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To: Piero Pucci

Supervisor

Thunder Bay Community Economic Development Commission (CEDC)

Regarding: Thunder Bay Employment Land Strategy 2020

Cushman & Wakefield partnered with Metro Economics, The Planning Partnership, and SCS Consulting Group to complete this Employment Land Strategy 2020, on behalf of the City of Thunder Bay and Thunder Bay Community Economic Development Commission (CEDC).

The Consultant Team is appreciative of the input from CEDC and City staff, as well as the many stakeholders that have helped to inform this work. We are confident that these analysis and strategic recommendations will help position the City to attract future growth, and to seize opportunities for employment land development.

Respectfully submitted,

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TABLE OF CONTENTS

Executive Summary	i
Project Overview	i
Land Supply Analysis	i
Population and Employment Growth Projections	ii
Land Demand Analysis	ii
Strategic Recommendations	ii
1.0 Introduction	1
1.1 Overview of Employment Land Strategy	1
1.2 Thunder Bay Community Profile	1
1.3 Background Documents Review	3
1.4 Stakeholder Consultations	6
2.0 Land Supply Analysis	7
2.1 Methodology	7
2.2 Industrial Land Supply	7
2.3 Local Industrial/Business Park Market Perspectives	9
2.4 Commercial Land Supply	13
2.5 Shopping Centre Space	14
2.6 Local Retail Market Perspectives	16
2.7 Institutional Land Supply	18
2.8 Mapping of Vacant Employment Lands	19
3.0 Trends Analysis	22
3.1 Office Sector Trends	22
3.2 Industrial Sector Trends	22
3.3 Retail Sector Trends	23
3.4 Employment Density	25
3.5 Non-Residential Building Permit Activity	27
4.0 Population and Employment Projections	28
4.1 Introduction	28
4.2 Population and Jobs	29
4.3 Key Demographic Characteristics	30
4.4 Key Economic Characteristics	31
4.5 The Potential for Growth	33

5.0 Employment Land Demand Forecast	36
5.1 Introduction	36
5.2 Employment Categories	36
5.3 Industrial Land Need Projection	39
5.4 Office Land Need Projection	41
5.5 Institutional Land Need Projection	42
5.6 Retail-Commercial Land Need Projection	45
5.7 Land Demand Summary	48
6.0 Planning Policy Review	50
6.1 Introduction	50
6.2 Becoming Our Best: 2015-2018 Corporate Strategic Plan	50
6.3 One City, Growing Together: 2019-2022 Corporate Strategic Plan	51
6.4 The City of Thunder Bay Official Plan	51
6.5 The Zoning By-law	62
7.0 Conclusions and Strategic Recommendations	65
7.1 Introduction	65
7.2 Industrial Perspectives	66
7.3 Office Perspectives	69
7.4 Retail-Commercial Perspectives	71
7.5 Institutional Perspectives	73
7.6 Planning Perspectives	76
7.7 Innova Business Park	79
7.8 Role of Major Infrastructure	83
7.9 Costco Analysis	84
7.10 Strategic Recommendations	85

Appendix 1 – Summary of Stakeholder Input

Appendix 2 – Perspectives on Downtown Revitalization

Appendix 3 – Population and Employment Projection Exhibits

EXECUTIVE SUMMARY

Project Overview

Thunder Bay functions as a regional service centre for northwestern Ontario, and is a nexus of business and commercial activity. It is one of many Canadian cities that has been transitioning away from its traditional reliance upon natural resources to underpin its economy, towards a more diversified base, led by growth in services employment. The purpose of this report is to provide the City of Thunder Bay with an assessment of the city's employment lands and economy to support continued prosperity, recognizing the challenges of an evolving employment market. This will position Thunder Bay to leverage its competitive advantages with a stock of employment lands that is responsive to market needs. Cushman & Wakefield is the lead Consultant Team firm that was engaged to undertake this Employment Land Strategy, supported by sub-consultant firms metroeconomics, The Planning Partnership, and SCS Consulting Group.

This report begins with an analysis of employment land supply, and then explores trends across the office, industrial, and retail sectors. Next, it provides a land demand projection that examines the impacts of a range of factors on land supply and demand, underpinned by a forecast of population and employment by industry. As well, it includes planning policy guidance to facilitate sustainable growth and a diverse economy. Informing all of this work was a series of stakeholder consultations with a range of participants to explore local economic, employment, and real estate-related issues.

In order to foster growth and attract and retain business, the City needs to ensure that there is a suitable supply of employment lands to provide choice in terms of availability, location, site size, zoning, and development timing, among other site selection criteria. This will enable businesses to react to opportunities as they arise. In this report, employment land refers to industrial, office, retail-commercial, and institutional uses.

Land Supply Analysis

The Consultant Team used GIS and building permit data provided by City staff to identify the inventory of employment lands city-wide – both occupied sites (those with one or more buildings), as well as vacant sites (undeveloped land). The following are some key observations by type of land.

- Industrial Vacant industrial lands are distributed across the three types of Official Plan categories as follows: Light Industrial (520 gross hectares), Heavy Industrial (202 gross hectares), and Business Area (47 gross hectares), on nearly 450 total sites.
- Commercial Thunder Bay has a vacant Commercial land inventory of some 84 gross hectares across over 350 individual sites. However, most of the undeveloped land inventory is comprised of very small parcels. Based upon the location and orientation of the city's largest undeveloped Commercial-designated lands, it may be argued that there are no suitable properties to accommodate a new retail-commercial project of significant scale (10,000 m² or more of GLA).
- Institutional There is a vacant Institutional land inventory of some 24 gross hectares across 16 individual sites. It is important to recognize that in addition to these vacant lands, large, occupied Institutional-designated sites including Thunder Bay Regional Health Sciences Centre, Lakehead University, Confederation College, and the former Lakehead Psychiatric Hospital property all offer excess lands that may be suited to accommodate future development.

Population and Employment Growth Projections

The Consultant Team prepared four forecast scenarios – the Base Case (preferred scenario), as well as Low, High, and High+ scenarios (which tested various sensitivities influencing growth).

- The Base Case scenario projects the population of the City of Thunder Bay to exceed 155,800 by 2051, representing an increase of roughly 46,000 persons over the 2019 estimated population. This factors into our outlook for retail-commercial land demand, as well as population-related employment growth.
- The Base Case scenario projects employment in the City of Thunder Bay to approach 73,000 jobs by 2051, reflecting an increase of some 23,300 jobs compared to 2019. The industry segments contributing the highest growth include health and social services; accommodation and food; education; and transportation and warehousing. This growth projection informs our outlook for industrial, office, and institutional land demand going forward.

Land Demand Analysis

The employment by industry projection can be translated into a forecast of land needs by identifying the type of buildings that are required for each category of employment. The following highlights the conclusions of our land demand analysis.

- Industrial Using a benchmark industrial employment density and a typical industrial building site
 coverage ratio, there is demand for approximately 30 gross hectares of industrial land through the
 2051 forecast horizon.
- Office Guided by recent office development formats in the city, employment in sectors that are associated with office-type space demand is anticipated to generate demand for 7 gross hectares for office uses by 2051.
- Institutional In discussion with the city's largest institutional employers, there is no identified
 near or medium-term requirement for additional Institutional-designated lands. Large institutional
 sites/campuses all offer excess lands that can accommodate future development, and on-site
 intensification is their principal focus of growth.
- Retail-Commercial The Consultant Team prepared two retail-commercial land demand scenarios that are guided by the same population forecast, but different assumptions about the amount of retail space demanded per capita. New retail-commercial uses will continue to emerge, and it is highly likely that some buildings within the existing inventory will become obsolete, and repurposed to a mixed-use or other form of redevelopment. It is recommended that the City plan for 25 gross hectares of retail-commercial land through 2051.

Our analysis has identified a considerable supply of vacant, designated employment lands in the City of Thunder Bay. The demand assessment indicates that future employment land requirements can be accommodated on existing sites. Therefore, there is no identified need to consider the conversion of any non-employment lands for employment purposes.

Strategic Recommendations

In overall terms, the city's employment lands are well positioned to achieve the anticipated growth forecasts. The surplus land supply provides latitude for flexibility and adaptability in planning for future employment land requirements, and enables the City to be responsive as business opportunities arise, which represents a competitive advantage.

The current range of land use designations within the Official Plan and zoning categories within the Zoning By-law is conducive to facilitating growth, and our recommendations build upon this foundation. The themes of flexibility and responsiveness to market needs are at the heart of this Employment Land Strategy, and are appropriate for a municipality with a relatively slow growth trajectory such as Thunder Bay. In augmenting the in-place planning policy approaches, these recommendations will help ensure the provision of an appropriate supply of employment lands for industrial, office, retail-commercial, and institutional uses.

The following is an overview of some of the key recommendations of this report:

- At an aggregate level, the city has a more than adequate supply of employment land across all land use designations. There is no identified need for the City to directly intervene in the land market, in the form of acquiring lands, or assembling development parcels.
- Business Area-designated lands will be in demand, but there is a sufficient supply to consider some conversion to Light Industrial use, should significant demand for this category emerge over time.
- The City must maintain the designation of its supply of undeveloped, centrally-situated Light Industrial lands. Applications for land use conversion away from currently permitted uses should be rejected.
- The City's established heavy industrial base is an asset which requires protection to ensure ongoing operations. However, the vast supply of vacant and underutilized Heavy Industrial sites can withstand some conversion to Light Industrial uses, if such applications arise.
- The city has a suitable amount of Industrial-designated lands in a variety of locations, with a range of in-place servicing, to suit occupier needs. There is no identified need to extend additional infrastructure/servicing to meet industrial land needs through 2051.
- The redevelopment of brownfield sites is not required to meet anticipated employment land demand. Rather than a blanket policy approach towards brownfields redevelopment, municipal interventions should be weighed on a site-by-site basis. The role of the City of Thunder Bay in supporting such endeavours would vary depending on the size and complexities of the project, but may include extending municipal infrastructure/services, supporting development through a mechanism such as a tax increment equivalent grant, accelerating planning approvals, or other approaches that would be evaluated at a future time.
- Office space could be a feature of a mixed-use redevelopment of a site in the Strategic Cores or along the waterfront. The City should encourage any new public sector office investments to situate in the Strategic Cores, or a site adjacent/in proximity to the downtowns along the waterfront, and also direct inquiries about new private sector office space to consider these locations.
- The City's Zoning By-law with respect to office space as a permitted use is unnecessarily rigid, and not conducive to fostering growth in this type of land use. It is recommended that offices of any type be permitted within the zones which currently allow offices (whether or not presently restricted to one or more of the three specialty office types).
- There is gap in the retail-commercial land supply in the form of larger sites capable of
 accommodating significant new development. Rather than proactively redesignating one or more
 sites to facilitate future major retail development, it is our recommendation that City staff be
 responsive to development inquiries.

- There is potential for existing retail-commercial sites to be repurposed. City staff should be receptive to proposals for Official Plan Amendments and Zoning By-law Amendments for existing community-scale retail-commercial sites where mixed-use redevelopment can occur. In the case of smaller-scale properties, it will be necessary to evaluate whether the zoning should be amended to facilitate a different set of Commercial permissions, or whether another land use altogether is feasible on the site, in the local/neighbourhood context. Alternatively, the City could proactively make policy and regulatory changes to allow a greater extent of residential development to take place on these sites. Having Official Plan policies that anticipate this evolution and pre-zoning the sites for the introduction of residential uses facilitates the desired change, dramatically reduces the risk to the developer, and signals this change to the market.
- There will likely be ongoing need for development sites for retail-commercial properties.
 Conversion of employment lands to a Commercial use can be explored, while ensuring sufficient needed Industrial lands remain available for that use. It is critical that a municipality plan and designate a sufficient amount of commercial lands to satisfy prospective demand, as well as be responsive to inquiries for employment land development/conversion.
- Occupied large Institutional sites/campuses contain undeveloped lands that are suited to accommodate future institutional and related development. There is no identified near or medium-term requirement for additional Institutional-designated lands.
- Institutional land needs require ongoing monitoring, and this can be achieved through liaison between City staff and these organizations – particularly where off-campus sites are being considered.
- Public sector uses can spur other development to take place. Thoughtful planning of institutional buildings is needed to leverage their value. A location(s) within the Strategic Cores should be included in any site selection analysis related to new public sector institutional space needs in Thunder Bay.
- Innova Business Park's Development Guidelines should be maintained, and marketing efforts can be enhanced, based on guidance provided by the Consultant Team.
- There are some proposed refinements to the range of permitted uses within Innova Business Park which will allow it to develop as a premier business location over time.
 - A full range of office uses should be permitted on all lots, in order to attract more office-type development within Innova.
 - Research and development centres should be a permitted use on all Innova Business Park lands.
 - There should be a focus on office and prestige industrial uses within the business park, given the well-located nature of these land, which means that the range of permitted uses should be amended, based on guidance provided by the Consultant Team.
 - The provision of retail-commercial uses adjacent to Innova Business Park would not inhibit its
 potential to become a premier office and prestige industrial hub within the city. In fact,
 convenient access to retail and service commercial uses would likely be viewed as an amenity
 by prospective occupiers.
- Promote opportunities for development along the waterfront, while protecting the Port function. It
 is advised that the City allow the private development market to lead the way on waterfront
 redevelopment. As part of this overall process, the City can ensure its city-building objectives are
 taken into account (such as increasing access to the waterfront, parkland and open space
 creation, inclusion of community/cultural facilities, etc.).
- City staff should re-evaluate the need for a Market and Economic Impact Analysis. While the
 Consultant Team's view is that this requirement should be removed altogether, at a minimum, the
 City should assess the effectiveness of this tool in actually achieving the desired outcomes.

1.0 INTRODUCTION

1.1 Overview of Employment Land Strategy

1.1.1 Introduction to Consultant Team

In September, 2019, the City of Thunder Bay and Thunder Bay Community Economic Development Commission (CEDC) engaged a multi-disciplinary Consultant Team to undertake an Employment Land Strategy. Cushman & Wakefield is the lead firm, supported by sub-consultant firms Metro Economics, The Planning Partnership, and SCS Consulting Group.

The objective of the project is to provide a comprehensive employment land supply and demand analysis that is grounded in *real estate market realities* (Cushman & Wakefield) and supported by insights into *economic trends and a long-term forecast* (Metro Economics) which informs *planning policy guidance and strategy* (The Planning Partnership) to position Thunder Bay for a *competitive advantage*. Notable *engineering-related* matters are also addressed (SCS Consulting Group).

1.1.2 Project Overview

The City of Thunder Bay sought an assessment of the city's employment lands and economy to support continued prosperity, recognizing the challenges of an evolving employment market. The ultimate objective is to prepare a land demand projection that examines the impacts of a range of factors on land supply and demand across the city, underpinned by a forecast of population and employment by industry, and to provide planning policy guidance to facilitate sustainable growth and a diverse economy. It is understood that employment land refers to industrial, commercial, and/or institutional uses.

Critical themes to be explored relate to opportunities for intensification of existing employment areas; ensuring land use compatibility; and recognizing the changing nature of employment. As well, capitalizing on the existing serviced land supply, and addressing vacant and underutilized areas (brownfields), is an important aspect of the overall analysis.

Understanding the opportunities and risks associated with land use conversion is often an element of employment lands advisory – one which changes from market to market, based on the locations of strategic land parcels, and local market demand conditions (land prices, land availability, demand drivers, and other factors). The flip side of this discussion relates to the protection of employment land for ongoing use by industry, or preserving such lands for projected longer-term need.

1.2 Thunder Bay Community Profile

1.2.1 Population Overview

The City of Thunder Bay had a population of 107,909, as of the 2016 Census. This is down marginally from the 108,359 residents that were identified in the 2011 Census. The broader Thunder Bay Census Metropolitan Area had a 2016 population of 121,621 (virtually unchanged from 2011), which ranks it as the 33rd largest in Canada.

1.2.2 Business Overview

The key regional service centre for northwest Ontario, and located on the northwestern shore of Lake Superior, Thunder Bay is an important business hub surrounded by natural resources. Forestry and mining have historically been key industries driving the local economy, along with activities related to the port. More recently, the City has sought to foster growth in sectors including mining, aviation, health sciences, and advanced manufacturing.

The city's central location within Canada and access to US and international markets through its extensive transportation network allow businesses to use Thunder Bay as a key location in their supply chain. The city is home to two major post-secondary institutions: Confederation College, and Lakehead University.¹

1.2.3 Employment Overview

Thunder Bay's role as a regional services centre is evident in the composition of its labour force. Employees in health and social services account for almost one in five jobs (19.8%), followed by retail trade (13.9%), and education (9.3%). Other prominent industries include education (9.3%) and accommodation and food (8.7%). Jobs in manufacturing (5.9%), and professional, scientific, and technical services (5.8%) are the next largest employment sectors. Although they contribute only a small component of the local employment base, agriculture and forestry (0.9%) and mining, oil, and gas (0.4%) remain key contributing sectors of the overall local and regional economy.

The following is a list of some of the largest employers in the city. Of note, all employers except two (Bombardier Transportation and Resolute Forest Products) are from the public sector.

EXHIBIT 1 - MAJOR EMPLOYERS		
Employer	Business Type	# of Employees
Thunder Bay Regional Health Sciences Centre	Acute Care Hospital	2,825
Lakehead District School Board	Elementary & Secondary Education	2,200
St. Joseph's Care Group	Complex Care, Rehabilitation, Mental Health & Addiction Services, Long Term Care	2,150
Lakehead University	Post-Secondary Education	2,100
City of Thunder Bay	Municipal Government	1,855
Government of Ontario	Provincial Government	1,840
Thunder Bay Catholic District School Board	Elementary & Secondary Education	1,500
Confederation College	Post-Secondary Education	785
Resolute Forest Products	Pulp & Paper Mill, Sawmill	640
Bombardier Transportation	Mass Transportation Equipment Manufacturing	550
Source: Thunder Bay CEDC		

1.2.4 Transportation Overview

The port is the sixth largest in Canada, and the largest outbound port on the Great Lakes-St. Lawrence Seaway System. Thunder Bay International Airport is the third busiest in Ontario, and is reachable within two hours from major centres in the US and Canada. Canadian National (CN) and Canadian Pacific (CP) rail lines provide access across Canada and into the US. With its extensive transportation network, Thunder Bay offers businesses the opportunity to maximize their shipping options based on the final destination of their goods by utilizing a mix of air, sea, rail, and road transportation.²

¹ Go to Thunder Bay Site Selection Report. Thunder Bay CEDC. 2019. pp. 2, 5.

² Go to Thunder Bay Site Selection Report. Thunder Bay CEDC. 2019. p. 3.

1.3 Background Documents Review

1.3.1 Introduction

In the initial phase of this study, the Consultant Team reviewed a number of background documents. These included previous studies related to employment lands within the city. Although much of the prior employment lands-related work that has been completed is now considered dated (circa 1990s and 2000s), a number of the conclusions and recommendations that are identified remain valid in today's environment. The following section summarizes some of the key analysis and findings of the precedent employment land studies undertaken on behalf of the City, along with the City Program and Service Review, which is presently underway.

1.3.2 Land Use Needs Study – Manahan Consulting and Associates, Northern Bioscience, and Superior Business Consulting (September, 2007)

Select excerpts included below highlight notable element of the 2007 study's analysis and recommendations:

- Historically, Thunder Bay area employment has been heavily reliant on the resource industries, transportation, and the public sector. With changing world market conditions and the growing impact of industrial processing technologies, the traditional sources of employment in the region have been in continual decline for the past two decades. (p. 10)
- It would appear that the city is evolving away from a resource-based economy to a service and knowledge-based economy. (p. 14)
- Expansion of the commercial sector in Thunder Bay has been driven by both traditional and non-traditional factors. Higher income levels have continued to attract "big box" and national/international level commercial interest. At the same time, local service deficiencies and corporate re-invention (the introduction of new business models or new larger retailing or service formats) have stimulated commercial development. (p. 25)
- The re-focus of commercial interest away from the downtown cores and the existing planned shopping centres pressured these locations, and has generated a low-order commercial scale of intensity, and increased vacancies. (p. 25)
- The introduction of Waterfront Commercial land will further re-focus existing commercial interest or will require the generation of new commercial initiatives. (p. 25)
- No new commercial lands need to be added to the existing commercial land inventory. (p. 26)
- There is an adequate overall supply of land zoned for future industrial purposes. (p. 33)
- The supply of industrial land far exceeds the estimated requirement; however, significant portions
 of the available industrial land inventory exhibit serious limitations in terms of access or the lack
 of services available. (p. 35)
- Institutional zoned lands exist in the rural, suburban, and urban service areas of the city;
 however, most institutional activities are located within the urban service limits. Typical rural and
 suburban institutional activities include schools, churches, community centres, and some fraternal
 organizations. In addition, larger institutional uses including the Correctional Services facility, the
 Tournament Centre, and cemeteries are also located in suburban locations. Urban institutional
 activities include institutions of higher education, hospitals, fraternal organizations, government
 offices, cemeteries, churches, elementary/secondary schools, arts and sports complexes,
 theatres, and numerous agency offices. (p. 59)
- Confederation College, Correctional Services (Highway 61), and Lakehead University each own and maintain their own land inventory to meet their particular needs. (p. 64)

1.3.3 City of Thunder Bay Light Industrial/Commercial Land Study – Coopers & Lybrand Consulting (June, 1995)

The following excerpts from the 1995 report highlight notable element of the study's analysis and recommendations:

- Light industrial lands should be capable of accommodating a variety of compatible business uses, including offices, manufacturers, wholesalers, research firms, and other. (p. iii)
- A "prestige" industrial area does not mean transplanting Southern Ontario standards to Thunder Bay, but rather the development of sites which are recognized as having superior design, access, and environmental attributes in relation to other local industrial locations. (p. iii)
- Multi-tenant office/industrial buildings will be important for the encouragement of small business growth. (p. iii)
- The majority of demand will be for small sites in the 0.5 to 2.5-acre range (0.2 to 1 hectares). Opportunities for larger sites must also be available. (p. iii)
- Some concerns were raised in our discussions that Thunder Bay is not presently in a position to
 offer a suitably diverse selection of business lands for enterprises. By diverse we mean a range
 of serviced lands with varying bylaw permitted uses, lot sizes, locations within the city,
 accessibility, and visibility characteristics, etc. (p. 3-7)
- Vacant space in the two cores might also be suitable for new enterprises seeking cost-effective space. Due to planning, traffic, and servicing considerations, the type of business able to locate in the cores may, however, be somewhat restricted. (p. 3-8)
- We find it appropriate to permit office functions in an industrial area, subject to showing appropriate concerns for adjacent users, and the overall impact on the core areas. (p. 3-8)
- Certain characteristics must be acknowledged when planning for future industrial land supply, including:
 - Suitable variety and supply of accommodations for small to medium sized businesses, as well as major enterprises;
 - Access to secure and modern physical infrastructure, including telecommunications, power, road, rail, air, and water modes of transportation, water/sewer services;
 - Compatibility of uses with adjacent enterprises, while also exercising reasonable flexibility for activities;
 - Sensitivity to the needs of existing users;
 - Ability to assemble parcels to accommodate larger users; and,
 - Visibility of sites to encourage viable business. (p. 4-9)
- Flexibility in terms of permitted uses; timely and adequate supply of land so as to ensure that
 alternatives can be presented to prospective investors; and cost-effective space; are critical
 characteristics which must be fully acknowledged by the City in its efforts to plan for new
 industrial supply. (p. 4-9)
- Today's industrial park areas are designed with flexibility and compatibility in mind, and are able
 to accommodate a large variety of activities. Recognizing that business and the economy will
 continue to see change in many ways in the future, flexibility will continue to be an important
 element in the design and allocation of industrial park areas. (p. 6-2)
- Good road and highway access are typically important elements for a successful business location – particularly for manufacturing and distribution firms. This includes both good regional access and superior connections with the local transportation system. (p. 6-2)

 Larger firms requiring significant amounts of space need sufficiently large land parcels, and as such, are more limited in terms of the site selection opportunities. They may prefer to acquire sites which offer potential opportunity for expansion, although cost considerations are increasingly constraining many firms' ability to carry excess space for an extended period. (p. 6-2)

1.3.4 City Program and Service Review, Phase One Interim Report – Grant Thornton (December, 2019)

A review of the Executive Summary of this Phase One report, which was completed December 2, 2019 (Phase Two to be delivered in June, 2020), includes the following observations of note, which in particular highlight the current transitional state of the local economy:

- The historical economy of the region is not the economy that will sustain growth in the future –
 this was a point of alignment in feedback from interviews and surveys of City managers,
 employees, councilors and from public engagement. Parts of the economy will continue to propel
 the region (e.g. mining), but new areas need to be, and are being developed (e.g. education) in
 order to remain sustainable. (p. 6)
- Some examples where this transition is visible include:
 - At the time of this report creation, Bombardier is announcing the start of its long-discussed layoffs in its operations in the city.
 - At the same time, new opportunities in "old economy" projects like the Ring of Fire are opening.
 - There are "new economy" opportunities arising in health care and education. (p. 6)
- As a tangible manifestation of the lack of strategic direction, we found evidence of a factor we are describing as sprawl. This includes symptoms like geographic sprawl (roads and other infrastructure). (p. 7)
- Some important considerations generally agreed upon by stakeholders include:
 - 1. The region is in economic transition, and building the sustainable economy of the future is a work in progress;
 - 2. The City is a stakeholder that can help or hinder finding that sustainable economy of the future;
 - 3. The City would suffer if the economy got worse;
 - 4. We can learn from economic history and similar problems facing other communities;
 - 5. Short-term decisions have to be balanced against long term vision for the city, and health in the region;
 - 6. Good information helps make better decisions;
 - 7. The city has many diverse stakeholder and interests, but they would all suffer if the economy got worse – so a lack of cooperation would lead to a tragedy of the commons; and,
 - 8. The City is stretched out over a large geography. (p. 9)

1.4 Stakeholder Consultations

The Consultant Team engaged in stakeholder consultations with a range of participants to explore local economic, employment, and real estate-related issues, in order to inform our background review and identify additional areas for further focused analysis. The list of stakeholders that we engaged with includes the following:

- Community Economic Development Commission and City of Thunder Bay staff (including Planning Services, Building Services, Realty Services, Transit Services, and Engineering);
- Municipal political leadership Mayor Bill Mauro and Jeff Howie (Policy Assistant);
- Fort William First Nation representatives from Department of Economic Development;
- The local business community (Thunder Bay Chamber of Commerce, Anishnawbe Business Professional Association, Thunder Bay Executives Association);
- Major local institutions (Lakehead University, Confederation College, Thunder Bay Regional Health Sciences Centre, and St. Joseph's Care Group);
- Major local infrastructure (Thunder Bay International Airport, and Port of Thunder Bay); and,
- Local real estate market participants (developers, landlords, brokers, and appraisers).

A synopsis of stakeholder feedback is included in Appendix 1 of this report.

2.0 LAND SUPPLY ANALYSIS

2.1 Methodology

2.1.1 Overview of Approach

The Consultant Team used GIS and building permit data provided by City staff to identify the inventory of employment lands city-wide – both occupied sites (those with one or more buildings), as well as vacant sites (undeveloped land). Our analysis focused on sites under the following four Official Plan designations: Airport, Commercial, Industrial, and Institutional. Sites located in the following Official Plan designations were not relevant to our analysis of lands that support employment: Community, Natural Heritage System, Residential, Rural, and Utilities.

In a number of cases – in excess of 300 sites – due to the nature of the GIS mapping, and the potential for an overlap across a single site of more than one Official Plan designation (e.g. Industrial and Natural Heritage System, such as sites along the waterfront), it was necessary to take a close look at the mapping to identify whether a given property was suited for inclusion in the overall employment land inventory (i.e. in this stated example, is it potentially developable, or is there so much natural heritage space present that it might preclude development as an employment use?). For the Industrial land categories, we have further identified the lands which fall under the Business Area, Light Industrial, and Heavy Industrial designations. The Consultant Team has developed a comprehensive inventory of vacant employment land for the City of Thunder Bay, as presented below.

2.2 Industrial Land Supply

2.2.1 Analysis of Industrial Land Supply

The Consultant Team has identified a vacant industrial land inventory of 770 gross hectares across approximately 450 individual sites. For the purposes of this study, an individual site refers to a single assessment roll number (which may be comprised of more than one parcel of land), which does not have a building on it, as per the City's GIS dataset. These vacant lands are distributed across the three types of Official Plan categories of industrial land as follows: Light Industrial (520 gross hectares), Heavy Industrial (202 gross hectares), and Business Area (47 gross hectares). The fact that this is a summary of "gross hectares" is important to keep in mind, since portions of these lands may be precluded from development due to the presence of natural heritage features, waterways, or other limitations. In our later assessment of land supply and demand, we will account for this distinction between "gross" and "net" land supply (with "net" referring to developable lands).

EXHIBIT 2 – VACANT INDUSTRIAL LANDS					
Industrial Category	# of Sites	Land Area (gross hectares)			
Business Area	49	47			
Heavy Industrial	142	202			
Light Industrial	264	520			
TOTAL	455	770			

While this is an extensive inventory at an aggregate level, it is necessary to examine the vacant industrial land more closely to reveal the true picture of industrial land availability across the city. The following are notable observations from our analysis of the industrial land inventory:

Business Area Lands

- Thunder Bay's Business Area lands are principally located in the Intercity area (with Balmoral Street being a key arterial), as well as on the west side of the city, along Thunder Bay Expressway and Golf Links Road, north of Harbour Expressway. There are additional sites along the west side of Fort William Road.
- The largest parcel of vacant land designated Business Area is at the northeast corner of Harbour Expressway and Thunder Bay Expressway. The approximately 13.5-hectare L-shaped site forms part of the Innova Business Park.
- 1225 Oliver Road is a nearly 7-hectare site located southeast of the intersection of Oliver Road and Thunder Bay Expressway. Abutting this site to the south is 8755 Thunder Bay Expressway, which totals almost 6 hectares. These lands are among the largest vacant sites under the Business Area designation.
- Of the 49 total vacant sites that fall under the Business Area designation, 35 (over 70%) are less than 0.5 hectares in size (totaling roughly 8 hectares), and 26 of these (just over 50%) are less than 0.25 hectares in size. Therefore, on an individual basis, there is limited capacity for development for employment uses. Such sites would need to form part of a land assembly in order to make development a viable proposition (with a benchmark gross to net conversion factor for developable land area of 0.8, and a typical site coverage of around 30% for industrial buildings, a 0.5-hectare site can accommodate a building of just over 1,200 m²).

Heavy Industrial Lands

- The City's designated Heavy Industrial lands can be found extensively along the Lake Superior waterfront, as well as the Kaministiquia River/Mission River. Both Mission Island and McKellar Island have extensive Heavy Industrial lands designated, while sites abutting Fort William First Nation along the Kaministiquia River also comprise a vast allocation of Heavy Industrial land – including close to 450 hectares of land owned by Fort William First Nation Development Corporation.
- The largest vacant Heavy Industrial designated site (nearly 62 hectares) is located on the east side of Mission Island, north of the Ontario Power Generation (OPG) site. The site has been used for ash landfill by OPG under a lease from the City of Thunder Bay. Mission Island is also home to the second largest vacant Heavy Industrial site, measuring some 22 hectares (it is not contiguous to the largest site).
- Other notable large vacant Heavy Industrial sites (10+ hectares) exist in the vicinity of the Thunder Bay Water Plant in the north part of the city, and along the rail corridor, in the vicinity of Neebing Avenue/Rosslyn Road.
- Of the 142 total vacant Heavy Industrial sites, there are 93 (nearly 65%) that measure less than 0.5 hectares in size (totaling roughly 14 hectares). As discussed above in our examination of the Business Area sites, these small parcels have limited development potential on their own; they will likely need to form part of a larger land assembly in order to be built upon.

Light Industrial Lands

 There are significant concentrations of Light Industrial lands located in the Intercity Area; Innova Business Park; south and east of the airport; on both Mission and McKellar Islands; and in the northeast part of the city. As well, there are Light Industrial lands identified west of the City's Urban Settlement Area (between Highway 11-17 and Oliver Road, northwest of William's Bog).

- The largest vacant Light Industrial designated land parcels are located in the industrial area beyond the Urban Settlement Area west of the city, as well as north of the Thunder Bay Water Plant, in the north part of the city.
- There are 10 properties designated as Light Industrial that are 10 hectares or greater in size. Of these, 3 are greater than 50 hectares in size.
- Of the total 264 Light Industrial-designated vacant properties, 184 (or roughly a 70% share, representing a total of 28 hectares) are less than 0.5 hectares in size, which limits their development potential, unless aggregated as an assembly with adjacent lands.

2.2.2 Conclusions

At an aggregate level, there is a vast supply of remaining undeveloped, designated industrial lands across Thunder Bay. This is particularly the case for Light Industrial-designated sites (520 vacant hectares) and Heavy Industrial-designated sites (over 200 vacant hectares), but the comment is also applicable to lands designated as Business Area (nearly 50 vacant hectares). Notably, this analysis does not even factor in existing occupied lands which may represent opportunities for intensification, or potentially redevelopment. A legacy of contamination of lands and buildings is a challenge in Thunder Bay on certain sites where there is a history of heavy industrial activity. Further, there are serviced employment lands at Thunder Bay International Airport that are suitable for industrial development – although these lands are not available for acquisition; these would be subject to a land lease arrangement.

While there are large concentrations of both Light Industrial and Heavy Industrial-designated vacant lands in areas on the city's periphery (including Mission and McKellar Islands), site visits by the Consultant Team have revealed a relative scarcity of vacant industrial lands in some of the more centrally-situated existing (built-up) employment areas. Of note, Innova Business Park represents a sizable inventory of remaining undeveloped lands that are centrally located, and more proximate to labour compared to other undeveloped planned industrial areas. Accordingly, the Light Industrial and Business Area lands located in Innova Business Park and to the north along Thunder Bay Expressway, Burwood Road, and Golf Links Road represent the best remaining undeveloped employment lands in the city, from a locational and market perspective.

2.3 Local Industrial/Business Park Market Perspectives

On December 9th and 10th, 2019, members of the Consultant Team completed market reconnaissance of the city's industrial/business park areas. This included land immediately east of the airport; the vast Intercity area; the Innova Business Park area; as well as numerous waterfront sites, including Mission Island and McKellar Island. The following is a summary of key observations:

- Single occupant buildings constitute a significant share of all properties located in Thunder Bay's
 industrial areas, as opposed to multi-tenanted properties. This is likely due to the presence of a
 high degree of owner-occupied buildings (as opposed to investor-owned buildings leased to
 tenants) in this market.
- The Consultant Team observed very little space for lease, as indicated by a scarcity of brokerage signage within the industrial areas. It is our impression that the relatively high rate of owneroccupied buildings contributes to this low vacancy rate observed.
- There are few undeveloped sites within the city's mature, centrally situated industrial areas.
- In some areas, there is a significant amount of outside storage of vehicles, machinery, equipment, and materials. In particular, truck and trailer parking, and other forms of heavy equipment storage, is a common feature of Thunder Bay's industrial areas.
- There are some office and retail-commercial uses on the perimeter of some of the industrial areas, but the internal streets are dominated by industrial businesses.

