From suburb to regional hub:
Exploring logistical geographies in Abbotsford, B.C.

by

Kamilah Charters-Gabanek

Bachelor of Arts (Political Science), Simon Fraser University, 2014

Project Submitted in Partial Fulfillment of the
Requirements for the Degree of
Master of Urban Studies

in the
Urban Studies Program
Faculty of Arts and Social Sciences

SIMON FRASER UNIVERSITY
Fall 2023

Declaration of Committee

Name:	**Kamilah Charters-Gabanek**
Degree:	**Master of Urban Studies**
Title:	**From suburb to regional hub: Exploring logistical geographies in Abbotsford, B.C.**
Committee:	**Chair: Karen Ferguson** Professor, Urban Studies and History
	Peter V. Hall Supervisor Professor, Urban Studies
	Anthony Perl Committee Member Professor, Urban Studies and Political Science
	Julie Cidell Examiner Professor, Geography and Geographic Information Science University of Illinois at Urbana-Champaign

Ethics Statement

The author, whose name appears on the title page of this work, has obtained, for the research described in this work, either:

a. human research ethics approval from the Simon Fraser University Office of Research Ethics

or

b. advance approval of the animal care protocol from the University Animal Care Committee of Simon Fraser University

or has conducted the research

c. as a co-investigator, collaborator, or research assistant in a research project approved in advance.

A copy of the approval letter has been filed with the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for approval and letter of approval are filed with the relevant offices. Inquiries may be directed to those authorities.

Simon Fraser University Library
Burnaby, British Columbia, Canada

Update Spring 2016

Abstract

Deindustrialization, globalization, and the changing demands of global supply chains are driving spatial changes at local and regional scales. The movement of goods and related infrastructure has seen a shift away from inner-city locations toward suburban and exurban sites that can provide large plots of land close to major transportation networks, ideal for the construction of large-footprint warehouses and distribution centres. This research explores the relationship between the global logistics industry and local governments, who, through local land use planning policies, play a direct role in the ability of firms to develop warehouses. I focus on the City of Abbotsford, a suburban municipality in B.C.'s Lower Mainland, and its efforts to accommodate large-scale industrial users, including warehousing and logistics. I find that while logistics remains a challenging industry to plan for and manage at the local level, suburban actors are attempting to take advantage of this economic and spatial shift by developing new narratives to propel industrial growth forward.

Keywords: logistics sprawl; land use planning; industrial land; local government; spatial imaginaries; economic development; suburban growth

Dedication

This thesis project is dedicated to warehouse workers and all supply chain workers whose often invisible labour has become so key to the functioning of our everyday lives.

Acknowledgements

Thank you to my interview subjects for taking the time to speak with me and share your expertise and perspectives on economic development, planning, and the City of Abbotsford. Without your time and input this project would not have been possible.

Thank you to all the Urban Studies faculty and staff, in particular, Professor Peter V. Hall for your thoughtful feedback, understanding, and keeping me on track as I completed this project alongside several career changes and other life events; to Professor Anthony Perl for encouraging me to pursue graduate studies when I first began my career in local government; and to Professor Karen Ferguson for your guidance at the outset of this project. Thank you as well to Associate Professor Nicolas Raimbault of the University of Nantes for helping to show me the ‘quite unknown’ world of logistics, and Professor Julie Cidell of the University of Illinois at Urbana-Champaign for producing the research that much of this project was inspired by.

Thank you to Catherine Louie and Nina Smart from the Research Commons and SFU Library for your research support.

Thank you to my fellow classmates and Urban Studies alumni. I’m grateful to feel part of a much larger and supportive community.

Thank you to my friends and family for your patience, advice, and keeping me motivated. I am looking forward to spending more time together again.

Finally, thank you to Alan, for everything you have done to support me over the last 3 years.

Table of Contents

List of Tables

List of Figures

List of Acronyms

ALC	Agriculture Land Commission
ALR	Agricultural Land Reserve

Glossary

Industrial lands	Industrial lands are those used for industrial purposes, including warehousing, distribution, manufacturing, processing, local production, and new emerging technology-driven businesses (InterVistas Consulting Ltd. & Urban Systems, 2023, p. 1)
Logistics	The integration of physical transport modes including ships, containers, and trucks with information based inventory control such as computer tracking, inventory control, and delivery information (Coe, 2020) Logistics includes “the process of planning, implementing and controlling the efficient cost effective flow and storage of raw-materials, in-process inventory, finished goods and related information from point of origin to point of consumption for the purpose of conforming to customer requirements” (Council of Logistics Management 1986 in Hesse, 2008)
Logistics facilities	Warehouses, distribution centres, and fulfillment centres (Allen et al., 2012)
Special study area	Special study areas are sites that require additional study, consultation, and planning to determine their future use through a land use plan amendment. Until further analysis can be completed, the current use remains unchanged (Vancouver Fraser Port Authority, 2020)
Trade-enabling industrial lands	A particularly important subset of industrial lands are trade-enabling lands– those are lands which support trade flows between Canada and its many trading partners. Generally, trade-enabling industrial lands can have different land use requirements than other industrial uses, namely the size of the parcel of land required and accessibility to major transportation corridors (InterVistas Consulting Ltd. & Urban Systems, 2023, p. 1)

Preface

> Xchange Business Park has the ability to boost BC exports and solidify Abbotsford's role as a logistics and warehousing hub for the province.
>
> *(Hungerford Properties & QuadReal Property Group quoted in Hopes, 2022)*
>
> Key economic projects like this help further cement Abbotsford as the regional economic and cultural hub of the Fraser Valley.
>
> *(Ross Siemens, Mayor of Abbotsford quoted in Hopes, 2022)*

Site for the future Xchange Business Park, a 140-acre logistics and warehousing development in Abbotsford, B.C.
Note: Photo by Author. November 2022.

Chapter 1.

Introduction

British Columbia's Lower Mainland is currently experiencing what has been described as a dwindling supply of industrial land, with major industrial parks in the region nearing capacity (Neill, 2019, p. 9). Exacerbating this shortage is the bounded nature of the Lower Mainland: located between mountains, an ocean, and an international border, this has created a situation in which accommodating growth in outer areas is challenging given the scarcity of land in general (Metro Vancouver, 2020, p. 24). As municipalities across the Lower Mainland seek to address this shortage of industrial lands through various policy responses, some look to rezoning lower-value land uses on the urban fringe to accommodate this need (Wakefield, 2016). In turn, pressure is placed on rural land uses and industrial jobs are often relocated to remote, transit-deficient areas (McElroy, 2021).

