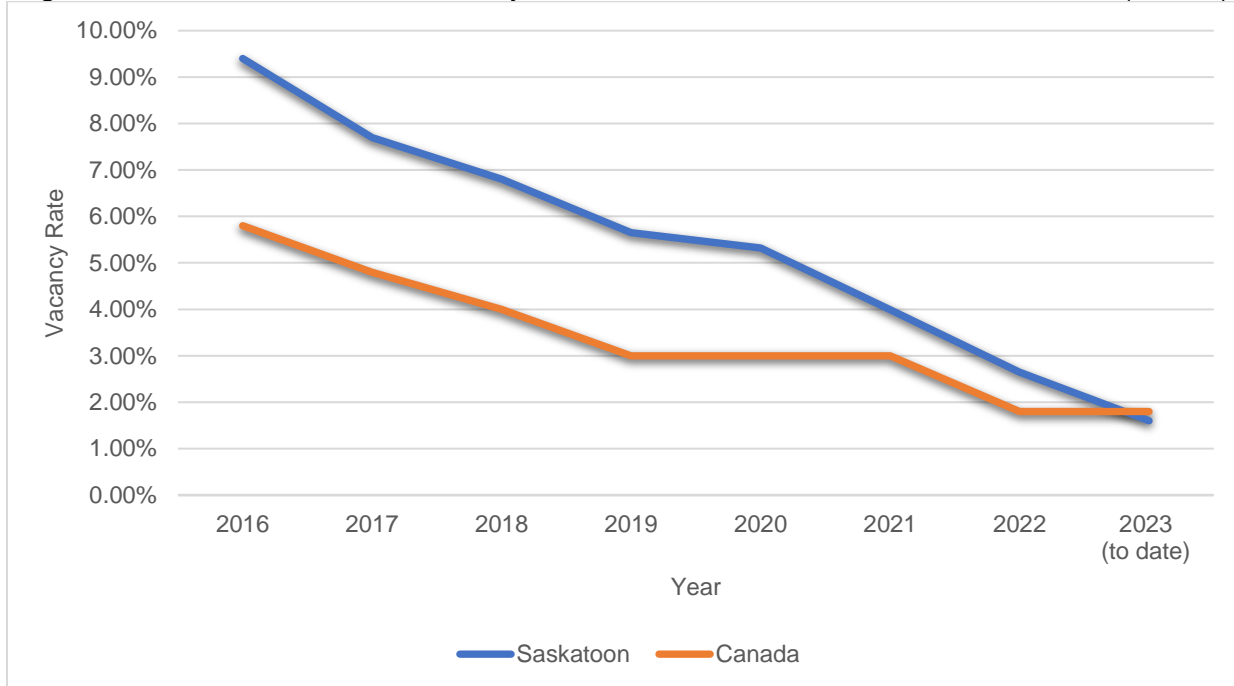


Source: Colliers Saskatoon Industrial Market Report Q3 2023

2.2 Industrial Vacancy Rates

With nearly 373,852 SF of industrial vacant space market-wide, Saskatoon’s industrial vacancy rate was 1.6% in 2023 Q3³. In comparison, according to Cushman and Wakefield the overall vacancy rate for the country was 2.1% in Q3 of 2023⁴. By Saskatoon submarket, vacancy rate was lowest in Sutherland Industrial (0.7%), followed by Hudson Bay/Agriplace (1.2%), Marquis Industrial (1.4%), Central Industrial/West Industrial/Kelsey-Woodlawn (1.5%), Southwest Industrial (1.5%), Airport Industrial/Airport Business Area (2.0%), North Industrial (2.0%), and CN Industrial (2.4%).

Figure 2 – Historical Industrial Vacancy Rate in Saskatoon and Canada – 2016-2023 (to date)



Source: ICR Commercial, Colliers, and CBRE

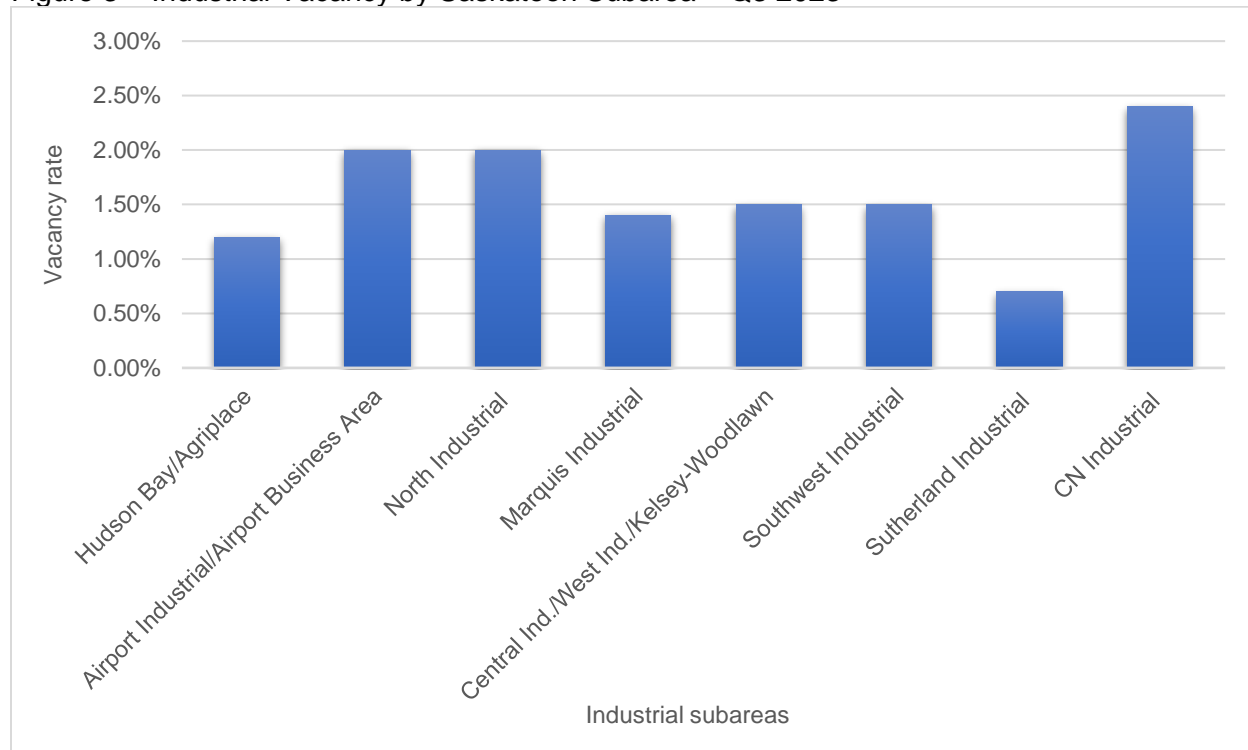
According to Colliers, a balanced industrial vacancy rate would be approximately 3 to 5%⁵. Currently, Saskatoon and Canada are below the recommended vacancy balance, and there are no Saskatoon submarkets that fall within the recommended range.