EXHIBIT 3 – INDUSTRIAL AREAS MAP



Area	Site Sizes	Building Type	Occupancy Type	Vacant Buildings	Vacant Lands		
Current River - North	Large sites.	A few very large industrial users along the waterfront.	Single.	Large former industrial uses.	Lots of vacant land. Area is flat and primarily undeveloped, with significant tree and forest cover.		
	Comments: 7	here is residential developn	nent throughout the	area.			
Current River – South	From road to rail, sites are medium to smaller size; from rail to water, very large sites.	From road to rail tracks, there are a series of small-scale users in an assortment of buildings. From rail to water, two major heavy industrial users with large buildings that are still operational.	Single.	A few vacancies, including a major abandoned sawmill that is falling apart, which is a significant redevelopment opportunity (there is no restoration or conversion potential), just north of new condos and city parkland.	Very few vacant parcels.		
	Comments: Some residential uses interspersed with industrial uses, as well commercial uses such as motels. Some contamination issues due to legacy heavy industrial uses such as pulp and paper.						
McKellar	Large sites.	Very large industrial buildings.	Single.	Yes – former grain elevator operations.	Some substantial vacant land parcels, including lands adjacent to the port uses. Some of the land is being used as a scrap yard and tire dump.		
	Comments: There are railway track constraints and potential flood plain issues.						
Intercity	Small to medium sites.	Mostly small to medium scale buildings, with a few 2 and 3-storey office buildings. Some commercial uses, along with typical industrial building presence.	Owner-occupied single users in purpose-built industrial and office buildings. Some multitenant buildings to the south.	Very little vacancy observed.	This area contains the Jasper/Carrick future development lands. Some vacancy for the larger more industrial parcels towards the south, but no vacancy for the small and medium-sized sites.		
	then into reta areas, the bu right through	Generally industrial in the coli il and service commercial ar ilt form lacks any design fine it. The Jasper/Carrick future , as it is located behind a res	reas. Seems to be fesse. This area is verelopment land	fully functional and succes very accessible, as the Har s likely do not represent a	sful, even though in some bour Expressway runs		

Northwood	Small to medium sites.	Along Waterloo St. before Victoria St, it is primarily a retail strip, with smaller buildings. From Victoria St. to Arthur St., more industrial uses, mixed with retail, and larger buildings. From Arthur St. to Walsh St. it is home to multi-tenant larger industrial buildings.	Single and multi-tenant buildings.	Very little vacancy.	Not a lot of vacancies, but more vacancies for the larger sites.				
	The river is d	Similar in character to Intercit directly north, cutting off some equipment, and materials.							
Red River	Medium to large sites.	Medium scale.	Single.	No vacancy observed.	Some newer high- quality development, but mostly vacant sites that have not been cleared.				
		Comments: Home to Innova Business Park. Features excellent highway visibility and access, with ample land for future development.							
McKellar Island	Very large sites.	Very large, with some big port uses.	Single.	No vacancy observed.	Yes – significant underutilized lands.				
		Older industrial area with a m th lots of train tracks crossing	•		-				
Mission Island	Very large sites.	Large-scale heavy industrial buildings.	Single.	Old, abandoned sawmill with the remnants of a residential community. Former OPG site for sale.	Yes – significant underutilized lands.				
	Heritage and	The OPG site is for sale. Acc I half Industrial in the Official at the City is acquiring (if the	Plan, which may I		_				
Westfort	Large sites.	Very large – massive sawmill facility.	Single.	No vacancy observed.	Yes – significant vacant land.				
		ncludes Fort William First Na ery flat and heavily wooded.	•		*				
Vickers Heights	Medium and large sites.	Moderately scaled industrial and office users, as well as a few very large users that dominate.	Mostly single tenant.	Little vacancy observed.	Quite a bit of vacant land.				
		Mostly single-storey and two- lly operational. Residential d		-	nt, and a massive pulp				

West Fort William	Medium, with some larger sites.	Moderately to small- scaled buildings.	Single tenant (purpose-built).	Limited vacancy.	Not much vacant land.
		Notable presence of trucking entre. Significant extent of			
Neebing	Large sites.	Limited/no industrial presence.	N/A	N/A	Lots of vacant land.
	Comments: Very flat and treed. A fair bit of estate residential development on private services.				

2.4 Commercial Land Supply

2.4.1 Analysis of Commercial Land Supply

The Consultant Team has identified a vacant commercial land inventory of some 84 gross hectares across over 350 individual sites. As with our approach to the industrial land inventory described earlier, for the purposes of this study, an individual site refers to a single assessment roll number (which may be comprised of more than one parcel of land), which does not have a building on it, as per the City's GIS dataset. The following exhibit presents the inventory of undeveloped commercial lands (including some parcels with multiple Official Plan designations that overlay the lands).

EXHIBIT 5 – VACANT COMMERCIAL LANDS				
Official Plan Designation(s)	# of Sites	Land Area (gross hectares)		
Commercial	344	59		
Commercial/Airport	2	6		
Commercial/Natural Heritage System	4	13		
Commercial/Natural Heritage System/Rural	1	2		
Commercial/Residential	4	3		
TOTAL	355	84		

- Of the total inventory of approximately 84 gross hectares of undeveloped Commercial lands, only 1 site is greater than 5 hectares in size, while 6 sites range from 2-5 hectares in size (together representing about 30% of the total land inventory). As a benchmark, a 5-hectare site can accommodate approximately 10,000 m² of GLA, while a 2-hectare site can accommodate approximately 4,000 m² (with a benchmark gross to net conversion factor for developable land area of 0.8, and a typical site coverage of 25% for retail-commercial buildings).
 - For comparison, Thunder Bay's neighbourhood-scale shopping centres Grandview Mall, Centennial Square, and McIntyre Centre – range in size from roughly 6,000-7,000 m². Based on a benchmark site coverage of 25%, and a gross to net conversion factor for developable land area of 0.8, such properties require a site in the range of 3-3.5 hectares.
- The two largest vacant designated Commercial sites (totaling close to 10 hectares) are located on the west side of McKellar Island.

2.4.2 Conclusions

Most of the undeveloped Commercial land inventory is comprised of very small parcels – and many are likely associated with adjacent land uses (such as parking lots for adjacent retail-commercial buildings). Based upon the location and orientation of the city's largest undeveloped Commercial-designated lands, it may be argued that there are no suitable properties to accommodate a new retail-commercial project of significant scale (10,000 m² or more of GLA).

2.5 Shopping Centre Space

The Centre for the Study of Commercial Activity (CSCA) maintains an inventory of shopping centre space in major Canadian markets. In 2016, CSCA identified nearly 57 million m² of shopping centre space across the country, or 1.57 m² per capita. Canada's 28 Census Metropolitan Areas (CMA) have on average 1.78 m² per capita – a higher figure, since major retail uses are concentrated in urban areas, rather than smaller, outlying communities. The Thunder Bay CMA, with a 2016 population of 124,166 had 1.74 m² of shopping centre space per capita. This translates to a shopping centre inventory of approximately 215,700 m² for Thunder Bay.

In a 2018 report, CSCA groups the 28 CMAs into five "clusters", based upon shared economic and demographic indicators including population size, population growth rate, and personal income per capita. Thunder Bay is clustered with Quebec City, London, Oshawa, Windsor, Sherbrooke, Kingston, Saguenay, Trois-Rivieres, Greater Sudbury, and Moncton. These 11 CMAs mostly range in population from 100,000-400,000, have shopping centre space per capita ratios below or close to the average, personal income below the average, and low population growth rates. These CMAs are characterized as traditional regional service centres originally established with respect to an agricultural or logging hinterland that now provide a full range of commercial, public administration, higher education, and health care activities.³

EXHIBIT 6 - ECONOMIC AN	ID DEMOGRA	APHIC INDIC	ATORS BY	СМА	
Census Metropolitan Area	Population 2016	Population Annual Growth Rate 2014-2016	Personal Income per Capita	Shopping Centre Space per Capita (m²)	Shopping Centre Space per \$Million Personal Income (m²)
Quebec City	807,211	0.67%	\$45,715	1.70	37.07
London	512,432	1.04%	\$42,363	1.90	44.78
Oshawa	393,977	1.30%	\$45,173	1.93	42.74
Windsor	340,279	0.88%	\$42,989	1.79	41.71
Sherbrooke	215,594	0.89%	\$40,191	0.99	39.20
Kingston	171,372	0.94%	\$44,655	1.69	37.81
Greater Sudbury	165,536	-0.08%	\$45,749	1.96	42.83
Saguenay	159,669	-0.18%	\$40,921	1.65	40.32
Trois-Rivieres	157,764	0.48%	\$41,302	1.51	36.70
Moncton	149,744	1.14%	\$43,135	1.87	43.39
Thunder Bay	124,166	-0.33%	\$44,966	1.74	38.74
Cluster Mean (unweighted)	190,700	0.61%	\$43,378	1.76	40.51
28 Canadian CMAs (unweighted)	882,350	1.12%	\$45,951	1.86	40.69
Source: CSCA					

³ Shopping Centre Over-Spacing in Canadian Cities. Centre for the Study of Commercial Activity. 2018. p. 8.

Thunder Bay exhibits a population growth rate (2014-2016) that is below the average for the 28 Canadian CMAs, including the other markets within the cluster. Thunder Bay's personal income per capita is below the average for the Canadian CMAs, although above the average for the comparative markets. On a per capita basis, the amount of shopping centre space in Thunder Bay is lower than the cluster mean, and the figure for the 28 CMAs.

While CSCA remarks that there is evidence in their low growth rates and average incomes to suggest that the shopping centres in this CMA cluster might be susceptible to e-commerce impacts and could be considered "over-spaced", they also note that there may be some further nuance with respect to retail space needs in the local markets that warrants further investigation.⁴ For the purposes of this report, it can be concluded that the present shopping centre inventory in Thunder Bay does not represent a significant over-supply concern – certainly relative to comparative markets – although retail trends such as declining store sizes and the increasing consumer adoption of e-commerce are topics that needs to be considered in terms of growth management decision-making.

The following exhibit identifies the nine largest shopping centres in Thunder Bay, as identified in the Canadian Directory of Shopping Centres.

Index #	Centre Name	Туре	Year Opened	GLA (m ²)	Major Tenant(s)
1	Intercity Shopping Centre	Regional	1982	43,138	Marshall's, Sport Chek*
2	Thunder Bay Centre	Power Centre	1994	30,990	Walmart, Staples, Best Buy, PetSmart
3	Thunder Centre	Power Centre	2007	15,616	Home Depot**, Canadian Tire**, Michael's, Dollarama
4	Arthur Street Marketplace	Community	1972	13,844	Walmart, Metro
5	County Fair Mall	Community	1969	7,727	Walmart**, No Frills, Dollarama
6	Grandview Mall	Neighbourhood	1965	7,152	Metro, Shoppers Drug Mart
7	Centennial Square	Neighbourhood	1967	6,968	Renco Foods
8	Victoriaville Centre	Mixed-Use	1980	6,503	City of Thunder Bay
9	McIntyre Centre	Neighbourhood	1977	6,139	Shoppers Drug Mart
TOTAL				138,077	
Note: In No	ovember 2019, former anchor ten	ant Lowe's announced	d that this loca	ation would clos	se (among 34 across Canada).

actually a separately owned property.

Source: Monday Retail IQ

⁴ Shopping Centre Over-Spacing in Canadian Cities. Centre for the Study of Commercial Activity. 2018. p. 8.

2.6 Local Retail Market Perspectives

2.6.1 Introduction

On October 31st and November 1st, 2019, members of the Consultant Team completed a market reconnaissance of the local retail-commercial environment throughout the City of Thunder Bay. This assessment included visits to the largest shopping centres, as well as other nodes of retail-commercial activity – including the Strategic Core areas of Downtown Fort William (South Core) and Downtown Port Arthur (North Core). The following is a summary of our observations regarding the character and focus of each area that was visited.

2.6.2 Regional Centre Node

Thunder Bay's Regional Centre is identified on Official Plan Schedule E (Commercial). It lies between the two downtown areas, with prominent frontage along Memorial Avenue and Fort William Road. The Regional Centre is home to the city's three largest shopping centres – Intercity Shopping Centre (an enclosed shopping mall), Thunder Bay Centre (power centre), and Thunder Centre (power centre) – other smaller shopping centres, and some large, freestanding properties. The much smaller McIntyre Centre neighbourhood shopping centre lies on the southern end of this large retail-commercial agglomeration, and has some issues with vacant space. The Regional Centre area has emerged as the prime retail destination in the city by virtue of its many large, national retailers – both located as anchors of the shopping centres noted earlier, and also at freestanding sites. Notable major retailers in this area include Best Buy, The Brick, Canadian Tire, Home Depot, Leon's, Marshall's, PetSmart, Real Canadian Superstore, SilverCity Cinemas, Staples, Walmart, and Winners.

2.6.3 Memorial Avenue Corridor

Memorial Avenue is a significant highway commercial-oriented corridor that runs from the southern edge of Downtown Port Arthur to the southern end of the Regional Centre Node. The wide corridor is characterized by freestanding retail-commercial uses in the north section – many of which are local independent businesses – which then transitions to a mix of freestanding uses and strip plazas in the southern end, which are generally home to recognized national banners. Automotive dealerships and services are an element of this corridor. There are a wide range of property sizes (frontages and depths) along the length of the corridor.

2.6.4 Downtown Port Arthur (North Core)

North Core is an area several blocks wide that includes a mix of office, retail-commercial, and institutional uses, at varying scales of building. It also includes a large public parking structure. Along the waterfront are some Waterfront Commercial sites, as identified on Official Plan Schedule E (Commercial), as well as new hotel (Delta Hotels by Marriott) and residential development. Independent/local businesses are a prominent feature of Downtown Port Arthur, with national banner restaurants being a notable exception. Personal services and business services uses are prevalent, with a lesser presence of retail activities compared to other retail-commercial areas of the city. Onstreet parking is a common feature in this area, as opposed to the shopping centres located elsewhere in the city which feature on-site parking for customers. Not a lot of vacant building space was observed, but there is considerable land available for future development.

2.6.5 Downtown Fort William (South Core)

The mixed-use Victoriaville Centre (home to a mix of office and retail-commercial uses) and the adjacent Centennial Square (neighbourhood plaza anchored by Renco Foods) are two significant properties located in Downtown Fort William. The South Core area is several blocks wide, and characterized by single-storey freestanding commercial buildings, older multi-storey mixed-use properties (often including ground floor retail-commercial space), and office and institutional properties. It also includes a large public parking structure. It has a higher degree of retail-commercial vacancy observed compared to other nodes in the city. Independent/local businesses are a prominent feature of Downtown Fort William, with restaurants being the most visible among the few national banners located in this area. As is the case in Downtown Port Arthur, on-street parking is a common feature in this area, as opposed to on-site customer parking.

2.6.6 Thunder Bay Expressway & Dawson Road/Red River Road Node

At the intersection of Thunder Bay Expressway and Dawson Road/Red River Road there is a cluster of retail-commercial activity. On the north side (along Dawson Road), County Fair Mall is the largest property (the fifth largest shopping centre in the city), shadow anchored by Walmart, and also home to No Frills and Dollarama, along with a mostly vacant and enclosed portion of the mall, with a dated appearance. A former Canadian Tire store (currently vacant) is located at the rear of the property. In the vicinity are strip plazas and freestanding properties, including a Safeway store. Together, these properties form a Community Commercial area, as identified on Official Plan Schedule E (Commercial). On the south side of the intersection (along Red River Road) there is a mix of restaurants, gas stations, and other primarily freestanding retail-commercial uses. This area is identified as a Service Commercial zone on Official Plan Schedule E (Commercial). Overall, with its extent of retail-commercial offerings, this intersection/node serves as a primary destination for households located in the north part of Thunder Bay.

2.6.7 Grandview Mall

Identified as a Community Commercial site on Official Plan Schedule E (Commercial), Grandview Mall is a neighbourhood-scale shopping centre anchored by Metro supermarket and a Shoppers Drug Mart. This partially enclosed centre is the sixth largest shopping centre in the city.

2.6.8 Cumberland Street North

The stretch of Cumberland Street North, north of River Street to Gibson Street, is identified on Official Plan Schedule E (Commercial) as a Service Commercial strip. It is characterized by a mix of uses including restaurants, motels, gas stations, and other mostly freestanding local/independent retail-commercial uses (including automotive uses), some of which had larger lots than was observed elsewhere. Among the retail-commercial corridors visited across the city, this area had an above average rate of unoccupied buildings, and was generally older in character.

2.6.9 Northwood Mall

Northwood Mall is included in our analysis of the local retail-commercial environment due to its size – in particular, its significant surface parking area. Although it is not among the largest shopping centres in the city (the nine largest centres are included in the Canadian Directory of Shopping Centres), it represents a potentially longer-term redevelopment opportunity, given the large parcel size and its good accessibility/visibility.

2.6.10 Arthur Street Corridor

Located in the south part of the city, the Arthur Street Corridor is a mix of retail-commercial uses, as well as hotel properties. The corridor has sites identified as Community Commercial and Service Commercial on Official Plan Schedule E (Commercial). Arthur Street West includes Arthur Street Marketplace, which is anchored by Walmart and Metro. This property is currently undergoing an extensive exterior renovation to add additional stores. The remainder of the area includes a mix of other retail-commercial uses, including a freestanding Canadian Tire store. To the east is a cluster of hotel properties, centred on Highway 61. The Service Commercial strip extends further east, and includes a mix of retail-commercial uses including restaurants, gas stations, freestanding properties, unanchored plazas, and a Safeway supermarket.

2.7 Institutional Land Supply

2.7.1 Analysis of Institutional Land Supply

The Consultant Team has identified a vacant institutional land inventory of some 24 gross hectares across 16 individual sites. Consistent with our approach to the industrial and commercial land inventory described earlier, for the purposes of this study, an individual site refers to a single assessment roll number (which may be comprised of more than one parcel of land), which does not have a building on it, as per the City's GIS dataset. The following exhibit presents the inventory of undeveloped institutional lands (including parcels with multiple Official Plan designations that overlay the lands).

EXHIBIT 8 – VACANT INSTITUTIONAL LANDS				
Official Plan Designation(s)	# of Sites	Land Area (gross hectares)		
Institutional	12	8		
Institutional/Natural Heritage System	3	15		
Institutional/Residential	1	1		
TOTAL	16	24		

 The largest Institutional-designated vacant site (13.4 hectares) is located east of Confederation College. The next largest site (measuring 4.3 hectares in size) is located on the west side of Reaume Street, which is south of Lakehead University, and north of Central Avenue. The remaining vacant, designated Institutional sites are all less than 2 hectares in size.

2.7.2 Conclusions

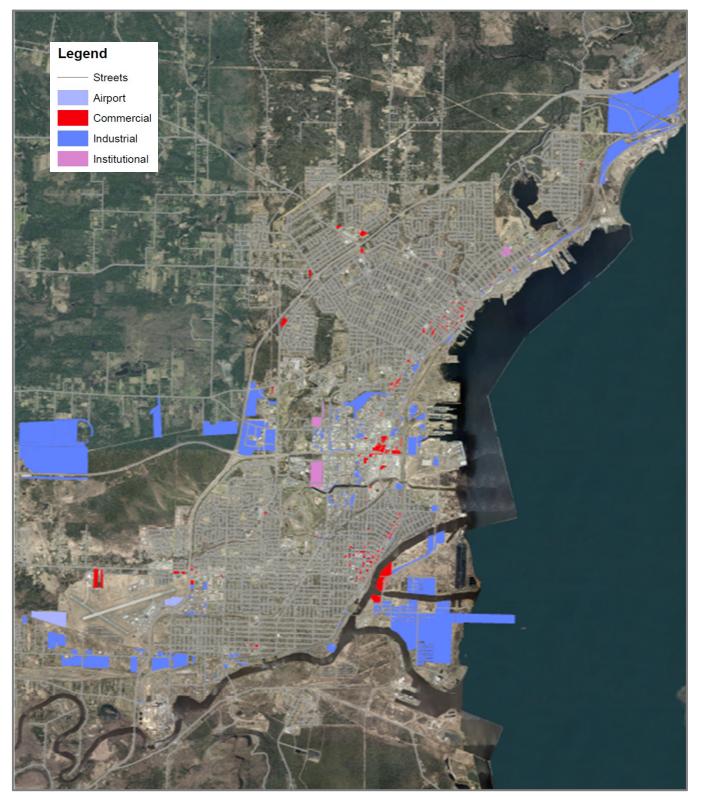
It is important to recognize that in addition to the vacant Institutional lands described above, large, occupied Institutional sites including Thunder Bay Regional Health Sciences Centre, Lakehead University, Confederation College, and the former Lakehead Psychiatric Hospital site all offer excess lands that may be suited to accommodate future institutional and related development.

2.8 Mapping of Vacant Employment Lands

2.8.1 Vacant Employment Lands Map

The following map identifies the vacant industrial, office, institutional, and airport-designated lands across the City of Thunder Bay.

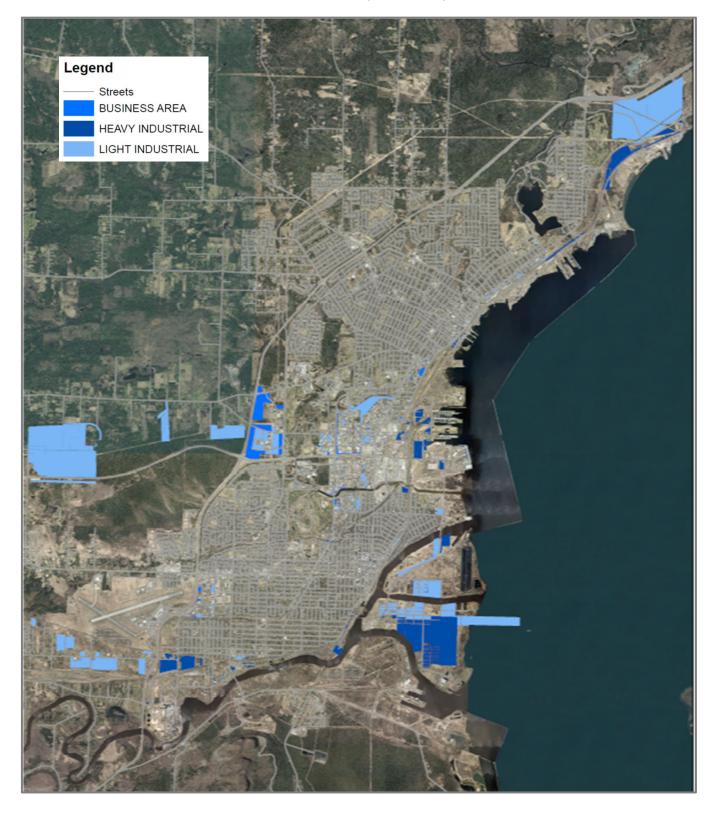
EXHIBIT 9 - VACANT EMPLOYMENT LANDS MAP



2.8.2 Vacant Industrial Lands Map

The following map identifies the vacant industrial lands across the city, by type (Business Area, Light Industrial, and Heavy Industrial).

EXHIBIT 10 – VACANT INDUSTRIAL LANDS MAP (WIDE VIEW)



The map below focuses on industrial vacant lands including Innova Business Park, the Intercity area, the islands, the airport, as well as large vacant, designated parcels located west of the city.

EXHIBIT 11 - VACANT INDUSTRIAL LANDS MAP (ZOOMED IN)



3.0 TRENDS ANALYSIS

3.1 Office Sector Trends

An important trend when contemplating the amount of future lands required to accommodate long-term office space demand is the densification of office space. This is a reference to the changing office environment in the workplace which is seeing smaller allocations of space per employee. This well-established trend is driven by several factors, including:

- more efficient office building design, allowing greater utilization of floor plates;
- higher occupancy costs (net rental rates, operating costs, and taxes), contributing to a reduced space allocation on a per employee basis by firms;
- greater use of technology, reducing paper filing and storage requirements; and,
- increased telecommuting and desk sharing among co-workers.

Over time, this trend will lead to a declining requirement for new office space construction, as some existing buildings can be retrofitted to accommodate higher office densities.

Thunder Bay's public and private sector office space is principally located in the two Downtown areas of Port Arthur and Fort William, along with select sites in the Intercity area, as well as newer developments in Innova Business Park. From a site selection perspective, the following characteristics are of importance:

- Access to an educated workforce Thunder Bay's post-secondary facilities are a vital source of skilled workers for local businesses.
- Desire for mixed-use/"urban" environments office occupiers that are seeking to attract
 employees in the competitive jobs market recognize that offering a workplace with
 proximity/accessibility to restaurants/bars, retail opportunities, recreation spaces, and a highquality public realm, is critical.
- Public transportation accessibility in many urban areas, opportunities to travel via public transit
 is becoming an increasingly important option as an alternative to auto-oriented commuting.
 However, this dynamic is not as prevalent in Thunder Bay compared to other metropolitan
 markets, due to the size of the city, and the ease of commuting by private vehicle.

3.2 Industrial Sector Trends

Demand for the conversion of lands within designated employment areas to other uses is an ongoing issue faced by many municipalities. The nature of employment continues to evolve away from a historic manufacturing base to a more service-based economy. In permitting the conversion of employment lands to a non-employment use, these lands are highly unlikely to revert in the future back to an employment use; they are "lost" forever. A land supply to meet residential growth targets (plus lands needed to accommodate retail-commercial uses) is sufficiently available (or can be accommodated) in locations designated and planned for such uses. Therefore, a municipality must carefully weigh the benefits and drawbacks of any proposed land use conversion, in order to maintain/preserve sufficient lands to accommodate anticipated long-term industrial employment demand.

The amount of industrial floor space per worker continues to increase. The growing adoption of automation is impacting traditional manufacturing employment. In some markets – although less pronounced in Thunder Bay – warehousing and distribution is the dominant component of growth, and it has a relatively low employment density. Due to their large building footprint (and accordingly, land cost), warehousing and logistic uses are typically attracted to large sites on the urban periphery, which feature ready access to multiple highways. The taller ceiling clear height found in modern industrial buildings means that floor space is being replaced by vertical space – without a corresponding increase in a requirement for labour.

Municipalities should encourage a range of parcel sizes, locations, and timing/levels of servicing of employment lands, in order to be responsive to occupier and developer requirements. Having an adequate supply of serviced lands can act to suppress land price inflation, by ensuring choice in the marketplace, and enabling multiple market participants (not one dominant landowner/investor). If there is too limited a supply, or an insufficient range of choices of location/size, then occupiers will look elsewhere. Industrial developers are sensitive to land pricing – it is a key component of their development pro forma model – and they will seek markets that provide lower cost options (which generally coincides with movement from the core towards the urban periphery, or beyond).

Older industrial areas with buildings that no longer meet the requirements of contemporary business (i.e. older properties with lower ceiling clear height, less functional site layout for truck movements/distribution, etc.) may convert over time to alternate uses – although there is uncertainty and complexity in anticipating the adaptive re-use of employment lands. While this may displace/replace industrial-type employment, such adaptive re-use of buildings could include more office-type functions – particularly firms seeking low-cost environments that do not need conventional office space (such as high-tech start-ups, and other "new economy" uses). Regeneration and intensification within older, established industrial areas can play a part in unlocking future employment potential. Providing flexibility in planning policy (such as permissive zoning, context-appropriate parking standards, etc.) to accommodate alternative, compatible uses will be important in attracting such opportunities for intensification of employment within established business parks.

3.3 Retail Sector Trends

The retail sector is a constantly evolving business, with changing store formats, shopping centre formats, anchor tenant brands, and consumer behaviour. The arrival and abrupt departure of Target; the continued expansion of Walmart; the demise of Sears; the entry of new US department stores; ongoing consolidations in the grocery segment (Sobey's acquiring Canada Safeway; Loblaw acquiring Shoppers Drug Mart); Leon's acquisition of The Brick – these are a few of the significant changes seen across Canada's retail landscape in just the past few years.

Shopping centres constitute the major supply-side channel for the delivery of goods and services to consumers. In Canada, shopping malls emerged in the latter half of the 1950s, and challenged the long-standing dominance of stores in strips, and historic downtowns. By the end of the 1960s, sales activity in shopping centres exceeded those in stores on strips.⁵

⁵ Assessing Shopping Centre Space Needs in Canada. Centre for the Study of Commercial Activity. 2018. p. 1.

In Thunder Bay, among the nine largest shopping centres in the market today, four were constructed in a period from 1965-1972, and another three were added from 1977-1982. The three largest centres are also the three newest developments in the city, by year opened: Intercity Shopping Centre (1982), Thunder Bay Centre (1994), and Thunder Centre (2007). With retail activity along retail strips giving way to malls and plazas in the 1960s, the next innovation in retail real estate took place in the 1990s with the onset of big box and power centre format shopping centres – highlighted in Canada by the entry of Walmart – which slowed the development of traditional shopping centre format development. Stores in categories such as furniture and home furnishings, electronics and appliances, general merchandise, and others located in neighbourhood, community, and regional-scale shopping centres began to experience severe pressure in the face of competition from freestanding stores operating in a big box format, or in a power centre cluster.⁶

The most pressing current trends impacting retail real estate relate to the rapid adoption of e-commerce and transfer of shopping centre sales to the online marketplace, and the associated declining of store sizes as retailers adapt to evolving conditions. Recent media reports have noted a number of big box retailers are exploring smaller sized box stores, due to concerns over productivity, and under-utilized square footage. Also, smaller format stores are more compatible in urban environments when seeking infill sites, as prime sites are not as readily available (or in the case of higher land costs – affordable).

The following trends are related to changing online shopping behaviour, which will impact demand for "bricks and mortar" retail space in the future:

- Increase in Online Sales Deloitte projects that by 2030, e-commerce will comprise 30% of all
 retail sales up from around 10% today. This is attributable to the popularity of smartphones and
 tablets.
- Shopping with Mobile Devices ("M-Commerce") Consumers have embraced online shopping, and savvy retailers are pursuing new ways of engaging with mobile shoppers, such as applications (apps) that track consumer locations in proximity to their stores within a shopping centre (using the GPS functionality of the mobile device) and offer targeted promotions even based upon previous buying experiences.
- Showrooming Online-focused retailers may open small store locations in shopping centres or other locations to showcase various products, and allow consumers to experience the merchandise see it firsthand, try it on but ultimately place an order electronically. The shopper does not leave with the merchandise; it is shipped directly to their home. In this ecommerce era, people are already conditioned to receiving product through the mail/by courier.

Overall, these trends point to changing consumer behaviours that will likely translate into a reduced amount of shopping centre space per capita in the future. Online shopping has emerged as a necessary sales channel for many retailers – one that is gaining increased attention and investment. While shopping will remain an experience, e-commerce is ultimately about convenience. The outlook for Thunder Bay is a likely decline in the amount of physical shopping centre space per capita over time, along with the closure of under-performing store locations. Shopping centres are commonly a focal point and entrenched element of a neighbourhood/community, and they are invariably well located. In the future, there may be an opportunity to transform some of these more distressed assets into mixed-use redevelopment sites combining retail-commercial space with other uses, including residential. While this will not dramatically reduce the need for new greenfield residential growth in the city, it may present some opportunities to capitalize on centrally situated sites for medium and higher density forms of residential development.

⁶ Assessing Shopping Centre Space Needs in Canada. Centre for the Study of Commercial Activity. 2018. p. 2.

3.4 Employment Density

3.4.1 Industrial Employment Density

Industrial Employer Survey Overview

A key input to this project is understanding the current employment density in the city's industrial areas. Employment density means the number of employees per hectare. On December 9th and 10th, 2019, the Consultant Team conducted a door-to-door survey of businesses located in the city's industrial areas – we refer to this work as the Industrial Employer Survey. The purpose of this work was to identify the number of employees at each business surveyed, in order to provide input to the calculation of employment density on the city's industrial lands, as a component of our future land demand modeling. The following outlines our approach to this work:

- A total of 67 businesses provided an immediate answer to the question "how many employees currently work at this location?". Six businesses could not answer at the time of our visit, and we provided a mail-back survey sheet and self-addressed stamped envelope; of these six, we received two replies. Overall, this is considered a very high response rate to our inquiries (95%), and we are grateful to all of the business who supported our work.
- The Consultant Team focused our surveying within all of the established industrial areas spread across the city (with the exception of the waterfront sites and the islands), ensuring that businesses in each area were taken into consideration.
- There are certain limitations to this format of door-to-door surveying, as some businesses that are not customer-facing (such as trucking facilities, and some warehousing and distribution facilities) either have restricted access, or no apparent front office reception presence.
- We focused principally on single-tenant properties, because if one tenant among a multi-tenanted property did not/could not respond, then the incomplete information would render that particular building unusable for the purpose of calculating the number of employees at the property.
 - In other words, without a 100% response rate for occupants at a multi-tenant property, it could not be used for the purposes of calculating the overall number of employees associated with that building.
- The businesses were asked to provide an answer as to not only how many employees work
 within the building, but also to include those who may frequently work off site (i.e. no fixed place
 of work employees, such as sales professionals, construction workers, those in the transportation
 sector, and others), but are considered to be associated with that building.

Industrial Employer Survey Results

The following are notable results of our analysis of the Industrial Employer Survey:

- The number of employees at establishments located in the city's centrally situated industrial areas ranged from a low of 2 to a high of 100, with an average of 18 employees per business.
- The average building size surveyed was approximately 1,200 m², with a range from 165 m² to a high of 6,250 m².
- The average site coverage of properties surveyed was just 18% (site coverage is calculated by dividing the building area by the land area).
- The average employment density was 26 jobs per hectare.

Conclusion

For the purposes of our land demand modeling, the Consultant Team will utilize an **industrial employee benchmark density of 26 jobs per hectare**. This is informed by the Industrial Employer Survey data described above.

3.4.2 Office Employment Density

Overview of Office Space Trends

Recent research conducted by Cushman & Wakefield and CoreNet Global confirms that the trend in office space since the Great Recession has been towards greater employee density (i.e., companies allocating less square footage per employee). In the US, square footage per employee has decreased from 19.6 m² in 2009 to 18 m² at the end of 2017 – a decline of 1.6 m². More expensive markets tend to have less space per employee, but the rate of densification is more dependent on the amount of new office supply. Information from Cushman & Wakefield's Strategic Occupancy Planning group indicates that for recent projects they have been involved with (generally in Downtown Toronto), the allocation of office space has been below 11.6 m² per person (excluding law firms, which have a higher utilization rate). The rapid expansion of the modern "co-working" model with tight densities in the 6-9.3 m² per employee range (half the space historically allocated in traditional offices) is also influencing density planning.

The main reason for the declines in office space per worker is the huge increase in collaborative and team-oriented space inside a growing number of companies that are stressing "smaller but smarter" workplaces. Cost containment is another key element. Open floor plans and "hoteling" – (non-assigned workstations) are other key trends.