Alongside a limited supply of vacant industrial land, high demand for new space, and a scarcity of land in general (Metro Vancouver, 2020), demand for industrial land has undergone a spatial shift largely due to changes in technology, deindustrialization, and the subsequent changing needs of the global logistics industry (Hesse, 2008). As many goods are now imported from countries with lower labour costs, their storage takes place at "modern warehouses capable of handling major flows…located either near the ports or at regional and national distribution centres located on major road networks outside of urban areas" (Allen et al., 2012, p. 46). In turn, demand for industrial land has witnessed an outward trend, declining in city centres and growing in suburban and exurban areas. These areas have become attractive to the logistics industry because of their cheap, large parcels of land, proximity to major transport networks, and their supply of inexpensive but sufficiently skilled labour: all characteristics that support the global circulation of goods (Bonacich & Wilson, 2008, p. 135; Raimbault, 2021). In turn, suburban landscapes are changing, with "single-story distribution centers spread over hundreds of thousands of square feet" (Cidell, 2010, p. 371) becoming a common sight across the built environment. The suburbanization of logistics facilities, including the development of larger-scale warehouses and distribution centres, is referred to in the literature as 'logistics sprawl' (Aljohani & Thompson, 2016, p. 256), bringing with it

environmental and social impacts including increased truck travel and commuting times for employees (Aljohani & Thompson, 2016), as well as the loss of agricultural land (Kumhálová et al., 2019). As Dablanc and Browne (2020) note, the significant effects of logistics sprawl on urban environments means that “giving permission for the implementation of warehouses is no small matter” (p. 2).

Given the situation presented above, my research explores the experience of one such suburban community in its efforts to respond to the growing demand for industrial land, driven in part by the global logistics industry. In 2017, the City of Abbotsford – a city of nearly 170,000 located 70 kilometres east of the City of Vancouver– pursued an exclusion application to the Agricultural Land Commission (ALC) for 288 hectares of agricultural land. The ALC is a provincial authority tasked with preserving agricultural land, encouraging farming on agricultural land, and encouraging local governments and other authorities to enable and accommodate farm use on agricultural land (*Role of the Agricultural Land Commission - Provincial Agricultural Land Commission*, 2022). City documents published at the time describe the Lower Mainland as dealing with a lack of suitable industrial land for current sources of demand, and that Abbotsford could play a larger role in the regional market if it were able to create such suitable land (Seaton, 2017b). Of specific interest to this thesis, included in these claims of pent-up demand was a recognition of the requirements of the logistics and warehousing industry for large plots of land:

> [Abbotsford’s] remaining land capacity will be of no interest to larger, region-serving users, particularly the trade-enabling warehouse, distribution and logistics users, which make up the vast majority of the latent regional demand pipeline…
>
> ..If there is to be any progress in meeting the needs of region-serving industrial users that make up the majority of pipeline demand, additional land capacity will be required at sites with highway access and visibility, proximity to the airport, rail spur access, and proximity to existing critical mass of industrial users and amenities. (Seaton, 2017b)

After a period of approximately one year, in which the City conducted a background analysis and research study with an urban consulting firm, a soil analysis, and a period of public and stakeholder engagement including several open houses, the City received Council direction to apply to the ALC for the removal of the majority of the lands as initially presented. In 2018, the ALC responded to the City, denying the

application on the grounds that the lands were still suitable for agriculture. This process, although unsuccessful for the City, presented me with an opportunity to investigate the relationship between the land use decisions of local governments on the 'urban fringe' and the global logistics industry. However, in order to better understand this relationship, and the wider context in which the City was operating as it made its application to the ALC, it is necessary to first understand the drivers behind the demand for industrial land both globally and locally.

1.1. Industrial land in the Lower Mainland: global trends and local impacts

In order to understand why the City of Abbotsford was motivated to increase its industrial land base, it is necessary to understand the regional context of the industrial land market in the Lower Mainland, which is directly tied to global trends in logistics and freight management. Here, I employ Hesse's (2008) argument that "logistics is shaping urban development and urban land use…as a consequence of new supply chain organization and logistics network design" (p. 3).

The Lower Mainland is home to one of North America's most expensive and scarce industrial land markets, the Metro Vancouver region, where industrial land comprises only "4% of the region's land base" (Metro Vancouver, 2020, p. 1). One of the reasons for such a dearth of industrial land is the global trend toward "the re-development of warehousing districts, inner-city rail yards and freight consolidation facilities, in favour of more valuable and competitive land uses, such as housing, retail or business services" (Hesse, 2008, p. 6). In Metro Vancouver, between 2010 and 2015, over 350 hectares of industrial-zoned land was lost "mostly to residential and commercial redevelopment" (Gold, 2017). While inner-city industrial lands have been lost to higher value uses, the Metro Vancouver region has still managed to add 36 million sq ft of industrial space over the last 10 years (InterVistas Consulting Ltd. & Urban Systems, 2023, p. 3). Despite these additions, the supply of industrial lands has not been able to keep up with increasing demand, driven in "large part due to a growing population requiring more goods in the region along with the continued adoption of e-commerce creating a need for more warehouse space for the distribution of goods" (InterVistas Consulting Ltd. & Urban Systems, 2023, p. 3).

In turn, this growing demand has put outward pressure on more eastern locations including the City of Abbotsford, located in the neighbouring Fraser Valley region. For example, over a four-year period, from 2019 to 2023, industrial land prices in Abbotsford increased 180%, outpacing the regional average increase by two times (Consultant, Interview, April 13, 2023). In 2022, Abbotsford industrial land prices reached a peak-price average of $5.6 million per acre (O'Brien, 2022). This eastward-moving demand does not stop at the Fraser Valley, however. Given industrial real estate prices in the Lower Mainland, some businesses are choosing to move as far east as Calgary, where transport costs make this eastern location "about 30 per cent less expensive for large companies to run Western Canadian distribution operations" (Lanthier, 2021).