³ Saskatoon Industrial Market Report Q3 2023. <https://www.collierscanada.com/en-ca/research/saskatoon-industrial-market-report-2023-q3>

⁴ Q3 2023 Canada Industrial Market Beat Report. <https://www.cushmanwakefield.com/en/canada/insights/canada-marketbeats/industrial-marketbeats>

⁵ Too Much or Not Enough. Colliers. <https://www.collierscanada.com/en-ca/news/research-weekly-insights-industrial-market>

Figure 3 – Industrial Vacancy by Saskatoon Subarea – Q3 2023



Source: Colliers Industrial Market Report

2.3 Absorption and New Supply

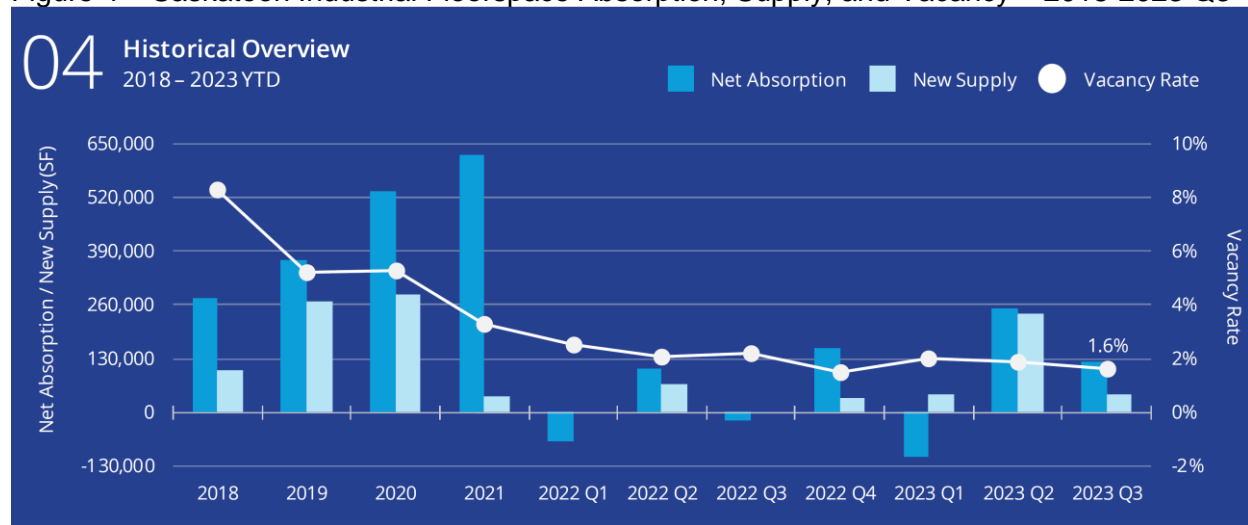
Net absorption measures the supply and demand in the market by tracking the change in tenant demand relative to the supply available in the market. The industrial market across Saskatoon has a net absorption average of 392,000⁶ SF over the past five years. 2021 was the highest of these years with a positive net absorption of nearly 650,000 SF. Despite the challenges associated with the height of the pandemic in 2020 and 2021, Saskatoon’s industrial market has been markedly resilient.

Colliers⁷ note that the Jansen Potash mine starting in early 2026 will likely increase local manufacturing as the mine becomes operational. The overall market outlook for Saskatoon industrial is positive in 2024.

⁶ Saskatoon Industrial Market Report Q3 2023. <https://www.collierscanada.com/en-ca/research/saskatoon-industrial-market-report-2023-q3>

⁷ IBID

Figure 4 – Saskatoon Industrial Floorspace Absorption, Supply, and Vacancy – 2018-2023 Q3

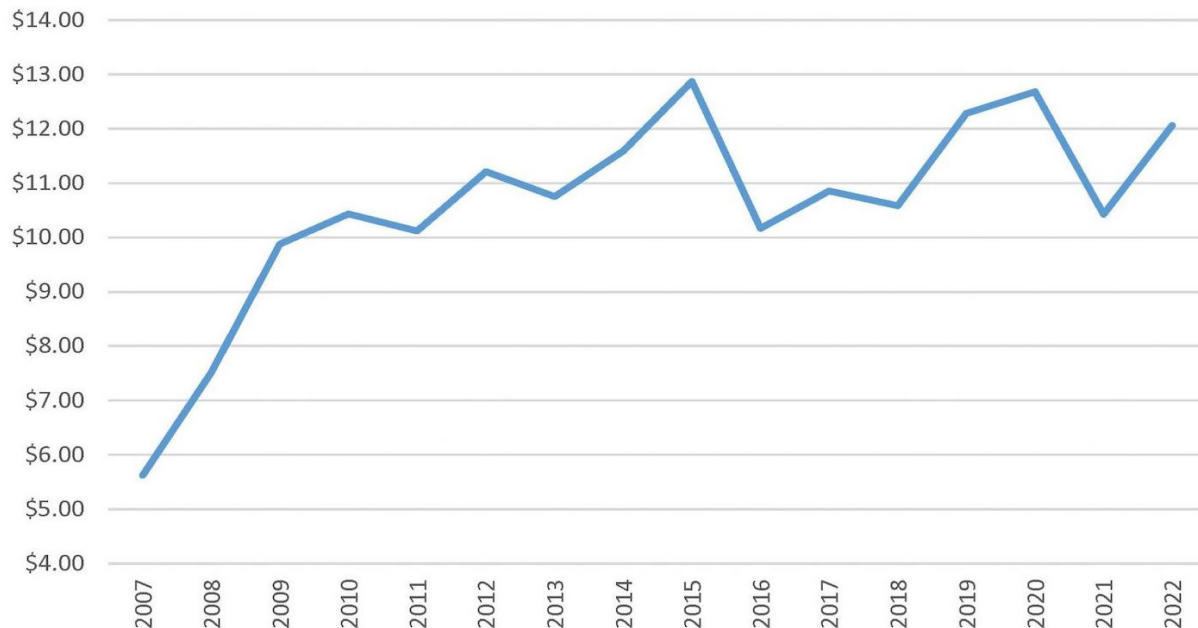


Source: Colliers Industrial Market Report (2023 Q3)

2.4 Rental Rates

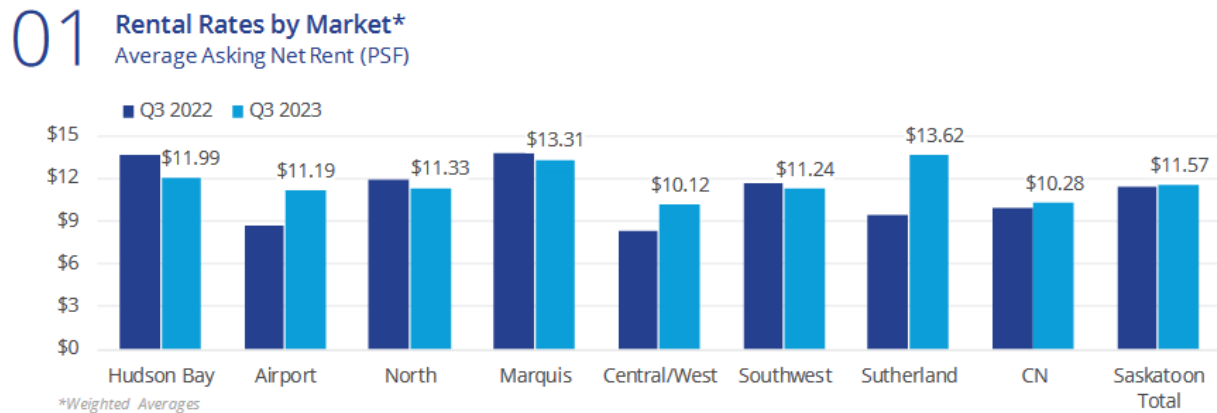
2023 Q3 represented a year-over-year increase of rental rates of 4.0%. Asking rents vary between \$13.00 and \$16.00 per SF which exceeds the Q3 average rate of \$11.57. The upward trend in rates is partially the result of increased construction costs. The overall construction cost in Saskatoon remains high and sitting 17.5% above pre-pandemic levels. High interest rates are also becoming a factor in costs associated with construction.