In the wake of such densification, occupiers are looking for improved amenities in and around their offices in order to attract talent. Millennials are now the largest generation in the workforce, and their job satisfaction is driven less by large, personal offices in their workplace and more by flexibility, work/life benefits, and amenities. These amenities can take the form of physical amenities, on-site services, or technology offerings.

It is noted that the Government of Canada (via Public Works & Government Services Canada) has adopted "Workplace 2.0" standards for office accommodation. The following is an extract from the PWGSC Fit-Up Standards document:

This workplace is characterized by open, flexible, and dynamic workspaces, which allows for innovative designs and better use of space. This approach is based on extensive research on how other public and private sector organizations are modernizing their workspaces. The standards continue to provide effective and productive work environments for employees, accommodating individual work styles, alternative work strategies, and sustainable design principles, while also reducing the amount of space allocated for offices by 2 metres squared per person (from 16 m² to 14 m²).

Conclusion

Given the size of the Thunder Bay office market (which is not tracked by Cushman & Wakefield in its national office market surveying), it is anticipated that the trend towards office space densification is occurring in the local market, but not to the same extent as higher cost metropolitan markets elsewhere in North America. In conclusion, for the purposes of our land demand modeling, we will utilize a benchmark rate of **185 employees per hectare for new office construction** that will be home to the growing number of future office workers through 2051. Implicit in this benchmark are two components:

- A measure of the amount of office space per employee benchmarked at 16.3 m², for the purposes of our analysis, and guided by the market trends discussed above; and,
- A measure of the land area required to accommodate office development benchmarked at an
 average floor space index (FSI) of 0.3. FSI is a figure that reflects the total floor area of a building
 divided by the total site area.

This FSI has been selected based on our review of recent office building permit activity in the city, including: 751 Tungsten Street (FSI = 0.23), 1269 Premier Way (FSI = 0.33), 981 Balmoral Street (FSI = 0.35), 1263 Innovation Drive (FSI = 0.18), and 1123 Premier Way (FSI = 0.18).

EXHIBIT 12 – OFFICE EMPLOYMENT DENSITY				
Metric	Value			
Site Size (hectares)	1			
Floor Space Index	0.3			
Floor Area (m ²)	3,000			
Office Space per Employee (m²)	16.3			
Total # of Employees	185			

3.5 Non-Residential Building Permit Activity

The Consultant Team reviewed building permits provided by City staff for the period from January, 2010 – December, 2019. Over this past decade, some 2,000 non-residential permits were issued across the City of Thunder Bay. We have classified the permits into four categories: Commercial, Institutional, Industrial, and Other (the "Other" category captures properties such as utilities, performing arts centres, transportation terminals, and other mixed uses that do not fall into the prior three categories). The following are notable observations from our analysis:

- New building permits accounted for nearly one-half of the total permit value (\$440 million), but represented just 12% of total permits, by count of permit.
- Permits for additions and alterations to properties reflecting reinvestment in the stock of non-residential buildings totaled \$488 million, and an 88% share of total activity, by count of permits.
- By count of permit, the Commercial category accounted for just over one-half of total permits (52%), followed by Institutional (21%), and Industrial (13%). Buildings in the Other category represented a 14% share of the total activity.
- Commercial permits totaled \$400 million in value, split evenly between new and addition/alteration work.
- Institutional permits totaled \$337 million, with addition/alteration work representing a slight majority of the total permit value.
- Industrial permits totaled \$57 million value, with two-thirds of the value being associated with new construction activity.

EXHIBIT 13 – VALUE AND NUMBER OF PERMITS BY BUILDING TYPE						
	New		Addition/Alteration		Total	
Building Type	Value (\$Millions)	#	Value (\$Millions)	#	Value (\$Millions)	#
Commercial	\$201	89	\$199	961	\$400	1,050
Institutional	\$149	15	\$188	396	\$337	411
Industrial	\$38	116	\$19	136	\$57	252
Other	\$52	14	\$82	274	\$134	288
TOTAL	\$440	234	\$488	1,767	\$928	2,001
Source: City of Thunder Bay and Cushman & Wakefield						

4.0 POPULATION AND EMPLOYMENT PROJECTIONS

4.1 Introduction

4.1.1 Overview

The following section of the report presents an overview of macro-economic trends that are influencing population and employment growth, sectoral changes in the City of Thunder Bay in recent decades, and a snapshot of current conditions. metroeconomics has prepared four forecast scenarios that are based upon various assumptions about growth, and are influenced by the composition of the local employment base, including key economic drivers. The Base Case aligns with metroeconomics' view of the Canadian economic outlook as a whole, while the Low, High, and High+ Cases explore the impact of different growth rates. Specifically, the High+ Case envisions very strong growth in mining and related services, and should be considered the most optimistic outlook of all. These population and employment growth by industry scenarios are used as an input to the employment land demand modeling that is presented later in this report. The forecast horizon is 2051, with 2016 as the base year (a Census year).

4.1.2 Key National and Provincial Trends

Canada's and Ontario's economic prospects over the longer term are inextricably linked to the economic prospects of the United States. Though US economic growth might soften in the short-term, its long-term growth prospects are positive though decelerating gradually over time.

The population of the US is currently growing at an annual rate of 0.6%. That pace is expected to slow gradually to 0.3% by 2051. Its labour force source population (persons 15 and over) will slow from 0.8% growth annually at this time to 0.3% by 2051. Output per worker is expected to grow 1.3% annually over the entire span. Thus, US real GDP will gradually slow from a current underlying rate of 2.1% growth annually to 1.6% at the projection horizon.

With trade mostly occurring with the US, Canada's GDP can be expected to follow a similar rate of expansion, slowing from about 2.3% currently to 1.8% by 2051. Productivity will grow less quickly in Canada than in the US, averaging about 0.8% per year over the projection horizon. Thus, employment in Canada will gradually slow from an underlying rate of 1.4% growth per year currently to 0.9% by 2051. Within Canada, employment across the six most populated Census Metropolitan Areas as a group (Toronto, Montreal, Vancouver, Calgary, Edmonton, and Ottawa) will slow from 1.6% to 1.2% growth per year over that span, and from 1.3% to 0.7% growth annually for the rest of Canada. Though employment growth nation-wide will slow in relative terms, it will increase in absolute terms, due to a growing base, increasing from 225,000 jobs per year currently to 270,000 by 2051. That means Canada needs a gradually growing supply of workers in absolute terms.

The "Baby Boomers" are currently between the ages of 53 and 73. The oldest among them are in the throes of retiring. This is so even though the Boomers are not retiring as early as previous generations, because they are living longer and want to work, or because they haven't saved enough to retire. Despite the delayed retirement plans, Boomers nevertheless will leave the labour market in growing numbers each year from now through to the mid 2030's, until the youngest of them – those born in the early 1960s – reach the age of 65.

The total fertility rate in Canada – hovering around 1.5 since 1966 – has fallen well short of the 2.1 rate required for a population to replace itself. Because the Boomers didn't replace themselves, Canada faces immigration rates in excess of 300,000 to 400,000 and more per year over the next decade-and-a-half to meet the growing annual worker requirements stemming from an expanding economy and the need to replace retiring Boomers. As a result, Canada's total population growth pace will exceed historical rates throughout the country from now through to the mid-2030s, before returning to normal rates beyond 2035.

The interwoven economic and demographic trends discussed above will affect population and employment growth throughout the country between now and 2051, and are incorporated into our projections for Thunder Bay.

4.2 Population and Jobs

The exhibit below traces the path of population growth in the Thunder Bay area over the last three decades. The following describes the population for various geographies of significance:

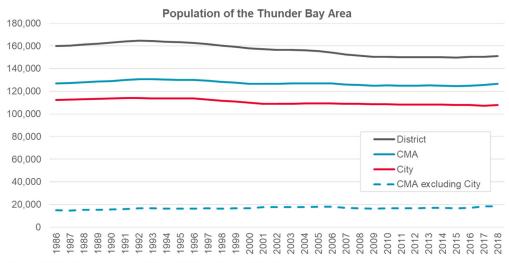
- The population of Thunder Bay District (Census Division 3558) fell gradually from a peak of 163,700 in 1994 to 151,100 in 2018, or by 12,600 (based on post-censal population estimates which adjust the census estimates for the estimated undercount of the census).
- The population of the Thunder Bay Census Metropolitan Area (CMA 595) fell from a peak of 130,600 in 1992 to 124,700 in 2015 (a decline of 5,900), though it has since increased to 126,500 in 2018 (based on post-censal estimates).
- The population of the City of Thunder Bay (CSD 3558004) fell gradually from a peak of 114,000 in 1991 to around 107,000 currently, a decline of 7,000 (based on census estimates).
- The total populations of the seven CSDs that make up the CMA's suburbs (the municipalities within the CMA surrounding the City of Thunder Bay) have barely changed over the last dozen years.

People and jobs in the Thunder Bay area are heavily concentrated in the city itself, as described below:

- The Thunder Bay District (CD 3558) covers 103,723 square kilometres, and includes a total of 33 Census Subdivisions (CSDs, or individual cities, townships, and First Nations Reserves). The total population of the District in 2016 was 146,048, while employers provided 59,275 jobs within the District that year (census estimates). The populations of the 32 CSDs in the CD excluding the City of Thunder Bay range in size from a few hundred to 5,922 (Oliver Paipoonge).
- The Thunder Bay CMA covers an area of 2,557 square kilometres, and consists of just eight of the 33 CSDs in the District. A CMA is a contiguous group of economically interdependent municipalities centred on a core city with a population of 100,000 or more, with suburban residents relying heavily on the core municipality for employment, shopping, and recreational activities. The CMA covers an area less than 3% of that of the District. Nevertheless, the CMA accounts for 84% (121,621) of the District's population and 86% (51,235) of its jobs.
- The City of Thunder Bay covers an area of just 329 square kilometres. Thus, the city covers only 13% of the land area of the CMA, but accounts for 89% of the CMA's population (107,909) and 95% (48,180) of its jobs.

In view of the heavy concentration of people and jobs within the City of Thunder Bay, the remainder of this assessment concentrates on the demographic and economic characteristics of the city alone. Passing reference will be made only as required to the rest of the CMA and/or to the rest of the District.

EXHIBIT 14 - POPULATION OF THE THUNDER BAY AREA, ANNUAL ESTIMATES 1986 TO 2018

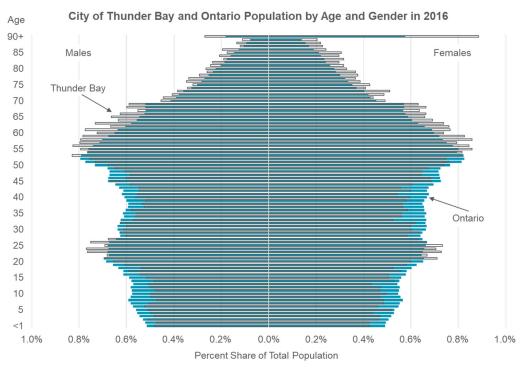


Source: Statistics Canada Post-Censal (CD and CMA) and Census (City) Estimates

4.3 Key Demographic Characteristics

The exhibit below compares the age and gender distribution of the population of the City of Thunder Bay to that of Ontario as a whole in 2016. The relative significance of the Baby Boomers (aged 50 to 70 years in 2016 as indicated in the exhibit below, and aged 53 to 73 in 2019, as referenced earlier) within both the city and the province is clearly illustrated, with Thunder Bay's Boomers slightly more prominent than is the case provincially. This means the need-to-replace-retiring-Baby-Boomers-phenomenon described above is as significant an issue for the city as it is for Ontario over the next decade and a half. This need will give rise to an increasing total population for Thunder Bay over that span.

EXHIBIT 15 – POPULATION OF THE CITY OF THUNDER BAY AND ONTARIO BY SINGLE YEAR AGE AND GENDER AS A PERCENT SHARE OF THE TOTAL POPULATION IN 2016



Source: Statistics Canada 2016 Census

4.4 Key Economic Characteristics

The primary purpose of this section of the report is to identify the extent to which the number of jobs in the City of Thunder Bay will increase in the future, and to identify in which industries the employment gains will occur. The population growth of an area typically depends on its growth in "economic base" employment, while an area's growth in "community base" employment depends on its population growth. In recognition of this interdependence between population and employment growth, metroeconomics has developed a community-based projection system that takes account of the economic and demographic factors influencing an area's growth potential.

The economic base of the community is identified through the de-composition of local jobs on a place of work basis by industry into those that are economic base jobs and those that are community base jobs; this is achieved using a location quotient process (which is described in detail below). Economic base industries produce goods and services consumed primarily by businesses or people outside of the local community; these industries – also called export-based industries – produce agriculture, mining, or manufactured products for consumption elsewhere, or provide tourism or higher-order education/health care services to visitors/temporary residents.

The potential for growth of a local community's economic base jobs is identified through assessing how many such jobs exist today, and how many might exist in the future, drawing on metroeconomics' extensive forecasts of economic base industrial job trends nation-wide and province-wide. An assessment is also made of the potential for local residents to commute to jobs in nearby employment locations, drawing on existing patterns and on metroeconomics' base case forecasts of such jobs by sub-provincial area across the country. The potential for job growth within the local area and for job growth in nearby locations determines the potential for job growth among local residents.

The metroeconomics system ties this resident job growth potential to the demographic side of the community; if potential job growth among residents exceeds the current supply of workers (based on an age and gender assessment of the current population, age-specific rates of labour force participation, the level of unemployment, and the need to replace retiring workers), in-migration occurs; thus, job growth potential determines population growth potential, recognizing that each new job-holding resident typically brings along one or two dependents. The system further takes into account the fact that each new resident job-holder increases the need for workers who service the local population – the community base jobs – and that these additional community base jobs, in turn, create the need for more workers, more residents, etc. Employed residents growth, in other words, drives the community's net in-migration requirements which, along with standard assumptions regarding fertility and mortality rates, provide the parameters needed to develop local area population projections by age and gender. Projected economic base jobs by industry are added to projected community base jobs by industry to determine the total number of jobs by place of work that will exist in the community in the decades ahead.

The exhibit below decomposes the 48,810 jobs provided by employers in the City of Thunder Bay in 2016 into its economic and community base components using a Location Quotient procedure. All jobs in agriculture and forestry, in mining and oil and gas extraction, and in manufacturing, are considered to be economic base jobs, as most of their production is consumed by businesses and people outside of the area. For all other industries, the number of jobs per 1,000 residents in Thunder Bay is compared to that ratio province-wide. Where the ratio in an industry in Thunder Bay exceeds that of Ontario, it is assumed the excess jobs in the city are providing services to people or businesses outside of Thunder Bay. These excess jobs are defined as export-based service jobs and their output as exportable services.

Of the 48,810 jobs in total in Thunder Bay in 2016, 12,381 (25%) are export-based jobs. The industries accounting for the greatest number of export-based jobs in 2016 were health and social sciences (4,193), manufacturing (2,900), retail trade (1,108), government (1,033), accommodation and food (862), education (818), agriculture and forestry (455) and transportation and warehousing (343). These eight industries together accounted for 95% of the export-based jobs in Thunder Bay. The existence of export-based jobs in 12 out of 18 industries in Thunder Bay is testimony to the extent to which the city's economy is diverse.

EXHIBIT 16 – EMPLOYMENT BY	Thunder Bay Ontario			Difference	Thunder Bay		
Category					Difference – Thunder Bay		
Category	#	# Per 1,000	#	# Per 1,000	less Ontario	Economic Base	Community Base
Total Population (persons)	107,909		13,448,494				
All Industries EPOW (jobs)	48,810	452	5,867,270	436	16	12,381	36,429
Agriculture, forestry	455	4	88,450	7	-2	455	0
Mining, oil and gas	175	2	24,705	2	0	175	0
Utilities	460	4	43,785	3	1	109	351
Construction	1,905	18	213,400	16	2	193	1,712
Manufacturing	2,900	27	624,260	46	-20	2,900	0
Wholesale trade	1,365	13	238,335	18	-5	0	1,365
Retail trade	6,785	63	707,530	53	10	1,108	5,677
Transportation, warehousing	2,205	20	232,090	17	3	343	1,862
Information, culture	1,075	10	153,455	11	-1	0	1,075
Finance, insurance, real estate, leasing	1,950	18	483,235	36	-18	0	1,950
Professional, scientific, technical	2,810	26	497,790	37	-11	0	2,810
Other business services	1,040	10	234,280	17	-8	0	1,040
Education	4,515	42	460,690	34	8	818	3,697
Health, social services	9,650	89	680,110	51	39	4,193	5,457
Arts, entertainment, recreation	880	8	119,330	9	-1	0	880
Accommodation, food	4,235	39	420,400	31	8	862	3,373
Other services	2,255	21	257,000	19	2	193	2,062
Government	4,150	38	388,425	29	10	1,033	3,117

Census data for 2016 indicate that 735 residents of Thunder Bay held jobs in mining. This number exceeds the 175 mining jobs provided by employers in the city by 530. Census data also indicate that 4,640 residents of the city held jobs in business services (professional and other). This number exceeds the 3,850 business service jobs provided by employers in the city by 790. Thus, the number of residents employed exceeded the number of jobs available in the city in these two industries by 1,310. This comparison suggests that commuting to jobs in these two industries is common among city residents. Comparisons for other industries suggest out-commuting is also a factor in the transportation and warehousing sector. These results are consistent with other Census data which reveal that 1,905 employed residents of the city commute regularly to jobs located outside of Thunder Bay.

It was noted above that the population growth potential of an area depends on the growth potential of jobs in the area's economic base industries plus the growth potential of jobs in industries to which its residents typically commute. The population projections for the City of Thunder Bay described in the next section were developed using a version of metroeconomics' community projection model that takes into account both the growth potential for economic base jobs locally and the growth potential for jobs nearby favoured by many city residents.

4.5 The Potential for Growth

metroeconomics' base case projections for Ontario suggest the prospects for employment growth in the traditional economic base industries – agriculture, mining, and manufacturing – are limited. Production levels (real GDP) in these industries are expected to grow, but strong productivity gains in each suggest employment in agriculture and manufacturing will be flat, while employment in mining will grow by an average of just 0.8% per year. metroeconomics' base case projections, therefore, suggest these industries are unlikely to stimulate future population gains anywhere in the province. Note, however, that an assessment prepared by City of Thunder Bay staff suggests there is significant potential for expansion in mining employment in areas to which the city's residents are known to commute. A projection alternative that takes this assessment into account has been prepared alongside Base, Low, and High alternatives that draw on metroeconomics' projection files for the province.

It is useful to note that the major contributors in 2016 to Thunder Bay's manufacturing employment base of 2,900 include transportation equipment (1,095 jobs), paper (590), wood products (265), food products (230), and fabricated metal products (200). These five sectors together accounted for 82% of all the manufacturing jobs in Thunder Bay in 2016. Manufacturing jobs in the city were hard hit over the last decade-and-a-half (as they were nation-wide), falling from 5,915 in 2001 to 4,310 in 2006, and 2,595 in 2011. Though manufacturing jobs increased slightly to 2,900 in 2016, it is expected that, at best, they will hold steady at around 2,900 across the projection horizon to 2051. Total employment in agriculture can be expected to barely hold steady as well, while mining employment will increase gradually. This long-term erosion of economic base jobs is the key factor behind the stagnant population trends over the last several decades in the Thunder Bay area.

In contrast, there is considerable potential for growth in Thunder Bay's exportable services industries. The city's strong current showing in exportable services in health, retail trade, government, food/accommodation, education, and transportation/warehousing identifies it as the major regional centre for the provision of such services to the residents of the rest of the Thunder Bay area, where such services are not available. Though the population of the rest of the District is not expected to grow – indeed the population outside of the metro area is expected to continue to gradually decline – its population, too, is aging; this will put pressure on the city's health care system. As it is unlikely new sources for community services will emerge outside of the city given that area's declining population, Thunder Bay will continue to be the region's primary source of such services.

Following on these observations, metroeconomics has developed four projections of potential demographic and economic growth for the City of Thunder Bay:

• The Base Case projection is based on the assumption that jobs in Thunder Bay in agriculture, mining (including mining-related jobs within the commuter shed of the city), and manufacturing will grow in the future at the rate metroeconomics projects for such jobs province-wide. In addition, the Base Case is based on the assumption that exportable services jobs will grow in the future at the rate metroeconomics projects for such jobs province-wide minus 1.25 percentage points per year. The downward adjustment reflects the expectation that the population of the area outside the city will grow slower than that of the province.

- The Low Case projection is based on the assumption that jobs in Thunder Bay in agriculture, mining (including mining-related jobs within the commuter shed of the city), and manufacturing will grow at the rate metroeconomics projects for jobs in those industries province-wide minus 0.25 percentage points per year, and that exportable services jobs will grow at the rate metroeconomics projects for such jobs province-wide minus 1.50 percentage points per year.
- The High Case projection is based on the assumption that jobs in Thunder Bay in agriculture, mining (including mining-related jobs within the commuter shed of the city), and manufacturing will grow at the rate metroeconomics projects for such jobs province-wide plus 0.25 percentage points per year, and that exportable services jobs will grow at the rate metroeconomics projects for such jobs province-wide minus 1.00 percentage points per year.
- The High+ Case projection is based on the High Case alternative assumptions described above. However, in this alternative, the number of jobs projected for commuters has been augmented such that their number exceeds the 2030 projected number in the High Case by 1,750 (or by 175 per year from 2020 to 2030) to reflect the extent to which the City's assessment of commuter job potential exceeds metroeconomics' projection of commuter jobs by 2030 in the High Case, which has the effect of inducing demand for jobs in other sectors.

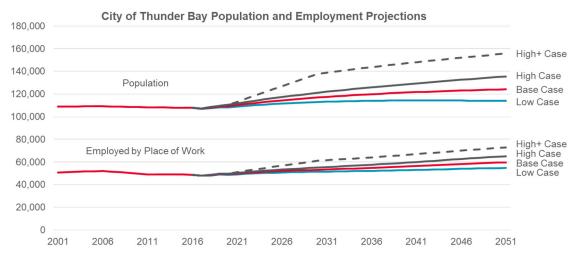
The four projections suggest the following:

- The Base Case foresees the population of Thunder Bay increasing from 107,800 in 2016 to 124,200 in 2051. The Low Case foresees it increasing to 113,900 in 2051, the High Case to 135,500, and the High+ Case to 155,800.
- The Base Case foresees employment by place of work in Thunder Bay increasing from 48,800 in 2016 to 59,700 in 2051. The Low Case foresees it increasing to 54,700, the High Case to 65,100, and the High+ Case to 73,000.

It is important to note that net in-migration to the area will be required in all four projection scenarios. Such net in-migration will be comprised of relocation to Thunder Bay from another community in Ontario, inter-provincial migrants to the city, as well as new immigrants to Canada settling in the city. The recently created Rural and Northern Immigration Pilot (RNIP) will help in facilitating the recruitment of new workers to the area. The Thunder Bay Community Economic Development Commission was slated to begin accepting applications in January 2020 for a CEDC recommendation from individuals wishing to immigrate to Thunder Bay where they have a genuine full-time job offer from an approved employer, meet the federal government's eligibility criteria, and meet the community recommendation criteria set by the CEDC.

The exhibit below compares the total population and total number of jobs in the city for the four projections. Historical data back to 2001 are also included. The exhibit below compares the projected change from 2019 to 2051 in the total population and in employment and GDP by industry for the four projections. Exhibits included in Appendix 3 of this report profile the population and employment by place of work forecasts for the Base, Low, High, and High+ projection scenarios for the period from 2016-2051 for the City of Thunder Bay

EXHIBIT 17 – CITY OF THUNDER BAY TOTAL POPULATION AND TOTAL EMPLOYED BY PLACE OF WORK PROJECTIONS COMPARISON



Source: Statistics Canada and metroeconomics (actual data 2001-2016, projected data 2021-2051)

EXHIBIT 18 – POPULATION AND	EMPLOY	MENT PR	OJECTIO	NS		
		Change (2019-2051)				
Category	Base	Low	High	High+		
Total Population (persons)	15,306	5,741	25,784	46,051		
All Industries EPOW (jobs)	10,360	5,742	15,417	23,303		
Agriculture, forestry	-11	-46	28	28		
Mining, oil and gas	57	39	77	77		
Utilities	-106	-137	-72	-14		
Construction	508	320	714	1,075		
Manufacturing	-50	-269	190	190		
Wholesale trade	-430	-493	-359	-216		
Retail trade	-328	-811	201	1,172		
Transportation, warehousing	1,259	973	1,573	2,125		
Information, culture	-13	-90	71	237		
Finance, insurance, real estate, leasing	37	-113	202	524		
Professional, scientific, technical	706	425	1,014	1,605		
Other business services	253	151	365	579		
Education	1,017	577	1,500	2,340		
Health, social services	4,268	3,168	5,472	6,983		
Arts, entertainment, recreation	353	259	455	649		
Accommodation, food	2,780	2,235	3,375	4,380		
Other services	130	-56	335	724		
Government	-72	-390	277	845		
Note: "EPOW" = Employed by Place of Work						

5.0 EMPLOYMENT LAND DEMAND FORECAST

5.1 Introduction

The metroeconomics projection presented above can be translated into a forecast of employment land needs by identifying the type of buildings that are required for each category of employment. Of note, the following place of work status data has been considered:

- The 2016 Census indicated 43,070 employees in the City of Thunder Bay had a "usual place of work", accounting for an 86% share of total jobs. This is higher than the provincial average of 81%.
- Approximately 3% of the employed labour force in the city is identified as having a place of work status of "worked at home". These 1,695 home-based jobs are likely those that would otherwise be accommodated in office spaces, or other mixed-use/commercial settings. This figure is relatively lower than the provincial average of around 7%. Given this small share of overall jobs, we have not factored in home-based employment in our land demand projections.
- In Thunder Bay in 2016, there were 5,350 jobs identified as "no fixed place of work." These are jobs in categories such as construction and transportation, accounting for an 11% share of all jobs, which is on par with the provincial average. As these jobs do not directly generate demand for employment land, they do not form part of our analysis.
- In 2016, there were 100 employees whose place of work status was "worked outside Canada", representing just 0.2% of total jobs in the city. This negligible component of the labour market has not been factored into our land demand modeling.

5.2 Employment Categories

The following illustrates our approach to allocating employment by industry into real estate requirements:

Industrial-Type Employment Categories

- Construction The Construction sector comprises establishments primarily engaged in the construction of buildings or engineering projects (e.g., highways and utility systems). Establishments primarily engaged in the preparation of sites for new construction and establishments primarily engaged in subdividing land for sale as building sites also are included in this sector. Many of these types of jobs fall into the "no fixed place of work" segment, whereby they are associated primarily with work on project sites, as opposed to an everyday workplace setting. Accordingly, only a portion of these jobs have been included in our assessment of industrial land needs, such as lands required for equipment and materials storage. The Consultant Team has assigned 20% of jobs in the Construction segment as being associated with industrial land need.
- Manufacturing Establishments in the Manufacturing sector are often described as plants, factories, or mills, and characteristically use power-driven machines and materials-handling equipment. The materials, substances, or components transformed by manufacturing establishments are raw materials that are products of agriculture, forestry, fishing, mining, or quarrying, as well as products of other manufacturing establishments. 100% of employment in this category has been identified as requiring industrial-type land and premises.

- Wholesale trade The Wholesale Trade sector comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The merchandise described in this sector includes the outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing. Wholesalers sell merchandise to other businesses and normally operate from a warehouse or office. These warehouses and offices are characterized by having little or no display of merchandise. In addition, neither the design nor the location of the premises is intended to solicit walk-in traffic. Wholesalers do not normally use advertising directed to the general public. Based on the nature of this sector of employment, the Consultant Team has assigned 100% of these jobs in as being associated with industrial land need.
- Transportation, warehousing The Transportation and Warehousing sector includes industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation. Establishments in these industries use transportation equipment or transportation-related facilities as a productive asset. The type of equipment depends on the mode of transportation. The modes of transportation are air, rail, water, road, and pipeline. While jobs in the transportation industry are predominantly "no fixed place of work", the warehousing and storage-related jobs are linked with industrial-type buildings, along with the storage and maintenance of transportation equipment. Accordingly, the Consultant Team has assigned 40% of jobs in this overall sector as being associated with industrial land need.

Office-Type Employment Categories

- Information, culture This sector comprises establishments engaged in the following processes: producing and distributing information and cultural products; providing the means to transmit or distribute these products as well as data or communications; and processing data. The main components of this sector are the publishing industries, including software publishing, and both traditional publishing and publishing exclusively on the Internet; the motion picture and sound recording industries; the broadcasting industries, including traditional broadcasting and those broadcasting exclusively over the Internet; the telecommunications industries; Web search portals; data processing industries; and the information services industries. The Consultant Team has assigned 100% of jobs in this sector as being associated with office-type land need.
- Finance, insurance, real estate, leasing The Finance and Insurance sector comprises establishments primarily engaged in financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets) and/or in facilitating financial transactions. Three principal types of activities are identified: (a) Raising funds by taking deposits and/or issuing securities and, in the process, incurring liabilities; (b) Pooling of risk by underwriting insurance and annuities. Establishments engaged in this activity collect fees, insurance premiums, or annuity considerations; build up reserves; invest those reserves; and make contractual payments. Fees are based on the expected incidence of the insured risk and the expected return on investment; and, (c) Providing specialized services facilitating or supporting financial intermediation, insurance, and employee benefit programs. The Real Estate and Rental and Leasing sector comprises establishments primarily engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets, and establishments providing related services. The Consultant Team has assigned 100% of jobs in this sector as being associated with office-type land need.

- Professional, scientific, technical Establishments in this sector specialize according to
 expertise, and provide these services to clients in a variety of industries and, in some cases, to
 households. Activities performed include: legal advice and representation; accounting,
 bookkeeping, and payroll services; architectural, engineering, and specialized design services;
 computer services; consulting services; research services; advertising services; photographic
 services; translation and interpretation services; veterinary services; and other professional,
 scientific, and technical services. Overwhelmingly, these enterprises are associated with officetype space needs, and accordingly, the Consultant Team has assigned 100% of jobs in this
 sector as being associated with office-type land need.
- Other business services Businesses in this sector perform essential activities that are often undertaken in-house by establishments in many sectors of the economy. Activities performed include: management of companies and enterprises; office administration; hiring and placing of personnel; document preparation and similar clerical services; solicitation, collection, security, and surveillance services; cleaning; and waste disposal services. These enterprises are associated with office-type space needs, and the Consultant Team has assigned 100% of jobs in this sector as generating office-type land need.

Institutional Employment Categories

- Education The Educational Services sector comprises establishments that provide instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities, and training centers. These establishments may be privately owned and operated for profit or not for profit, or they may be publicly owned and operated. In general, jobs in this sector are linked with institutional land needs. The Consultant Team's approach to generating institutional land demand is discussed in detail below.
- Health, social services The Health Care and Social Assistance sector comprises
 establishments providing health care and social assistance for individuals (these are grouped
 together, since it is sometimes difficult to distinguish between the boundaries of these two
 activities). The majority of jobs in this sector are linked with demand for institutional-type
 facilities. The Consultant Team's approach to generating institutional land demand is discussed
 in detail below.
- **Government** The Public Administration sector consists of establishments of federal, provincial, and local government agencies that administer, oversee, and manage public programs, and have executive, legislative, or judicial authority over other institutions within a given area. These agencies also set policy, create laws, adjudicate civil and criminal legal cases, and provide for public safety and for national defense. In general, government establishments oversee programs and activities that are not performed by private establishments. The Consultant Team has assigned all jobs in this category to the institutional land category, which is discussed in detail below.

Excluded Categories

- Agriculture, forestry Jobs in this sector are largely associated with sites beyond the City of Thunder Bay limits, and accordingly, are not considered in our employment land need assessment.
- Mining, oil and gas Activities in this sector are largely associated with sites beyond the City of Thunder Bay limits, and accordingly, are not considered in our employment land need assessment. Business services related to these industries are addressed separately.
- **Utilities** Jobs in this category are accommodated on lands identified for utilities purposes, and are therefore excluded from our employment land need assessment.

- Retail trade Jobs in the retail industry are not used as a gauge of employment land demand.
 Instead, our approach to identifying future retail-commercial land need is addressed in detail
 below, and is linked to anticipated population growth in the city, compared to the existing retail
 space inventory.
- Arts, entertainment, recreation The Arts, Entertainment, and Recreation sector includes a
 wide range of establishments that operate facilities or provide services to meet varied cultural,
 entertainment, and recreational interests of their patrons. Jobs in this sector are generally not
 associated with employment land need, and have been excluded from our analysis.
- Accommodation, food The Accommodation and Food Services sector comprises
 establishments providing customers with lodging and/or preparing meals, snacks, and beverages
 for immediate consumption. The sector includes both accommodation and food services
 establishments because the two activities are often combined at the same establishment. While
 the Consultant Team acknowledges that jobs in this sector are associated with demand for retail commercial land, our approach to identifying this type of land need is addressed in detail below.
- Other services The Other Services (except Public Administration) sector comprises establishments engaged in providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities such as equipment and machinery repairing; promoting or administering religious activities; grantmaking; advocacy; providing dry cleaning and laundry services; personal care services; death care services; pet care services; photofinishing services; temporary parking services; and dating services. These types of enterprises are generally associated with some form of commercial space needs, and therefore are addressed in our retail-commercial land needs demand modeling described below.

5.3 Industrial Land Need Projection

5.3.1 Base Case

The exhibit below presents the Base Case Industrial Land Need Projection. Future job growth that would drive demand for industrial-type premises only amounts to 126 net new jobs from 2019-2051. At a density of 26 jobs per hectare, this results in a need for just 4.8 net hectares of industrial land. The manufacturing and wholesale trade segments are projected to see a net loss of jobs over this period. If these segments are excluded (meaning that existing firms absorb a decline in employment, without a resultant decline in space demand), positive job growth of 605 industrial-type jobs translates to a need for 23.3 net hectares of land.

EXHIBIT 19 – INDUSTRIAL LAND NEED PROJECTION – BASE CASE								
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)	Jobs per Hectare	Required Hectares			
Construction	383	484	102					
Manufacturing	2,916	2,866	-50					
Wholesale trade	1,311	881	-430					
Transportation, warehousing	954	1,458	504					
TOTAL	5,564	5,690	126	26	4.8			
TOTAL – EXCLUDING JOB DECLINES*			605	26	23.3			

*Note: The "Total – Excluding Job Declines" ignores the projected job losses in the Manufacturing and Wholesale Trade segments (which would be absorbed in existing businesses), and only focuses on the growth segment of industrial-type jobs.

5.3.2 Low Case, High Case, and High+ Case

The Low Case, High Case, and High+ Case projections presented below result in a range of industrial land demand for the 2019-2051 period from a low of 0 net hectares (technically -11.9 net hectares, although a loss of jobs would likely be generally spread across the existing industrial base, and would not necessarily result in less demand for industrial premises) to a high of almost 50 net hectares.