At the global scale, the shifting demand inland for industrial land is largely driven by global logistics and freight distribution firms. These firms have begun to prefer 'big box' space that allows for "high-throughput distribution in 24/7 modes" (Hesse, 2008, p. 3). As Hesse (2008) argues, such properties "can no longer be offered in inner-city locations, since both land rents and sensitive land uses do not permit the ongoing spatio-temporal extension of logistics and freight distribution" (p. 3). For example, in Metro Vancouver's more inner-city locations, while "every size and type of industrial space is undersupplied, large logistics sites – such as those required by Amazon…and other large distribution companies – are now virtually non-existent" (Lanthier, 2021). As a consequence of this trend, "facilities that host logistics services are increasingly being re-located toward strategic places within and beyond urbanized territory" (Hesse, 2008, p. 3). These suburban and exurban places are attractive to the logistics industry "because of the availability and low cost of land and also because it is possible to connect to a more complex economy of regional and national flows from suburban areas" (Dablanc & Browne, 2020, p. 434). Together, these "related structural changes are creating new geographies of distribution" (Hesse, 2008, p.3). Cities such as Abbotsford, with large, flat plots of land, close to major transportation networks are becoming prime locations for the "organizing of flows" (Hesse, 2008).

In the remainder of this chapter, I present an overview of the patterns of warehouse development in Abbotsford, the unique spatial history of the municipality, and other demographic information as it relates to logistics and land use planning. This information is presented in order to frame the research question and sub-questions, which can be found in section 1.3, along with an outline of the thesis.

1.1.1. Warehouse development in Abbotsford

Figure 1-1. Multi-tenant warehouse building in Abbotsford
Photo by Author. November 2022.

As demand for industrial land moves east toward the Fraser Valley and beyond, the built environment is changing with it. As Barbier et al. (2019) state, “the development of logistics relies on the construction of thousands of warehouses and terminals that are essential nodes in the circulation of goods” (p. 30). Along with this locational shift inland, warehouses have also undergone a shift with regards to their use, size, and ownership patterns, driven by a number of factors. First, the use of warehouses has changed from a focus on *storage* of goods to a focus on the *movement* and *facilitation* of incoming flows of goods, due in part to a shift in just-in-time manufacturing (Cidell, 2015, p. 21). Second, due to changes in the technology supporting the movement of goods, including containerization and supply chain management, firms have begun to consolidate their activities in one place (Cidell, 2010, p. 364). Consolidation often results in much larger buildings, which are now also often single storey as opposed to multi-storey (Cidell, 2010, p. 364). Furthermore, logistics facilities – often developed by real estate firms as

opposed to their users - are being built to a larger scale to enable them to host multiple tenants, which “decrease[s] construction costs and the risk of vacancy” (Nefs & Daamen, 2023, p. 6).

However, despite the role of warehouses in facilitating current globalisation processes (Barbier et al., 2019, p. 30), their development is still dependent on local land use policies (Raimbault, 2021, p. 1491). As Nefs and Daamen note (2023), warehouses may be understood as the ‘spatial outcome’ of a transaction between the “development demand generated by logistics markets [and the] location supply generated by planning processes” (p. 3). As such, the development and construction of these warehouses presents an opportunity to investigate the intersection of the global logistics industry and land use planning at the local level (Cidell, 2011).

In Abbotsford, warehouses, as classified in city building permit data, appear to be following a similar trend in terms of increasing in size. Figure 1-2. demonstrates both the average square footage per warehouse building permit, and the total square footage, over a period of almost 10 years. 2023 data includes permits issued only to March of that year. However, these permits include several of the warehouses included in the 140-acre Xchange Business Park development, demonstrating the increasing demand for large-scale logistics facilities and multi-tenanted warehouses. Furthermore, Figure 1-3. demonstrates that a large share of the warehouses is comprised of multi-tenanted warehouses. The classification of these facilities and their relationship to the logistics industry is discussed in Chapter 3.

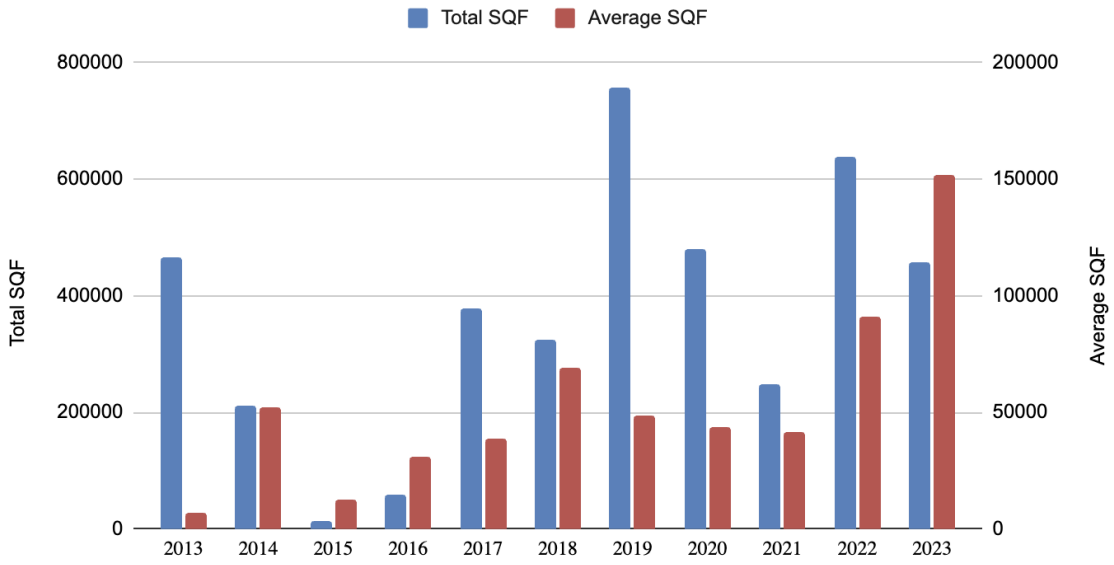

Figure 1-2. Total SQF vs. Average SQF per Warehouse.
Note: Overall growth with increasing average size of warehouses in Abbotsford, 2013-2023 (March)
Source: (City of Abbotsford, 2023c). Chart by Author.