Figure 5 – Saskatoon Industrial Floorspace Lease Rates per Square Foot – 2007-2022



Source: Saskatoon ICR Commercial

Figure 6 – Subarea Average Asking Net Rent by Price per Square Foot – Q2 2022 vs. 2023 Q3



Source: Colliers Industrial Market Report (2023 Q3)

2.5 Exploring Saskatoon’s Industrial Business License Data

The following section explores and analyzes all City of Saskatoon industrial zoned business license data by 2-digit North American Industry Classification System (NAICS) codes. It is important to note that business license data is created through applications that are filled out by business owners when applying for business licenses.

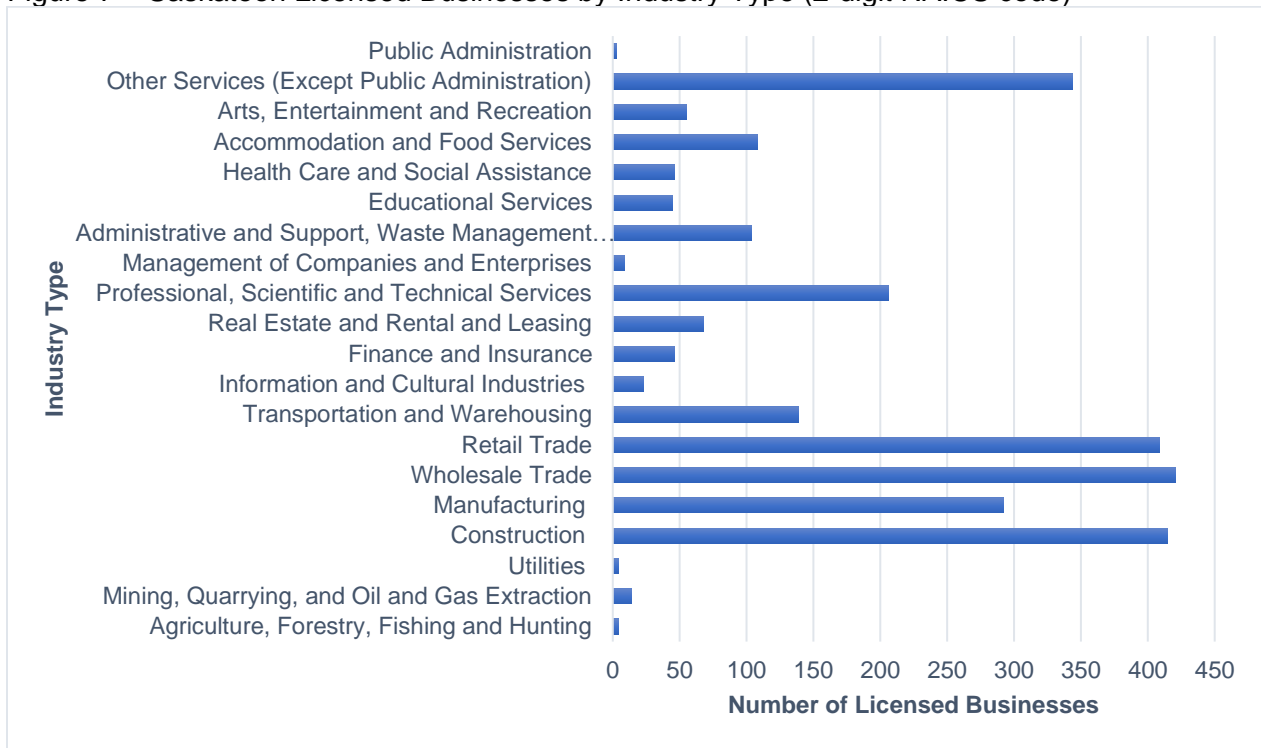
Figure 7 shows that the number of licensed businesses per industry type (by 2-digit NAICS code). The top three industry types within Saskatoon are Wholesale Trade (421 businesses), Retail Trade (409 businesses), and Construction (292 businesses).

Figure 8 shows the number of Saskatoon full-time employees in each industry type. Manufacturing (7,762 employees), Construction (5,614 employees), and Wholesale Trade (4,586 employees) round out the top three industries for full-time employment.

Figure 9 provides the number of part-time employees in each industry type. Accommodation and Food Services (1,106 employees), Retail Trade (1,003 employees), and Transportation and Warehousing (444 employees) comprise the top three industries for part-time employment within Saskatoon.

Figure 10 shows the number of seasonal employees in each industry type within Saskatoon. Construction (928 employees), Mining, Quarrying, and Oil and Gas Extraction (295 employees), and Professional Technical Services (164 employees) are the top three seasonal employment industries.

Figure 7 – Saskatoon Licensed Businesses by Industry Type (2-digit NAICS code)



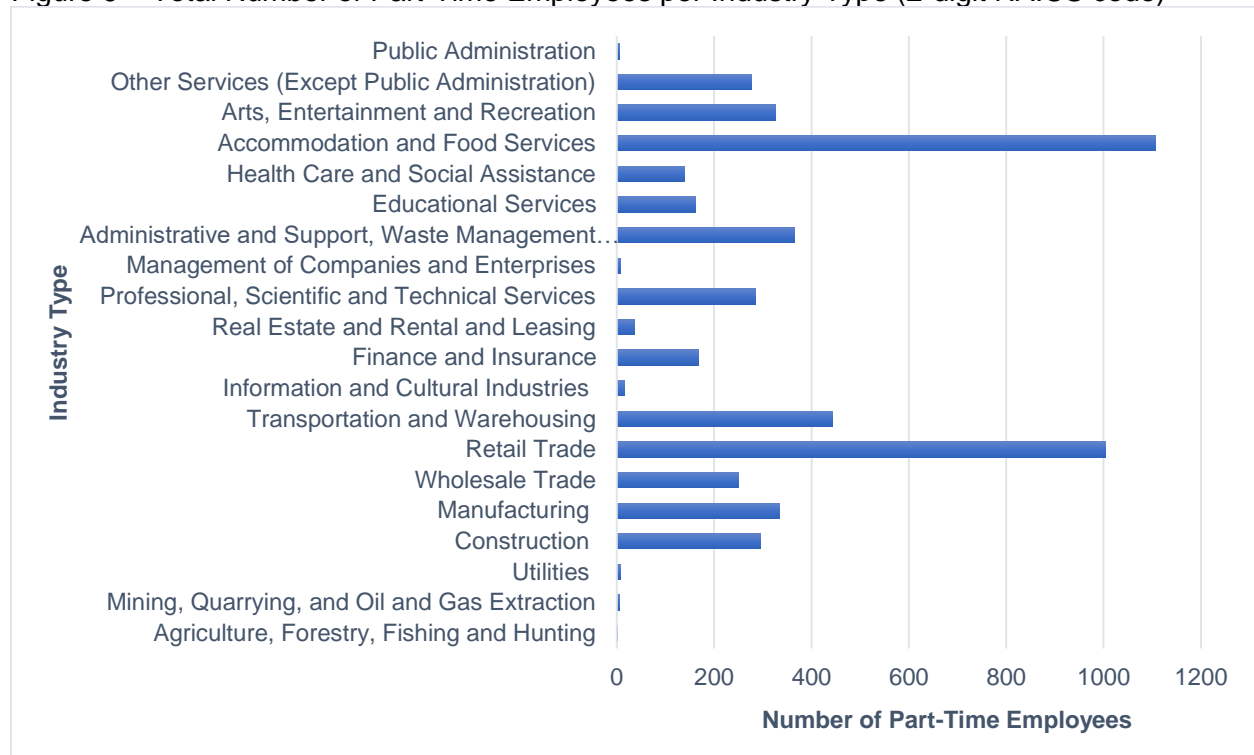
Source: COS Business Licensing & Mapping & Research (2023)

Figure 8 – Total Number of Full-Time Employees per Industry Type (2-digit NAICS code)