EXHIBIT 20 – INDUSTRIAL LAND NEED PROJECTION – LOW CASE								
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)	Jobs per Hectare	Required Hectares			
Construction	380	444	64					
Manufacturing	2,894	2,625	-269					
Wholesale trade	1,301	808	-493					
Transportation, warehousing	947	1,336	389					
TOTAL	5,522	5,213	-309	26	-11.9			
TOTAL – EXCLUDING JOB DECLINES*			453	26	17.4			

^{*}Note: The "Total – Excluding Job Declines" ignores the projected job losses in the Manufacturing and Wholesale Trade segments (which would be absorbed in existing businesses), and only focuses on the growth segment of industrial-type jobs.

EXHIBIT 21 – INDUSTRIAL LAND NEED PROJECTION – HIGH CASE							
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)	Jobs per Hectare	Required Hectares		
Construction	386	529	143				
Manufacturing	2,938	3,128	190				
Wholesale trade	1,321	962	-359				
Transportation, warehousing	961	1,590	629				
TOTAL	5,606	6,208	602	26	23.2		
TOTAL – EXCLUDING JOB DECLINES*			962	26	37.0		

^{*}Note: The "Total – Excluding Job Declines" ignores the projected job losses in the Wholesale Trade segment (which would be absorbed in existing businesses), and only focuses on the growth segment of industrial-type jobs.

EXHIBIT 22 – INDUSTRIAL LAND NEED PROJECTION – HIGH+ CASE								
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)	Jobs per Hectare	Required Hectares			
Construction	386	601	215					
Manufacturing	2,938	3,128	190					
Wholesale trade	1,321	1,105	-216					
Transportation, warehousing	961	1,811	850					
TOTAL	5,606	6,645	1,039	26	40.0			
TOTAL – EXCLUDING JOB DECLINES*			1,255	26	48.3			

^{*}Note: The "Total – Excluding Job Declines" ignores the projected job losses in the Wholesale Trade segment (which would be absorbed in existing businesses), and only focuses on the growth segment of industrial-type jobs.

5.3.3 Summary

The preceding analysis utilized the four projections of employment by industry and focused on those sectors associated with industrial space demand. Using a benchmark industrial employment density of 26 jobs per hectare – guided by our Industrial Employer Survey, and a typical industrial building site coverage ratio – the Consultant Team has concluded that **there is demand for between roughly 0-50 net hectares of industrial land from 2019-2051** (the resulting range of the four projections). For the purposes of land use planning, the **Consultant Team prefers the Base Case scenario indicating demand for 23.3 net hectares of land to support new industrial development** during this period (which excludes job declines in select segments of the industrial market). Given the types of employment that are anticipated to grow over time, lands for Light Industrial and Business Area purposes will attract the vast majority of future demand (with new jobs associated with Heavy Industrial likely to represent growth within existing businesses – although opportunities to attract Heavy Industrial uses should be protected).

5.4 Office Land Need Projection

5.4.1 Base Case

The exhibit below presents the Base Case Office Land Need Projection. Employment in sectors that are associated with office-type space demand is anticipated to increase by 983 jobs through 2051. Note that this excludes Institutional-type office employment such as health care and government. To the extent that these uses occupy offices in private sector buildings, this has not been accounted for (other than jobs situated in retail-commercial environments, such as a medical clinic at a shopping centre). At 185 jobs per hectare, this results in a need for 5.3 net hectares of land. Growth in Professional, Scientific, and Technical services is responsible for the majority of this space demand.

EXHIBIT 23 – OFFICE LAND NEED PROJECTION – BASE CASE								
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)	Jobs per Hectare	Required Hectares			
Information, culture	1,028	1,014	-13					
Finance, insurance, real estate, leasing	1,937	1,974	37					
Professional, scientific, technical	2,919	3,626	706					
Other business services	1,060	1,314	253					
TOTAL	6,945	7,928	983	185	5.3			

5.4.2 Low Case, High Case, and High+ Case

The Low Case, High Case, and High+ Case projections presented below result in a range of office land demand for the 2019-2051 period from a low of 2 net hectares to a high of 16 net hectares.

EXHIBIT 24 – OFFICE LAND NEED PROJECTION – LOW CASE								
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)	Jobs per Hectare	Required Hectares			
Information, culture	1,020	930	-90					
Finance, insurance, real estate, leasing	1,923	1,810	-113					
Professional, scientific, technical	2,898	3,323	425					
Other business services	1,053	1,204	151					
TOTAL	6,893	7,266	373	185	2.0			

EXHIBIT 25 – OFFICE LAND NEED PROJECTION – HIGH CASE							
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)	Jobs per Hectare	Required Hectares		
Information, culture	1,035	1,107	71				
Finance, insurance, real estate, leasing	1,952	2,154	202				
Professional, scientific, technical	2,941	3,955	1,014				
Other business services	1,068	1,433	365				
TOTAL	6,997	8,649	1,652	185	8.9		

EXHIBIT 26 – OFFICE LAND NEED PROJECTION – HIGH+ CASE								
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)	Jobs per Hectare	Required Hectares			
Information, culture	1,035	1,272	237					
Finance, insurance, real estate, leasing	1,952	2,476	524					
Professional, scientific, technical	2,941	4,547	1,605					
Other business services	1,068	1,647	579					
TOTAL	6,997	9,942	2,945	185	15.9			

5.4.3 Summary

The preceding analysis utilized the four projections of employment by industry and focused on those sectors associated with office space demand – excluding Institutional-sector office space. Using a benchmark employment density of 185 office jobs per hectare – guided by recent office developments in the city, and trends in office space per worker – the Consultant Team has concluded that **there is demand for between roughly 2-16 net hectares of land for office uses from 2019-2051** (the resulting range of the four projections). The Base Case scenario indicates demand for 5.3 net hectares of land to support new office development during this period, which is the Consultant Team's preferred scenario.

5.5 Institutional Land Need Projection

5.5.1 Introduction

The workplace setting of persons employed across the spectrum of industrial-type jobs is fairly uniform: spaces for raw materials storage; manufacturing and/or assembly process areas; storage of finished goods; areas for distribution/logistics; etc. This is common across a range of types of industrial jobs. Similarly, whether an office worker is involved in the finance industry, technology sector, or some other business services, the workplace environment is fairly homogenous, from a space consumption perspective. Accordingly, it is straight-forward to apply a benchmark of workspace per capita (generally translated to number of workers per unit of land area, for the purposes of land demand planning) as an input to a land demand model, as we have done above. In contrast, workers in jobs associated with the institutional sector have more varied workplace environments, which range from schools (education) to hospitals and medical office settings (health care) to residential care facilities (social services) to public administration offices (government).

It is a significant challenge to assign a benchmark employment density to institutional-type jobs. Rather, it is more appropriate to recognize the types of buildings/facilities that will be required to accommodate anticipated future jobs in the institutional sector, and their associated land need. Some of these facilities are found spread across a community (schools) and are planned for in expansion areas. Others represent intensification on an existing institutional campus (such as colleges and universities, and hospitals/health care/social services uses). Others may be found in retail-commercial settings (medical clinics, and some government functions [Service Canada/Service Ontario offices, for example]). It is essential to understand the capacity of existing Institutional sites to accommodate future growth. This is explored further below, in our review of discussions with major institutional employers.

5.5.2 Base Case

The metroeconomics Base Case employment growth projection identifies growth of 5,214 jobs across industry sectors linked with demand for institutional space. Within the Education, Health and Social Services, and Government sectors, prominent sub-sectors driving job growth include the following:

- Education employment at elementary and secondary schools accounts for roughly 80% of total
 anticipated employment growth in the Education sector through 2051. This is due to a growing
 population base in the city over that time horizon. These new school facilities will locate on lands
 in residential growth areas, as well as intensified existing school sites.
- Health and Social Services jobs in hospitals; individual and family services facilities; and offices
 of physicians, dentists, and other health practitioners, account for approximately 70% of total
 employment growth in this sector. While some of these jobs can be accommodated in the
 community in mixed-use commercial areas (such as medical office buildings), a significant
 component will still be institutionally-based.
- Government The number of jobs in public administration is forecast to decline in Thunder Bay by 2051, compared to 2019 employment. However, the picture is mixed; Municipal public administration will see growth, although this will likely be offset by declines in Provincial and Federal government employment in the city, corresponding with long-term trends observed in Ontario and Canada.

EXHIBIT 27 – INSTITUTIONAL JOB GROWTH – BASE CASE								
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)					
Education	4,675	5,692	1,017					
Health, social services	9,792	14,061	4,268					
Government	4,256	4,184	-72					
TOTAL	18,723	23,937	5,214					

5.5.3 Low Case, High Case, and High+ Case

The outlook for institutional-type employment growth varies from a low of 3,355 jobs added through 2051 (Low Case), to a high of 10,168 jobs (High+ Case). These types of jobs comprise a segment of employment that is referred to as "population-related employment", since their increase/decrease is closely linked with population growth in a community. Since the High+ Case incorporates the highest rate of population increase, it correspondingly has the highest employment growth for institutional-type jobs.

EXHIBIT 28 – INSTITUTIONAL JOB GROWTH – LOW CASE								
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)					
Education	4,640	5,216	577					
Health, social services	9,719	12,888	3,168					
Government	4,224	3,834	-390					
TOTAL	18,584	21,938	3,355					

EXHIBIT 29 – INSTITUTIONAL JOB GROWTH – HIGH CASE					
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)		
Education	4,710	6,210	1,500		
Health, social services	9,866	15,338	5,472		
Government	4,288	4,565	277		
TOTAL	18,863	26,113	7,249		

EXHIBIT 30 – INSTITUTIONAL JOB GROWTH – HIGH+ CASE					
Industry Sector	Jobs (2019)	Jobs (2051)	Change (2019-2051)		
Education	4,710	7,050	2,340		
Health, social services	9,866	16,849	6,983		
Government	4,288	5,133	845		
TOTAL	18,863	29,031	10,168		

5.5.4 Summary

Among Thunder Bay's largest employers today are those linked to institutional land demand – all of which are public sector entities. The employment by industry projections portray a continuation of these organizations at the forefront of job growth in the city. A component of this job growth can be accommodated through intensification on existing properties/campuses; another component will occur in new growth areas as the city's population increases; and a further component will need lands designated for employment uses.

In discussion with major institutional employers, the following perspective on anticipated growth and potential land requirements were identified:

• Lakehead University – The University is always poised for growth; it's 5-year Strategic Plan (2018-2023) is growth-oriented. Over the next 5-10 years, the institution is focused on oncampus expansion, and there is a lot of land available for development. In particular, this supply includes undeveloped lands along Oliver Road, as well as numerous surface parking lots. The Lakehead campus is centrally located within the city, and the University has been approached by prospective developers seeking land (in particular for hotel use).

- Confederation College As part of its Strategic Plan for 2017-2020, the College will "invest in buildings and centres that contribute to a positive learning and work environment and that convey the uniqueness of Confederation College". As well, it will "refresh and renew the College's infrastructure... in order to improve efficiencies during program and service delivery". The College has lands on its periphery (along Harbour Expressway, Golf Links Road, and William Street) that would be suited to accommodate new development, along with various surface parking lots. For the foreseeable future, the College is focused upon on-campus growth opportunities. In fact, a current off-site use in leased office space in Port Arthur (Northwest Employment Works located in the Whalen Building) that provides employment support to the community is not having the intended outcomes (less foot traffic than anticipated, and issues with respect to building security) so this will likely be relocated on-campus when possible.
- Thunder Bay Regional Health Sciences Centre (TBRHSC) TBRHSC has no plans to expand any of its uses at this time, nor change any of its land uses. There is no intention to acquire or dispose of any property at this time, or for the foreseeable future. There is no immediate office space need for which TBRHSC has received funding although this need exists. It is anticipated that the largest project that involves major expansion (cardiovascular) will be accommodated on the hospital site. The campus has undeveloped lands, and considerable surface parking.
- St. Joseph's Care Group The organization operates in varied settings, including a hospital, long-term care facilities, and supportive housing. Its three principal locations include the St. Joseph's Hospital (on Algoma Street North, in Port Arthur), the Heritage site (Carrie Street and Martha Street), and the Hogarth Riverview Manor site (Lillie Street North, north of Victoria Avenue East). It also has other smaller owned and leased sites. Long-term care and supporting housing service needs are closely linked to the seniors cohort of the population, so the early 2030s is identified as a period of anticipated growth, based on demographics. Having recently completed an expansion of the hospital site (+/- 9,300 m² in size), the organization's Master Plan will be updated to focus on optimizing current facilities (next 5 years), and then examining possible redevelopment at existing sites (up to 15 years). From a site selection perspective, the various facilities have different requirements some services benefit from a public presence, while others blend into residential neighbourhoods.

In conclusion, there is no identified near or medium-term requirement for additional Institutionaldesignated lands. These large institutional sites/campuses all offer excess lands that can accommodate future development, and on-site intensification is the principal focus of growth (as opposed to seeking off-campus options).

5.6 Retail-Commercial Land Need Projection

5.6.1 Introduction

The preceding analysis of retail market trends, retail inventory, and retail space per capita are all key inputs to our land demand projection. Below, we utilize a projection of future population, along with a site coverage benchmark, to forecast future commercial land needs.

5.6.2 Population Projection

A key input to the commercial land demand projection is a forecast of population growth. metroeconomics has prepared four population projections. The Consultant Team's guidance is based upon the Base Case scenario, with the alternative scenarios having been prepared to test sensitivities (which assume different growth rates in the local economy, job creation, etc.). We caution that this High+ Case should be considered particularly aggressive (42% increase in population from 2019-2051), given the very low rate of population increase in recent years (the city's population actually declined from 2011-2016 by 0.4%, while Ontario's population increased by 4.6%).

EXHIBIT 31 – POPULATION PROJECTIONS						
Scenario	2016 (Census)	2019 (forecast)	2051 (forecast)	Change (2019-2051)		
Base Case	107,810	108,935	124,241	15,306		
Low Case	107,810	108,122	113,863	5,741		
High Case	107,810	109,751	135,535	25,784		
High+ Case	107,810	109,751	155,802	46,051		

5.6.3 Site Coverage

A benchmark site coverage of 25% is utilized in our land demand projections. This recognizes the reality of parking ratio requirements for retail-commercial establishments. While over time parking may be accommodated in parking structures as part of mixed-use development/redevelopment, increasing retail density is a challenge from a site design perspective. Other than regional-scale shopping centres, underground or structured parking is relatively uncommon, given the expense associated with its construction and maintenance. The 25% site coverage benchmark is therefore a suitable assumption; however, if this ratio can be reduced, less land will be required to accommodate the same projected retail space.

5.6.4 Land Demand Scenarios

In the Baseline scenario, retail-commercial space demand is projected to continue at the current ratio per capita in Thunder Bay, (which is 1.74 m²). Based upon a population increase of 15,306 persons in the Base Case projection, this translates to a need for land to accommodate approximately 26,600 m² of new space. When this space demand is translated to a land requirement at a benchmark site coverage of 25%, this equates to a need for 10.6 net hectares of land by 2051. The alternative population growth scenarios produce a range of land demand from 4 to 32 net hectares.

EXHIBIT 32 - RETAIL-COMMERCIAL LAND DEMAND - BASELINE SCENARIO						
Variable	Base Case	Low Case	High Case	High+ Case		
Population Growth	15,306	5,741	25,784	46,051		
Retail Space per Capita (m²)	1.74	1.74	1.74	1.74		
Retail Demand (m ²)	26,591	9,974	44,794	80,003		
Site Coverage (%)	25%	25%	25%	25%		
Land Required (hectares)	10.6	4.0	17.9	32.0		

A second scenario has been developed that tests the impact of a reduction in retail space per capita in the future. This is influenced by the secular trends apparent in the consumer market today towards online shopping, mobile commerce, same-day delivery of goods, and declining store sizes among certain retail categories, discussed previously. In this Reduced Space per Capita scenario, the retail space demand per capita is reduced from the current rate of 1.74 m² to 1.48 m² per person (or by roughly 15%). Based upon a population increase of 15,306 persons in the Base Case projection, this translates to a requirement for land to accommodate approximately 22,600 m² of new space. When this space demand is translated to a land requirement at a benchmark site coverage of 25%, this equates to a need for 9 net hectares of land by 2051. The alternative population growth scenarios produce a range of land demand from 3.4 to 27.2 net hectares. However, these figures do not take into account the fact that this reduced amount of retail space per capita demand also impacts the existing retail-commercial environment, and therefore present an incomplete picture.

The current shopping centre inventory in Thunder Bay is approximately 215,700 m² (based on CSCA data). If demand for this retail space declines by 15% as a result of retail and consumer market dynamics (represented by the reduced demand factor of 0.85 in the exhibit above), then there is an excess of approximately 32,400 m² of retail-commercial space in the Base Case scenario. This exceeds the Base Case new retail demand growth figure of 22,600 m², meaning that not only is no new retail supply required by 2051, but that the existing inventory would represent an over-supply of space of around 9,750 m². The alternative population growth scenarios generate a range of retail demand outcomes, from an excess supply of 23,900 m² in the Low Case, versus new demand for 35,650 m² in the High+ Case.

EXHIBIT 33 – RETAIL-COMMERCIAL LAND DEMAND – REDUCED SPACE PER CAPIA SCENARIO					
Variable	Base Case	Low Case	High Case	High+ Case	
Population Growth	15,306	5,741	25,784	46,051	
Retail Space per Capita (m²)	1.48	1.48	1.48	1.48	
New Retail Demand (m ²)	22,602	8,478	38,075	68,003	
Site Coverage (%)	25%	25%	25%	25%	
Land Required (hectares)	9.0	3.4	15.2	27.2	
Current Inventory (m²)	215,710	215,710	215,710	215,710	
Reduced Demand Factor	0.85	0.85	0.85	0.85	
Future Required Inventory (m²)	183,354	183,354	183,354	183,354	
Excess Retail Space (m²)	32,357	32,357	32,357	32,357	
New Retail Demand Less Excess Retail Space (m²)	-9,754	-23,879	5,718	35,646	
Site Coverage (%)	25%	25%	25%	25%	
Land Required (hectares)	0	0	2.3	14.3	

5.6.5 Summary

The two retail land demand scenarios are guided by the same population forecasts, but different assumptions about the amount of retail space demanded per capita. The Baseline scenario assumes that the current rate of retail space per capita is held constant over time (1.74 m² per capita in Thunder Bay). This results in a range of land demand from 1-8 net hectares, with the Base Case indicating a need for 2.7 net hectares to satisfy future demand. In contrast, the Reduced Space per Capita scenario indicates that an assumed decline in space per capita demand of 15% would result in an actual excess of retail inventory in the Base Case and Low Case scenarios, notwithstanding future population growth occurring through 2051.

New retail-commercial uses will continue to emerge, notwithstanding the downward pressure on retail space per capita. It is highly likely that some buildings within the existing inventory will become obsolete (due to their format, orientation, age, or other factors), and repurposed to a mixed-use or other form of redevelopment, which would reduce the present space inventory. Accordingly, it is probable that lands will be required to accommodate new developments. **The Consultant Team recommends planning for 20 net hectares of retail-commercial land through 2051.** This will provide sufficient flexibility for site selection, and will likely primarily be lands in new growth areas to accommodate neighbourhood-scale retail demand as the city's population expands, although centrally-situated infill sites may still be sought-after by prospective retail-commercial developers, including within the Regional Centre (although the boundaries do not need to be expanded).

5.7 Land Demand Summary

5.7.1 Land Demand Conclusions

The Base Case population and employment growth scenario is underpinned by our knowledge of economic and employment trends, and real estate market dynamics, and guides the Consultant Team's recommended employment land demand projections. The Low Case, High Case, and High+ Case scenarios allow us to identify a broader range of land requirements that could occur, should growth lag or surpass the Base Case scenario. Together, the scenarios inform our ultimate planning policy and strategic guidance.

EXHIBIT 34 - LAND DEMAND CONCLUSIONS						
Employment Land Type	Base Case (hectares)	Low Case (hectares)	High Case (hectares)	High+ Case (hectares)		
Industrial	4.8	0	23.2	40.0		
Industrial (Excluding Job Declines)	23.3	17.4	37.0	48.3		
Office	5.3	2.0	8.9	15.9		
Institutional	Land need to be monitored over time					
Retail-Commercial – Baseline	10.6	4.0	17.9	32.0		
Retail-Commercial – Reduced Space per Capita	0	0	2.3	14.3		

It is important to note that while the land demand analysis is expressed in *net* hectares (the developable land area), the preceding land supply analysis is presented in *gross* hectare terms (total land area). It is not possible within the scope of this project to identify the gross to net factor for individual employment land parcels, since there is a vast supply of vacant lands with development constraints such as natural features (waterways, wetlands, forests, etc.), potential issues related to site grading (un-level sites), site configuration (irregular shapes that may limit developability), and in the case of undeveloped areas, a requirement to provide for roads and stormwater management before the actual developable lands can be created. Accordingly, the Consultant Team has applied a factor of 0.8 to translate gross land area to net developable land area.

The following summarizes the Consultant Team's recommended employment land allocation by type, for the 2019-2051 horizon.

- Industrial land 23.3 net hectares/29.2 gross hectares.
- Office land 5.3 net hectares/6.6 gross hectares.
- Retail-Commercial land 20 net hectares/25.3 gross hectares.
- Institutional land ongoing land needs are to be monitored in collaboration with major local institutional employers.

It is apparent from our market reconnaissance that the city's industrial areas have limited vacant space within the existing building stock. Accordingly, there is little "slack" to take up future industrial-type employment growth. While a market with an above-average level of vacancy would have capacity to add jobs before new lands were required to accommodate occupier demand, this is not the case in Thunder Bay.

Another conclusion drawn from our market reconnaissance of existing employment areas is that there appears to be little opportunity for intensification of existing industrial sites. Where properties exhibit a relatively low site coverage (less than 20%, as a benchmark), there is a propensity for these "excess lands" to be used for the outside storage of materials and equipment. In many cases, it is not feasible to take up this yard space with an addition to the existing building. In conclusion, while properties exhibiting a lower site coverage would in theory be considered candidates for intensification, which would reduce the need for future additional employment lands, there appears to be little capacity for such activity in Thunder Bay.

5.7.2 Employment Growth by Land Demand

The exhibit below presents the relative contribution of the various types of employment to future land demand, by indicating the proportion of overall employment growth that is associated with those industries. Also indicated is the current (2019) share of employment by type.

Institutional-type jobs represent the largest share of total employment growth in all scenarios, followed by the Excluded Categories. Office jobs represent about 10% of total anticipated job growth, while Industrial-type job growth is by far the smallest segment.

EXHIBIT 35 – SHARE OF EMPLOYMENT GROWTH BY LAND DEMAND						
Employment Land Type	2019 (% share)	Base Case (% share)	Low Case (% share)	High Case (% share)	High+ Case (% share)	
Industrial	11%	1%	0%**	4%	4%	
Office	14%	9%	6%	11%	13%	
Institutional	38%	50%	55%	47%	44%	
Excluded Categories*	37%	39%	38%	38%	39%	
TOTAL	100%	100%	100%	100%	100%	

^{*}Note: "Excluded Categories" are as described earlier (Agriculture, forestry; Mining, oil and gas; Utilities; Retail trade; Arts, entertainment, recreation; Accommodation, food; and Other services).

^{**}In the Low Case, Industrial -type employment declines from 2019-2051. We have set this value to zero, and adjusted the total employment.

6.0 PLANNING POLICY REVIEW

6.1 Introduction

The following is a review of the planning policy framework affecting the principles for the management of employment-generating land uses within the City of Thunder Bay. This overview includes a review of the following documents:

- 1. Becoming Our Best 2015-2018: The Thunder Bay Corporate Strategic Plan;
- 2. One City, Growing Together: 2019-2022 Corporate Strategic Plan
- 3. The City of Thunder Bay Official Plan; and,
- 4. The City of Thunder Bay Zoning By-law.

Each of these important documents provides a level of guidance for the future development of a range of employment-generating land uses. From an employment land perspective, the primary difference among the three documents relates to the level of detail provided.

- By nature, the Strategic Plan is very high level.
- The Official Plan is also high level, but provides a more focused land use planning policy framework.
- The Zoning By-law provides the most detailed regulatory framework within which specific forms of development are mandated.

All of these documents work together to achieve a defined urban structure and a growth management strategy aiming for an economically successful Thunder Bay over the next 20 years.

6.2 Becoming Our Best: 2015-2018 Corporate Strategic Plan

The purpose of the Strategic Plan is to identify City Council's priorities for decision making. The Plan is organized under four pillars, together with strategies and actions to achieve the identified priorities. The Vision, Mission, and Principles of the Plan are intended to guide the activities of staff and the decisions of Council. The principles of the Strategic Plan are instructive with respect to economic development in Thunder Bay. Some of the key statements indicate that the City of Thunder Bay believes in (among other matters):

- Economic growth and Innovation;
- Effective Partnerships;
- Infrastructure Investment and Renewal; and,
- Encouraging and Promoting the Private Sector.

These principles suggest a desire for the City to attract private sector investment through innovation, partnerships, and infrastructure investment. These principles set the stage for a multi-faceted strategy that is intended to enhance the City's tax base and to attract jobs in all sectors of the economy.

Supporting statements that indicate that the City will, among other goals:

- GOAL 11: Become more diversified with a friendly business environment by investing in the Thunder Bay Community Economic Development Commission (CEDC); and,
- GOAL 12: Include revitalized downtowns and business areas by investing in:
 - o The revitalization of the downtown cores; and,
 - Revitalizing vacant and underutilized industrial areas.

6.3 One City, Growing Together: 2019-2022 Corporate Strategic Plan

Released January 27, 2020, the City's current Strategic Plan outlines the Vision and Priorities for City Council. It is focused on four Pillars:

- LEAD Provide civic leadership to advance mutual respect, equal opportunity and hope.
- SERVE Advance service excellence through a citizen focus, and best use of technology.
- GROW Focus on city-building and social infrastructure to strengthen our economy, lifestyle, and well-being.
- RENEW Focus on essential infrastructure, revitalize our cores, and enhance our Image Routes.

In terms of importance to economic development, GROW and RENEW are key pillars, and specifically:

- GROW Focus on city-building and social infrastructure to strengthen our economy, lifestyle, and well-being.
 - Support and work with the Thunder Bay Community Economic Development Commission in the execution of its 2019-2022 Strategic Action Plan and immigration pilot. Advocate to provincial, federal, and industry leaders on economic opportunities and key priorities including retention of manufacturing jobs.
 - Work with the business community to develop and implement a zoning by-law and policies and procedures that facilitate business growth through increased ease of doing business.
- RENEW Focus on essential infrastructure, revitalize our cores, and enhance our Image Routes.
 - Revitalize the downtown cores in partnership with stakeholders, with a special focus on strategic investments such as addressing the future of Victoriaville, and initiatives that further community safety and well-being.

The new Strategic Plan continues to place emphasis on economic growth and investment. Working with other government partners and the business community are key directions. Strategic investments in the cores is identified as being crucial to their ongoing revitalization.

6.4 The City of Thunder Bay Official Plan

6.4.1 Overview

The Thunder Bay Official Plan is an up-to-date reflection of how the City's current urban structure is expected to evolve over time. It is a strong document that supports the Strategic Plan, in recognizing the city's role as a regional service centre and its modest growth projections over the next 20 years. A key introductory statement from the Official Plan states:

"Thunder Bay's economy is expected to also grow modestly in the future, as it continues to expand and diversify. While the forest, grain, and transportation industries continue to be core economic activities, Thunder Bay is the region's centre for education, health and medicine, research and innovation, retail, services, and tourism. Growth in these areas and other sectors will be supported through various means, including appropriate infrastructure investments, public realm improvements, and other strategic projects." (p. 3)

This statement indicates that while economic growth is expected to be modest, the Official Plan includes a number of supportive statements that clearly indicate a need for the City to be responsive to changes in the economy, and to be ready to react to growth in various economic sectors – notwithstanding that those changes are not yet fully understood. The Plan also recognizes the importance of protecting and supporting existing businesses.

The following statements provide the rationale for the City to support various opportunities to accommodate a range of types of economic growth, in a variety of locations, with a diversity of attributes (locational attributes, size and configuration of sites, access to supportive uses, and access to lifestyle amenities). The following statements in the Official Plan are instructive:

"The city will continue to be a community that offers a range of employment opportunities, a supportive environment for businesses, a variety of post-secondary education options, and a chance for people of all ages and abilities to flourish." (p. 5)

"A strong, resilient, and diversified economy is important to the overall prosperity of the community, and supports the city's businesses, entrepreneurs, industries, and institutions. This Plan has been developed using an approach that supports economic prosperity by encouraging a diversified economy; a population that is healthy, educated, creative, and skilled; a vibrant and attractive community; modern and efficient infrastructure; and a clean and sustainable environment. The growth and diversification of the region's traditional resource-based industries as well as the development of new and emerging economic sectors will bring new jobs and opportunities to Thunder Bay, and optimize its competitive advantage in the global economy. Across all sectors of the economy, the policies of this Plan encourage innovation, collaboration, entrepreneurship, research, and environmental stewardship." (p. 6)

"Promote the growth of emerging economic sectors, new businesses, and employment opportunities at appropriate locations, and encourage the strengthening of existing business functions." (p. 7)

In a general sense, the Official Plan wants Thunder Bay to be open for business, and be ready to react to local and global changes in economic activity – whatever those changes might be. To achieve that overarching objective, the City needs to maintain a supply of land that can accommodate:

Large and small-scale businesses that are resource-based and/or knowledge-based;

- Businesses that may be attracted to the available international airport facilities, port facilities, rail facilities, or highway access opportunities;
- Businesses that require access to a diverse and well-educated labour force; and,
- Opportunities in locations that offer a variety of contexts urban downtowns, suburban business parks, industrial areas, and rural economic activities.

The Official Plan also establishes a clear urban structure that is based on the existing pattern of land uses, as they have evolved since the early 1970's. With respect to economic activities, the Official Plan states:

"Business and economic activities will be directed to the Employment Areas"...
"Commercial uses will be focused in the Regional Commercial Area where large format big box stores and shopping centres are the predominant land use. The Strategic Core Areas will continue to be the focal points for destination retail, restaurants, business, entertainment, social and cultural pursuits, and will be characterized by a concentration of a mix of uses." (p. 9)

6.4.2 The Waterfront Area

Thunder Bay's waterfront is home to a variety of land uses. It is very large, and it is evolving into an even more diverse and mixed-use economic attribute. The scale and diversity of the waterfront lands means that it can accommodate a whole range of uses with a minimum of land use conflicts.

As the following policy states, the foundation of Thunder Bay's economy has traditionally been based on heavy industrial activities reliant on the waterfront and railway activities. This has changed over time, providing new opportunities to accommodate other land uses at the water's edge, including the expansion of the downtowns, and the introduction of residential and recreation-based activities.

... "the city has historically had a working waterfront, and while there has been a decline in waterfront-based industrial activity, this sector of the local economy continues to play an important role in the overall economic health of the city and region. Continued use of waterfront lands for marine shipping and industrial purposes must therefore be supported, and any redevelopment must coexist within the context of functioning and viable industrial operations. The active, working functions of the port could be, in fact, a significant attraction for tourists. Existing industrial structures, both active and inactive, are important landmarks along the waterfront, and present a valuable contribution to any future development that celebrates the city's industrial heritage." (p. 61)

The Official Plan goes on to state a number of general objectives for waterfront redevelopment, including:

"Support the protection of the city's heavy industrial base, and the preservation of existing heavy industrial uses in waterfront locations, where this form of development is appropriate, and where water access is important." (p. 62)

"Extend the city's urban core functions and connections to the water's edge, to the fullest extent practical." (p. 62)

It is understood that the protection of the key waterfront industries is crucially important to the City of Thunder Bay; however, it is also understood that:

"Over the past decade, there have been significant changes to the industries located along the waterfront that have influenced the extent and character of the waterfront's industrial land uses. Significant portions of the waterfront lands are now available for redevelopment, and there are real opportunities to introduce new uses to the waterfront in an effort to establish a broader base of uses and improve public access." (p. 62)

Overall, the vast majority of the waterfront is designated in the City's Official Plan for industrial uses, and typically within the Heavy Industrial designation. It is recognized that there are many demands on the city's waterfront, including for residential, commercial, and tourism related land uses. However, some of the city's historic port function remains, and needs to be protected from the expansion of sensitive land uses. In addition, the substantial inventory of both occupied and vacant industrial lands can be viewed as an asset, to be protected from conversion to other land uses, in anticipation of its need for some, as yet unknown, industrial use that requires access to Lake Superior.

With that stated, the scale of the waterfront and the sheer amount of land designated for industrial uses can certainly withstand some conversion for other uses, including residential development, retail and service commercial uses, and office uses. The City's Official Plan facilitates that strategic conversion, particularly on lands that are contiguous to the historic downtowns, where linking the downtowns to the water's edge is seen as a major redevelopment opportunity. The attraction of office uses, along with the residential and commercial uses, would bring employment opportunities that could capitalize on the highly-prized waterfront location. Further, strategically located office developments can act as a buffer between industrial uses and more sensitive land uses.

6.4.3 Employment Areas

The City's Official Plan identifies lands that accommodate the city's crucial employment-generating land uses as "Employment Areas". Generally: "Employment Areas encompass lands where people presently work and lands where employment opportunities will be provided in the future." The Official Plan goes on to identify general objectives related to all of the identified Employment Areas, including:

"Provide an adequate supply of serviceable land in appropriate locations designed to meet the diverse requirements of institutions, businesses, and industries that are locating or relocating within the city, and to adequately serve the needs of residents." (p. 79)

This objective, which focuses on the crucial issue of land supply and the location of different landbased opportunities for different land use types is fundamental, and must be constantly evaluated over time as economic forces, and their related opportunities, evolve. The City, in evaluating current planning and development decisions, must be cognizant of the impact of those decisions on its ability to respond to changing circumstances, and changing land needs over time.

To facilitate and understand the range of land use opportunities as they relate to ensuring a useful, adequate, and flexible supply of appropriately designated lands for employment-generating land uses, the City's Official Plan considers Employment Areas in three broad categories, that are further subdivided into detailed land use designations:

- Institutional Areas:
- Commercial Areas:
 - Strategic Core;
 - Commercial Corridor;
 - Regional Centre;
 - Community Commercial;
 - Neighbourhood Commercial; and,
 - Waterfront Commercial;
- Industrial Areas:
 - Heavy Industrial;
 - Light Industrial; and,
 - Business Area.

6.4.4 Institutional Areas

The City's Official Plan states that "Thunder Bay's major public institutions are some of the city's largest employers, and have a significant impact on the quality of community life and the local economy." (p. 81) The Official Plan identifies all of the existing major Institutional Areas as within the Institutional designation:

"The Institutional designation is intended to recognize the location of major public and quasi-public uses that serve both local and regional needs such as hospitals, colleges and universities, secondary schools, and correctional institutions.