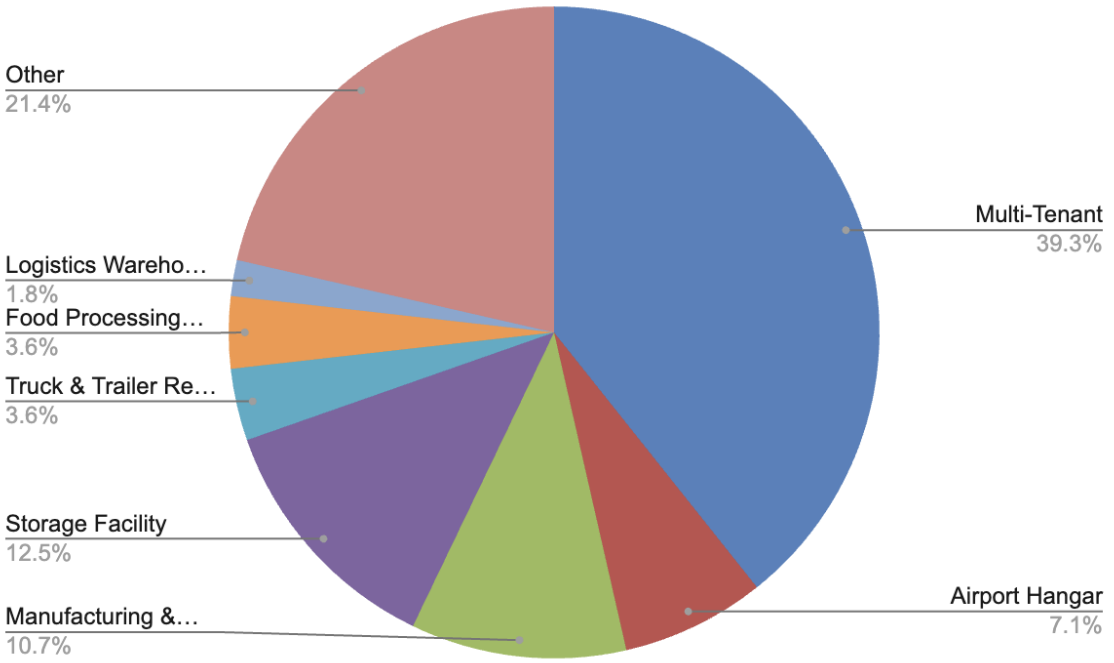

Figure 1-3. Warehouses 2013-2023 according to use (City classification)
Note: Data shared by City of Abbotsford staff (2023) see Appendix A. Chart by Author.

1.2. Background: The City of Abbotsford

A brief recounting of Abbotsford's geographic history is necessary in order to understand how the City's history has played a role in its present-day patterns of development and urban form. As will be described in greater detail in Chapter 4, this history influences the ways that local officials perceive their role in shaping land available to the logistics industry. In Chapter 5, this history also becomes important in understanding why certain growth strategies were supported by local officials. Grounding my research in a spatial sense follows the work of (Cidell, 2011, p. 847), who notes the following:

> …each municipality has unique characteristics that mediate the kind of development it gets: a restricted amount of land to work with, shaped by rivers, wetlands, freeways, and railroad tracks; irregular borders shaped by boundary agreements and which landowners have sold to which developers; and pre-existing landowners who do or do not want to be annexed.
>
> They also have individual histories…of near-bankruptcy, legal disputes with neighbors, or rerouting federal highways to redirect traffic flow around their historic downtowns that shape city staff and elected officials' willingness to pursue particular paths of development.

Similarly, as Raimbault et al. (2018) note, "the local and regional historical and institutional contexts are key determinants of the way current logistics sites are regulated" (p. 12). Therefore, I begin this next section by outlining several historic events that have played a role in the spatial and institutional outcomes of the City, and then introduce the City of Abbotsford as it exists at the time of writing this thesis.

1.2.1. The City's Spatial History

I compiled the following historical events and processes by analyzing public documents as well as conducting and analyzing qualitative interviews. While Abbotsford has been shaped by many different forces throughout history to become the municipality it is today, the characteristics below are included due to their significance to the suitability and receptiveness of the City towards logistics-related development.

Settlement, Topography and Location

Both Abbotsford's topography and its location are two key characteristics that continue to contribute to the way that development is shaped today. Abbotsford was first inhabited by the Stó:lo Nation, who settled along what is now known as the Fraser River, providing the Nation both fertile land and a trade network ("About Us," 2022). Later, colonial settlers were attracted to the fertile land, and in 1858, Royal Engineers from Britain laid claim to Abbotsford "in order to establish Canada's border with the United States and assert its claim to British Columbia" ("About Us," 2022). A right of way was granted to the Canadian Pacific Railway which in turn delivered a rail station, and the Village of Abbotsford was established in 1891, followed by the District of Sumas in 1892 and Matsqui later the same year. With the draining of the Sumas Lake in 1924, the Sumas Prairie became an attractive farming location – a practice that remains key driver of Abbotsford's current economy. However, the same topography that lent itself well to agricultural production is now attractive to large-scale industrial users. Indeed, this tension was reflected in an interview with a consultant familiar with the City's application to remove land from the ALR:

> This is not a unique issue to have. …This is happening everywhere…The problem is…what makes for a great agricultural site is often also what makes for a good industrial site (Consultant, Interview, April 13, 2023).

In addition to its flat topography, Abbotsford's proximity to the US border, Highway 1; the trans-continental federal-provincial highway, as well as an international airport, Abbotsford International Airport, and rail lines, mean that the City is often described as the 'hub' of the Fraser Valley (Hopes, 2022). In turn, these features appear to inform its local officials, who seem receptive to new industrial and logistics development, as illustrated in the quotes below from Abbotsford's current Mayor, Ross Siemens, and local government staff.

> Key economic projects like [the Xchange Business Park] help further cement Abbotsford as the regional economic and cultural hub of the Fraser Valley (Hopes, 2022).

> Council…talks a lot about Abbotsford being the hub of the Fraser Valley. The economic, social, cultural, but obviously also the geographic hub. We're located on Highway 1. There's two USA border crossings. There's rail here. We don't use a lot of the river for transport…but it's something that I could see happening in the future. So a lot of our strengths

> are…around our proximity to markets…both export markets, but also labour markets (Staff 2, Interview, April 12, 2023).

Amalgamations and the Agricultural Land Reserve

Prior to the 21st century, Abbotsford went through two amalgamation processes which dramatically changed municipal borders and eventually resulted in the City's current configuration. First, in 1971, the Village of Abbotsford and the District of Sumas were amalgamated, resulting in the District of Abbotsford. Then, in 1995, the District of Abbotsford amalgamated with the District of Matsqui to become the City of Abbotsford ("About Us," 2022). The amalgamations are a significant point in Abbotsford's spatial history not only because of their role in shaping the municipality's borders, but also– according to one interview– because of how they have since interacted, and come to be understood, vis-à-vis other land use decisions, specifically, the creation of the Agricultural Land Reserve (ALR).