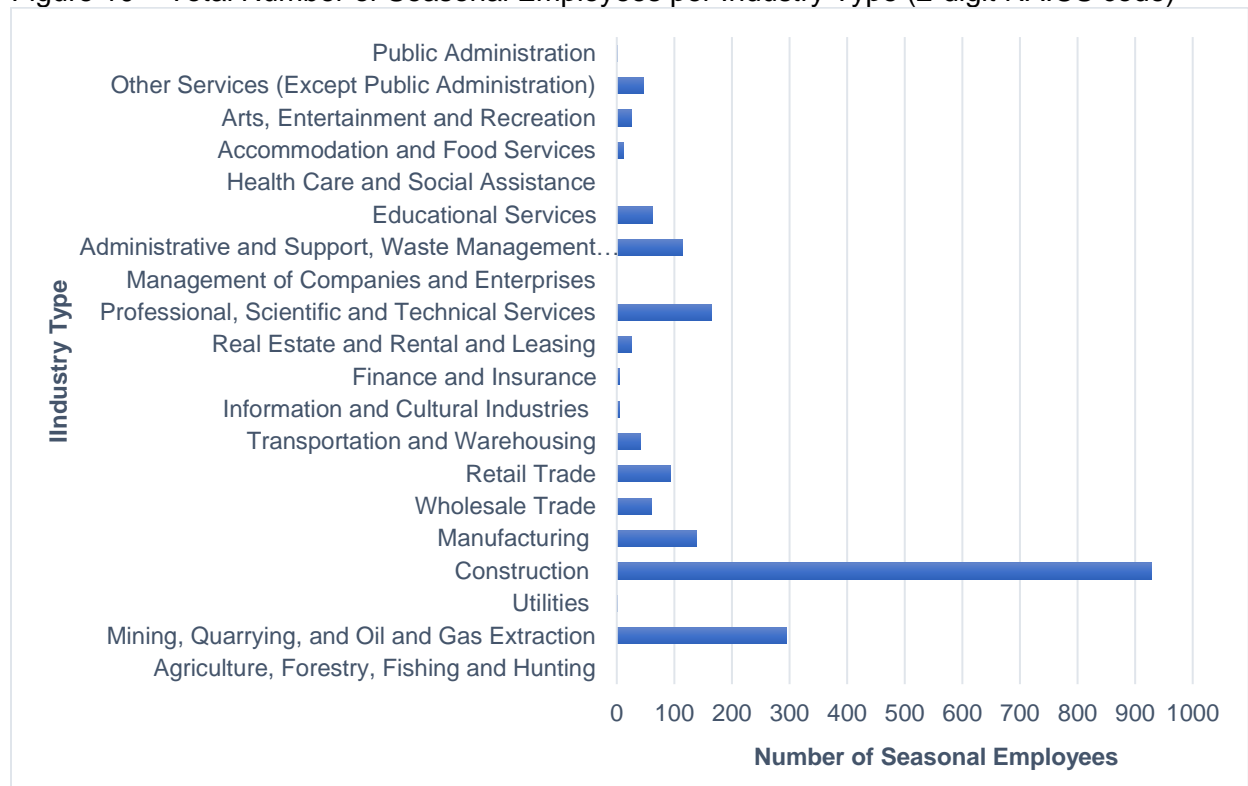
Source: COS Business Licensing & Mapping & Research (2023)

Figure 9 – Total Number of Part-Time Employees per Industry Type (2-digit NAICS code)



Source: COS Business Licensing & Mapping & Research (2023)

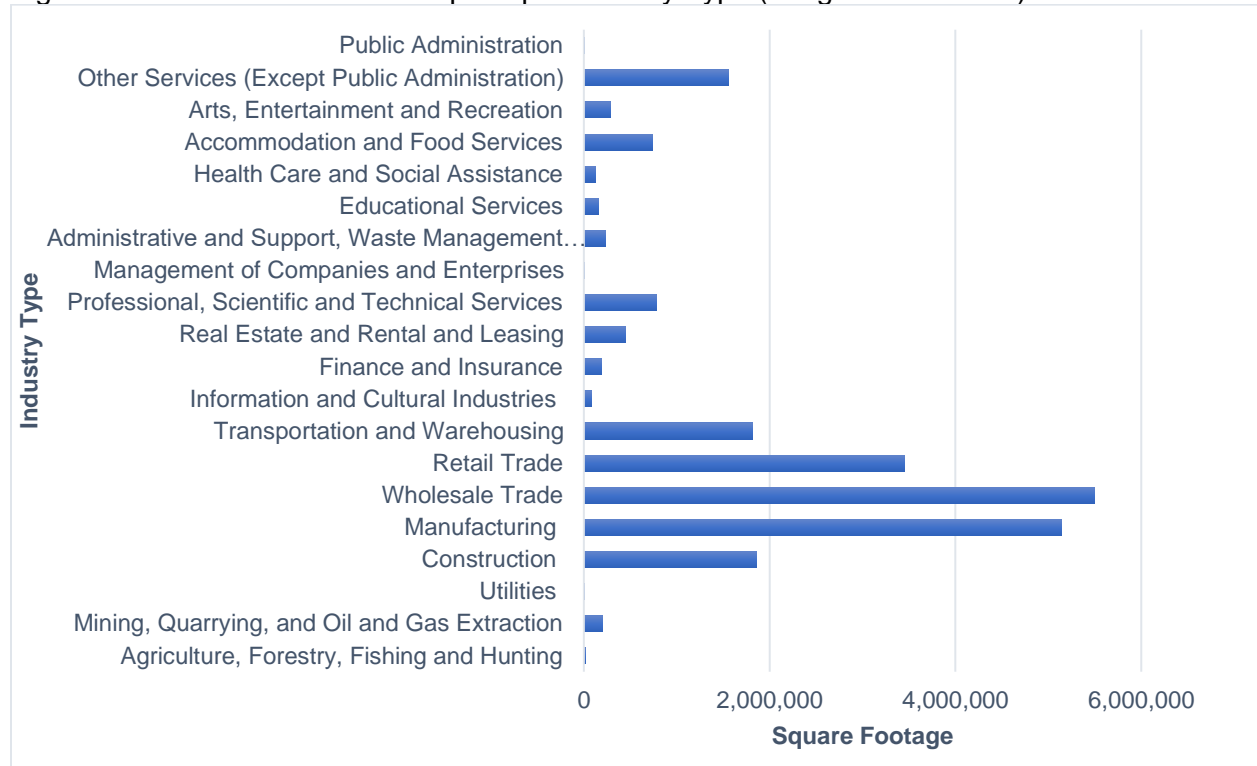
Figure 10 – Total Number of Seasonal Employees per Industry Type (2-digit NAICS code)



Source: COS Business Licensing & Mapping & Research (2023)

Figure 11 shows Saskatoon’s leading industries in square footage. Wholesale Trade (5.5-million SF), Manufacturing (5.1-million SF), and Retail Trade (3.5-million SF) are Saskatoon’s top three industries by total square footage.