Residential uses, directly related to an institutional use, such as a student dormitory, may also be permitted." (p. 81)

Obviously, one of the city's largest institutional sites – the former Lakehead Psychiatric Hospital – has been closed, and now awaits repurposing. It is a very large property, with a significant inventory of buildings. It is currently within the Institutional designation in the Official Plan, in recognition of the scale and importance of its former use. The site and its inventory of buildings can be considered as a significant redevelopment opportunity, including for a host of other institutional uses, as well as any combination of a number of other commercial, office, and even residential land uses. However, the future of this Provincially-controlled site remains uncertain.

6.4.5 Commercial Areas

Overview

Like many Official Plans, the City of Thunder Bay Official Plan articulates a relatively fine-grained hierarchy of commercial designations that are focused on their individual planned function. The planned function of each commercial designation is intended to promote a range of locational priorities, along with the scale and type of retail and service commercial uses permitted within each designation. The Official Plan goes on to state:

"In an effort to provide for the efficient distribution of goods and services, five commercial designations are established in this Plan. Areas designated as Strategic Core, Regional Centre, Service Commercial, Community Commercial, Neighbourhood Commercial, and Waterfront Commercial are differentiated according to function, permitted uses, density, and scale of development." (p. 82)

"Thunder Bay's commercial structure provides a foundation for the growth and evolution of the city's commercial economy. The city's historic pattern of development and its transportation corridors have influenced the location and concentration of commercial activities." (p.82)

The Official Plan goes on to state a number of general objectives for development within the identified commercial hierarchy. The general objectives of the City are to:

- "encourage the maintenance and appropriate expansion of commercial/service sector activities through a clear hierarchy of commercial areas and uses;
- promote the orderly distribution of commercial uses so as to best satisfy the needs of all customers; and.
- promote concentrated commercial development and where appropriate, mixed land use." (p. 82)

Market and Economic Impact Analysis

The City's Official Plan, within the policies for the Commercial Areas, includes the potential requirement for a Market and Economic Impact Analysis. This kind of policy requirement, which is relatively typical in municipal Official Plans, can act as a deterrent to new investment, depending upon why and when it is used. The Official Plan states that:

"Market and economic impact analyses will be required to address, among other matters, the proposed development's impact on other retail areas in the city, its impact on the City's commercial hierarchy, its impact on employment, and its financial cost/benefit to the City." (p. 83)

It is unclear for what specific purpose, or when the City will require such a study. In broad terms, these studies were once used to ensure the "avoidance of substantial urban blight". That test was generally applied at a time when new retail formats were having significant detrimental impacts on historic downtowns across the province. To a great extent – and Thunder Bay is a prime example – that ship has sailed. The Port Arthur and Fort William Downtowns have gone through the cycle where their primary commercial function has already been decanted to other locations in the city – generally, first to the Community Commercial areas, and now from the Community Commercial areas to the Regional Centre.

The identified purposes for the Market and Economic Impact Analysis study include the impact on the City's commercial hierarchy, impact on employment, and its financial cost/benefit to the City. If these are the tests, it would be important to understand the assessment of how this tool has historically worked to achieve a desired outcome – or if the requirement, and the findings of any study, have chased potential investors away.

Strategic Core Designation

The City's commercial hierarchy fully recognizes the historic Downtowns of Port Arthur and Fort William. Although these historic city centres no longer accommodate the primary retail or service commercial functions that they once did, they both continue to evolve as eclectic and diverse mixed-use areas that include a host of employment-generating land uses, and they both remain important economic generators. The Thunder Bay Official Plan states:

"Lands designated as Strategic Core consist of the city's two traditional downtowns and adjacent areas considered appropriate for some core area functions. These areas are intended to provide a full range of amenities accessible to residents and visitors, including vibrant streetscapes, shopping, business, entertainment, housing, transportation connections, and educational, health, social, and cultural services. These areas are viewed as significant assets, important to the city as a whole, and shall function as identifiable, walkable, mixed-use districts of symbolic and physical interest." (p. 83)

The Official Plan recognizes that the focus of investment within the Strategic Core designations going forward will be in:

- "Post-secondary education and training;
- Specialized health care;
- Major redevelopment projects; and,
- Major cultural institutions and entertainment facilities." (p. 83)

Overall, within the two Strategic Cores, the Official Plan directs ongoing revitalization activities and public investment opportunities to ensure that these areas continue to evolve, and continue to improve in character and function. These objectives will help ensure that they both remain vital components of the City's urban structure, and are able to attract private sector investment in residential, retail and service commercial uses, restaurants, and offices. They are, and will continue to be, multi-functional, mixed-use, and historic.

"The City recognizes that retail and service commercial activities are vital to the strength and viability of the lands designated Strategic Core. In this regard, the City shall encourage the expansion and consolidation of activities that support the existing retail and service commercial functions. Development that includes uses, facilities, or activities that will animate the street level, promote safety, and contribute to the streetscape beyond normal office hours, are encouraged." (p. 84)

In summary, the Strategic Core Areas will remain an important contributor to the economic growth of Thunder Bay, and they will continue to attract a certain component of the retail and service commercial market, as well as the office market for those users who are interested in the historic and eclectic character of these two downtowns, and their range of services and amenities. There is also potential to locate satellite locations of major institutional uses on sites that might be suited for redevelopment.

Service Commercial Designation

The Service Commercial designation is focused on a number of key road corridors within the city. The Official Plan states that:

"The city's Service Commercial corridors provide important links between commercial areas, as well as services to the travelling public and commuters." (p. 85)

In considering the range of uses within the Service Commercial designation, the Official Plan states that:

"Service Commercial areas are intended to accommodate a range of commercial and service-based uses, many of which require both a storefront and warehousing or workshop, and are generally not well suited to the other commercial areas." (p. 85)

In addition, the Official Plan recognizes as appropriate existing commercial strip developments, non-typical larger-scale retail and service commercial facilities, as well as service-based uses that include a storefront and warehouse or manufacturing component. The Official Plan goes on to say, however, that:

"In recognition of the strong market support and the nature of existing land uses, retail stores and office uses will continue to be permitted where they currently exist within the Service Commercial land use designation, along Arthur Street, and Memorial Avenue/May Street, from John Street to the Neebing River. Applications to permit retail stores or offices elsewhere within the Service Commercial designation will not be supported." (p. 85)

And further that:

"In recognition of existing land uses and the transitioning function of North Cumberland Street, Simpson Street, and May Street from the Neebing River south to Leith Street, residential uses will be permitted along these corridors within the Service Commercial land use designation." (p.85)

The Service Commercial designation appears to be a recognition of development patterns within the city that have evolved over time, and are not easily categorized. It is not fully clear how these corridors will evolve into the future, or even if they will all evolve in a similar way to each other. Equally difficult to predict is their role in accommodating future employment-generating land uses. At this point in time, the continuation of the status quo appears to be a reasonable assumption.

Regional Centre Designation

The Regional Centre is the primary retail and service commercial centre within the City of Thunder Bay, and functions as a crucial regional draw. The Official Plan states that:

"The Regional Centre is intended to provide for large format retail stores and the grouping of other retail uses that collectively have a regional draw. Additional supportive uses such as restaurants are also permitted." (p. 85)

It is the general objective of the Regional Centre designation to "provide for the development of a large commercial area intended to serve both the city and region." (p. 85) In the Official Plan, "retail uses shall have a regional draw or require floor areas over 4,600 m², which are not suitable in other commercial areas." (p. 85). It is clear that the Regional Centre is a successful and growing agglomeration of a vast array of commercial functions. It includes a broad range of formats – the city's largest enclosed shopping mall, large format retail centres, strip plazas, and stand-alone facilities.

The lands within the Regional Centre designation are in a very attractive, centrally-situated location, and it has achieved a substantial critical mass of stores, services, restaurants, and hotels, that ensure its ongoing success. The Regional Centre is expected to dominate the commercial hierarchy of the City of Thunder Bay, and the broader region, for the foreseeable future. It will continue to grow, and it will continue to be the location of choice for a full range of retail and service commercial activities and formats.

Community Commercial Designation

The City of Thunder Bay's Official Plan identifies a number of smaller Community Commercial designations that are distributed in key locations throughout the city. The Official Plan states that:

"Community Commercial areas are intended to provide a range of retail and service uses, including food stores, that are intended to serve multiple neighbourhoods. These uses should be concentrated and developed as a single site at appropriate locations along arterial roads." (p. 86)

Along with the retail and service commercial developments, the lands within the Community Commercial designation also contemplate associated residential development, as follows:

"Residential development may be permitted within the Community Commercial designation in areas where it does not detract from the function of the Community Commercial designation. Where it is appropriate, residential units will be encouraged on the upper floors of buildings to promote pedestrian and commercial activity at the street level." (p. 86)

Some of the older facilities within the Community Commercial designation appear to be struggling. The expectation is that the changing nature of retail and the sheer dominance of the Regional Centre have taken their toll on the planned function of the city's Community Commercial facilities. In some cases, their future as viable retail and service commercial entities is certainly in doubt, and it is time to reconsider their long-term role within the city. Lands within the Community Commercial designation are not expected to contribute in any significant way to accommodating future employment-generating land uses.

Neighbourhood Commercial Designation

The City's Official Plan identifies a number of areas in the Neighbourhood Commercial designation. It is the intent of this designation to provide for an appropriate range of convenience and service commercial uses at locations to serve the needs of residential neighbourhoods within the city. Policies within the Neighbourhood Commercial designation state that:

"Neighbourhood Commercial areas provide for a range of commercial uses on small sites, and are intended to serve the convenience-based needs of the immediate neighbourhood. Uses are to be concentrated with the total gross floor area of all uses not exceeding 1,000 m². Single uses requiring a gross floor area over 500 m² are not permitted." (p. 86)

The Official Plan also permits residential development as follows:

"Residential development may be permitted within the Neighbourhood Commercial designation. Where it is appropriate, residential units will be encouraged on the upper floors of buildings to promote pedestrian and commercial activity the street level." (p. 86)

However, while neighbourhood-serving facilities are important, they are not expected to contribute in any significant way to accommodating future employment-generating land uses.

Waterfront Commercial Designation

The City's Official Plan identifies some small, strategically located areas with the Waterfront Commercial designation, which are intended to:

- "support the transition of selected waterfront lands from heavy industrial uses to a mix of commercial, residential, community, and entertainment uses that will increase public access to the waterfront;
- increase the public presence along the waterfront by encouraging residential uses in appropriate waterfront areas; and,
- create focal points for a variety of community activities that will serve as catalysts for further development." (p. 87)

While the Waterfront Commercial designation is a great opportunity to take advantage of the waterfront resource, they are not expected to contribute in any significant way to accommodating future employment-generating land uses, unless opportunities arise to establish an office presence on the waterfront.

6.4.6 Industrial Areas

The City's Official Plan identifies areas intended for industrial employment-generating land uses. In a general sense:

"Lands designated for industrial use... are intended to be used for a broad range of business and economic activities including industrial uses, manufacturing, warehousing, and offices." (p.88)

The City's general objectives for all development within the defined industrial land use designations include:

- "Promote a strong industrial base and diversified economy in the city; and,
- Provide for a sufficient choice in terms of location, property size, access requirements, and servicing needs." (p. 88)

These stated general objectives specifically reinforce the Official Plan's intent that wants Thunder Bay to be open for business, and be ready to react to local and global changes in economic activity. The Official Plan goes on to state that:

"The City shall participate in the supply of industrial land at appropriate locations to meet the anticipated demands of businesses and industries expanding or locating in Thunder Bay."...

..."Up to a 20-year supply of land shall be designated for a wide range of economic activities and ancillary uses. To protect industrially-designated land, conversion of these lands to non-employment uses shall only be permitted through a comprehensive Official Plan review." (p. 88)

These policies establish important guidance to the City in terms of providing a long-term supply (20 years) of appropriately located industrial lands, and further, that those lands be protected from conversion to other non-employment-generating land uses. It is interesting to note that the policy does not specifically preclude conversion of industrial lands to retail and service commercial uses, or institutional uses, which may also be considered employment-generating land uses. Conversion of employment land is highly regulated and protected in some parts of the province of Ontario. It is a fundamental issue when there is significant competition for residential and/or commercial uses versus traditional industrial or business park development. Thunder Bay, on the other hand, does not appear to struggle with land use competition to the same degree, and that is likely because there is an adequate land supply for all of the uses in the city-planning spectrum. Not needing anti-conversion policies is seen as a positive element in the Thunder Bay context.

The Official Plan establishes three industrial land use designations, as follows:

"In order to recognize the needs of existing and future industry, and to address concerns regarding land use compatibility, three industrial designations have been established in this Plan. The Heavy Industrial, Light Industrial, and Business Area land use designations are differentiated on the basis of the range of permitted uses or industrial processes, design requirements, the potential impacts these uses or processes have on adjacent areas, and the scale and intensity of development." (p. 88)

Overall, this hierarchy of industrial designations is relatively typical in most Official Plans, in that it separates various scales, forms, and design elements of industrial/business uses into areas of similar characteristics. Key to this form of industrial hierarchy is to ensure that the various designations are in the correct locations, fundamentally tied to their own locational and access requirements; that the impacts of the various forms and scales of industrial use are appropriately mitigated; and that there is an adequate long-term supply (20 years) of land within each designation to accommodate anticipated demand.

Heavy Industrial Designation

The Heavy Industrial designation provides the following general guidance:

"The intent of this designation is to provide opportunities for large-scale industrial operations, such as grain elevators, paper mills, and electricity generation facilities. These operations are ones that place a high demand on water and wastewater for their processing needs, and are situated where noise, vibration, or emissions may be of concern, particularly as they relate to transportation uses and transportation needs, such as rail and/or water access." (p. 90)

One of the important elements of difference among the three industrial designations is the articulation of Development Standards. Development Standards for Heavy Industrial are as follows:

"Certain industrial uses within the Heavy Industrial designation, including industries requiring large amounts of open storage and those with nuisance aspects relating to their operations, may be restricted, through the Zoning By-law, from locating near residential and other sensitive areas or along major entryways to the city. In an effort to minimize land use conflicts among heavy industrial uses, uses having similar characteristics will be encouraged to develop in clusters, or on adjacent properties, and shall be required to locate an appropriate distance from lands zoned to permit future incompatible uses, based on applicable Provincial standards, guidelines, and requirements." (p. 90)

Overall, the city has a substantial inventory of lands within the Heavy Industrial designation, partly as a reflection of its industrial past, and the resource-based economic activities that have taken place. That heavy industrial legacy persists to this day, and Thunder Bay's strategic location demands that the remaining heavy industries be protected and that opportunities for new large-scale industries be recognized through the identified and well located Heavy Industrial land inventory.

Light Industrial Designation

The Light Industrial designation provides the following general guidance:

"The intent of this designation is to provide for the development of a broad range of industrial activities which are likely to have a minimal impact on surrounding uses. Uses permitted may include the processing, treatment, storage, shipment, or manufacture of goods and materials. The operations of permitted industrial uses should be conducted substantially within enclosed buildings. Uses having similar characteristics will be encouraged to develop in clusters or on adjacent properties. Where practical, a gradation of uses may be encouraged, so that those industries likely to have the least impact on neighbouring uses are directed to areas adjacent to other forms of development." (p. 89)

Development Standards for the Light Industrial designation are as follows:

"Areas designated as Light Industrial will, in most cases, be located where there is access to arterial roads, railways, and/or airport facilities, and where industrial traffic will be directed away from residential areas. Service facilities and storage areas shall be located in the rear yard, or shall be fully screened from street view. Only visitor parking shall be permitted in the front yard or exterior side yard." (p. 89)

The Light Industrial designation has substantially contributed to Thunder Bay's economy. Lands within this designation accommodate a whole host of small and medium sized businesses that seem to thrive in the local environment. Employment lands within the city's built-up area with the Light Industrial designation are reaching their occupied capacity, and it appears that there is very little vacancy in this category. The Light Industrial designation appears to be in demand, and businesses in this category of land use will continue to be a major contributor to the economy of Thunder Bay. The land supply needs to reflect ongoing demand, as well as future opportunities for growth.

Business Area Designation

The Business Area designation provides the following general guidance:

"The intent of this designation is to provide opportunities for a limited range of light industrial activities, office buildings, and hotels, that are all subject to a high standard of design. The operations of permitted industrial uses should be conducted within enclosed buildings. The types of industrial uses encouraged include secondary processing, pollution abatement controls/procedures, mining services, metal product fabricating, consumer electronics, plastics fabricating, printing, and regional warehousing." (p. 89)

Development Standards for the Business Area designation are as follows:

"Particular emphasis will be placed on landscaped open space requirements within this designation – particularly along street lines – and only visitor parking shall be permitted in the front yard or exterior side yard. When reviewing development proposals, the architectural design, scale and massing of buildings, and the extent to which their orientation, form, and siting contribute to the efficient functioning and aesthetics of the business area, will be carefully examined. Service facilities shall be located in the rear yard or shall be fully screened from street view, and no outdoor storage shall be permitted." (p. 89)

Development within the Business Area designation is dispersed, and in most cases, intermingled with the Light Industrial designation, as well as within the commercial hierarchy. Multi-storey office development is difficult to attract, and, notwithstanding efforts by the City, remains a relatively small component of the employment landscape in Thunder Bay. Despite slow uptake on certain lands within the Business Are designation, it is important to have sites ready to accept that form of development as opportunities arise. Again, the land supply needs to reflect ongoing demand, as well as future opportunities for growth.

6.5 The Zoning By-law

6.5.1 Introduction

The Zoning By-law implements the Official Plan, and provides the detailed regulatory framework that guides the built form, scale, and character of development. Within each designation of the Official Plan, any number of zoning categories may apply; however, the zoning regulations generally conform with the intent of the Official Plan.

6.5.2 Commercial Areas

Commercial Areas within the city are diverse and complex. The Official Plan identifies six land use designations:

- Strategic Core;
- Commercial Corridor;
- Regional Centre;
- Community Commercial;
- Neighbourhood Commercial; and,
- Waterfront Commercial.

Further, the Zoning By-law identifies 14 separate Zoning Categories that are intended to facilitate the City's retail and service commercial hierarchy:

- C1 Urban Village Zone;
- C2 Urban Centre Zone;
- C3 Highway Commercial Zone;
- C4 Arterial Commercial Zone:
- C5 Central Business District Zone;
- C6 Regional Centre Zone;
- Waterfront Development Zone;
- Airport Zone;

- MU1 Mixed Use Zone 1:
- MU2 Mixed Use Zone 2:
- MU3 Mixed Use Zone 3;
- NC1 Neighbourhood Centre One Zone;
- NC2 Neighbourhood Centre Two Zone; and,
- NC3 Neighbourhood Centre Three Zone.

The "C" Zones

The "C" Zones represent a very fine-grained approach to zoning for a range of commercial areas located throughout the city. With the exception of C6 - Regional Centre Zone, the regulatory elements of the Zoning By-law are relatively similar across C1 to C5. For example, lot coverage, frontage, and lot sizes are similar. Building height is similar as well, at 12 to 15 metres. Notwithstanding that similarity, the list of permitted uses is particularly highly refined.

From an economic development perspective, all of these zones include a range of retail and service commercial uses in a variety of formats, and with limitations on the range of uses and scale of uses. They will all continue to accommodate services and facilities that serve the local and, in some cases, the broader regional market. Importantly, C1, C2, and C5 zones all permit office developments, and C1 and C4 permit residential development, reflecting a more mixed-use character.

The C6 Zone is the Regional Centre Zone, and is expected to accommodate large format retail centres and malls with an array of retail and service commercial uses, as well as uses that support that function. Medical and financial offices are permitted, while other forms of office space are not identified.

The Waterfront Development Zone

The Waterfront Development Zone appears to be a zone established to facilitate a specific development proposal. The Zone has a minimum of regulatory requirements, and includes a very specific list of permitted residential apartment uses, and a hotel, with a limited number of supporting accessory uses.

Other than the hotels and accessory supporting uses, this zone is not expected to contribute in any significant way to accommodating future employment-generating land uses – unless opportunities arise to establish an office presence on the waterfront, as previously discussed. Waterfront development, in general, is expected to generally enhance the city's image as a great place to invest in, as that development expands over time.

The Airport Zone

The Airport Zone is a zone with limited regulatory requirements, and a very generous and broadly defined list of permitted land uses, including aerospace-related uses, hotels, and retail and service commercial land uses. While general office uses are not permitted, it is expected that the Airport Zone will contribute in a positive way to accommodating future employment-generating land uses.

The Mixed Use Zones

While the regulatory elements of the three MU Zones are relatively similar, the range of permitted uses is guite different, as follows:

- The MU1 Zone is primarily a residential zone, with specific permission for a small-scale food store:
- The MU2 Zone again permits an array of residential uses, as well as an enhanced list of small-scale neighbourhood supporting uses; and,

• The MU3 Zone anticipates residential apartment buildings with a list of residential supporting land uses permitted at grade.

The differences among these three Zones is discernable, although development within these MU Zones is not expected to contribute in any significant way to accommodating future employment-generating land uses.

The Neighbourhood Centre Zones

The City's Zoning By-law establishes three Neighbourhood Centre Zones, each with specific regulations and permitted uses. However, these Neighbourhood Centres are very small scale, and are intended to provide retail and service commercial uses and facilities for adjacent residential communities. As such, they are not expected to contribute in any significant way to accommodating future employment-generating land uses.

6.5.3 Industrial Areas

The Heavy Industrial, Light Industrial, and Business Area designations are generally implemented through four Zoning By-law categories:

- IN1 Light Industrial Zone;
- IN2 Medium Industrial Zone;
- IN3 Heavy Industrial Zone; and,
- Prestige Industrial Zone.

In terms of the regulatory elements, there is significant consistency across the zones with respect to frontage, lot area, and required yards. Height restrictions are also similar at 17 metres, with the exception of the IN3 Zone, where there is no height limit. Key differences appear when discussing the range of permitted land uses and, in some cases, the Gross Floor Area limitations (both maximums and minimums) for specified uses. In this regard (uses and GFA limitations), the Zoning By-law is extremely fine-grained and specific:

- The most flexible Zone in terms of land use permissions is the IN3 Heavy Industrial Zone, which
 permits a very broad range of heavy industrial and associated land uses. There are no limitations
 of height or GFA, in recognition of some of the very large-scale industrial users located in
 Thunder Bay. Smaller scale users of a similar Heavy Industrial nature are also facilitated through
 this zone category;
- The second most flexible Zone in terms of land use permissions is the IN2 Medium Industrial
 Zone. The list of permitted uses is extensive, and moves from medium and light industrial uses to
 a range of auto-focused uses, as well as retail and service commercial uses. Some very specific
 restrictions on some retail and office uses is included;
- Somewhat more restrictive in terms of land use is the IN1 Light Industrial Zone, which is focused
 on light industrial uses, as well as some supporting retail and service commercial uses. This
 Zone introduces permission for technical offices and research and development centres; and,
- The most restrictive Zone is the Prestige Industrial Zone, which has a very limited list of permitted uses that is focused on light industrial uses as well as technical offices and research and development centres. A short list of supporting uses is also permitted.

7.0 CONCLUSIONS AND STRATEGIC RECOMMENDATIONS

7.1 Introduction

Thunder Bay functions as a regional service centre for northwestern Ontario, and is a nexus of business and commercial activity. It is a gateway to the surrounding region, and provides economic support and supply chain linkages to activities located well beyond the urban area. It is one of many Canadian cities that has been transitioning away from its traditional reliance upon natural resources to underpin its economy, towards a more diversified base, led by growth in services employment. The overarching purpose of this Employment Land Strategy is to ensure that the City has identified an appropriate amount of employment lands to accommodate employment growth in the industrial, office, retail-commercial, and institutional sectors, to increase the city's economic competitiveness.

In order to foster continued prosperity, the City needs to ensure that there is a supply of employment lands to provide choice in terms of availability, location, site size, zoning, and development timing, among other site selection criteria. This will enable businesses to react to opportunities as they arise. Having an adequate supply of serviced lands can act to suppress land price inflation, by ensuring choice in the marketplace, and enabling multiple market participants (not one dominant landowner/investor). If there is too limited a supply, or an insufficient range of choices of location/size, then occupiers will look elsewhere.

All of the preceding background research, stakeholder consultation, population and employment projections, land supply and demand analysis, and planning policy review, informs the Consultant Team's strategic recommendations that will position Thunder Bay to leverage its competitive advantages with a stock of employment lands that is responsive to market needs. The preceding land supply analysis has identified the location and scale of vacant, designated employment lands in the city – including the location of the significant land parcels that offer potential to accommodate demand, as well as those that may remain surplus over the foreseeable future.

As part of any employment land needs study, it is appropriate to consider the following questions:

- a) Are there existing designated employment lands that are suited to conversion to another use?; and,
- b) Are there non-employment lands that are suited to use for future employment needs?

The land supply analysis has identified a considerable supply of vacant, designated employment lands in the City of Thunder Bay. The assessment of land demand and supply indicates that future employment land needs can be accommodated on existing sites. Therefore, there is no identified need to consider the conversion of any non-employment lands for employment purposes. However, the analysis of land availability by land use (industrial, office, retail-commercial, and institutional) requires a more nuanced discussion, which is provided in the following sections of this report.

The Consultant Team's comprehensive land supply and demand analysis – informed by a projection of population and employment growth through 2051 – leads to the following guidance and recommendations described below. This is organized by land use type, and explores other key themes and areas of analysis.

7.2 Industrial Perspectives

7.2.1 Land Supply Considerations

Business Area

Development within the Business Area designation is dispersed, and in most cases, intermingled with the Light Industrial designation, as well as within the commercial hierarchy. Multi-storey office development is difficult to attract, and, notwithstanding efforts by the City, remains a relatively small component of the employment landscape in Thunder Bay. Despite slow uptake on certain lands within the Business Area designation, it is important to have sites ready to accept that form of development as opportunities arise.

Light Industrial

The Light Industrial designation has substantially contributed to Thunder Bay's economy. Lands within this designation accommodate a whole host of small and medium sized businesses that seem to thrive in the local environment. A considerable share of the more centrally-situated employment lands with the Light Industrial designation are reaching their occupied capacity, and it appears that there is very little building vacancy in this category. In contrast, large sites on the city's periphery (such as north of the Thunder Bay Water Plant, and west of the Urban Settlement Area boundary along Oliver Road/Trans-Canada Highway) are yet to be developed.

Heavy Industrial

The city has a substantial inventory of lands within the Heavy Industrial designation – partly as a reflection of its industrial past, and the resource-based economic activities that have taken place. That heavy industrial legacy persists to this day, and Thunder Bay's strategic location demands that the remaining heavy industries be protected, and that opportunities for new large-scale industries be recognized through the identified and well located Heavy Industrial land inventory.

Vacant Land Supply by Type

The Consultant Team's analysis of industrial land supply by type indicates a significant surplus of Industrial-designated lands. This is particularly the case for Light Industrial sites (520 vacant hectares) and Heavy Industrial sites (over 200 vacant hectares), but the comment is also applicable to lands designated as Business Area (nearly 50 vacant hectares).

Building Vacancy

It is apparent from our market reconnaissance that the city's industrial areas have limited vacant space within the existing building stock. Accordingly, there is little "slack" to take up future industrial-type employment growth.

Prospects for Intensification

Another conclusion drawn from our market reconnaissance of existing employment areas is that there appears to be little opportunity for intensification of existing industrial sites. Where properties exhibit a relatively low site coverage (less than 20%, as a benchmark), there is a propensity for these "excess lands" to be used for the outside storage of materials and equipment. In many cases, it is not feasible to take up this yard space with an addition to the existing building. In conclusion, while properties exhibiting a lower site coverage would in theory be considered candidates for intensification – which would reduce the need for future additional employment lands – there appears to be little capacity for such activity in Thunder Bay.

Development Readiness

The City's Official Plan states that up to a 20-year supply of land shall be designated for a wide range of economic activities and ancillary uses. There are several employment areas that have a variety of sites to choose from, which are well located and suited to a range of development:

- There are numerous development-ready sites available in the Intercity area, although these are generally small (+/-0.5 hectares).
- Innova Business Park has development-ready lots for sale by the City of Thunder Bay. Of note, a
 portion of the lands have areas to be addressed during site planning for development, or which
 should be avoided (wetlands). Currently undeveloped lands in Innova total approximately 29 net
 hectares (before adjusting for wetlands take-outs, which could reduce the developable area to
 approximately 20 net hectares).
- A new trunk sewer pipe that is being installed in 2020 to Central Avenue and Burwood Road means that lots in this area (north of Innova) will be serviceable. Lands in this area total 25 gross hectares (designated as Business Area and Light Industrial).
- In addition, City staff could consider permitting the rezoning of serviced Heavy Industrial sites to Light Industrial, if such applications arise.

These aforementioned lands more than satisfy the objective of ensuring a 20-year supply of designated Industrial lands, and provide "shovel-ready" options for prospective developers. Additional opportunities for future industrial development include sites south of the airport (Light Industrial and Heavy Industrial); lands along the waterfront (mostly Heavy Industrial), and on Mission and McKellar Islands (a mix of Light Industrial and Heavy Industrial). A large Light Industrial area is designated to the west of the city, along the Trans-Canada Highway and Oliver Road. The in-place servicing and capacity of these additional opportunities varies; however, they are not anticipated to be required over the horizon of this study (to 2051), based on our land demand projection. Nonetheless, there is value in providing a range of choice of sites that are partially serviced, and/or can be readily serviced over time as demand emerges.

Brownfield Sites

A legacy of contamination of lands and buildings is a challenge in Thunder Bay on certain sites where there is a history of heavy industrial activity. The cost of remediation – which can be considerable – impairs redevelopment potential of these lands. In some instances, if an ongoing industrial-type use is not viable, a higher and better use of the land may be contemplated. A challenge with this is that pursuing additional density that might make redevelopment of the site more economically viable must be considered in view of compatibility with ongoing business operations in the area, which could include other heavy industrial sites. Given the Consultant Team's overriding conclusion that the city has a significant surplus of Industrial-designated lands, the re-use of contaminated sites for future employment is likely limited, as it their probability of redevelopment. An exception to this statement pertains to select waterfront sites in proximity to the Strategic Cores, which have unique locational characteristics and value that might be leveraged. This is discussed further in a later section of this report.

7.2.2 Land Demand Forecast

Land Demand by Type of Industrial

Given the types of employment that are anticipated to grow over time, lands for Light Industrial and Business Area purposes will attract the vast majority of future demand (with new jobs associated with Heavy Industrial more likely to represent growth within existing businesses – although opportunities to attract Heavy Industrial uses should be protected).

Potential Locations of Growth

While there are large concentrations of both Light Industrial and Heavy Industrial-designated vacant lands in areas on the city's periphery (including Mission and McKellar Islands), site visits by the Consultant Team have revealed a relative scarcity of vacant industrial lands in some of the more centrally-situated existing (built-up) employment areas. Of note, Innova Business Park represents a sizable inventory of remaining undeveloped lands that are centrally located, and more proximate to labour compared to other undeveloped planned industrial areas. Accordingly, the Light Industrial and Business Area lands located in Innova Business Park and to the north along Thunder Bay Expressway, Burwood Road, and Golf Links Road, represent the best remaining undeveloped employment lands in the city, from a locational and market perspective. There are serviced employment lands at Thunder Bay International Airport that are suitable for industrial development – although these lands are not available for acquisition; these would be subject to a land lease. Other Industrial designated lands offer varying levels of servicing and site selection attributes – including large areas of developable land – that may appeal to occupiers, such as the Fort William First Nation Development Corporation lands (close to 450 total hectares) situated south of the Kaministiquia River/Mission River, as well as sites on Mission and McKellar Islands.

Overall, it is the conclusion of the Consultant Team that the City has a suitable range of appropriately designated lands to accommodate anticipated industrial growth. These lands are situated to provide a range of locational alternatives for prospective occupiers and investors. With the City itself being an owner of already serviced employment land, this presents a competitive advantage compared to some other markets where this dynamic is not present.

Land Demand Summary

Our employment by industry projections result in anticipated demand for 30 gross hectares of industrial land through 2051. Therefore, the inventory of 770 gross hectares of vacant Industrial-designated lands city-wide represents a dramatic surplus, in light of the limited forecast growth in industrial-type employment.

Depending on the nature of industrial demand, it may be necessary over time to consider the conversion of select lands from Business Area to Light Industrial, in order to accommodate the requirements of typical industrial users in Thunder Bay (which are properties characterized by a low site coverage, and utilization of land area for storage of vehicles, machinery, raw materials, and finished goods). Similarly, the surplus of Heavy Industrial-designated lands may represent an opportunity to meet demand for Light Industrial lands, such as in locations in proximity to the Port, as well as vacant sites located south of the airport (Rosslyn Road & Neebing Avenue area). This potential need should be monitored over time as development applications are made that contemplate a change in zoning; it is considered premature to identify specific sites/areas at this time, given the ample supply of industrial lands at an aggregate level.

Based on this land demand assessment, there is no requirement during the horizon of this growth forecast (through 2051) to extend or enhance municipal servicing to outlying designated lands (such as north of the Thunder Bay Water Plant; the area beyond the Urban Settlement Area west of the city, south of Oliver Road; to the Fort William First Nation Development Corporation lands situated south of the Kaministiquia River/Mission River, or either of McKellar or Mission Islands).

7.2.3 Land Use Conversions

As indicated in the Consulting Team's land supply and demand analysis, there is clearly no need for such a vast land industrial supply – even in the very long term (post-2050). There are substantial contiguous, vacant, designated Light Industrial lands located in the industrial area beyond the Urban Settlement Area west of the city (south of Oliver Road), as well as north of the Thunder Bay Water Plant, in the north part of the city. Additional Heavy Industrial-designated vacant land exists on Mission Island; in the vicinity of the Thunder Bay Water Plant; Fort William First Nation Development Corporation lands south of the Kaministiquia River/Mission River; near Neebing Avenue/Rosslyn Road; and along the rail corridor that parallels Fort William Road/Water Street. Given the outlying location of many of these sites, they are not considered to be well suited to accommodate other employment-generating land uses. In some instances, the proximity of these undeveloped sites to existing industry – either active or derelict – may preclude their feasibility for another land use.

The Consultant Team does not foresee pressure for land use conversion for the majority of the city's vast supply of vacant industrial designated lands. However, the significant scale of the lakefront/riverfront, and the amount of Industrial-designated land, can certainly withstand some conversion for other uses – including residential development, retail and service commercial uses, and office uses – in select locations that can appropriately buffer the in-place industrial activities. The City should be responsive to future development inquiries for these lands – such as notable sites discussed below.

7.3 Office Perspectives

7.3.1 Land Supply Considerations

Location of Existing Office Uses

Thunder Bay's public and private sector office space is principally located in the two Downtown areas of Port Arthur and Fort William, along with select sites in the Intercity area, as well as newer developments in Innova Business Park. The City's Zoning By-law provides ample opportunity to situate office uses.