The ALR, created by the Province of BC in 1973 under what is now known as the Agricultural Land Commission Act, is a "provincial zone that preserves agricultural land for the future" (*Home - Provincial Agricultural Land Commission*, 2022). The boundaries of the ALR were set "based on biophysical information related to the natural characteristics of the land and its climate…rather than on the variables of the market and other socioeconomic conditions" (*ALR History - Provincial Agricultural Land Commission*, 2022). The ALR has since played a major role in the growth patterns of the Lower Mainland, often being cited as one of the reasons why urban sprawl is 'restricted' in the region (Olsen, 2016b). Land within the ALR is regulated by the province through an independent administrative tribunal called the Agricultural Land Commission (ALC). To remove land from the ALR and use it for some other use, such as residential, commercial, or industrial, applicants must first apply to the ALC for an exclusion. If the exclusion application is successful, the land may then go through a rezoning process at the local level, but the initial decision to exclude the land lies with the ALC.

In conversations with City officials, members of the business community, and the real estate industry, the ALR was frequently cited as a reason for why the City's industrial land base, and related opportunities for economic development, were restricted. The unique dynamic between the City's historic amalgamations and the ALR demonstrate how historic spatial decisions, made by various levels of government, have

not only impacted development patterns in Abbotsford today, but have influenced local perceptions:

> One of the issues that created some of this [the lack of industrial land] is that when the Agricultural Land Reserve was created over forty years ago, Abbotsford didn't exist as the city that it is now. There was Abbotsford, there was Matsqui, and Sumas, and the cities amalgamated in [1995] to form the City of Abbotsford. And so when the Agricultural Land Reserve was created, there was never the vision or the foresight to see what the needs of Abbotsford would be (Business Representative, Interview, April 2, 2023).

Indeed, the ALR was established in the 1970s while the most recent amalgamation, in 1995, combined the communities of Abbotsford and Matsqui, based on a desire to share services and accommodate and manage growth (District of North Vancouver, 2016). Although governed by two separate local governments, with different zoning and tax rates, it appears the municipalities were already operating in many ways as a singular entity:

> Yet taken together the two municipalities were the perfect example of contiguous communities that functioned as a single socio-economic unit. The central business district spanned both Clearbrook (Matsqui's city centre) and Abbotsford's core. The airport located in Matsqui was called the Abbotsford Airport. Operationally, the cities worked closely together. Fire protection, recreation, and transit were all provided jointly through service agreements between the municipalities, and these services had been provided jointly for nearly thirty years leading up to amalgamation (District of North Vancouver, 2016, p. 4)

Following the amalgamation, the newly combined City produced an OCP which established a new 'urban containment boundary', which set limits for future growth (Olsen, 2023). A public report commissioned by a different community, assessing the success of the amalgamation, noted that Abbotsford's current OCP (2016) only now reflects its "ability to truly plan as one community – a gap of more than 20 years" (District of North Vancouver, 2016, p. 12). Similarly, a 2014 City of Abbotsford report noted that the consolidated zoning bylaw following the 1995 amalgamation did "not reflect the new realities of the "new" City of Abbotsford, rather merely merged the two Bylaws together" (Braun, 2014).

However, the only mention of agricultural zoning in this report focused on updating language in accordance with provincial ministry regulations and did not suggest a potential imbalance of this type of land use in the context of a newly amalgamated

urban area. Regardless of the role the amalgamations may have played in accentuating the perceived influence of the ALR on Abbotsford's economic development trajectory, the fact that approximately 72% of Abbotsford's land base is located within the ALR was an often-repeated statistic in the interviews. Alongside this statistic, interviewees often described the ALR as restricting economic development in Abbotsford, even if such development was agricultural-related.