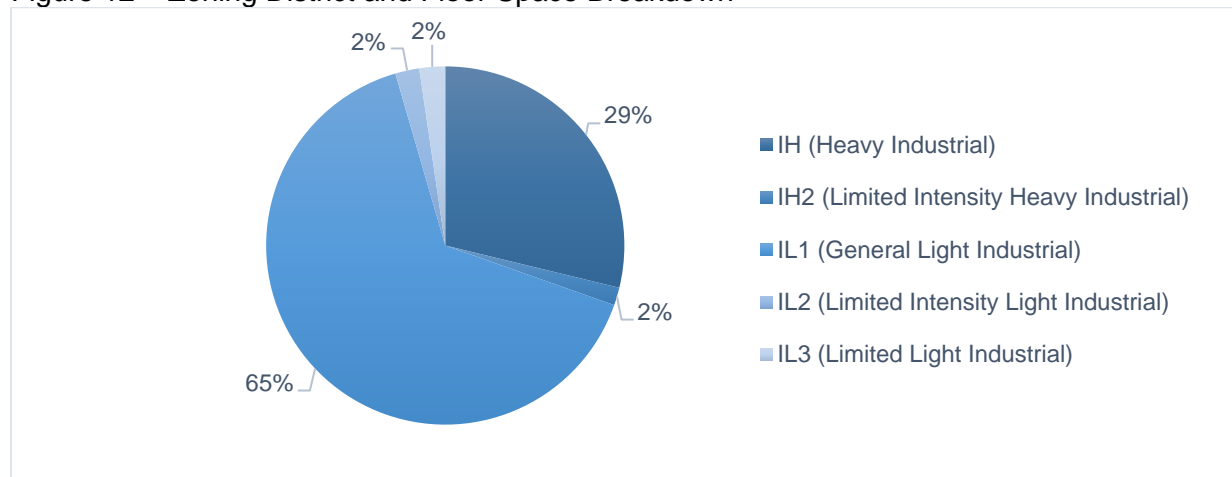
Figure 11 – Total Industrial Floorspace per Industry Type (2-digit NAICS code)



Source: COS Business Licensing

Figure 12 shows industrial floorspace breakdown (by percent of total floorspace) per zoning district. IL1 (General Light Industrial District) is 65.1% of total square footage, followed by IH (Heavy Industrial) at 28.8%, Limited Light Industrial District (IL3) at 2.3%, Limited Intensity Light Industrial District (IL2) at 2.2%, and IH2 (Limited Intensity Heavy Industrial District) at 1.6%.

Figure 12 – Zoning District and Floor Space Breakdown



Source: COS Business Licensing

Figure 13 shows total number of employees and square footage of businesses by zoning district. The IL1 district is both the leader in square footage and the number of employees.

Figure 13 – Industrial Floorspace Breakdown by Zoning District as Percentage of Total



Source: COS Business Licensing

Table 2 shows the share of employment by industry in Saskatoon and how it compares to the wider provincial and national numbers.

Table 2 – Comparative Employment – Saskatoon vs. Saskatchewan vs. Canada – 2022

Employment sector	Share of total employment		
	Saskatoon	Saskatchewan	Canada
Industrial	18.1%	22.0%	20.5%
Office	21.6%	20.2%	27.3%
Transport and Warehousing	4.3%	4.4%	5.1%
Wholesale and Retail Trade	17.0%	16.5%	14.9%
Non-Commercial Services	25.9%	24.2%	20.9%
*Other Services	13.0%	12.6%	11.2%

*arts, entertainment, and recreation; accommodation and food services; and other services (except public administration)

Sources: Statistics Canada; The Conference Board of Canada

2.6 North American and Global Industrial Market Perspectives^{8 9 10}

1. There is a sharp 2023 Q1 decline in United States (U.S.) tenant demand for industrial space as wholesalers and retailers reconsider their inventory levels out of caution over the economic outlook. Net absorption of industrial space in 2023 Q1 totaled 39.4-million SF – a 57% drop from the record set the year prior (2022). Comparatively, demand for Canadian industrial space in 2023 Q1 gained 21% year-over-year.
2. Industrial developers completed a record 162-million SF nationwide (U.S.) during 2023 Q3, pushing U.S. industrial vacancy rate higher for the fifth quarter in a row – to 5.02%. This vacancy rate is 54 basis points higher than 2023 Q2 and 141 basis points higher than the 3.61% rate one year ago (2022 Q3). Demand, as measured by net absorption, dropped for the fourth consecutive quarter, totaling 47.8-million SF between July and September 2023, falling 63% below the net absorption total of 128.2-million SF recorded in 2022 Q2.
3. While a potential pullback in U.S. consumer spending poses downside risks for 2023, onshoring of high-tech manufacturing will likely be a key driver of U.S. absorption in 2024 through 2026.
4. Compared to prior economic cycles, the key differentiator for the current industrial market is growth of e-commerce and logistics space. With the boom of e-commerce, the industrial market has excelled in the current expansion – more than nearly any previous cycle. With the sale of more goods online, there is a need for logistics space to house goods outside of traditional brick and mortar stores. The COVID-19 era heightened consumer demand for direct shipping of goods, cutting out retail locations as the intermediary, going straight from business-to-consumer (B2C). This B2C demand will drive the need for more industrial inventory in more locations, both for large box warehouse and last-mile infill to provide goods expediently to local consumers.
5. With the growing consumer demand for goods at a streamlined rate, as well as growing retailer demand, suppliers will need to invest in an e-commerce model for B2C shipments. Widespread adoption of e-commerce will take several years to implement across various markets, meaning demand for B2C will remain high for several years.
6. One of the most active property types in industrial real estate is cold storage. Many grocery chains have moved to online applications for grocery shopping that allow B2C grocery shopping for pickup and delivery. China, the United Kingdom, and the U.S. are seeing increasing demand from companies for new cold storage warehousing. Additionally, these businesses are looking at opportunities to expand their existing space, add infill properties to better serve e-commerce consumer needs, and ways to modernize existing facilities to make supply chains more adaptable.

⁸ 2023 Q1 North America Market Report. <https://www.lee-associates.com/research-article/2023-q1-north-america-market-report/>

⁹ Industrial Area Growth Strategy Consulting Report. <https://www.calgary.ca/content/dam/www/pda/pd/publishingimages/calgaryindustrialsector/IAGS-Consulting-Report%20-%20FINAL.pdf>

¹⁰ Employment Strategy Discussion Paper. <https://www.peelregion.ca/officialplan/review/pdf/2022/appendix-x-employment-strategy-discussion-paper-2051.pdf>

3 Analyzing and Estimating Future Supply and Demand

Section 3 of the Market Study provides an analysis of market demand based on population growth, employment growth, and SF absorption rates to project demand decades into the future, with particular focus on long range planning of the Riel Industrial Sector.

3.1 Industrial Demand Analysis

In 2011, MXD¹¹ conducted a city-wide commercial and industrial development study (MXD study) on behalf of the City. Components of the MXD study have been readapted for the following section of this Market Study addressing city-wide demand for industrial floor space.

The MXD study model considers three different variables to formulate demand via triangulation.

1. Population growth
2. Employment growth
3. Historic absorption rates

Through triangulation, a blended average of population growth, employment growth, and historic absorption equalizes the variables. This averaging ensures that no one variable is fully relied upon for future industrial demand projections. It is worth noting that MXD-forecasted employment growth rates were higher than what Stats Canada data found, and larger increases were noted in the earlier years of the model. However, MXD floorspace estimates appear to be fairly accurate when compared with current data so the approach has been replicated for this estimate.

The following assumptions informed this Market Study using the same triangulation approach:

1. Population growth – demand assumptions from the MXD data and a 1.8% annual population growth for Saskatoon were used, which is the growth midpoint from the City's 20-year population forecast (2021-2041).
2. Employment growth – a combination of MXD study demand assumptions and more recent sources (Stats Canada – CMA Employment Growth of 3.7%) was used to extrapolate employment growth to year 2054 when the City is expected to reach a population of 500,000 people.
3. Historic absorption rate – data from Colliers and a five-year average are used for absorption rate, resulting in an estimated average annual demand (from 2023 to 2054) of approximately 392,000 SF of industrial building space.

Table 3 is based on the triangulation assumptions. Saskatoon is expected to reach a population of 350,000 in the next ten years (2024-2034) with a total cumulative market demand for 4.4-million SF of industrial building space. Population is estimated to increase to 400,000 in 2041 with a cumulative industrial demand estimate reaching 7-million SF (2.5-million SF increase over 7 years). In 2048, Saskatoon may reach 450,000 pop. and roughly 9.7-million SF in industrial square footage demand (3.7-million SF increase over 7 years). Saskatoon is estimated to reach 500,000 pop. by 2054, which is 30 years from date of this Market Study, to reach a cumulative demand of 12.3-million SF (an increase of 2.6-million SF in 7 years).