Development Readiness

With the exception of the waterfront, all other identified office locations have the necessary municipal services in place to support new office development, or are readily serviceable. Given the costs of extending such services to the waterfront, office space could be planned along with a larger-scale mixed-use development, should sites in proximity to the downtowns be pursued over time.

Zoning By-Law Permissions for Offices Vary by Type of Use

The Zoning By-law states that an "OFFICE" is a PLACE where a business is lawfully conducted, or a profession is lawfully practiced, or public administration is conducted. There are three special kinds of "OFFICES", as follows:

- A "FINANCIAL OFFICE" is an OFFICE where professionals provide financial services directly to the public. The term includes banks, trust companies, credit unions, securities firms, the OFFICES of investment brokers, finance companies, and mortgage brokers.
- A "MEDICAL OFFICE" is an OFFICE for the practice of one or more HEALTH PROFESSIONALS.
- A "TECHNICAL OFFICE" is an OFFICE for the practice of engineers, engineering technicians, surveyors, land use planners, architects, and similar professionals related to the construction industry, mining, forestry or information technology.

Offices are a permitted use, or an additional permitted use subject to certain criteria/conditions, in a number of the zones across the city – although these permissions vary depending upon the type(s) of offices under consideration. If a prospective office occupier perceives these land use permissions for siting new office space to be unduly limiting, they may instead opt to locate in another city. Accordingly, it is worthwhile to consider whether the current zoning regime with respect to office permissions is supportive of attracting this type of development in the future. The following exhibit illustrates the variation in permissions based on the specific types of specialty offices that are under consideration.

EXHIB	SIT 36 – Z	ONES WHE	RE OFFICE	USES AF	RE CURR	ENTLY PER	MITTED	
	Permitted Use				Additional Permitted Use/ Subject to Conditions			
Zone	Office	Technical Office	Financial Office	Medical Office	Office	Technical Office	Financial Office	Medical Office
INDUSTRIAL ZONES								
IN1		Yes	Yes		Yes	Yes	Yes	Yes
IN2					Yes	Yes	Yes	Yes
IN6		Yes						Yes
COMME	ERCIAL ZO	NES						
C1	Yes	Yes	Yes	Yes				
C2	Yes	Yes	Yes	Yes				
C3			Yes					
C4			Yes					Yes
C5	Yes	Yes	Yes	Yes				
C6			Yes					Yes
NC1								Yes
NC2								Yes
NC3							Yes	Yes
RESIDE	ENTIAL ZO	NES						
MU2							Yes	Yes
MU3							Yes	Yes
OTHER ZONES								
MI								Yes
WD					Yes	Yes	Yes	Yes

7.3.2 Land Demand Forecast

Land Demand Summary

The land demand analysis identified a requirement for approximately 5 net hectares of land to accommodate future office demand. This is based upon a suburban-style office building format, with an FSI of 0.3. In a more urban setting, such as within the Strategic Core areas, it would be anticipated that a higher FSI would be achieved (and would be desirable, from a planning perspective). This denser form of development would have the effect of decreasing the total land requirement for new office space.

Potential Locations of Growth

Innova Business Park itself has a supply of approximately 20 net hectares of developable land, meaning that over the long term (through 2051), all of the city's office needs could be accommodated there. It is possible to assemble lots as needed to accommodate even a very large office campus project – should such an occupier requirement emerge. Alternatively, numerous vacant and redevelopment sites exist throughout the Strategic Cores and on Business Area-designated lands within the Intercity, plus the waterfront, to fulfil a full range of potential office user requirements in Thunder Bay. The waterfront is a particularly appealing opportunity, since this would be a desirable location from a site selection perspective (in proximity to the downtowns), and office uses would provide a buffer from ongoing industrial activities. The waterfront is a relatively unique resource that few major metropolitan areas have to leverage in attracting business, and therefore is a competitive advantage.

7.3.3 Land Use Conversions

Since office uses can be situated on a range of lands – including those designated Industrial, Commercial, and Institutional in the Official Plan (subject to zoning requirements) – there is no need to separately address land use conversion as it pertains to office land needs.

7.4 Retail-Commercial Perspectives

7.4.1 Land Supply Considerations

Retail-Commercial Vacant Land

Thunder Bay has a supply of approximately 84 gross hectares of designated Commercial lands – although the Consultant Team has identified very few large sites capable of accommodating significant new development. It is likely that many of the smaller sites are in fact associated with adjacent occupied parcels (such as parking areas for businesses), and are functionally not to be considered as part of the developable inventory. Based upon the location and orientation of the city's largest undeveloped Commercial-designated lands, it may be argued that there are no suitable properties to accommodate a new retail-commercial project of significant scale (10,000 m² or more of GLA).

Potential for Existing Sites to be Repurposed

Shopping centres are commonly a focal point and entrenched element of a neighbourhood/community, and they are invariably well located. It is highly likely that some shopping centres/buildings within the existing inventory will become obsolete (due to their format, orientation, age, or other factors). In the future, there may be an opportunity to transform some of these distressed assets into mixed-use redevelopment sites combining retail-commercial space with other uses, including residential. While this will not dramatically reduce the need for new greenfield residential growth in the city, it may present some opportunities to capitalize on centrally situated sites for medium and higher density forms of development.

7.4.2 Land Demand Forecast

Overview of Key Trends

Retail market trends point to changing consumer behaviours that will likely translate into a reduced amount of shopping centre space per capita in the future. Online shopping has emerged as a necessary sales channel for many retailers – one that is gaining increased attention and investment. While shopping will remain an experience, e-commerce is ultimately about convenience. The outlook for Thunder Bay (as with many other metropolitan areas) is a likely decline in the amount of physical shopping centre space per capita over time, along with the closure of under-performing store locations.

Demand Projection

As the regional business hub for northwest Ontario, Thunder Bay has a competitive advantage from a retail-commercial market perspective. This function will underpin demand for land and buildings to house retail goods and the provision of personal services to the regional population.

The projection derived from future population growth and retail space needs per capita indicates that the City should anticipate demand for approximately 20 net hectares of retail-commercial land through 2051. This quantum of land will provide for site selection flexibility, and will likely primarily be lands in new growth areas to accommodate small freestanding properties, strip plazas, and neighbourhood-scale retail demand as the city's population expands – although infill sites may also be sought-after among retail-commercial developers (including applications for land use redesignation, which will need to be evaluated).

It is challenging to predict the timing of future retail-commercial land needs in the city. Over time, demand will likely decrease relative to current conditions as e-commerce becomes a greater component of overall consumer spending, resulting in less physical store presence. However, it may be that over the next decade or more, new sites will continue to be demanded by prospective land developers. Similarly, the timing of conversion of certain existing retail properties to an alternate use is difficult to predict. This issue will require ongoing monitoring by City staff to ensure a suitable supply of designated sites remains available to accommodate anticipated growth, and to respond to important retail opportunities as they may arise from time to time.

The City's current retail-commercial hierarchy of occupied and vacant sites provides prospective users with a range of locations, property types, and accessibility. In planning for future growth, City staff must be aware of the evident shortfall of larger, vacant, designated sites to accommodate new development. Of the total inventory of approximately 84 gross hectares of undeveloped Commercial lands city-wide, only 7 sites are larger than 2 hectares in size (representing about 30% of the total land inventory). It can be anticipated that the rate of new retail construction will slow compared to past performance – and paradoxically, new supply will come on stream as other existing properties continue to struggle. While some established community-scale shopping centres may successfully reinvent themselves as redeveloped mixed-use properties, others will languish, lacking the capital for strategic reinvestment.

7.4.3 Land Use Conversions

Due to this apparent shortfall of larger designated Commercial sites, it is appropriate for City staff to consider the merits of applications for Official Plan Amendments and Zoning By-law Amendments that could facilitate development of needed new retail supply – including the conversion of employment lands to a Commercial use (particularly since the Consultant Team has concluded that there is an excess supply of Industrial-designated lands in the city). Notwithstanding this comment, the City must also balance other competing planning interests, such as preserving Innova Business Park's internal lots as a location for prestige employment uses.

Given the significant transition occurring in the retail market today, with store closures increasing and the pace of e-commerce spending accelerating, the Consultant Team is reluctant to identify new large, vacant sites that may be well suited to accommodate commercial development. It may be the case that new market entrants are able to find suitable locations across the existing built environment in properties that become vacated. To the extent that developer interest is identified on lands elsewhere in the city, land use conversion requests should be evaluated on a case-by-case basis.

The conversion of Commercial-designated lands should only be considered on a limited basis. A conversion of Commercial lands to an Institutional use can be supported, provided the proposed new use is compatible with adjacent uses. Note that the conversion of Community Commercial sites to Mixed Use is addressed in a separate section below.

7.5 Institutional Perspectives

7.5.1 Land Supply Considerations

Vacant, Designated Lands

The land supply analysis has revealed a limited amount of vacant, designated Institutional lands in the city. The Consultant Team has identified a vacant institutional land inventory of some 24 gross hectares across 16 individual sites. The largest Institutional-designated vacant site (13.4 hectares) is located east of Confederation College. The next largest site (measuring 4.3 hectares in size) is located on the west side of Reaume Street, which is south of Lakehead University, and north of Central Avenue. The remaining vacant, designated Institutional sites are all less than 2 hectares in size.

Existing Institutional Sites/Campuses

It is important to recognize that in addition to these undeveloped sites, large, occupied Institutional sites/campuses including Thunder Bay Regional Health Sciences Centre, Lakehead University, Confederation College, and the former Lakehead Psychiatric Hospital site all offer excess lands that may be suited to accommodate future institutional and related development.

Obviously, one of the city's largest institutional sites – the former Lakehead Psychiatric Hospital – has been closed, and now awaits repurposing. It is a very large property, with a significant inventory of buildings. It is currently within the Institutional designation in the Official Plan, in recognition of the scale and importance of its former use. The site and its inventory of buildings can be considered as a significant redevelopment opportunity, including for a host of other institutional uses, as well as any combination of a number of other commercial, office, and even residential land uses. However, the future of this Provincially-controlled site remains uncertain.

Development Readiness

City staff has confirmed that University, College, and Hospital campus sites have no known servicing encumbrances to their future growth. Accordingly, these sites are considered "shovel-ready".

7.5.2 Land Demand Forecast

Institutional-Sector Jobs a Driver of Growth

Among Thunder Bay's largest employers today are those linked to institutional land demand – all of which are public sector entities. This is due to the role of the City as a regional service centre, including health and educational services, which is a key locational advantage.

The employment by industry projections portray a continuation of these organizations at the forefront of job growth in the city. Institutional-type employment is anticipated to represent 50% of total employment growth in the City of Thunder Bay through 2051, compared to a current 38% share of overall jobs.

Locations of Growth

As noted earlier, given the varied types of workplaces required for Institutional-sector jobs, it is a challenge to assign a benchmark employment density to institutional-type jobs. Rather, it is more appropriate to recognize the types of buildings/facilities that will be required to accommodate anticipated future jobs in the institutional sector, and their associated land need. Some of these facilities are found spread across a community (schools) and are planned for in expansion areas. Others represent intensification on an existing institutional campus (such as colleges and universities, and hospitals/health care/social services uses). Others may be found in retail-commercial settings (medical clinics, and some government functions). A component of this job growth can be accommodated through intensification on existing properties/campuses; another component will occur in new growth areas as the city's population increases; and a further component will need lands designated for employment uses.

Institutional Stakeholder Consultation

In discussion with major institutional employers, there are no near-term requirements for additional lands. Over the medium term (6-10 years), it is likely that land needs can be largely met through intensification on existing sites/campuses. The following perspective on anticipated growth and potential land requirements were identified through our consultations:

- Lakehead University Over the next 5-10 years, the institution is focused on on-campus expansion, and there is a lot of land available for development. In particular, this supply includes undeveloped lands along Oliver Road, as well as numerous surface parking lots.
- Confederation College The College has lands on its periphery (along Harbour Expressway, Golf Links Road, and William Street) that would be suited to accommodate new development, along with various surface parking lots. For the foreseeable future, the College is focused upon oncampus growth opportunities. In fact, a current off-site use in leased office space in Port Arthur (Northwest Employment Works – located in the Whalen Building) will likely be relocated oncampus, when possible.
- Thunder Bay Regional Health Sciences Centre (TBRHSC) TBRHSC has no plans to expand any of its uses at this time, nor change any of its land uses. There is no intention to acquire or dispose of any property at this time, or for the foreseeable future. There is no immediate office space need for which TBRHSC has received funding although this need exists. It is anticipated that the largest project that involves major expansion (cardiovascular) will be accommodated on the hospital site. The campus has undeveloped lands, and considerable surface parking.
- St. Joseph's Care Group The organization operates in varied settings, including a hospital, long-term care facilities, and supportive housing; it has both owned and leased assets. Having recently completed an expansion of the hospital site, the organization will pivot to a focus on optimizing current facilities (next 5 years), and then examining possible redevelopment at existing sites (up to 15 years).

Land Needs Require Ongoing Monitoring

The unique and varied campus-style settings of colleges and universities, hospitals and other health care buildings, and social services buildings, makes planning for land demand based on employment growth particularly challenging. There may be significant capacity for institutions to leverage their surplus lands and sites to accommodate future space needs, as well as opportunities to identify properties in other areas – such as the Strategic Core areas and waterfront (in proximity to the downtowns) – to facilitate intensification of employment uses and encourage spin-off economic opportunities.

Institutional buildings typically require good accessibility and a location that can be serviced by public transit, which is an important site selection attribute that must be considered in future land use planning. In contemplating future land needs for Institutional uses, land use planning typically allocates sites in new growth areas to accommodate a component of institutional land/buildings. This is particularly true when a significant expansion of a use is anticipated – such as a new hospital site (to address population growth occurring in a particular area of a city), or the introduction of a satellite location for a post-secondary school (college or university). Similarly, future need for elementary schools and high schools is identified by the local school boards, and incorporated into secondary plans for new neighbourhoods. Public sector funding is required for many of these facilities, and policymakers have influence over the timing, scope, and location of new capital projects. In planning for growth, these population-related institutional uses are generally addressed separately from other employment-related land uses such as industrial areas, business parks, and office/corporate nodes.

Institutional users have particular space needs, as distinct from industrial and private sector office-type land requirements, and future increases in employment in the institutional segment will be closely linked with the city's and broader region's population growth over time. Accordingly, it is possible to proactively address the land need requirements of institutional users, in order to ensure an appropriate supply of lands – including expansion/densification at existing sites, and potentially acquisition of new sites for development. Ongoing liaison with key local institutions on the part of City staff will be a necessary part of this strategy, and is needed to address medium to longer-term land requirements that cannot be accommodated on existing sites. Given the complexity associated with this land use type, planning for longer-term institutional land requirements is considered premature at this time.

Potential Locations for Growth

The public sector, in its planning for major and smaller-scale institutional facilities that are needed in the future, has the capacity to act as a catalyst for neighbourhood revitalization. Opportunities to site new institutional buildings in either of the Strategic Cores should take priority over greenfield locations. This includes the opportunity to include a new institutional facility on the waterfront – particularly in Port Arthur, in proximity to the recent redevelopment activity – if feasible, to bring employment and associated retail-commercial spin-off demand to the area.

The Provincially-controlled former Lakehead Psychiatric Hospital site offers considerable potential to accommodate future institutional requirements in the medium to long-term. While the existing buildings on site are likely to require some level of physical remediation and renovation to accommodate a new use, there is also substantial undeveloped lands at the property. This site should be on the short list to accommodate any major institutional needs in the city going forward. The City should identify how this site – either repurposed for another institutional land use, or as a major redevelopment opportunity – will fit within the planned urban structure, including its potential as a driver of economic development.

7.5.3 Land Use Conversions

Preserve Designated Vacant Institutional Sites

It is recommended that the City preserve its designated, vacant Institutional lands, and prevent conversion to a non-employment use. These existing sites are required to be preserved to provide locational alternatives, since future institutional needs (number of sites, size, scale, and location preferences) are challenging to predict today. The preservation of designated Institutional sites does not inhibit the City from reaching its employment land allocation in any other category of employment land use (industrial, office, and retail-commercial), and sufficient land exists elsewhere to address residential land needs.

7.6 Planning Perspectives

7.6.1 City's Planning Policies are Supportive of Employment Land Development

The Consultant Team has reviewed the City of Thunder Bay's Corporate Strategic Plan, Official Plan, and Zoning By-law. Each of these important documents provides a level of guidance for the future development of a range of employment-generating land uses. From an employment land perspective, the primary difference among the three documents relates to the level of detail provided.

- By nature, the Strategic Plan is very high level.
- The Official Plan is also high level, but provides a more focused land use planning policy framework.
- The Zoning By-law provides the most detailed regulatory framework within which specific forms of development are mandated.

These strategic policy documents all work together to establish the vision for Thunder Bay, and provide a defined urban structure and a growth management approach aiming for an economically successful Thunder Bay. From an economic development perspective, these documents are crucial in ensuring that existing businesses can continue to flourish, and that new economic opportunities can be accommodated quickly and appropriately, being absorbed seamlessly in the city's urban fabric.

While economic growth is expected to be modest, the Official Plan includes a number of supportive statements that clearly indicate a need for the City to be responsive to changes in the economy, and to be ready to react to growth in various economic sectors – notwithstanding that those changes are not yet fully understood. The Plan also recognizes the importance of protecting and supporting existing businesses. In a general sense, the Official Plan wants Thunder Bay to be open for business, and be ready to react to local and global changes in economic activity – whatever those changes might be.

These policy documents are conducive to fostering the development of employment lands as business opportunities arise. They designate lands for various uses, and provide a hierarchy of intended uses within these designations. The zoning regime is regarded as not as regulatory compared to other by-laws in other municipalities across the Province. One notable exception relates to the "fine grained" approach to planning for the range of industrial and retail commercial uses; the Zoning By-law is not problematic, but it is very complex, in terms of the range of permitted uses within specific zones.

The following section identifies select elements of these policy documents, and provides the Consultant Team's strategic recommendations.

7.6.2 Planning Policy Review and Recommendations

Foster Opportunities to Enhance Strategic Cores

Within the two Strategic Cores, the Official Plan directs ongoing revitalization activities and public investment opportunities to allow these areas continue to evolve, and continue to improve in character and function to ensure that they both remain vital components of the City's urban structure. The intent is for sites within the Strategic Cores to be able to attract private sector investment in residential, retail and service commercial uses, restaurants, and offices.

The Official Plan recognizes that the focus of investment within the Strategic Core designations going forward will be in "Post-secondary education and training; Specialized health care; Major redevelopment projects; and, Major cultural institutions and entertainment facilities" (p. 83). Overall, within the two Strategic Cores, the Official Plan directs ongoing revitalization activities and public investment opportunities to ensure that these areas continue to evolve, and continue to improve in character and function. These objectives will help ensure that they both remain vital components of the City's urban structure, and are able to attract private sector investment in residential, retail and service commercial uses, restaurants, and offices. This is aligned with the Consultant Team 's recommendation that (where aligned with institutional programming objectives) institutional uses be directed to locations within the Downtowns of Port Arthur and Fort William, in order to promote revitalization through public sector real estate investments. A location(s) within the Strategic Cores should be included in any site selection analysis related to new public sector institutional space needs in Thunder Bay. This will require collaboration between City staff and major local institutional employers in order to monitor land needs going forward.

All opportunities to continuously improve the function and character of these historic downtowns must continue, including a commitment to ongoing public sector investment. Coordinated and significant public sector interventions will attract private sector investment and, over time, the role of the areas within the Strategic Core designation as vibrant, diverse, mixed-use communities will be enhanced (refer to Appendix 2).

Strategic Core Areas will remain an important contributor to the economic growth of Thunder Bay, and they will continue to attract a certain component of the retail and service commercial market, as well as the office market for those users who are interested in the historic and eclectic character of these two downtowns, and their range of services and amenities. There is also potential to locate satellite locations of major institutional uses on sites that might be suited for redevelopment.

Promote Development along the Waterfront

Thunder Bay's waterfront is home to a variety of land uses. It is very large, and it is evolving into an even more diverse and mixed-use economic attribute. The scale and diversity of the waterfront lands means that it can accommodate a whole range of uses with a minimum of land use conflicts.

It is understood that the protection of the key waterfront industries is crucially important to the City of Thunder Bay; however, it is also understood that over the past decade, there have been significant changes to the industries located along the waterfront that have influenced the extent and character of the waterfront's industrial land uses. Segments of waterfront lands are now available for redevelopment, and there are real opportunities to introduce development in an effort to establish a broader base of uses and improve public access.

Overall, the vast majority of the waterfront is designated in the City's Official Plan for industrial uses – typically within the Heavy Industrial designation, in recognition of its past function. It is recognized that there are many demands on the city's waterfront, including for residential, commercial, and tourism-related land uses. However, some of the city's historic port function remains, and needs to be protected from the expansion of sensitive land uses. With that stated, the scale of the waterfront and the sheer amount of land designated for industrial uses can certainly withstand some conversion for other uses, including residential development, retail and service commercial uses, and office space. The City's Official Plan facilitates that strategic conversion – particularly on lands that are contiguous to the historic downtowns, where linkages to the water's edge is seen as a major redevelopment opportunity. The attraction of office uses, along with the residential and commercial uses, would bring employment opportunities that could capitalize on the highly-prized waterfront location. Further, strategically located office developments can act as a buffer between industrial uses and more sensitive land uses.

Embrace Evolving Use of Community Commercial Lands

Like many urban areas, there are several older, enclosed, community-scale shopping centres in Thunder Bay that have the potential to convert into other uses over time. With the onset of the big box/power centre format shopping centre, consumers have become accustomed to parking lot-frontage store entrances, and the ease of in-and-out shopping trips that are comparable in style to visits to strip malls and grocery-anchored neighbourhood-scale shopping centres.

While the regional-scale enclosed shopping mall generally remains in favour, it has had to reinvent itself. Along with comparison shopping-focused fashion and accessories stores, the contemporary shopping mall features a broader assortment of food/dining and entertainment options, in order to attract shoppers. Older, community-scale enclosed shopping centres do not have the size and orientation to accommodate such uses, and many retail brands are attracted to the lower operating cost environment of the power centre setting (which avoids expenses associated with enclosed areas).

Where possible, landlords may "de-mall" a centre by opening up the storefronts to the parking area, rather than having an internal hallway entrance. Also, properties with large sites may leverage opportunities for pad sites, or even the introduction of a mix of land uses on the site, which could include medium/high density residential. From a planning perspective, these sites are appealing for mixed-use development since they are generally well located (at major intersections), are transit-accessible, and are often a community focal point. It is important to note that the potential timing of such redevelopment is impacted by leases in place (particularly anchor tenants).

City staff should be receptive to proposals for Official Plan Amendments and Zoning By-law Amendments for existing community-scale retail-commercial sites where mixed-use redevelopment can take place. Such proposals should include retention of some or all of the retail gross floor area, to ensure that the neighbourhood does not lose a key retail asset. Smaller-scale shopping centres (such as strip plazas and neighbourhood plazas) do not have sufficient land area to meaningfully transform, and they are important elements to be retained, to ensure that residents have easy access to day-to-day retail and services offerings. Mixed-use redevelopments have the potential to include commercial, medium/high density residential, community, and recreational uses together on one site (if the property is sufficiently large). A "vision" for these sites will be a key component of planning for adaptive re-use or redevelopment.

Re-Evaluate Need for Market and Economic Impact Analysis

The City's Official Plan, within the policies for the Commercial Areas, includes the potential requirement for a Market and Economic Impact Analysis. This kind of policy requirement, which is relatively typical in municipal Official Plans, can act as a deterrent to new investment, depending upon why and when it is used.

It is unclear for what specific purpose, or when the City will require such a study. In broad terms, these studies were once used to ensure the "avoidance of substantial urban blight". That test was generally applied at a time when new retail formats were having significant detrimental impacts on historic downtowns across the province. To a great extent – and Thunder Bay is a prime example – that has already occurred. The Port Arthur and Fort William Downtowns have gone through the cycle where their primary commercial function has already been decanted to other locations in the city – generally, first to the Community Commercial areas, and now from the Community Commercial areas to the Regional Centre.

The City's Official Plan states that a Market and Economic Impact Analysis may be required to support applications for planning approval to permit large retail developments, or significant expansions of existing retail uses. The identified purposes for the Market and Economic Impact Analysis study include the impact on the City's commercial hierarchy, impact on employment, and its financial cost/benefit to the City. If these are the tests, it would be important to understand the assessment of how this tool has historically worked to achieve a desired outcome – or if the requirement, and the findings of any study, have chased potential investors away.

The City should assess the effectiveness of this tool in actually achieving the desired outcomes – or if instead the requirement, and the findings of any study, have deterred prospective developers. The value of, and the need for a Market and Economic Impact Analysis, must be confirmed in light of today's ever-changing retail environment.

7.7 Innova Business Park

7.7.1 Introduction

Innova Business Park is located north of Harbour Expressway and south of Central Avenue, between Thunder Bay Expressway and a Hydro One right-of-way west of Golf Links Road. Based on site areas obtained from Municipal Property Assessment Corporation, the Business Park totals approximately 34 hectares. Presently, six sites have been developed for office and industrial uses, totaling a gross floor area of just less than 8,000 m², across almost 5 net hectares. This leaves a total of 29 net hectares undeveloped.

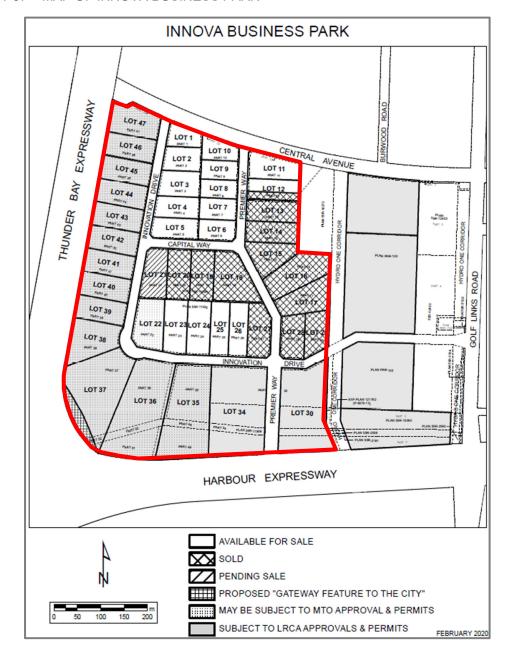
The area is zoned for light industrial development and a range of office uses, and is considered well-suited for service-based and manufacturing business opportunities. It features convenient access to the Trans-Canada Highway and Highway 61 to the United States, as well as direct highway access to international transportation arteries, including port, rail, and airport.

Innova Business Park was conceived as a "prestige" Business Area along its edges, with Light Industrial lands in its interior. It has been the intent of the City to attract "technical" office uses and knowledge-based industries to the area in an enhanced built form. While there are other areas in the city that accommodate those built forms and uses, Innova is specifically for those uses, and does not permit other built forms or land uses.

The Innova Business Park has, over time, attracted a number of the buildings and uses that it was intended to accommodate; however, the absorption rate has not lived up to expectations and, today, there is substantial pressure to convert some of the undeveloped lands – most notably, for retail and service commercial uses. The "urgency" relates to taking advantage of the in-place significant public infrastructure investment sooner, rather than later. It is also facing pressure to transform its higher than typical design standards to a more typical employment area appearance. The vision for the Business Park is to provide high-quality complimentary developments and support the economic strength of the city. This area has specifically been included for review as part of this Employment Land Strategy.

The red line on the exhibit below identifies the boundary of Innova Business Park.

EXHIBIT 37 – MAP OF INNOVA BUSINESS PARK



The Consultant Team examined the City of Thunder Bay Innova Development Package and Design Guidelines, along with zoning regulations, processes, development criteria, and marketing. The City's internal processes and conditions to sell lands within Innova are considered to be appropriate stewardship for this municipally-owned asset. However, we are aware through discussions with City staff that there is precedent for the City refusing to sell lands to a prospective purchaser whose proposed development was a permitted use under the in-place zoning. This is an indication that the City's vision for Innova is not in alignment with the on-the-ground planning policy regime. The following is a summary of our analysis and recommendations.

7.7.2 Zoning By-law Review

There are two zoning designations that apply to lands within Innova Business Park:

- The IN2 Medium Industrial Zone which applies to certain lands along Central Avenue, Premier Way, and Capital Way includes a number of light and medium industrial uses, as well as some specific retail and service commercial uses and auto-oriented uses. Office uses are not a specific permitted land use within this Zone, except in specific circumstances that are not identified within the Innova Business Park.
- The IN6 Prestige Industrial Zone applies to lands fronting onto Innovation Drive (which back onto Harbour Expressway and Thunder Bay Expressway). This zone category permits light industrial uses, technical offices, industrial centres, and research and development centres. There are a number of ancillary uses permitted that would support the primary land uses, and a site-specific IN6 zone that permits a medical office.

Overall, the IN2 Zone is the more "industrial" in character, while the IN6 Zone promotes a higher-quality built form focused on light industrial and technical office uses. The key issue within Innova Business Park is related to the range of permitted uses, and not particularly the provisions and regulations that inform development within each of the zones. Within the IN6 Zone, permitted land uses are very restrictive, reflecting a specific desired cluster of light industrial and technical offices.

7.7.3 Development Guidelines Review

In reviewing the Development Guidelines for the Innova Business Park, the actual development requirements are not considered to be particularly onerous. However, in a general sense, there is always a concern when a specific land area is regulated by the Official Plan, the Zoning By-law, and also a set of Development Guidelines that are to be implemented through Site Plan Approval. Simply having Development Guidelines and the requirement for Site Plan Approval may be perceived as an additional step in the development approval process, and a complication that may cause time delays and result in additional development costs. Notwithstanding that perception, Development Guidelines and Site Plan Approval are fairly typical tools that are used to improve the quality of the specified area from a design perspective, intending to attract a higher-quality built form and public realm.

Site Plan Approval is an additional step, but can usually be done concurrent to a rezoning, if that is required. If a rezoning is not required, and the Site Plan Approval is required, that requirement can add time and cost to the development process – depending upon its complexity and the requirements of the City. The Consultant Team agrees that Site Plan Approval is required to ensure the quality development expected in the IN6 Zone. If Site Plan Approval is not required for the development of other lands in the IN2 Zone throughout the city, it is likely that the IN2 portion of the Innova Business Park is disadvantaged from a market perspective because of the requirement for additional approvals. Nonetheless, Site Plan Approval is a planning tool that is appropriate in this local context.

In discussion with local real estate market participants and City staff, the Development Guidelines are perceived as adding a modest cost to development in this area (marginal in the overall scope of development costs). In the interest of promoting a higher design standard within the area, it is our recommendation that they be continued.

7.7.4 Marketing

The City of Thunder Bay website has a link to a description of Innova Business Park under "Real Estate" in the "Business" menu. This description details the vision for the area, information about the development lots available (range of size and starting price), and the extent of infrastructure/services that are available (fibre optic lines, 3-phase power, water/sewer infrastructure, natural gas, and street lighting). There are links to contacts at Realty Services and CEDC for more information. Under the link called "Land and Buildings for Sale and Lease", "Innova Business Park" is shown under "Industrial listings". A link is available to "View Innova maps and details".

The following are a few recommendations related to the marketing of Innova Business Park:

- The conceptual image on the cover of the five-page Innova Business Park brochure should be updated to reflect the existing building footprints. As well, photographs of the various office buildings that call Innova Business Park home should be included in this literature these are among the most modern and attractive office premises in the city. As well, a description of these buildings, the year built, and some discussion of the occupants (industry sector, size, etc.) is warranted. If possible, testimonials from select occupiers could be included.
- The map that identifies that lots that are currently for sale, and those that are sold, or already developed, should be posted on the Innova Business Park main webpage.
- More ambitiously, a marketing video could be prepared that showcases Innova Business Park on the City's website. It could include drone fly-over video footage; photographs, testimonials from representatives from area business; a few thoughts/comments from the City's Mayor, Realty Services, and CEDC staff; and other marketing elements.

7.7.5 Future Planning of Innova Business Park

It is the view of the Consultant Team that the current planning regime that applies to the Innova Business Park is not particularly complex or onerous. The Official Plan sets the stage, the Zoning Bylaw provides the regulatory regime, and the Development Guidelines add a layer of expectations aimed at creating a higher-than-typical quality of character that clearly differentiates Innova from the remainder of the city's employment areas. In our view, it is not the regulatory regime nor the Development Guidelines that are the issue – the key issues are the restrictions on land use (particularly within the IN6 Zone), and the permissiveness of certain uses that do not reinforce the prestige vision for the Business Park (in the IN2 Zone).

It is the Consultant Team's recommendation that a full range of office uses be permitted on all lots, in order to attract more office-type development within Innova. This would include owner-occupied buildings, multi-tenanted premises, as well as medical office buildings. The metroeconomics employment projections anticipate considerable growth in Professional, Scientific, and Technical Services, and also Other Business Services; in contrast, the Information and Culture and Finance, Insurance, Real Estate, and Leasing sectors are not anticipated to be drivers of future office space demand. This relaxing of the scope of permitted office uses applies to both the IN2 and IN6 Zones.

A "Research and Development Centre" is among the permitted uses within IN6 - Prestige Industrial Zone. It is defined as "a place where pure and applied research and experimentation is conducted in any field of science, medicine, or technology." (p. 24) Research and development centres should be a permitted use on all lands within Innova Business Park – not just the presently designated IN6 Zoned sites.

It is the Consultant Team's opinion that within the IN2 Zone, there are certain permitted uses that are not in alignment with the vision of Innova as a premier location for business within Thunder Bay. While considered appropriate in other employment areas, the following uses are recommended for exclusion within the portion of the IN2 Zone that applies to the Innova lands:

- Animal boarding facility
- Animal care facility
- Fuel bar
- Home improvement store
- Motor vehicle sales or rental establishment

- Motor vehicle service station
- Motor vehicle body repair shop
- Restaurant
- Service shop
- Transport terminal
- Utility

The provision of retail-commercial uses adjacent to Innova Business Park would not inhibit its potential to become a premier office and prestige industrial hub within the city. In fact, convenient access to retail and service commercial uses would be viewed as an amenity for prospective office and industrial occupiers within Innova. The lands fronting along Golf Links Road (east of the Hydro One right-of-way) between Harbour Expressway and Central Avenue could be converted to permit retail-commercial use. Given its location, Innova Lot 30 could also be considered for retailcommercial or other uses, in addition to the permitted office or industrial functions. The Consultant Team advocates for the retention of the remaining Innova lots that back onto Harbour Expressway (with frontage on Innovation Drive) for office or industrial uses, as these are among the larger lots within the Business Park, and enable a range of lot sizes to be considered by prospective occupiers although the presence of wetlands affects development of some of these lots. We do not recommend conversion of any interior Innova lots to retail-commercial use, as it would not be compatible with the vision for the Business Park. Linked with any conversion proposal, the City could also consider the application of development-specific design guidelines aimed at enhancing the built form and public realm of any proposed adjacent retail-commercial development, complementary to the original objectives of the Innova Business Park.