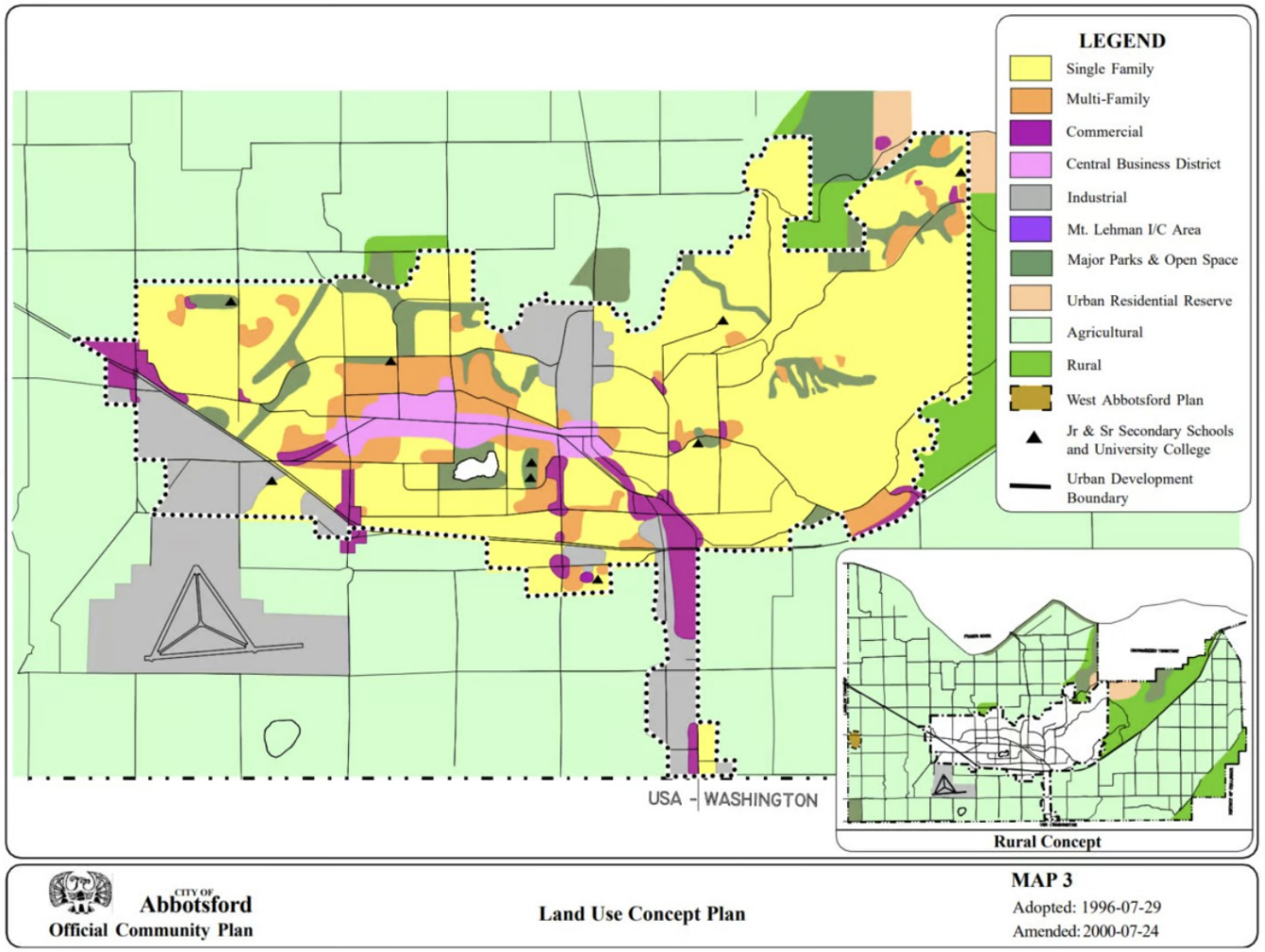

Figure 1-4. City of Abbotsford, 1996 Land Use Concept Plan
Source: (Olsen, 2023)

Land Use Plans: The "City in the Country Plan" Lands and the Official Community Plan, 2004

Building on this tension between the ALR and the City's desire for industrial growth, in 2004, the City published the "City in the Country Plan" (CICP) with the purpose of addressing "the shortage of industrial and business park lands presently facing the City, as well as to preserve, protect, and enhance our most important industry– agriculture" (City of Abbotsford, 2004, p. v). The need for additional industrial land is then framed as a necessity, with the City stating that its "economic and employment base will not keep pace with population growth unless further land is identified to accommodate jobs and economic growth" (City of Abbotsford, 2004, p. v).

The CICP is a significant document in Abbotsford's spatial history for two reasons. First, it demonstrates the City's shifting perspective with respect to the relationship between industrial and agricultural land. One of the plan's four key objectives is to "identify lands suitable for industrial and business park uses, including lands within the Agricultural Land Reserve, that will meet the long-term employment needs of a diverse and growing population" (City of Abbotsford, 2004, p. 1). The City's perceived shortage of industrial land is described as a major risk: "[w]ithout a strategy to address this shortage, the City is at risk of destabilizing its future tax base, undermining its ability to pay for services necessary to support the local economy, including agriculture, and putting more commuting pressure on regional road system" (City of Abbotsford, 2004, p. v). Such statements are significant with respect to Abbotsford's spatial future, as they demonstrate the perspective that economic development and growth cannot be achieved without the expansion of industrial land through ALR exclusions.

Second, the CICP identified specific parcels in the ALR that were eventually excluded for industrial and business park development, referred to as 'the CICP Lands'. However, despite their apparent need, the CICP Lands– a block of parcels totalling 372 hectares– experienced slow uptake post-exclusion, for several reasons. First, both interviews and public documents acknowledged that some of the CICP Lands excluded were not well-suited for industrial development given issues with their topography, such as slopes. Second, increased speculation and availability of industrial lands in other municipalities to the west, such as the Township of Langley, further contributed to this slow uptake. In 2010, the City introduced a parcel tax and pre-serviced the lands in

2012, in the hopes of enticing demand. These measures, combined with a tightening of the industrial market, eventually led to an increase in activity. However, the City's experience with the CICP lands in the decade after 2004 has had a strong impact on future land use decisions, including the application at the centre of this thesis. Due to the slow uptake of the lands, the public appeared to become suspicious of the actual demand for industrial land and thus the need to remove land from the ALR, while City officials became more concerned with suitability of location (Staff 4, Interview, May 11, 2023; Seaton, 2017d, p. 5)

The Official Community Plan, 2016

> "We all recognize we are a big city and we need to act like a big city" (Former Mayor Henry Braun in Lee, 2016).

The City's website describes its Official Community Plan as "one of the City's most important tools [as it] helps influence the way our community grows and develops by guiding how land can be used" (*Community Planning | City of Abbotsford*, 2023). Abbotsford's most recent OCP was adopted in 2016, under the planning imperative to accommodate a future city of 200,000 people while focusing 75% of new growth in existing neighbourhoods (*Community Planning | City of Abbotsford*, 2023). The OCP, as a major land use planning tool, played a significant role in propelling the 2017 ALR exclusion application forward, as it included Special Study Areas A and B for future analysis and potential suitability for industrial use (Lee, 2016). Furthermore, interviews with those involved in the 2017 exclusion application process noted that the OCP's focus on accommodating future population growth brought with it a related need to expand land available to employment uses. While the OCP acknowledged a desire to accommodate residential growth in existing neighbourhoods, and thus avoid urban sprawl, the inclusion of the two Study Areas appeared to provide a rationale for the future sprawl of industrial activities into previously rural areas based on employment needs. In an interview with the Vancouver Sun, Abbotsford's Mayor at the time, Henry Braun, described the expansion of industrial land as a way to keep jobs in the community and reduce the need to commute to other cities for work:

> "I don't think there is more appetite for having more sprawl," Braun said. "We are continuing to increase the capacity for industrial jobs so that people don't have to get into their vehicles and drive. But in order for that to continue, we have to make a city that is inviting, that has people places

> where people can congregate rather than making them jump into a car to go get a jug of milk." (Lee, 2016)

Together, Abbotsford's spatial history has had a significant impact on determining the type of development occurring today, and the attitudes of its local officials toward subsequent waves of development. Now, I turn to a brief overview of the City of Abbotsford as it exists at the time of writing this thesis.