¹¹ 2011 - City of Saskatoon Commercial & Industrial Development Study Final Report

Table 3 – Estimated Population Growth and Cumulative Market Demand for New Industrial Space

Year	Estimated population	Estimated total cumulative market demand for new industrial floorspace (SF)
2034	350,000	4,446,570
2041	400,000	6,959,142
2048	450,000	9,677,668
2054	500,000	12,279,782

Sources: COS Mapping & Research

Saskatoon has historically provided a steady supply of serviced and developable industrial land to reach a current industrial inventory estimated at 23.7-million SF based on City data. This equates to 81 SF of industrial building space per capita. It is conceivable that industrial demand within Saskatoon could exceed what is forecasted within this Market Study if any combination of the three variables (population, employment, absorption) increased significantly. Industrial growth can also spur population growth as it expands the job market.

Using the results of the estimated total cumulative market demand for industrial in Table 3, cumulative total City-wide industrial floor space demand was calculated in Table 4. Starting with 23.7 million-SF of industrial floorspace at time of writing, City-wide industrial floor space will grow to 28.2-million SF in 2034, 30.7-million SF in 2041, 34.4-million SF in 2048, and 37-million SF in 2054 (as Saskatoon reaches a population of 500,000).

Table 4 – Estimated City-Wide Demand for Industrial Floor Space

Year	Estimated population	Estimated total City-wide demand for industrial floor space (SF)
2034	350,000	28.2 million
2041	400,000	30.7 million
2048	450,000	34.4 million
2054	500,000	37 million

Sources: COS Mapping & Research

3.2 Business Licensing Data, Jobs, and Geocortex Employment Comparison

The City of Saskatoon’s Business Licensing Program data and internal mapping software (Geocortex) was used to inform Table 5. Total industrial zoned land within Saskatoon, total jobs, and jobs per hectare were calculated for IH (Heavy Industrial), IH2 (Limited Intensity Heavy Industrial), IL1 (General Light Industrial), IL2 (Limited Intensity Light Industrial), and IL3 (Limited Light Industrial).

IL1 (61.05%) and IH (26.65%) comprise the majority of light and heavy industrial zoned lands, and account for 25,892 jobs in IL1 and 10,393 jobs in IH). The non-weighted average of jobs per hectare for light and heavy industrial districts is 21.99; the weighted average (WAVG) is 23.48 jobs per hectare for ILs and IHs. The WAVG for IL districts is 24.66 jobs per hectare. The WAVG for heavy industrial districts is 20.59 jobs per hectare (note: IH2 job density is anticipated to increase as newer IH2-zoned land is built out and respective IH2-businesses report their building square footage). These values are in line with the 25 jobs per hectare assumed for light industrial, heavy industrial, environmental industrial park, and urban holding used in the current Sector Plan (2015), therefore 25 jobs per hectare is the recommended assumption for light industrial and heavy industrial job density in the Riel Industrial Sector Plan Amendment project.

Table 5 – Saskatoon Light and Heavy Industrial Zoned Land, Jobs per District and Hectare

Zoning district	Total area (ha)	Percentage of total lands	Total jobs per zoning district	Percentage of total jobs	Jobs per hectare per district
IL1	1,085.90	61.05%	25,892	66.19%	23.84
IL2	28.52	2.63%	705	1.80%	24.72
IL3	28.10	1.58%	1,190	3.04%	42.36
IH	474.00	26.65%	10,393	26.57%	21.93
IH2	162.14	9.12%	939	2.40%	5.79
Totals	1,778.66	100.00%	39,119	100.00%	-
				Average	21.99
				ILs IHs WAVG	23.48
				ILs WAVG	24.66
				IHs WAVG	20.59

Sources: City of Saskatoon Business Licensing and Geospatial Data (2023)

3.3 Comparing Demand to Planned Supply within the Current Sector Plan

Table 6 is informed by the current Riel Industrial Sector Plan (2015) and provides a breakdown of the land use mix for the study area west of Highway 12 by hectares, acres, percentage of total land within this portion of study area, projected square footage of building space, estimated jobs per hectare, and anticipated number of jobs.

The 2015 assumptions of 25 jobs per hectare for light and heavy industrial and 45 jobs per hectare for arterial commercial have been carried forward. The 2015 work assumed a square footage utilization rate of 13.03% for all heavy industrial, environmental industrial park, light industrial, and urban holding land uses. The 2015 plan also assumed a utilization rate of 29.61% for arterial commercial land use, though was not applied to both sides of the study area (this has been corrected in Table 6 for west of Highway 12). The current plan did not calculate Red Pheasant Cree Nation’s (RPCN) projected square footage or employment numbers, but as RPCN’s parcel is currently designated light industrial land use, 13.03% utilization and 25 jobs per hectare have now been applied to RPCN. 13.03% utilization and 25 jobs per hectare are also applied to environmental industrial park and urban holding.

The assumed amount of developable land west of Highway 12 within the 2015 Riel study area is 837.73 hectares (2,070.08 acres), which would be 83% of the west side of the study area. This assumedly developable area is estimated to yield 11.9-million SF of industrial and arterial commercial building space and 21,103 new jobs at full build-out.

Table 6 – Riel West of Highway 12 Land Use Mix, Estimated Floorspace and Jobs – 2015

Land use	Land use area (ha)	Land use area (ac)	% of west study area	Estimated building SF	Jobs per hectare	Estimated total jobs
West of Highway 12						
Existing land use						
Saskatoon Co-op	8.08	19.97	0.80%	-	-	-
Redhead Holdings	18.34	45.32	1.82%	-	-	-
Quattro Properties	16.19	39.99	1.60%	-	-	-
Saskatoon 16W RV	6.07	15.00	0.60%	-	-	-
Flaman Sales	18.45	45.59	1.83%	-	-	-
Samco Holdings	3.86	9.54	0.38%	-	-	-
1767388 Alberta Ltd.	14.32	35.37	1.42%	-	-	-
Rosler Investments	1.62	4.00	0.16%	-	-	-
Cervus Equipment	5.67	14.00	0.56%	-	-	-
Highway 12	15.90	39.29	1.57%	-	-	-
71 st St W ROW	5.52	13.64	0.55%	-	-	-
Total existing	114.01	281.71	11.3%	-	-	-
Proposed land use						
Heavy industrial	157.47	389.12	15.59%	2,209,400	25	3,937
Enviro. industrial park	32.27	79.74	3.19%	452,768	25	807
Light industrial	527.79	1,304.20	52.25%	7,405,216	25	13,195
Arterial commercial	8.00	19.77	0.79%	255,000	45	360
Urban holding	80.51	198.94	7.97%	1,129,604	25	2,013
Red Pheasant Cree Nation	31.69	78.31	3.14%	444,630	25	792
Total proposed land use	837.73	2,070.08	82.93%	11,896,618	-	21,103
New infrastructure						
Urban holding – roads	21.59	53.35	2.14%	-	-	-
Saskatoon Freeway	36.87	91.11	3.65%	-	-	-
Total new infrastructure	58.46	144.46	5.79%	-	-	-
Non-developable uses						
To Be Determined lands	0.00	0.00	0.00%	-	-	-
Wetlands and complexes	0.00	0.00	0.00%	-	-	-
Non-wetland natural areas	0.00	0.00	0.00%	-	-	-
Riverbank area	0.00	0.00	0.00%	-	-	-
Total non-develop. uses	0.00	0.00	0.00%	-	-	-
Totals for west of Hwy 12	1,010.20	2,496.28	100.00%	11,896,618	-	21,103

Sources: Riel Industrial Sector Plan (2015)

Table 7 provides a similar breakdown for the east side of the 2015 study area (east of Highway 11), including land use hectares, acres, percentage of total, estimated SF, jobs per hectare, and new jobs created.