7.8 Role of Major Infrastructure

7.8.1 Thunder Bay Airport

Thunder Bay International Airport is a key gateway to and from northwestern Ontario. Employment at the airport is estimated at approximately 1,600 jobs. The airport lands are owned by the Federal Government. Thunder Bay International Airports Authority Inc. is responsible for managing, operating, and developing the airport for the public benefit and in a way that is safe, efficient, and financially viable. This includes facilitating land development on airport lands that are surplus to operational needs. Although lands cannot be sold, they can be leased to facilitate development – whether aviation-related, or for another use that is compatible with airport operations (such as a range of employment uses). The following lands are identified for prospective development:

- 1.5 hectares of highway commercial land at the intersection of Highway 61 and Arthur Street West, adjacent to the Valhalla Inn.
- 17 hectares of commercial lands fronting onto Arthur Street West, west of Parkdale Boulevard.
- 28 hectares of land immediately south of the commercial lands identified above.
- 27 hectares of aviation lands that offer immediate access to the airport apron and runway.⁷

⁷ www.tbairport.on.ca/page/property-development

EXHIBITS 38 AND 39 - THUNDER BAY AIRPORT AVAILABLE LANDS





The City should continue to view airport lands as an asset that can supply a component of required employment lands in the future. Although the requirement to enter into a land lease (rather than freehold ownership) may be a barrier for some users, the sites available at the airport represent large, serviced, contiguous lands for development – both for aviation-related uses and other industrial and commercial uses that are compatible with airport operations. City staff should include these available employment lands in marketing and site selection promotion efforts.

7.8.2 Port of Thunder Bay

Managed by the Thunder Bay Port Authority, the Port is located at the head of the Great Lakes/St. Lawrence Seaway System – a dynamic navigable waterway that stretches 3,700 kilometres into the heart of the North America. The Port was built to provide access to European markets for western Canadian grain producers through the longest grain supply chain in the world. The Port provides approximately 900 direct jobs, and a \$370 million economic impact. It is the #1 export port on the St. Lawrence Seaway.⁸

With the automation of bulk handling, a typical elevator that used to employ 1,200-1,800 workers requires only 60 jobs today. As such, Port-related employment has declined dramatically. While the vast majority of Port activity is outbound (98% of tonnage), there is an opportunity to increase inbound dimensional cargo handling. The Port is home to the largest warehouse complex between Toronto and Winnipeg.

The Port will remain a key asset that supports the local economy. There should be no conversion of employment lands in the vicinity of the Port that might have an undue impact on its operations.

7.9 Costco Analysis

Given the dynamic nature of the retail market, the Consultant Team is hesitant to make any tenant-specific observations in this report. Having said this, we note an obvious absence in the local retail landscape: there is no Costco in the city. This is particularly notable, since Thunder Bay is the only major retail destination serving a broad area of northwestern Ontario, and households in outlying communities travel a considerable distance to shop for food and consumer goods on a periodic basis – precisely the type of purchasing that aligns well with Costco's large-format goods.

⁸ www.portofthunderbay.com/facilities

Costco has approximately 100 locations across Canada. Among Canada's 35 CMAs, there is at least one Costco location in 32; only Brantford (2016 population: 134,200), Thunder Bay (2016 population: 121,600), and Belleville (2016 population: 103,500) do not have a Costco Warehouse. Sudbury is home to the only Costco Warehouse in Northern Ontario (it is the sole location north of Orillia).

We have identified Costco as a notable gap in the local retail environment for a specific reason related to land use planning – they are typically a very large footprint store that also requires significant parking. Accordingly, a large parcel of land is required to accommodate a Costco Warehouse. The preceding analysis of vacant, Commercial-designated lands has identified a shortage of larger sites (there is only one vacant, designated Commercial property larger than 5 hectares in the entire city; it is situated on the west side of McKellar Island, and not considered well-suited for a Costco location). Also, they are often a significant generator of vehicular traffic, and accessibility is a key determinant in the site selection process. These factors necessitate a greater level of planning versus smaller format retailers, which have more site selection flexibility. For guidance, we have analyzed the land area associated with Costco locations in select Ontario cities that are part of a CMA of comparable population size to Thunder Bay, and which serve as regional service centres. The stores in Greater Sudbury, Barrie, Peterborough, Kingston, and Guelph range in size from approximately 12,000 to 15,000 m², and have a site area ranging from roughly 5-6 hectares, with a typical site coverage of around 25%.

EXHIBIT 40 – COSTCO STORES IN SELECT ONTARIO MARKETS								
Market	2016 Population	GLA (m²)	Site Area (ha)	Site Coverage (%)				
Greater Sudbury	164,689	13,158	5.42	24%				
Barrie	197,059	13,991	5.27	27%				
Peterborough	121,721	13,963	6.19	23%				
Kingston	161,175	12,085	5.49	22%				
Guelph	151,984	14,938	5.78	26%				
AVERAGE		13,627	5.63	24%				

7.10 Strategic Recommendations

7.10.1 Introduction

The following section presents a series of strategic recommendations that stem from our analysis of Thunder Bay's employment land supply and demand; market trends; the population and employment growth forecasts; and our review of in-place planning policy. In overall terms, the city's employment lands are well positioned to achieve the anticipated growth forecasts. The surplus land supply provides latitude for flexibility and adaptability in planning for future employment land requirements, and enables the City to be responsive as business opportunities arise, which represents a competitive advantage.

The current range of land use designations within the Official Plan and zoning categories within the Zoning By-law is conducive to facilitating growth, and our recommendations build upon this foundation. The themes of flexibility and responsiveness to market needs are at the heart of this Employment Land Strategy, and are appropriate for a municipality with a relatively slow growth trajectory such as Thunder Bay.

7.10.2 Strategic Recommendations and Time Horizon

These strategic recommendations identified below are intended as a resource to guide employment lands planning going forward, and to help inform decision-making by City Council. In augmenting the in-place planning policy approaches, these recommendations will help ensure the provision of an appropriate supply of employment lands for industrial, office, retail-commercial, and institutional uses. This will foster business retention and expansion, and facilitate new business start-up and attraction. Where applicable, the probable time horizon of the execution of these recommendations is identified.

EXHIBIT 41 – STRATEGIC RECOMMENDATIONS

OVERALL EMPLOYMENT LAND SUPPLY

At an aggregate level, the city has a more than adequate supply of employment land across all land use designations. There is no identified need for the City to directly intervene in the land market.

Recommendation

There is no need for significant intervention to amend the City's in-place land use framework. The available employment land supply and associated planning policies are well positioned to address the anticipated demand over the horizon to 2051. It is not necessary to convert any non-employment land to an employment use. However, there is some recommended fine-tuning that is identified later in this section of the report which will ensure that the City can be responsive to opportunities that arise over time, and ensures that the right employment lands are available in the right locations.

Given the range and distribution of available lands (both vacant and underutilized), there is no identified immediate need for the City to directly intervene in the land market, in the form of acquiring lands, or assembling development parcels. The quantum of lands that are projected to be absorbed through 2051 can be managed across the existing inventory, with some minor exceptions which we discuss below.

Time Horizon

Not applicable

INDUSTRIAL RECOMMENDATIONS

Business Area-designated lands will be in demand, but there is a sufficient supply to consider some conversion to Light Industrial use, should significant demand for this category emerge over time.

Recommendation

The City should maintain the designation of its supply of undeveloped, centrally-situated Business Area lands in order to address future demand for this type of use. Specifically, this recommendation applies to sites in the Intercity area, within Innova Business Park, and in the vicinity of Thunder Bay Expressway/Oliver Road.

Depending on the nature of future industrial demand, it may be prudent over time to permit the conversion of select lands from Business Area to Light Industrial, in order to accommodate the requirements of typical industrial users in Thunder Bay, in response to market demand. The magnitude of uptake of Business Area lands compared to Light Industrial lands should be monitored going forward. There appears to be sufficient land designated in all industrial categories to meet anticipated demand for the medium term, hence applications for conversion should be resisted for the time being.

Time Horizon

Medium-term (6-10 years) to Longer-term (beyond 10 years)

Undeveloped, centrally-situated Light Industrial lands must be retained to accommodate such uses going forward.

Recommendation

The City must maintain the designation of its supply of undeveloped, centrally-situated Light Industrial lands, in order to meet ongoing anticipated demand for this type of use. Specifically, this recommendation applies to sites in the Intercity area, as well as within Innova Business Park. Applications for land use conversion away from currently permitted uses should be rejected.

Time Horizon

Over the full horizon of this strategy (through 2051)

The City's established heavy industrial base is an asset which requires protection to ensure ongoing operations. However, the vast supply of vacant and underutilized Heavy Industrial sites can withstand some conversion to Light Industrial uses, if such applications arise.

Recommendation

Thunder Bay's existing heavy industrial base is an asset to be protected, as it generates employment opportunities, and creates spin-off economic benefits through networks of suppliers and service providers. The City must ensure that these users are able to continue to function, and not convert any lands in proximity to established heavy industrial uses which could result in a negative impact to their operations. However, City staff should support applications to rezone Heavy Industrial sites to Light Industrial, if such applications arise, given the vast supply of vacant and underutilized Heavy Industrial-designated sites city-wide.

Time Horizon

Medium-term (6-10 years) to Longer-term (beyond 10 years)

The city has a suitable amount of Industrial-designated lands in a variety of locations, with a range of in-place servicing, to suit occupier needs.

Recommendation

Our employment by industry projections result in anticipated demand for 30 gross hectares of industrial land through 2051. Therefore, the inventory of 770 gross hectares of vacant Industrial-designated lands city-wide represents a dramatic surplus, in light of the limited forecast growth in industrial-type employment. Available Industrial-designated lands situated throughout the Intercity, Innova Business Park, and in the vicinity of Thunder Bay Expressway/Oliver Road provide a range of well-located options for prospective occupiers. As well, lands at the Airport, along the waterfront, on Mission Island and McKellar Island, and elsewhere across the city, have varied site selection attributes that may appeal to certain users. These aforementioned lands more than satisfy the objective of ensuring a 20-year supply of designated Industrial lands, and provide "shovel-ready" options for prospective developers. Accordingly, there is no identified need to extend additional infrastructure/servicing to meet industrial land needs through 2051.

Key to the City's form of industrial hierarchy is to ensure that the various designations are in the correct locations, fundamentally tied to their own locational and access requirements. While it is impossible to predict the precise locations of growth, we are confident that the city offers a suitable range of choice, size, location, servicing, and zoning permissions to capitalize on opportunities over time.

With the City itself being an owner of already serviced employment land, this presents a competitive advantage compared to some other markets where this dynamic is not present. This enables the municipality to participate in the market to ensure access to land at a fair price, and to ensure that a small number of landowners do not "control" the marketplace. As a land market participant, it also provides an opportunity to target specific types of users through site or area-specific zoning, and a higher standard of development, where desired (such as Innova Business Park).

It may be the case that by 2051, a sizable share of the City's current employment land holdings will have been absorbed. If so, future decision-making can evaluate the merits of additional land acquisition. It is not advised that the City contemplate acquisition of additional employment lands in the short to medium term (subject to land absorption timing and broader market dynamics).

Time Horizon

Not applicable

From a land needs perspective, the redevelopment of brownfield sites is not required to meet anticipated employment land demand.

Recommendation

It is challenging to provide strategic guidance concerning Thunder Bay's brownfields, given that our supply and demand analysis indicates that there is no apparent market pressure for their redevelopment. The often high cost of remediation of brownfield sites impairs their redevelopment potential. This is an inherently risky endeavor even in markets with higher land values and a pace of growth that is far more rapid than in Thunder Bay.

Despite the added financial costs and associated development risk, from a municipal perspective, alternative reasons to seek to reuse brownfields come into play – such as exhibiting environmental stewardship, and city-building. Given the determination that Thunder Bay has a significant surplus of Industrial-designated lands, the prospects of re-use of contaminated sites for future employment is likely limited, as is their probability of redevelopment. A notable exception to this statement pertains to select waterfront sites in close proximity to the Strategic Cores, which have unique locational characteristics and value that might be leveraged.

In the Thunder Bay context, rather than a blanket policy approach towards brownfields redevelopment, municipal interventions should be weighed on a site-by-site basis, taking into account the project's development pro forma, and potential city benefits (future tax revenue, employment opportunities, spin-off developments, etc.). Among the challenges to brownfield projects in Thunder Bay include the sometimes slow pace of occupier demand, and the ability to attract density, which can help mitigate the high costs of redevelopment of such sites.

If viable from a land economics perspective, the private development market will lead the way on brownfield redevelopment in the city. The role of the City of Thunder Bay in supporting such endeavours would vary depending on the size and complexities of the project, but may include extending municipal infrastructure/services, supporting development through a mechanism such as a tax increment equivalent grant, accelerating planning approvals, or other approaches that would be evaluated at a future time, on a case-by-case basis. However, given that the redevelopment of brownfield sites is not required to meet anticipated employment land demand, we caution that it is important to weigh the priority and costs of incentives for brownfield redevelopment versus other municipal needs. Since the time horizon for absorption/build-out is considered highly speculative – particularly for some of the city's larger properties – the Consultant Team does not advise that the City pursue acquisition of a brownfield site(s) to attempt to expedite the development process.

Time Horizon

Medium-term (6-10 years) to Longer-term (beyond 10 years)

There may be opportunities for Industrial land conversion in select locations to facilitate sought-after development.

Recommendation

The Consultant Team does not foresee pressure for land use conversion for the majority of the city's vast supply of vacant Industrial-designated lands. However, the significant scale of the lakefront/riverfront, and the amount of Industrial-designated land, can certainly withstand some conversion for other uses – including residential development, retail and service commercial uses, and office uses – in select locations (discussed in more detail below) that can appropriately buffer the in-place industrial activities. However, there is no need to proactively redesignate these lands; rather, the private sector is likely to initiate such actions, to which City staff can be responsive.

Time Horizon

Medium-term (6-10 years) to Longer-term (beyond 10 years)

OFFICE RECOMMENDATIONS

Office space could be a feature of a mixed-use redevelopment of a site in the Strategic Cores or along the waterfront.

Recommendation

Various vacant and prospective redevelopment sites exist throughout the Strategic Cores and on Business Area-designated lands to fulfil a full range of potential office user requirements in Thunder Bay. The City should encourage any new public sector office investments to situate in the Strategic Cores, or a site adjacent/in proximity to the downtowns along the waterfront, and also direct inquiries about new private sector office space to consider these locations. City staff should monitor office land take-up, and CEDC staff should promote these various site alternatives alongside other office lands.

Time Horizon

Over the full horizon of this strategy (through 2051)

There is no identified need to extend municipal infrastructure/services to additional employment lands in order to meet anticipated office land demand.

Recommendation

With the exception of the waterfront, all other identified prospective office locations have the necessary municipal services in place to support new office development, or are readily serviceable. Given the costs of extending such services to the waterfront, office space could be included along with a larger-scale mixed-use development, should sites in proximity to the downtowns be pursued over time. There is no identified need to extend municipal infrastructure/services to additional employment lands in order to meet anticipated land demand for this use.

Time Horizon

Not applicable

The City's Zoning By-law with respect to office space as a permitted use is unnecessarily rigid, and not conducive to fostering growth in this type of land use.

Recommendation

Offices are a permitted use, or an additional permitted use subject to certain criteria/conditions, in a number of the zones across the city. Notably, these permissions vary considerably depending upon the type(s) of offices under consideration. There is some risk that the limitations on the zones which permit certain office uses may deter future investment, with prospective occupiers viewing the land use permissions for siting new office space to be unduly limiting. Instead, such occupiers may instead opt to locate in another city. Accordingly, it is recommended that offices of any type be permitted within the zones which currently allow offices (whether or not presently restricted to one or more of the three specialty office types). Professional and medical offices are generally compatible with other land uses, and easily incorporated into the community fabric. This recommendation in effect eliminates the concept of "specialty offices", and treats all offices the same, for the purpose of land use permissions. In addition, the rationale for offices being included as an additional permitted use, subject to certain criteria/conditions, should be revisited to ensure that these conditions do not unreasonably limit office site selection.

Time Horizon

Short-term (next 5 years)

RETAIL-COMMERCIAL RECOMMENDATIONS

There is gap in the retail-commercial land supply in the form of larger sites capable of accommodating significant new development.

Recommendation

The Consultant Team has identified very few large sites capable of accommodating significant new retail-commercial development. Based upon the location and orientation of the city's largest undeveloped Commercial-designated lands, it may be argued that there are no suitable properties to accommodate a new retail-commercial project of significant scale (10,000 m² or more of GLA). Complicating a solution to this issue is the dramatic change underway in the retail universe, with increasing rates of e-commerce, declining store sizes, retail bankruptcies, and more.

The timing of need for a large retail-commercial site(s) is uncertain. Rather than proactively redesignating one or more sites to facilitate future major retail development, it is our recommendation that City staff be responsive to development inquiries, which would allow developers/occupiers to satisfy their unique site selection preferences, and size/scale/format of development.

Time Horizon

Over the full horizon of this strategy (through 2051)

There is potential for existing retail-commercial sites to be repurposed.

Recommendation

The outlook for Thunder Bay (as with many other metropolitan areas) is a likely decline in the amount of physical shopping centre space per capita over time, along with the closure of under-performing store locations. As with many mature metropolitan areas, it is highly likely that some shopping centres/buildings within the existing inventory will become obsolete (due to their format, orientation, age, or other factors). If retail vacancy becomes problematic, the remaining tenants at a shopping centre may over time relocate to better-performing shopping centres. In the future, there may be an opportunity to transform some of these distressed assets into mixed-use redevelopment sites combining retail-commercial space with other uses, including residential. While this will not dramatically reduce the need for new greenfield residential growth in the city, it may present some opportunities to capitalize on centrally situated sites for medium and higher density forms of development.

From a planning policy perspective, it is challenging to provide focused, forward-looking guidance, as the location and extent of such change is not yet clear. However, the following approach is suggested:

- City staff should be receptive to proposals for Official Plan Amendments and Zoning By-law Amendments for existing community-scale retailcommercial sites where mixed-use redevelopment can occur. Such proposals should include retention of some or all of the retail gross floor area, to ensure that the neighbourhood does not lose a key retail asset.
- Alternatively, the City could proactively make policy and regulatory changes to allow a greater extent of residential development to take place on these sites. There is strategic value in this planning approach.
 Having Official Plan policies that anticipate this evolution and pre-zoning the sites for the introduction of residential uses facilitates the desired change, and dramatically reduces the risk to the developer. It also signals this change to the market.
- In the case of smaller-scale properties, it will be necessary to evaluate
 whether the zoning should be amended to facilitate a different set of
 Commercial permissions (such as automotive-related uses), or whether
 another land use altogether (such as residential) is feasible on the site, in
 the local/neighbourhood context.

Some high-growth, urban municipalities are embracing the opportunity to transform under-performing retail-commercial properties into redeveloped, mixed-use sites with a range of uses and densities. Thunder Bay's anticipated growth trajectory makes such opportunities more limited in scope and scale – although they should be promoted.

Time Horizon

Over the full horizon of this strategy (through 2051)

There will likely be ongoing need for development sites for retail-commercial properties. Conversion of employment lands to a Commercial use can be explored, while ensuring sufficient needed Industrial lands remain available for that use.

Recommendation

The retail-commercial land needs projection indicates that the City should anticipate demand for approximately 20 net hectares of retail-commercial land through 2051. This quantum of land will provide for site selection flexibility, and will likely primarily be lands in new growth areas to accommodate small freestanding properties, strip plazas, and neighbourhood-scale retail demand as the city's population expands – although infill sites may also be sought-after among retail-commercial developers. The rate of new retail construction will slow compared to past performance – and paradoxically, new supply will come on stream as other existing properties continue to struggle.

Given the significant transition occurring in the retail market today, with store closures increasing and the pace of e-commerce spending accelerating, the Consultant Team is reluctant to identify new large, vacant sites that may be well suited to accommodate commercial development. It may be the case that new market entrants are able to find suitable locations across the existing built environment in properties that become vacated. To the extent that developer interest is identified on lands elsewhere in the city, land use conversion requests should be evaluated on a case-by-case basis. Given the rapidly evolving retail-commercial landscape, it is the Consultant Team's recommendation that this reactive and flexible approach is preferred, in allowing market participants to guide site selection preferences - rather than the City trying to anticipate occupier needs. Entertaining applications for Official Plan and Zoning By-law amendments to allow retail-commercial uses in areas where they are not currently permitted is supportable, given the conclusions of this Employment Land Strategy that the overall employment land supply is more than sufficient to accommodate anticipated employment growth through the forecast horizon.

It is appropriate for City staff to consider the merits of applications for the conversion of employment lands to a Commercial use (particularly since the Consultant Team has concluded that there is an excess supply of Industrial-designated lands in the city). Importantly, this guidance does not supersede the recommendation to preserve Industrial-designated lands in the Intercity area, within Innova Business Park, and in the vicinity of Thunder Bay Expressway/Oliver Road. This issue will require ongoing monitoring by City staff to ensure a suitable supply of designated sites remains available to accommodate anticipated growth, and to respond to important retail opportunities as they may arise from time to time.

From a retail-commercial perspective, if an occupier is seeking a location to open or relocate a business, they may be willing to consider a site just beyond the periphery of a municipality, for reasons including land/building cost, development timing, or other factors. Accordingly, it is critical that a municipality plan and designate a sufficient amount of commercial lands to satisfy prospective demand, as well as be responsive to inquiries for employment land development/conversion. With this approach to planning, the competitive advantage of an agglomeration of commercial activities can be reinforced, and inhibit potential outflow of opportunities to nearby areas.

Time Horizon

Medium-term (6-10 years) to Longer-term (beyond 10 years)

INSTITUTIONAL RECOMMENDATIONS

Occupied large Institutional sites/campuses contain undeveloped lands that are suited to accommodate future institutional and related development.

Recommendation

In discussion with Thunder Bay's major institutional employers, there is no identified near or medium-term requirement for additional Institutional-designated lands. These large institutional sites/campuses all offer excess lands that can accommodate future development, and on-site intensification is the principal focus of growth (as opposed to seeking off-campus options). Further, from a municipal servicing perspective, City staff has confirmed that the University, College, and Hospital campus sites have no known servicing encumbrances to their future growth. Accordingly, these sites are considered "shovel-ready".

Time Horizon

Medium-term (6-10 years) to Longer-term (beyond 10 years)

Institutional land needs require ongoing monitoring, and this can be achieved through liaison between City staff and these organizations.

Recommendation

Future increases in employment in the institutional segment will be closely linked with the city's and broader region's population growth over time. Accordingly, it is possible to proactively address the land need requirements of institutional users, in order to ensure an appropriate supply of lands – including expansion/densification at existing sites, and potentially acquisition of new sites for development. Liaison with key local institutions on the part of City staff will be necessary to plan for institutional land needs – particularly where off-campus sites are being considered. Although this actual development may take place in the longer-term, the planning for such activity needs to be anticipatory. Opportunities may arise to situate institutional uses on vacant and redevelopment sites in the Strategic Cores, plus the waterfront (in proximity to the downtowns), and such developments can lead to further activity over time.

Time Horizon

Medium-term (6-10 years)

Public sector uses can spur other development to take place. Thoughtful planning of institutional buildings is needed to leverage their value.

Recommendation

The public sector, in its planning for major and smaller-scale institutional facilities that are needed in the future, has the capacity to act as a catalyst for neighbourhood revitalization. Opportunities to site new institutional buildings in either of the Strategic Cores should take priority over greenfield locations. This includes the opportunity to include a new institutional facility on the waterfront – particularly in Port Arthur, in proximity to the recent redevelopment activity – if feasible, to bring employment and associated retail-commercial spin-off demand to the area. A location(s) within the Strategic Cores should be included in any site selection analysis related to new public sector institutional space needs in Thunder Bay.

The Provincially-controlled former Lakehead Psychiatric Hospital site offers considerable potential to accommodate future institutional requirements in the medium to longer term. While the existing buildings are likely to require some level of physical remediation and renovation to accommodate a new use, there is also substantial undeveloped land at the property. This site should be on the short list to accommodate any major institutional needs in the city going forward. The City should identify how this site – either repurposed for another institutional land use, or as a major redevelopment opportunity – will fit within the planned urban structure, including its potential as a driver of economic development. Ongoing communication with the Province is necessary to capitalize on this opportunity.

Time Horizon

Short-term (next 5 years)

The City should preserve its designated, vacant Institutional sites for their planned use.

Recommendation

It is recommended that the City preserve its designated, vacant Institutional lands, and prevent conversion to a non-employment use. These existing sites are required to be preserved to provide locational alternatives, since future institutional needs (number of sites, size, scale, and location preferences) are challenging to predict today. The preservation of designated Institutional sites does not inhibit the City from reaching its employment land allocation in any other category of employment land use (industrial, office, and retail-commercial), and sufficient land exists elsewhere to address residential land needs.

Time Horizon

Over the full horizon of this strategy (through 2051)

INNOVA BUSINESS PARK RECOMMENDATIONS

Innova's Development Guidelines should be maintained.

Recommendation

The Innova Business Park Development Guidelines are not considered to be particularly onerous. However, in a general sense, there is always a concern when a specific land area is regulated by the Official Plan, the Zoning By-law, and also a set of Development Guidelines that are to be implemented through Site Plan Approval. Simply having Development Guidelines and the requirement for Site Plan Approval may be perceived as an additional step in the development approval process, and a complication that may cause time delays and result in additional development costs. Notwithstanding that perception, Development Guidelines and Site Plan Approval are fairly typical tools that are used to improve the quality of the specified area from a design perspective, intending to attract a higher-quality built form and public realm. In discussion with local real estate market participants and City staff, the Development Guidelines are perceived as adding a modest cost to development in this area (marginal in the overall scope of development costs). In the interest of promoting a higher design standard within the area, it is our recommendation that the Design Guidelines continue to be applied going forward.

Time Horizon

Short-term (next 5 years)

Marketing of Innova Business Park would benefit from a few suggested enhancements.

Recommendation

The marketing of Innova Business Park would benefit from the following refinements:

- The conceptual image on the cover of the five-page Innova Business Park brochure should be updated to reflect the existing building footprints. As well, photographs of the various office buildings that call Innova Business Park home should be included in this literature – these are among the most modern and attractive office premises in the city. As well, a description of these buildings, the year built, and some discussion of the occupants (industry sector, size, etc.) is warranted. If possible, testimonials from select occupiers could be included.
- The map that identifies that lots that are currently for sale, and those that are sold, or already developed, should be posted on the Innova Business Park main webpage.
- More ambitiously, a short marketing video could be prepared that showcases Innova Business Park on the City's website. It could include drone fly-over video footage; photographs; testimonials from representatives from area business; a few thoughts/comments from the City's Mayor, Realty Services, and CEDC staff; and other marketing elements.

Time Horizon

Short-term (next 5 years)

There are some proposed refinements to the range of permitted uses within Innova Business Park which will allow it to develop as a premier business location over time.

Recommendation

The following planning policy adjustments are recommended for Innova Business Park:

- A full range of office uses should be permitted on all lots, in order to attract more office-type development within Innova. This would include owner-occupied buildings, multi-tenanted premises, as well as medical office buildings. This relaxing of the scope of permitted office uses applies to both the IN2 and IN6 Zones within Innova Business Park.
- Research and development centres should be a permitted use on all Innova Business Park lands – not just the presently designated IN6 Zoned sites.
- The following uses are recommended for exclusion within the portion of the IN2 Zone that applies to the Innova lands: Animal boarding facility; Animal care facility; Fuel bar; Home improvement store; Motor vehicle sales or rental establishment; Motor vehicle service station; Motor vehicle body repair shop; Restaurant; Service shop; Transport terminal; Utility. This is advised in order to focus on office and prestige industrial uses within the business park, given the well-located nature of these lands.
- The creation of a new zoning category for Innova Business Park itself may be a preferred means of implementing these policy changes.
- The provision of retail-commercial and/or hotel/hospitality uses adjacent to Innova Business Park would not inhibit its potential to become a premier office and prestige industrial hub within the city. In fact, convenient access to such uses would be viewed as an amenity for prospective office and industrial occupiers within Innova. The lands fronting along Golf Links Road (east of the Hydro One right-of-way) between Harbour Expressway and Central Avenue could be converted to permit retail-commercial use. Given its location, Innova Lot 30 could also be considered for retail-commercial or other uses, in addition to the permitted office or industrial functions.

The Consultant Team advocates for the retention of the remaining Innova lots that back onto Harbour Expressway (with frontage on Innovation Drive) for office or industrial uses, as these are among the larger lots within the Business Park, and enable a range of lot sizes to be considered by prospective occupiers – although the presence of wetlands affects development of some of these lots. We do not recommend conversion of any interior Innova lots to retail-commercial use, as it would not be compatible with the vision for the Business Park.

Time Horizon

Short-term (next 5 years)

OTHER SITE-SPECIFIC RECOMMENDATIONS

In discussion with City staff, a number of sites were identified for review. The following section profiles these notable properties, and provides site-specific recommendations.

965 Strathcona Avenue – not likely a site of significance over the near to medium term.

Recommendation

This site is designated as Heavy Industrial, and is home to the former Smurfit-Stone operations. The land needs analysis has identified a significant amount of vacant Heavy Industrial lands – far more than is required to meet the city's future land needs. The size (approximately 140 hectares), peripheral location, and likely prohibitive costs associated with rehabilitating these lands makes them a low priority in terms of strategic land use planning and decision-making. It is not likely a candidate for adaptive re-use or land use conversion for the foreseeable future. **No action on the part of the City is advised at this time.**

Time Horizon

Longer-term (beyond 10 years)

550 Shipyard Road – not likely a site of significance over the near to medium term.				
Recommendation	Totaling over 70 hectares, this is the site of the former Provincial Papers/Thunder Bay Fine Papers mill, and it is it designated Heavy Industrial. Like the neighbouring Smurfit-Stone site, this property lacks proximity to the urban core of Port Arthur, and is not likely a candidate for adaptive re-use or land use conversion for the foreseeable future. No action on the part of the City is advised at this time.			
Time Horizon	Longer-term (beyond 10 years)			
	Psychiatric Hospital, Algoma Street North – presents an opportunity for adaptive ongoing Institutional-type use, or potentially a mix of uses.			
Recommendation	As has been discussed previously, this large, Provincially-owned site presents a considerable opportunity for adaptive re-use of the existing buildings (subject to retrofit and remediation costs), along with utilizing the excess lands. Together, the site and its inventory of buildings can be considered as a significant redevelopment opportunity, including for a host of other institutional uses, as well as any combination of a number of other commercial, office, and even residential land uses. Ongoing liaison with Provincial staff is advised to collaboratively plan for the future of this asset.			
Time Horizon	Short-term (next 5 years) to Medium-term (6-10 years)			

EXHIBIT 42 - SITE-SPECIFIC RECOMMENDATIONS MAP 1



Marina Park Drive, north of River Street (former Great West Timber site) – a potential brownfield redevelopment site in proximity to Port Arthur Strategic Core.

Recommendation

This roughly 28-hectare waterfront site was the home of Great West Timber. A fire in 2015 destroyed a sawmill building, and others are derelict today. Given the proximity of this site to the Port Arthur Strategic Core, it is recommended that these lands be considered for land use conversion to permit a range of functions that could include community/recreation, cultural, office, retail-commercial, institutional, and residential uses. It is arguably the best opportunity for brownfield redevelopment in the city – subject to sufficient market demand emerging to make such a project viable from a land economics perspective. The sheer size of this site means that any plans for redevelopment would likely be multi-phased, and occur over a protracted period of time. No action on the part of the City is advised at this time.

Time Horizon

Medium-term (6-10 years) to Longer-term (beyond 10 years)

EXHIBIT 43 - SITE-SPECIFIC RECOMMENDATIONS MAP 2



Land on the southeast corner of Oliver Road and Thunder Bay Expressway – highest and best use as industrial or commercial-office use.

Recommendation

This high-visibility site, which is comprised of six separate assessment roll numbers as an assembly, has a corner location. However, this inhibits its development potential, since accessibility is an issue, due to the highway intersection location. The six land parcels together have a total area of approximately 25 hectares, and are designated a mix of Industrial and Utilities in the City's Official Plan (Schedule A – General Land Use), and as Business Area (Schedule F – Industrial).

Given the concerns regarding accessibility, it is likely a challenge to site retail-commercial uses at this location – despite those uses being permitted under the Business Area designation. Rather, the site's highest and best use is likely as an industrial or commercial-office function, with some retail-commercial space, complementing Innova Business Park to the south. **No action on the part of the City is advised at this time.**

Time Horizon

Medium-term (6-10 years)

Jasper/Carrick Future Development Lands – not well suited to address future employment land need, given the irregular site configuration and required infrastructure/servicing.

Recommendation

This irregular-shaped site is located at the north end of the Intercity area, between industrial uses to the south and residential uses to the north. A road extension would be required to provide access (this is included in the City's Transportation Master Plan, but we are advised that it is considered unlikely to occur in the short to medium term). Given the cost of required infrastructure, these lands are not considered well-suited to address future employment land needs. A portion of the west side lands, in proximity to Jasper Drive/Tungsten Street, could be considered for conversion to residential to complement adjacent multi-residential uses. No action on the part of the City is required at this time.

Time Horizon

Medium-term (6-10 years)

EXHIBIT 44 - SITE-SPECIFIC RECOMMENDATIONS MAP 3



CLE Grounds, May Street/Northern Avenue/Simpson Street – a well-situated site, but development prospects are complicated by Exhibition uses and in-place leases.

Recommendation

The 6-hectare Canadian Lakehead Exhibition site is a large, centrally-located parcel of land designated as Commercial in the City's Official Plan (Schedule A – General Land Use), as part of the Regional Centre (Schedule E – Commercial). There is a SilverCity cinemas on site that leases land, plus other small buildings at the south end of the property. If the CLE were to vacate the site, the grounds would certainly offer potential for commercial infill uses – given the size and configuration of the property, and good visibility. No action on the part of the City is advised at this time.

Time Horizon

Medium-term (6-10 years) to Longer-term (beyond 10 years)

EXHIBIT 45 - SITE-SPECIFIC RECOMMENDATIONS MAP 4



Mission Island, including OPG site – not likely a site of significance over the near to medium term (notwithstanding the future of the OPG site).

Recommendation

Lands on Mission Island are a mix of Industrial, Utilities, Commercial, Natural Heritage, and Community designations in the City's Official Plan (Schedule A – General Land Use). Industrial is the most predominant land use, followed by Utilities (due to the former OPG generation site, which is currently for sale). The Commercial designation applies to a small portion of lands on the west side of the island. Natural Heritage applies to lands along the east shore.

From a market demand perspective, the lands are not considered particularly appealing for employment use, given the limited accessibility of the island (road access only via Island Drive, linking with McKellar Island to the north), and the distance from labour and customers/suppliers, compared to other prospective employment land sites in the city. In the absence of another viable land use proposal, it is recommended that the current land use designations remain unchanged, but that the City be responsive to prospective development interest.