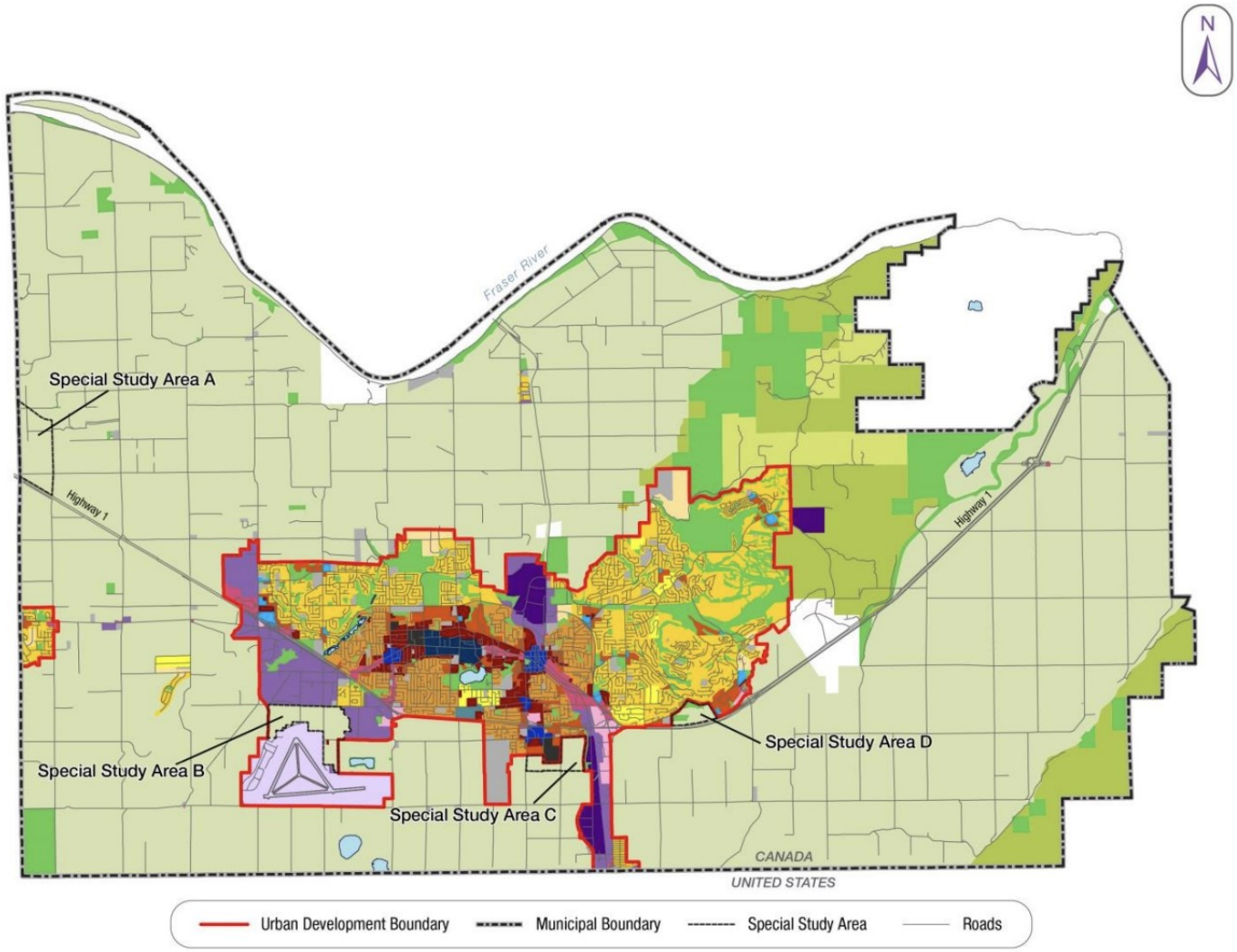

Figure 1-5. Abbotsford's 2016 OCP identifying four Special Study Areas
Source: (Seaton, 2017a, p. 33). Author Note: Special Areas A and B are the areas of concern to this research project.

1.2.2. Abbotsford today: the Hub of the Fraser Valley

In this section, I provide a brief overview of the City of Abbotsford alongside a series of themes that emerged through interviews including growth, connectivity, agriculture, tourism, and affordability. Against the backdrop of an increasingly lucrative suburban industrial real estate market, the branding of the City as the 'Hub of the Fraser Valley' begins to demonstrate how Abbotsford's location, and thus competitive position, is becoming "interwoven with the import and export of commodities" (Hall & Hesse, 2012, p. 8).

As of 2022, the City of Abbotsford is the largest municipality by population (168,478) in the Fraser Valley Regional District, and the largest in terms of squared kilometers (370) in the Lower Mainland. The City is also home to a diverse population, with 38% of households speaking a language other than English or French, and 27.6% of Abbotsford residents born outside of Canada (*Diversity | City of Abbotsford*, 2023). In the City Council's most recent strategic plan, these characteristics are described in relation to an overarching branding narrative which sees Abbotsford's role as a regional hub:

> The City of Abbotsford is the Hub of the Fraser Valley. As the cultural and economic centre of the region, Abbotsford will be home to centralized services and agencies including health care, court services, transportation, university, airport, provincial and federal government, entertainment and cultural facilities, and commerce. We are diverse, inclusive, and connected; we are sustainable, safe, and healthy; we are a vibrant, prosperous and generous community (Vision Statement, City of Abbotsford, 2023a)

Similarly, most likely due to the topic of my research, many interviewees described Abbotsford in terms relating to its advantages for regional and national connectivity, largely with respect to trade. On the Fraser Valley Alliance's website – the shared local economic development service for the Fraser Valley Regional District – the region, including Abbotsford, is characterized by its "logistics and accessibility advantages" ("Why Fraser Valley?," 2023)

> BC's Fraser Valley offers direct access to an extensive network of regional and international airports, major roads and highways, sea ports, railroads, and intermodal transportation. This kind of global connectivity enables endless opportunities to thrive ("Why Fraser Valley?," 2023).

While connectivity was frequently used to describe Abbotsford's regional advantages, in several instances, the City was also described as a destination in itself, largely relating to the agriculture and tourism industries. For example, one interviewee described farm tours and the importance of the Trade X Exhibition Centre to Abbotsford's tourism economy. In several interviews, the desire to advance Abbotsford's position as a hub for agri-tech also became apparent. From a land use planning perspective, this economic development aspiration was often coupled with an acknowledgement of the role of the ALR in restricting activities on agricultural land, as well as an acknowledgement of a lack of industrial land on which these activities could also take place. Finally, Abbotsford's location, situated approximately an hour east of the urban core of Metro Vancouver, has resulted in a situation where housing prices and other property values are generally less expensive. Several interviewees mentioned this situation, referring both to the attraction of firms to Abbotsford for cheaper industrial land, as well as the attraction of people for less expensive and potentially larger homes than those found in more urban locales.

1.2.3. Demographics and sectoral specialization

The City's employment demographics demonstrate the city's current state with respect to logistics-related employment and sectoral specialization. Here, I borrow from Hesse's (2008) analysis of the development of logistics employment in the Bradenburg suburban area outside of Berlin. Where appropriate, I use urban core (City of Vancouver), regional (Metro Vancouver and Fraser Valley), provincial (Province of BC), and national (Canada) reference points for comparison.