25 jobs per hectare and 13.03% utilization assumptions are used for light industrial, heavy industrial, environmental industrial park, urban holding, reclamation site (heavy industrial), and ERCO Worldwide (undeveloped land – heavy industrial). 45 jobs per hectare and 29.61% utilization assumptions for arterial commercial are also used.

The assumed amount of developable land east of Highway 11 is 448.66 hectares (1,108.66 acres) or 46.05% of the east side of the 2015 study area. The “To Be Determined” lands, wetlands and complexes (Hudson Bay Swale), and riverbank area accounted for 376.93 hectares (2,407.52 acres) or 38.69% of the east portion of the study area. Although the two sides of the study area are similar in size – 1,010.20 hectares (2,496.28 acres) on the west versus 974.29 hectares (2,407.52 acres) on the east – the east side of the study area will yield substantially less square footage and fewer jobs. An estimated 6.4-million SF of industrial and arterial commercial building space and 11,377 new jobs will be introduced at full build-out study area east of Highway 11.

Table 7 – Riel East of Highway 11 Land Use Mix, Estimated Floorspace and Jobs – 2015

Land use	Land use area (ha)	Land use area (ac)	% of east study area	Estimated building SF	Jobs per hectare	Estimated total jobs
East of Highway 11						
Existing land use						
Five Acre Industrial Parcels	10.31	25.48	1.06%	-	-	-
CN Rail line	4.58	11.32	0.47%	-	-	-
Millar Ave ROW	4.60	11.37	0.47%	-	-	-
71 st St	3.99	9.86	0.41%	-	-	-
ERCO Worldwide (dev't)	10.10	24.96	1.04%	-	-	-
Harris Rebar	6.45	15.94	0.66%	-	-	-
Utility parcels	0.72	1.78	0.07%	-	-	-
South Saskatchewan River	47.69	117.84	4.89%	-	-	-
Total existing	88.44	218.54	9.08%	-	-	-
Proposed land use						
Heavy industrial	53.29	131.68	5.47%	747,691	25	1,332
Enviro. Industrial park	0.00	0.00	0.00%	0	25	0
Light industrial	311.22	769.04	31.94%	4,366,606	25	7,781
Arterial commercial	8.00	19.77	0.82%	255,000	45	360
Urban holding	16.34	40.38	1.68%	229,260	25	409
Reclamation site	2.59	6.40	0.27%	36,339	25	65
ERCO Worldwide (undev't)	57.22	141.39	5.87%	802,832	25	1,431
Total proposed land use	448.66	1,108.66	46.05%	6,437,729	-	11,377
New infrastructure						
Urban holding – roads	28.98	71.61	2.97%	-	-	-
Saskatoon Freeway	31.28	77.29	3.21%	-	-	-
Total new infrastructure	60.26	148.91	6.19%	-	-	-
Non-developable uses						
To Be Determined lands	225.50	557.22	23.15%	-	-	-
Wetlands and complexes	141.66	350.05	14.54%	-	-	-
Non-wetland natural areas	0.00	0.00	0.00%	-	-	-
Riverbank area	9.77	24.14	1.00%	-	-	-
Total non-develop. uses	376.93	931.41	38.69%	-	-	-
Totals for east of Hwy 11	974.29	2,407.52	100.00%	6,437,729	-	11,377

Sources: Riel Industrial Sector Plan (2015)

Table 8 summarizes the totals from Table 6 and Table 7 to provide land use mix, estimated floorspace, and estimated jobs for the 2015 study area.

9.08% (202.45 hectares or 500.25 acres) of the study area is existing land use versus 65% (1,286.38 hectares or 3,178.74 acres) currently planned for development. Proposed land use includes 10.53% (210.76 hectares or 520.80 acres) heavy industrial, 1.60% (32.27 hectares or 79.74 acres) environmental industrial park, 42.10% (839.01 hectares or 2,073.24 acres) light industrial, 0.81% (16.00 hectares or 39.54 acres) arterial commercial, 4.83% (96.85 hectares or 239.32 acres) urban holding, 1.57% (31.69 hectares or 78.31 acres) urban reserve, 0.14% (2.59 hectares or 6.40 acres) reclamation site, and 2.94% (57.22 hectares or 141.39 acres) undeveloped ERCO land.

New planned infrastructure at 5.99% (118.72 hectares or 293.37 acres) pertains to major transportation network expansion, with new Saskatoon arterial rights-of-way accounting for 2.56% (50.57 hectares or 124.96 acres) and Saskatoon Freeway accounts for 3.43% (68.15 hectares or 168.40 acres) of the study area.

Non-developable lands account for the remaining 19.35% (376.93 hectares or 931.41 acres) of the study area, with 11.58% (225.50 hectares or 557.22 acres) “To Be Determined” lands, 7.27% (141.66 hectares or 350.05 acres) wetlands and complexes, 0.00% non-wetland natural areas, and 0.50% (9.77 hectares or 24.14 acres) riverbank area.

In total, the 2015 study area includes 1,984.49 hectares (4,903.80 acres) to provide an estimated 18.3-million SF of new building space and 32,480 new jobs.

Table 8 – Riel Study Area Land Use Mix, Estimated Floorspace and Jobs – 2015

Land use	Land use area (ha)	Land use area (ac)	% of total study area	Estimated building SF	Jobs per hectare	Estimated total jobs
Riel study area (2015)						
Existing land use						
Total existing	202.45	500.25	9.08%	-	-	-
Proposed land use						
Heavy industrial	210.76	520.80	10.53%	2,957,091	25	5,269
Enviro. Industrial park	32.27	79.74	1.60%	452,768	25	807
Light industrial	839.01	2,073.24	42.10%	11,771,822	25	20,976
Arterial commercial	16.00	39.54	0.81%	510,000.00	45	720
Urban holding	96.85	239.32	4.83%	1,358,864.00	25	2,422
Red Pheasant Cree Nation	31.69	78.31	1.57%	444,630	25	792
Reclamation site	2.59	6.40	0.14%	36,339	25	65
ERCO Worldwide (undev't)	57.22	141.39	2.94%	802,832	25	1,431
Total proposed land use	1,286.39	3,178.74	64.49%	18,334,347	-	32,480
New infrastructure						
Urban holding – roads	50.57	124.96	2.56%	-	-	-
Saskatoon Freeway	68.15	168.40	3.43%	-	-	-
Total new infrastructure	118.72	293.37	5.99%	-	-	-
Non-developable uses						
To Be Determined lands	225.50	557.22	11.58%	-	-	-
Wetlands and complexes	141.66	350.05	7.27%	-	-	-
Non-wetland natural areas	0.00	0.00	0.00%	-	-	-
Riverbank area	9.77	24.14	0.50%	-	-	-
Total non-develop. uses	376.93	931.41	19.35%	-	-	-
Totals for study area	1,984.49	4,903.80	100.00%	18,334,347	-	32,480

Sources: Riel Industrial Sector Plan (2015)

3.4 Estimated Total Cumulative Industrial Land Demand

Table 9 estimates the total cumulative industrial land demand based on the following steps:

1. Take total cumulative market demand for new industrial space (SF) from Table 3
2. Convert Step 1 floorspace demand to acres and hectares of floorspace demand
3. Assume 13.03% site utilization for all new industrial
4. Divide Step 1 floorspace demand (SF, acres, and hectares) by assumed 13.03% site utilization to estimate total cumulative demand for new industrial land in SF, acres, and hectares

The total estimated cumulative demand for new industrial land may reach 317.04 hectares (783.42 acres) in 2034 at 350,000 pop., 496.16 hectares (1,226.09 acres) in 2041 at 400,000 pop., 690.02 acres (1,705.07 acres) in 2048 at 450,000 pop., and 875.52 hectares (2,163.46 acres) in 2054 at 500,000 pop.