Time Horizon

Longer-term (beyond 10 years)

EXHIBIT 46 - SITE-SPECIFIC RECOMMENDATIONS MAP 5



Fort William First Nation Heavy Industrial-designated lands – these lands have the capacity to contribute to the city's future industrial growth, and conversion of some land to Light Industrial would broaden the appeal of the lands by permitting a wider range of uses.

Recommendation

This site-specific recommendation pertains to the approximately 450 hectares of land owned by Fort William First Nation Development Corporation along the south shore of the Kaministiquia River/Mission River. These lands were appropriated by the Grand Trunk Pacific (GTP) railroad more than a century ago (1905) under the Railway Act. The railroad company intended to build a terminus there; however, it went bankrupt, and the terminus was never completed. The land was taken over by Canadian National Railway (CNR). Fort William repurchased about 450 hectares of land (of the original 650 hectares that were appropriated) from CNR in 1999, and those lands have been returned to the First Nation following negotiations with the Federal Government which concluded in 2016.

It is important to recognize that since these lands are already home to some established industrial uses, they are not included among the city's vacant land inventory of over 770 gross hectares of industrial-designated lands. These are among the city's under-utilized industrial lands which are capable of accommodating additional development.

In 2016, the Federation of Canadian Municipalities (FCM) selected Fort William First Nation and the City of Thunder Bay to participate in the First Nation Municipal Economic Development Initiative (CEDI), pertaining directly to the subject lands. Goals for the FWFN-Thunder Bay initiative included: (1) to develop a shared vision and implementation plan to maximize economic development of the industrial lands; (2) strengthen the two-party partnership; (3) collaborate on business opportunities; (4) maximize job creation; and, (5) recommend/implement key infrastructure development. Mining, forestry, transportation, energy, and manufacturing service/supply were identified as drivers of opportunity. CEDI is intended to leverage the partnership to attract investors and pursue joint applications and bids.

In discussion with FWFN representatives, roughly 30%-40% of the lands are subject to existing leases, leaving some +/- 300 hectares available for development. At present, the infrastructure/servicing is fragmented. Mapping of development opportunities and constraints is currently underway. FWFN has engaged a consulting/engineering firm to undertake an assessment of the infrastructure capacity and needs in order to pursue future business opportunities, with the goal of creating an engineering/design layout plan of industrial lots (including all required infrastructure), and a marketing study. Future development will be subject to a land lease arrangement, since FWFN is not seeking to dispose of its land holdings.

As has been noted earlier, Thunder Bay's vast supply of vacant and underutilized Heavy Industrial-designated sites can withstand some conversion to Light Industrial uses. This recommendation applies to the subject lands. These lands are presently designated as Heavy Industrial, and Zoned IN3 (Heavy Industrial Zone). In order to increase the opportunity for these lands to attract users, it is advised that a conversion to Light Industrial is supportable, should such applications arise. This may be particularly appropriate where the industrial lands are adjacent or in proximity to residential areas within the Fort William First Nation Reserve. This can be addressed as part of the ongoing dialogue between City staff and FWFN representatives.

Time Horizon

Short-term (next 5 years) to Medium-term (6-10 years)

EXHIBIT 47 - SITE-SPECIFIC RECOMMENDATIONS MAP 6



Shabaqua Extension Industrial-designated lands – these unserviced, outlying industrial lands are not required to meet anticipated land needs, and could be redesignated (subject to market demand).

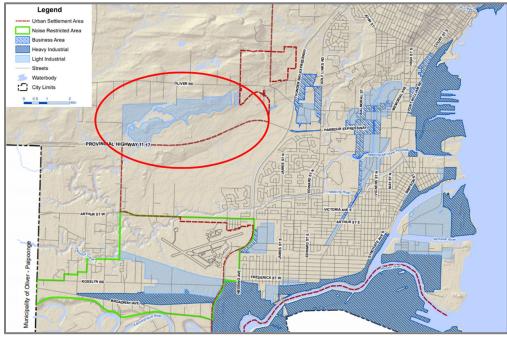
Recommendation

These unserviced lands have been designated as Industrial for some time. The original vision was for the expressway extension to "unlock" these lands, but the presence of Provincially Significant Wetlands (William's Bog) impacts connectivity to the controlled access highway (Trans-Canada Highway). On the north side, Oliver Road provides access – although through a residential area, which is not optimal, from a goodsmovement perspective. While it is possible that some "dry" industrial uses may seek a site in this area – such as a warehousing/distribution user, or a business seeking outside storage space for materials and/or equipment – the surplus of Industrial-designated lands city-wide provides flexibility to allow land use conversion away from an employment use, should market demand emerge over time. Such a conversion is likeliest to occur on lands in the eastern portion of this area, nearest to the Urban Settlement Area boundary.

Time Horizon

Longer-term (beyond 10 years)

EXHIBIT 48 - SITE-SPECIFIC RECOMMENDATIONS MAP 7



OTHER RECOMMENDATIONS

Promote opportunities for development along the waterfront, while protecting the Port function.

Recommendation

Thunder Bay's waterfront is extensive, and it is evolving into an even more diverse and mixed-use economic attribute. Segments of waterfront lands are now available for redevelopment, and there may be further potential to introduce development in an effort to establish a broader base of uses and improve public access. However, **some of the city's historic port function remains**, **and must be protected from the expansion of sensitive land uses**.

The land development economics associated with individual properties precludes our ability to prioritize sites, although those in proximity to the historic downtowns should be viewed as more favourable, from a city-building perspective (such as the 28-hectare old Great West Timber site on Marina Park Drive, north of River Street). As a complicating factor, many waterfront sites are large parcels, and market demand/absorption timing must be considered in any redevelopment venture. Accordingly, it is advised that the City allow the private development market to lead the way on waterfront redevelopment, as it is accustomed to taking on and pricing development risk. As part of this overall process, the City can ensure its city-building objectives are taken into account (such as increasing access to the waterfront, parkland and open space creation, inclusion of community/cultural facilities, etc.).

From a land needs perspective, there is sufficient vacant, designated employment lands elsewhere in the city such that waterfront lands are not required as a component of growth. Such opportunities should be seen as aspirational.

Time Horizon

Over the full horizon of this strategy (through 2051)

Re-evaluate the need for a Market and Economic Impact Analysis.

Recommendation

The City's Official Plan, Commercial Areas policies, includes the potential requirement for a Market and Economic Impact Analysis. This kind of requirement can act as a deterrent to new investment, depending upon why and when it is used. While the Consultant Team's view is that this requirement should be removed altogether – allowing market forces to shape the city's retail-commercial competitive environment – at a minimum, the City should assess the effectiveness of this tool in actually achieving the desired outcomes. The value of, and the need for a Market and Economic Impact Analysis, must be confirmed in light of the ever-changing retail environment.

Time Horizon

Short-term (next 5 years)

APPENDIX 1 – SUMMARY OF STAKEHOLDER INPUT

Introduction

At the outset of this project, the Consultant Team held discussions with City of Thunder Bay/CEDC staff, to identify key issues that would inform and guide our analysis. Subsequently, the Consultant Team engaged with a range of stakeholders across a spectrum of interests, including Fort William First Nation, the local business community, major institutions, key infrastructure providers, and real estate market participants. Further discussions with City/CEDC staff took place during the course of the assignment, in order to refine our work.

Insights from all of these conversations are woven into our analysis and strategic recommendations. The list of stakeholders that we engaged with includes the following:

- Community Economic Development Commission and City of Thunder Bay staff (including Planning Services, Building Services, Realty Services, Transit Services, and Engineering);
- Municipal political leadership Mayor Bill Mauro and Jeff Howie (Policy Assistant);
- Fort William First Nation representatives from Department of Economic Development;
- The local business community (Thunder Bay Chamber of Commerce, Anishnawbe Business Professional Association, Thunder Bay Executives Association);
- Major local institutions (Lakehead University, Confederation College, Thunder Bay Regional Health Sciences Centre, and St. Joseph's Care Group);
- Major local infrastructure (Thunder Bay International Airport, and Port of Thunder Bay); and,
- Local real estate market participants (developers, landlords, brokers, and appraisers).

Stakeholder Input by Topic/Theme

The following section provides a summary of stakeholder insights, and is grouped by topic/theme.

Perspectives on Downtown Areas, Waterfront, and Intercity

- The North Core (Port Arthur) is improving/doing well, but the South Core (Fort William) is still facing challenges, and needs help in particular to address social/health issues.
- Waterfront investment has been a catalyst for Port Arthur area.
- There can be opportunities to repurpose or rebuild properties in the two downtowns.
- Question whether the industrial waterfront should be maintained, or revitalized.
- The Intercity area is successful in functioning as the regional retail centre.

Perspectives on Innova Business Park

Vision, Origins, and Perspectives on Current State

- Envisioned as a prestige business area for technical offices and light industrial uses.
- Innova was serviced based on perceived demand from businesses in the forestry and mining sectors, as well as value-added uses (business services/consultants).
- Innova is well located, and therefore is "great land for everything".
- Want Innova lands to have a positive impact for Thunder Bay, and higher design standards.
- Many view Innova as a "fail", due to considerable remaining undeveloped lands.

Development Costs and Land Prices

- Land prices in Innova are not an impediment to development. Added cost to prepare land for development, such as removing muskeg/adding fill, are more of a cost consideration.
- Land prices in Innova haven't changed much over time. With regard to land absorption in Innova, price isn't the issue demand is.
- The expense of developing Innova Business Park is a sunk cost, and the maintenance cost is limited. So... "why rush the wrong type of development?"
- As a landowner, the City can "land bank" at a low carrying cost.

Prospective Users/Uses, and Perceived Development Limitations

- Reasons for slow rate of land take-up include zoning restrictiveness, and architectural issues
 (although this latter point is a relatively minor concern it is acknowledged as a small cost in the
 overall scope of development).
- Need to be cautious not to displace potential growth that would occur in other locations, and allow it to take place in Innova such as retail uses.
- Innova can be a difficult location to pitch to businesses a "Catch-22" due to "no critical mass".
- Innova Business Park zoning limits development opportunities (especially IN6).
- Uses such as automotive dealerships and hotels have expressed interest in Innova, but have not been successful in securing sites.

The Local Economy, and Growth Opportunities/Impediments

Economic Perspectives

- Local economy has undergone a profound shift from natural resources (pulp and paper) to services (health care and education).
- Thunder Bay remains "bedroom" for the mining sector. Mining sector continues to drive opportunities in the economy, including hospitality (hotels and restaurants).
- The Hospital keeps the hospitality/food and beverage industries busy out-of-town residents seeking health care.
- Port-related activity is still high, but employment is much lower than in the past.
- The local small business community is pretty strong.

Growth Opportunities

- Foresee future opportunities for the city in natural resources (already well established); tech sector; health care and related sciences; agriculture and agribusiness.
- Anticipate economic gains from large infrastructure (hydro transmission corridors, power plant, and new roads) and mining projects taking place in northwestern Ontario. Spin-off activities will include need for housing, travel, entertainment, etc.
- Fort William First Nation recently issued an RFP to engineering companies to seek advice regarding additional land servicing for Grand Trunk Pacific Lands, including where to put roads, what lot sizes and locations are suitable, and whether more infrastructure is required.
- Sites such as the waterfront and Kaministiquia River/Mission River frontage (Fort William First Nation lands) present future employment land opportunities.
- Opportunity to incubate private sector enterprises at College and University.
- Desire to promote more diversified tourism-related opportunities beyond Thunder Bay, into outlying communities.

• Important to not only concentrate growth in City of Thunder Bay, but also across the region, to spread prosperity.

Impediments to Growth

- At times, there is a skills mismatch between available labour and jobs. Observable in immigration, as well as inflows from First Nations. Need to bridge this gap with education and skills training.
- A perception among some that "the Planning Department is not open for business". Need to expedite the planning process – permits take too long for approval.
- Restrictive zoning can frustrate small businesses rezoning takes time and money.
- Social and health care issues such as drug addiction, mental illness, poverty, and loitering in public areas affect the community.
 - Consultant Team note: Unfortunately, such issues are common in large, metropolitan areas;
 they are multi-faceted, and challenging to address.

Employment Land Market Dynamics

- There is an adequate supply of employment lands, but not always with the right zoning permissions.
- Large-scale, land-extensive users have not been driving growth; small and medium-sized businesses have been.
- Large greenfield employment land is not in demand should focus on infill, building retrofits, and intensification. Make better use of existing infrastructure.
- Local private landowners may be reluctant to sell are holding out for higher prices. This applies to both residential and commercial land.
- City-owned employment lands play a role in providing options to prospective developers.

Transit

- Thunder Bay Transit's bus network has five hubs: Waterfront, Intercity, City Hall, Lakehead University, and Confederation College. These are transfer points.
 - Consultant Team note: Overall, good availability of transit to key employment areas; service frequency is the more pertinent issue.
- Thunder Bay Transit is undertaking a route optimization study that could allow more on-street transfer opportunities.
- Locally, the current modal split is just 4% transit; goal to bring this closer to 10% over time.
 - Consultant Team note: It is a challenge to justify transit investments given the present low level of ridership.
- Transit-oriented development is currently not a feature in the city likely due to level of ridership.

Anticipated Land Needs Among Major Institutional Employers

In discussion with major institutional employers, the following perspective on anticipated growth and potential land requirements were identified:

- Lakehead University The University is always poised for growth; it's 5-year Strategic Plan (2018-2023) is growth-oriented. Over the next 5-10 years, the institution is focused on oncampus expansion, and there is a lot of land available for development. In particular, this supply includes undeveloped lands along Oliver Road, as well as numerous surface parking lots. The Lakehead campus is centrally located within the city, and the University has been approached by prospective developers seeking land (in particular for hotel use).
- Confederation College As part of its Strategic Plan for 2017-2020, the College will "invest in buildings and centres that contribute to a positive learning and work environment and that convey the uniqueness of Confederation College". As well, it will "refresh and renew the College's infrastructure... in order to improve efficiencies during program and service delivery". The College has lands on its periphery (along Harbour Expressway, Golf Links Road, and William Street) that would be suited to accommodate new development, along with various surface parking lots. For the foreseeable future, the College is focused upon on-campus growth opportunities. In fact, a current off-site use in leased office space in Port Arthur (Northwest Employment Works located in the Whalen Building) that provides employment support to the community is not having the intended outcomes (less foot traffic than anticipated, and issues with respect to building security) so this will likely be relocated on-campus when possible.
- Thunder Bay Regional Health Sciences Centre (TBRHSC) TBRHSC has no plans to expand any of its uses at this time, nor change any of its land uses. There is no intention to acquire or dispose of any property at this time, or for the foreseeable future. There is no immediate office space need for which TBRHSC has received funding although this need exists. It is anticipated that the largest project that involves major expansion (cardiovascular) will be accommodated on the hospital site. The campus has undeveloped lands, and considerable surface parking.
- St. Joseph's Care Group The organization operates in varied settings, including a hospital, long-term care facilities, and supportive housing. Its three principal locations include the St. Joseph's Hospital (on Algoma Street North, in Port Arthur), the Heritage site (Carrie Street and Martha Street), and the Hogarth Riverview Manor site (Lillie Street North, north of Victoria Avenue East). It also has other smaller owned and leased sites. Long-term care and supporting housing service needs are closely linked to the seniors cohort of the population, so the early 2030s is identified as a period of anticipated growth, based on demographics. Having recently completed an expansion of the hospital site (+/- 9,300 m² in size), the organization's Master Plan will be updated to focus on optimizing current facilities (next 5 years), and then examining possible redevelopment at existing sites (up to 15 years). From a site selection perspective, the various facilities have different requirements some services benefit from a public presence, while others blend into residential neighbourhoods.

APPENDIX 2 – PERSPECTIVES ON DOWNTOWN REVITALIZATION

Issues – The Existing Context

Thunder Bay, given it administrative history, includes two separate and distinct historic downtowns – the Strategic Cores of both Fort William (South Core) and Port Arthur (North Core). Both of these historic downtown areas have struggled over the years to maintain their important functional attributes and character. The decline of these city centres over many years is the result of a multitude of factors, and the current state of that decline has not gone without notice.

Over their more recent history, it is clear to see that significant public sector investments have been made in new buildings, resulting in renewed functional importance. City administrative functions and the Courts are major investments that will have long-lasting impacts in Fort William. The Casino, the Provincial Offices, and the new waterfront-focused development will be seen as transformative investments for Port Arthur. In both cases, the impact of the public sector investment will be felt for many years. In addition, a review of the applicable planning frameworks within both downtowns indicates that each is considered generally permissive. Importantly, there does appear to be a general acceptance that the ongoing renewal of both downtowns is an important city-building priority, and an economic development imperative. It is specifically mentioned in the City's new Corporate Strategic Plan for 2019-2022: One City, Growing Together.

There is always more to do! Notwithstanding recent investment activity within both downtown areas, there are still challenges to overcome, including:

- Inconsistent Image Both of the downtown areas retain remnants of their historic retail, administrative, entertainment, and cultural functions. In both places, new public sector investments have aided in the long-term evolution of both function and character. However, there remains much room for improvement. Today, both historic downtowns have an inconsistent image although they both have some high quality new additions, as well as some historic sections that portray pride of ownership. Both downtowns also have areas with derelict, vacant, or underutilized buildings and properties.
- Struggling Retail Environment Clearly, both downtowns have lost their primary retail and
 service commercial functions within the City of Thunder Bay, as those uses have evolved and
 moved out of the downtown areas into new formats (primarily within the Intercity). The critical
 mass necessary to ensure an ongoing and healthy retail function has eroded over the years, to
 the point where some retail and service commercial uses remaining in the downtown areas
 appear struggling.
- Lack of Urban Context Surface parking lots, low scale buildings, and vacant/underutilized buildings and properties do not promote the vitality expected within a successful urban context. Parts of both of the historic downtown areas are unattractive and uninviting. Successful downtowns accommodate the highest order of goods and services, have the most important cultural and entertainment hubs in the city, and promote an urban context that attracts people and activities. A desirable urban context is a combination of beautiful public spaces (including parks and streetscapes); urban buildings that create a definable street wall; and vibrant land uses that create an atmosphere of opportunity and excitement.

• Market Indifference – One of the most difficult obstacles that these two historic downtown areas face is market indifference. There are substantial alternative development and locational opportunities in Thunder Bay that attract investment – new homes in new communities; new retail and service commercial uses agglomerating at highly accessible locations where the critical mass of facilities has been evolving; and generally places that offer an investment environment that the downtowns struggle to compete with. In a marketplace with limited growth potential, it is difficult to sell the urban downtown dream – particularly when there are a number of key image issues that need to be overcome to achieve success.

Actions – Three Interconnected Requirements

In revitalizing a downtown – and in Thunder Bay's case, two downtowns – it is important to note that there is no "silver bullet" that will ensure immediate transformation; instead, a multi-faceted, comprehensive, and long-term approach is required to achieve a successful revitalization. There is always the need for a comprehensive strategy that includes public realm improvements, infrastructure improvements, and private sector redevelopment initiatives. Experience suggests that there are three fundamental pillars of a comprehensive Downtown Revitalization Strategy that are required, as follows:

- Pillar 1: Establishing the Environment for Change Facilitating positive change is not just
 about wanting it; it is about proving how much you want it, and making it happen. A passive
 approach will not work. There are three key elements to consider with respect to establishing the
 environment for change:
 - A Long-Term Vision The vision attracts the investment both public and private sector investment. The long-term vision is multi-faceted, ensuring that infrastructure supports public realm improvements, which supports private sector investment, which supports infrastructure investment, and so on. The long-term vision must deal with all of the aspects of success. This vision is not just about beautification, it is also about the functional elements of the downtown how it works, what the combination of land uses are, and how they are serviced. Downtown revitalization is about attracting new residents and new businesses. It is about creating a community that is vibrant, desirable, and attractive to investors.
 - Public Sector Investment Public sector investment makes a statement. Whether it be local, provincial or federal, public sector investment is a strategic tool that tells the private sector that positive change is coming, and that they are not alone in achieving the vision. Big investment has a big impact. City Hall, courts, hospitals, colleges, and universities are all generators of activity, and have tremendous spin-off effects.
 - Strong Political Will Political will to achieve the vision is a crucial element in achieving successful downtown revitalization. Council needs to be a champion for positive change, and must work with higher levels of government, city staff, and the private development industry to facilitate the long-term vision. Multiple activities are required, along with a comprehensive, long-term commitment to change.
- Pillar 2: Reducing the Risk The private sector development industry is extremely risk averse, and they look for opportunities that will generate the necessary return on their investment on a risk-adjusted basis. The municipality has a significant role in dealing with the inherent risks of the development approvals process. The following identifies three necessary elements to consider with respect to reducing the risk:
 - Supportive Policy Framework The Thunder Bay Official Plan fully recognizes that the
 historic downtowns will continue to evolve as eclectic and diverse mixed-use areas that include
 higher density residential land uses, and a host of employment generating land uses. Both
 downtown areas remain important economic generators.

The Official Plan directs ongoing revitalization activities and public investment opportunities to enable these areas continue to evolve, and continue to improve in character and function, to ensure that they both remain vital components of the City's urban structure. They are positioned to attract private sector investment in residential, retail, and service commercial uses, restaurants, and offices. They are – and will continue to be – multi-functional, mixeduse, and historic.

Overall, the Official Plan is considered a very supportive and risk-friendly policy framework. It is a framework intended to ensure that both the downtowns will remain important contributors to the economic growth of Thunder Bay.

- Pre-Zoning/Expedited Approvals The Thunder Bay Zoning By-law effectively pre-zones much of the downtown areas within the "C5 Zone". The C5 Zone identifies a very long list of permitted uses a list that has likely evolved over a very long time frame. The list is certainly comprehensive, and permits a full range of uses conducive to establishing both of the downtowns as fully mixed-use communities.
 - With respect to the regulatory regime, the C5 Zone is also quite permissive in that it does not regulate built form to any significant degree. Neither Gross Floor Area, nor Building Height are regulated in Downtown Fort William. In Downtown Port Arthur, Section 5.7 identifies a Building Height regime (5 to 7 storeys), but the By-law does not regulate Gross Floor Area. While the height limits in Downtown Port Arthur may be considered somewhat restrictive, overall the development regime that is permitted as-of-right within the downtowns is considered to be permissive. The lack of significant regulations on built-form will be considered risk-friendly by the development community.
- Administrative Support Risk will not be reduced and development can get bogged down, or even abandoned if the entire administration (every department) of the City is not on-board with the vision. City staff need to work together seamlessly to facilitate change. Part of the purpose of a long-term vision is to ensure that all of the details of development can be adequately dealt with in an expedited way; hold-ups at City Hall (Planning Services, Building Services, Legal Services, etc.) will undo all of the positive momentum of facilitative planning policy. The City should look at planning approvals for development comprehensively, and if facilitation is the objective, make sure fundamental issues are dealt with before individual development proposals are received.
- Pillar 3: Reducing the Cost Generally, downtown redevelopment is more costly than typical greenfield developments. There may be demolition costs, or site remediation. There may be more issues because of site adjacencies. More intense forms of development that require belowgrade engineering or structure is more expensive to build. Taller buildings, especially when elevators are required, are costlier. The objective here is to even the playing field between downtown redevelopment and less costly greenfield development opportunities. The following identifies four contributing elements to consider with respect to reducing the cost of downtown redevelopment:
 - Public-Private Partnerships Government agencies are typically among the largest landowners in a downtown area. Strategic utilization of the public land resource, in partnership with the private sector, can result in cost effective development and/or development that contributes to a defined public need. Public-Private Partnerships can be a very effective tool to achieve cost-effective, mutually-beneficial development.

- Enhanced Development Potential The financial pro forma of a development proposal is affected by the rentable/sellable floor area that is produced. More development potential is sometimes crucial in achieving fiscal success. The Thunder Bay Zoning By-law, as previously noted, is considered quite permissive; it does not regulate the amount of Gross Floor Area in either downtown, nor regulate height in Fort William. In Port Arthur, height is regulated, with maximum heights in the 7-storey range. The inherent permissiveness of the existing planning framework would suggest that development potential is not a major impediment to redevelopment in these downtowns.
- Appropriate Parking/Parkland Requirements Parking requirements are also viewed as permissive. Section 5.15.5 waives parking requirements for all uses, in both downtowns except for significant residential uses, where the parking requirement is quite low (0.25 spaces per unit). This approach to parking in the downtown areas is considered appropriate, and will not pose any significant cost concern for new development.
 - Parkland dedication is also sometimes viewed as a significant cost impediment for new urban development. However, Bill 108 has made that discussion quite a bit different, and it is likely too early to know if a future Community Benefits Charge might be imposed on the downtowns. That will be a decision to be made by Council in the coming months.
- Financial Incentives Given that a permissive planning policy/zoning regime has not had the desired stimulative impact within the downtowns, the cost issue may need to be dealt with through a financial incentive package. Reduced municipal fees associated with new development/redevelopment can have an impact; however, more significant incentives can be established through a Community Improvement Plan (CIP). Financial incentive programs under the CIP legislation can be used to improve current conditions and/or to facilitate more substantial redevelopment opportunities. In a general sense, the greater the financial incentive package, the greater the stimulative impact.

Results - Future Success

The ultimate goal of the City in revitalizing the two downtown areas is to ensure their ongoing success as vibrant, beautiful, mixed-use, and higher density communities within the urban structure of the City of Thunder Bay. These downtowns should remain part of the City's long-term economic development strategy, and should become desirable places to live, work, learn, and play. They should also be net positive contributors to the City's tax base, and be attractive to residents, visitors, businesses, and investors.

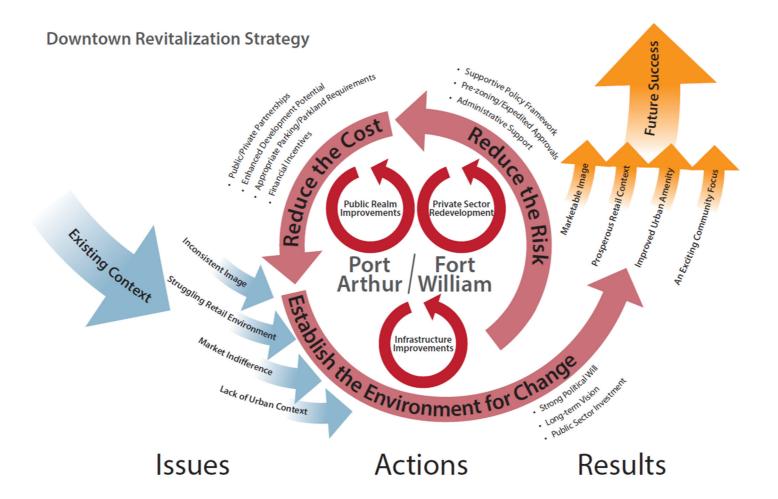
Ultimately, success can be measured. Just like the key issues identified earlier, success is about overcoming those issues, including the creation of:

- A Marketable Image;
- A Prosperous Retail-Commercial Context;
- An Improved Urban Amenity; and,
- An Exciting Community Focus.

The City of Thunder Bay is on the right track. A supportive planning policy regime is in place, and significant public sector investment have started the transformation. However, downtown revitalization is never "finished"; the work is never done. There is always improvement to make, and always something better to be strived for.

The following "turbine" image illustrates the Downtown Revitalization Strategy's components: Issues, Actions, and Results.

EXHIBIT 49 – DOWNTOWN REVITALIZATION STRATEGY "TURBINE"



APPENDIX 3 – POPULATION AND EMPLOYMENT PROJECTION EXHIBITS

The following exhibits profile the population and employment by place of work forecasts for the Base, Low, High, and High+ projection scenarios for the period from 2016-2051 for the City of Thunder Bay.

Base Case Projection

EXHIBIT 50 - BASE CASE - POPULATION AND EMPLOYMENT PROJECTION (2019-2051)							
Category	2016	2019	2021	2031	2041	2051	Change 2019-2051
Total Population (persons)	107,810	108,935	110,209	117,561	121,683	124,241	15,306
All Industries EPOW (jobs)	48,810	49,322	49,772	53,498	56,428	59,682	10,360
Agriculture, forestry	455	472	465	476	473	462	-11
Mining, oil and gas	175	174	181	202	218	231	57
Utilities	460	523	528	494	454	418	-106
Construction	1,905	1,914	1,954	2,130	2,271	2,422	508
Manufacturing	2,900	2,916	2,929	2,987	2,948	2,866	-50
Wholesale trade	1,365	1,311	1,263	1,135	999	881	-430
Retail trade	6,785	6,700	6,659	6,646	6,501	6,372	-328
Transportation, warehousing	2,205	2,386	2,392	2,793	3,191	3,645	1,259
Information, culture	1,075	1,028	1,057	1,058	1,036	1,014	-13
Finance, insurance, real estate, leasing	1,950	1,937	1,934	1,970	1,968	1,974	37
Professional, scientific, technical	2,810	2,919	2,872	3,147	3,376	3,626	706
Other business services	1,040	1,060	1,074	1,161	1,233	1,314	253
Education	4,515	4,675	4,688	5,077	5,375	5,692	1,017
Health, social services	9,650	9,792	9,975	11,381	12,671	14,061	4,268
Arts, entertainment, recreation	880	839	891	994	1,087	1,192	353
Accommodation, food	4,235	4,109	4,460	5,243	6,014	6,888	2,780
Other services	2,255	2,310	2,301	2,377	2,405	2,440	130
Government	4,150	4,256	4,149	4,228	4,209	4,184	-72
Note: "EPOW" = Employed by Place of Work							

Low Case Projection

EXHIBIT 51 – BASE CASE – POPULATION AND EMPLOYMENT PROJECTION (2019-2051)							
Category	2016	2019	2021	2031	2041	2051	Change 2019-2051
Total Population (persons)	107,810	108,122	108,844	113,254	114,338	113,863	5,741
All Industries EPOW (jobs)	48,810	48,954	49,155	51,537	53,021	54,696	5,742
Agriculture, forestry	455	469	459	459	444	423	-46
Mining, oil and gas	175	172	179	194	204	212	39
Utilities	460	519	521	476	426	383	-137
Construction	1,905	1,900	1,930	2,052	2,134	2,220	320
Manufacturing	2,900	2,894	2,892	2,877	2,770	2,625	-269
Wholesale trade	1,365	1,301	1,247	1,093	938	808	-493
Retail trade	6,785	6,650	6,576	6,402	6,108	5,839	-811
Transportation, warehousing	2,205	2,368	2,362	2,691	2,998	3,341	973
Information, culture	1,075	1,020	1,044	1,019	973	930	-90
Finance, insurance, real estate, leasing	1,950	1,923	1,910	1,898	1,850	1,810	-113
Professional, scientific, technical	2,810	2,898	2,837	3,032	3,172	3,323	425
Other business services	1,040	1,053	1,061	1,119	1,158	1,204	151
Education	4,515	4,640	4,630	4,891	5,051	5,216	577
Health, social services	9,650	9,719	9,851	10,964	11,907	12,888	3,168
Arts, entertainment, recreation	880	833	880	958	1,021	1,092	259
Accommodation, food	4,235	4,078	4,405	5,051	5,651	6,313	2,235
Other services	2,255	2,292	2,273	2,290	2,260	2,236	-56
Government	4,150	4,224	4,098	4,073	3,955	3,834	-390
Note: "EPOW" = Employed by Place of Work							

High Case Projection

EXHIBIT 52 - BASE CASE - POPULATION AND EMPLOYMENT PROJECTION (2019-2051)							
Category	2016	2019	2021	2031	2041	2051	Change 2019-2051
Total Population (persons)	107,810	109,751	111,588	122,021	129,480	135,535	25,784
All Industries EPOW (jobs)	48,810	49,691	50,394	55,528	60,044	65,108	15,417
Agriculture, forestry	455	476	470	494	503	504	28
Mining, oil and gas	175	175	183	209	231	252	77
Utilities	460	527	534	513	483	456	-72
Construction	1,905	1,929	1,978	2,210	2,416	2,643	714
Manufacturing	2,900	2,938	2,966	3,100	3,138	3,128	190
Wholesale trade	1,365	1,321	1,279	1,178	1,063	962	-359
Retail trade	6,785	6,751	6,742	6,898	6,917	6,952	201
Transportation, warehousing	2,205	2,403	2,421	2,899	3,395	3,976	1,573
Information, culture	1,075	1,035	1,070	1,098	1,102	1,107	71
Finance, insurance, real estate, leasing	1,950	1,952	1,959	2,045	2,094	2,154	202
Professional, scientific, technical	2,810	2,941	2,908	3,267	3,592	3,955	1,014
Other business services	1,040	1,068	1,087	1,206	1,312	1,433	365
Education	4,515	4,710	4,746	5,269	5,720	6,210	1,500
Health, social services	9,650	9,866	10,100	11,812	13,482	15,338	5,472
Arts, entertainment, recreation	880	845	903	1,032	1,156	1,300	455
Accommodation, food	4,235	4,139	4,516	5,442	6,399	7,514	3,375
Other services	2,255	2,327	2,330	2,467	2,559	2,662	335
Government	4,150	4,288	4,201	4,389	4,480	4,565	277
Note: "EPOW" = Employed by Place of Work							

High+ Case Projection

Category	2016	2019	2021	2031	2041	2051	Change 2019-2051
Total Population (persons)	107,810	109,751	113,158	138,861	148,097	155,802	46,051
All Industries EPOW (jobs)	48,810	49,691	50,957	61,628	66,964	72,995	23,303
Agriculture, forestry	455	476	470	494	503	504	28
Mining, oil and gas	175	175	183	209	231	252	77
Utilities	460	527	540	572	541	513	-14
Construction	1,905	1,929	2,003	2,486	2,732	3,004	1,075
Manufacturing	2,900	2,938	2,966	3,100	3,138	3,128	190
Wholesale trade	1,365	1,321	1,297	1,340	1,216	1,105	-216
Retail trade	6,785	6,751	6,830	7,779	7,842	7,923	1,172
Transportation, warehousing	2,205	2,403	2,453	3,268	3,846	4,529	2,125
Information, culture	1,075	1,035	1,085	1,249	1,260	1,272	237
Finance, insurance, real estate, leasing	1,950	1,952	1,986	2,327	2,396	2,476	524
Professional, scientific, technical	2,810	2,941	2,949	3,718	4,108	4,547	1,605
Other business services	1,040	1,068	1,103	1,372	1,500	1,647	579
Education	4,515	4,710	4,806	5,919	6,459	7,050	2,340
Health, social services	9,650	9,866	10,188	12,838	14,727	16,849	6,983
Arts, entertainment, recreation	880	845	915	1,174	1,323	1,494	649
Accommodation, food	4,235	4,139	4,572	6,104	7,216	8,520	4,380
Other services	2,255	2,327	2,362	2,799	2,918	3,050	724
Government	4,150	4,288	4,249	4,880	5,008	5,133	845

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