Table 9 – Estimated Total Cumulative Demand for New Industrial Land in Saskatoon

Year	Est. population	Est. total cumulative market demand for new industrial floorspace			Est. land utilization rate (building SF/land SF)	Est. total cumulative demand for new industrial land		
		Building SF	Building acres	Building hectares		Land SF	Land acres	Land hectares
2034	350,000	4,446,570	102.08	41.31	13.03%	34,125,633	783.42	317.04
2041	400,000	6,959,142	159.76	64.65	13.03%	53,408,611	1226.09	496.16
2048	450,000	9,677,668	222.17	89.91	13.03%	74,272,203	1,705.07	690.02
2054	500,000	12,279,782	281.91	114.08	13.03%	94,242,379	2,163.55	875.52

Sources: City of Saskatoon Business Licensing (2023)

With reference to Table 8, the assumed total developable land in the 2015 study area is 1,286.39 hectares (3,178.74 acres). Subtracting 16 hectares (39.54 acres) of planned arterial commercial from that total equates to an assumed 1,270.39 hectares (3,139.20 acres) of developable industrial lands; assuming no changes will be made to developable industrial area through the Sector Plan amendment, this new industrial land would meet and exceed the estimated 2054 cumulative demand for 875.52 hectares (2,163.46 acres) of industrial land from Table 9.

3.5 Estimated Industrial Tax Revenue

Table 10 provides the estimated number of businesses and annual total tax revenue the City of Saskatoon received (June 2022 to June 2023) from industrial businesses. Note that the revenue data presented some challenges and limitations, so the values in Table 9 are approximations based on cleaned up data.

The total number of light and heavy industrial businesses is 2,756 with the majority of businesses being located in IL1 (1,855) and IH (744) zoning. The total 2023 tax revenue from industrial is \$30,535,507, primarily from IL1 (\$13,376,923) and IH (\$8,461,742). The average annual tax revenue for light and heavy industrial zoning is approximately \$11,080 per business. From lowest to highest, the average annual tax revenue per business is \$7,211 for IL1, \$11,373 for IH, \$38,502 for IL3, \$44,162 for IL2, and \$72,117 for IH2. Notably, the least abundant IL3, IL2, and IH2 zoned businesses are estimated to provide well above the average annual tax revenue per business.

Table 10 – Estimated Industrial Tax Revenue per Zoning District from June 2022 to June 2023

Zoning district	Total number of businesses in Saskatoon	2023 tax revenue	Average annual tax revenue per business
IL1	1,855	\$13,376,923	\$7,211
IL2	35	\$1,545,675	\$44,162
IL3	49	\$1,886,644	\$38,502
IH	744	\$8,461,742	\$11,373
IH2	73	\$5,264,523	\$72,117
Total	2,756	\$30,535,507	\$11,080

Source: City of Saskatoon Corporate Revenue (2023)

3.6 Future Proposed Light Industrial and Heavy Industrial within Riel Industrial Sector

Table 11 provides a breakdown of total City-wide industrial building floorspace per zoning district based on business license data. There is 24.6-million SF of industrial floorspace currently existing within Saskatoon, which differs slightly from Colliers (23.7-million SF). Based on business license data, the majority of industrial floorspace is located in IL1 (16-million SF at 65.10%) and IH (7.1-million SF at 28.79%). IL2, IL3, and IH2 collectively account for the remainder (1.5-million SF at 6.10%) of the industrial supply. Combining IL1, IL2, and IL3 values, total light industrial supply is 17.1-million SF (69.60%). IH and IH2 values total 7.5-million (30.40%) for heavy industrial. At current annual demand of 392,000 SF, 24.6-million SF represents 62.8 years of industrial supply.

Table 11 – Existing Industrial Floorspace Breakdown within Saskatoon

Zoning	Total City-wide industrial building floorspace (SF)	Percentage of total industrial building floorspace (ILs and IHs)
IL1	16,011,090	65.10%
IL2	534,626	2.17%
IL3	572,090	2.33%
IH	7,081,623	28.79%
IH2	393,816	1.60%
Total for light industrial	17,117,806	69.60%
Total for heavy industrial	7,475,439	30.40%
Total for light and heavy industrial	24,593,254	100.00%

Source: City of Saskatoon Business Licensing data (2023)

The existing industrial zoning mix in Table 11 could be used to inform a business-as-usual approach to land use plan updates in the Riel Industrial Sector Plan Amendment, particularly a light industrial to heavy industrial ratio of 70% to 30%, respectively.

Tables 12 applies this 70/30 industrial ratio to total proposed industrial lands (1,270.39 hectares or 3,139.20 acres) from the current Sector Plan (2015). The 70/30 ratio is also applied to the 2015 estimated totals for 31,762 new industrial jobs and 17.8-million SF of new industrial floorspace. 70% light industrial in the 2015 study area would yield an estimated 889.27 hectares (2,197.44 acres) of light industrial developed land, 22,233 light industrial jobs, and 12.5-million SF of new light industrial floorspace. 30% heavy industrial could provide an estimated 381.12 hectares (941.76 acres) of heavy industrial land, 9,529 heavy industrial jobs, and 5.3-million SF of new heavy industrial floorspace.

Table 12 – Potential Industrial Land Use Mix, Jobs, and Floorspace for 2015 Study Area

Land use	Recommended land use mix	Est. land use area (ha)	Est. Land use area (ac)	Est. jobs	Est. building space (SF)
Light industrial	70%	889.27	2,197.44	22,233	12,477,042
Heavy industrial	30%	381.12	941.76	9,529	5,347,304
Total	100%	1,270.39	3,139.20	31,762	17,824,346

Sources: Riel Industrial Sector Plan (2015), Business Licensing (2023)

4 Conclusion

Saskatoon is facing supply challenges based on current industrial market demand. The current vacancy rate (1.6%) is well below a balanced market of 3-5% vacancy, and the trend has been worsening since the beginning of the COVID pandemic in 2020.

Based on recent market data, the estimated net absorption rate is approximately 392,000 SF of industrial floorspace per year, and there is an estimated 373,852 SF of existing industrial floorspace currently available in Saskatoon. Further supply of industrial floorspace is required in the short term to keep Saskatoon near the 20.5% Canadian average for industrial versus non-industrial land use.

The City of Saskatoon is projected to reach a population of 500,000 people in the next 30 years, and with that, the cumulative market demand for industrial floorspace is projected to reach 12.3-million SF. This Market Study assumes a business-as-usual approach will be utilized for the Riel Industrial Sector Plan Amendment, with the majority of developable area planned as industrial, at a ratio of 70% light industrial and 30% heavy industrial. Development of the Riel Industrial Sector in this manner could meet and exceed the 30-year demand for industrial floorspace, assuming there will be minimal deviation from the 2015 Sector Plan study area and total developable area (1,270.39 hectares or 3,139.20 acres) for industrial lands. With an assumed site utilization rate of 13.03% and 25 jobs per developed hectare of light or heavy industrial land, full build-out of Riel Industrial Sector could potentially create 17.8-million SF of new industrial floorspace and 31,762 new industrial jobs.

This Market Study also recognizes the potential for arterial commercial or other non-industrial land uses to be introduced through the Riel Industrial Sector Plan Amendment work, though the primary assumption is that this future employment area will strive to meet current and future industrial demand.

Further study on Saskatoon industrial market demand could include regression analysis on how industrial demand shifts based on variables such as commodity prices, inflation, and employment

rates. These areas have not been explored due to time constraints but could form part of broader ongoing research into the drivers of industrial land demand and how they might impact industrial land allocation and industrial planning over time.