Table 1-1. Regional Employment in Transportation-Warehousing (NAICS 48-49) Over Time

	Greater Vancouver Regional District (Metro Vancouver)	Fraser Valley Regional District	Lower Mainland (GVRD and FVRD)
2011	68,595	8,730	77,325
2016	74,775	9,925	84,700
2021	86,180	11,515	97,695
Growth Rate 2011-2021	26%	32%	

Source: (Statistics Canada, 2013, 2017, 2022)

Table 1.1 demonstrates that at the regional level, the industry grew in both the Greater Vancouver (Metro Vancouver) region as well as the Fraser Valley region (of which Abbotsford is a member). In Metro Vancouver, the industry grew by 26%, while in the Fraser Valley, the industry grew by 32%. While the total number of employees in the Fraser Valley, representing more suburban locales, is lower than the numbers in Metro Vancouver, representing more urban locales, the industry appears to be growing at a higher rate in the suburbs compared to urban locations. As illustrated in this table and for the remainder of this section, I consolidate these regional districts into one larger region, often referred to as the Lower Mainland.

Table 1-2. Employment in Transportation-Warehousing (NAICS 48-49) and All Sectors Over Time, with Location Quotients (LQ) for Cities of Abbotsford and Vancouver Relative to Region, Province and Nation

	Sector	City of Abbotsford	City of Vancouver	Regional (Lower Mainland)	Province of BC	National
2011	NAICS48-49	4,720	13,085	77,325	118,675	827,780
	All Sectors	68,920	342,095	1,383,760	2,305,315	17,587,615
LQ: Abbotsford (2011)				1.22	1.33	1.45
LQ: Vancouver (2011)				.68	.75	.81
2016	NAICS48-49	6,185	13,115	84,700	128,400	876,050
	All Sectors	72,620	364,670	1,476,985	2,427,865	18,268,125
LQ: Abbotsford (2016)				1.48	**1.6**	**1.78**
LQ: Vancouver (2016)				0.63	.68	.75
2021	NAICS48-49	7,075	14,565	97,695	142,230	981,030
	All Sectors	79,410	386,760	1,596,320	2,603,110	18,823,480
LQ: Abbotsford (2021)				1.45	**1.62**	**1.71**
LQ: Vancouver (2021)				0.62	0.69	0.73

Source: (Statistics Canada, 2013, 2017, 2022)

Table 1.2 demonstrates the number of people employed in the Transportation-Warehousing industry (NAICS 48-49) and all sectors across five geographies, as well as calculations of location quotients (see next paragraph) at the local, regional, provincial and national levels. I chose the City of Vancouver to represent the most urban location in

the Lower Mainland as a comparator. While the industry grew across all geographies, growth in Abbotsford was larger in proportion to the City of Vancouver; from 2011 to 2021, Abbotsford grew by 50% while Vancouver grew by 11%.

To determine if there is any sectoral specialization with regards to the logistics industry in the City of Abbotsford, Table 1.2 also demonstrates my calculations of location quotients. A location quotient (LQ) is “an analytical statistic that measures a region’s industrial specialization relative to a larger geographic unit” (Bureau of Economic Analysis, 2023). It is calculated by first determining the percentage share of workers in a particular industry compared to all industries in a specific locality. This same calculation is then done for a larger geographic area, for example a region or country. To determine the LQ, the local percentage is then divided by the regional percentage. An LQ of 1 implies that the local area is no more or less specialized in the particular activity than the larger region, province, or nation in which it is located. A location quotient of 1.5 or higher generally “indicates that there is a degree of specialization or concentration in that particular industry within the area” (Informed Decisions, 2023).

For Abbotsford, these calculations demonstrate that there is some sectoral specialization relative to the larger geographies. This is most apparent when the city is compared to the provincial and national levels, but it is also more specialized in transport-warehousing when compared to the regional level. In comparison, the City of Vancouver is not specialized in transportation and warehousing, indeed, the urban core appears to be decreasing in specialization over time. It is also worth noting that that the region is more specialized in transport and warehousing that the province or nation, a reflection of the Lower Mainland’s function as a national trading gateway with major port and airport functions.

1.3. Research question

As a driver of demand for industrial land both globally and in the Lower Mainland, the logistics industry is “shaping the function and the character of urban places” (Hesse, 2008, p. 4) in profound ways. In the case of Abbotsford, despite the City’s unsuccessful application to exclude the two Special Study Areas from the ALR for industrial growth, the process by which the City applied to the ALC, and the conversation surrounding this event, still presents an opportunity to investigate the rationale behind the City’s efforts to

expand its industrial land base, and the ways in which the logistics industry is perceived at the local level. Therefore, my research question asks:

> ***Given the transformative nature of logistics sprawl on the geography of suburban regions, why did the City of Abbotsford pursue the exclusion of Special Study Areas A and B from the Agricultural Land Reserve in order to increase the amount of land available to large industrial users, including warehousing and logistics industry uses?***

In order to provide further context to my research, and better understand both the spatial impacts and drivers behind logistics development in Abbotsford, I also ask several sub-questions:

- ***What is the spatial impact of the logistics industry, specifically, the construction of warehouses, in Abbotsford?***
- ***How are local governments shaping the supply of land for the logistics industry, given their understanding of it and the tools at their disposal?***
- ***How are environments favourable to warehouse development created?***

1.3.1. Objective

The objective of this research is twofold: to explain the role of the suburbs, and suburban actors, in shaping the supply of land available for logistics – and, in direction relation, to explain "the role of warehouses and freight terminals in sub- and exurban expansion" (Hall & Hesse, 2012, p. 3). Indeed, the ability of the logistics real estate market to develop warehouses to meet the demands of the global logistics industry "is directly determined by local planning policies" (Raimbault, 2021, p. 11). While suburban areas are being transformed by new, or repositioned, global networks of economic activity, they are also playing a role in shaping these networks through local regulatory regimes. At the same time, local planning policies are directly developed and implemented by local officials. These officials are not passive to the demand of the logistics industry (Cidell, 2011), and, in some cases, taking explicit steps to attract it, often rationalized on the basis of increasing jobs and expanding the tax base (Dablanc & Ross, 2012, p. 40). These pro-growth urban policies, such as making available land to warehousing and logistics, are often supported by informal coalitions between local government and local firms who seek to maximise urban growth (Raimbault, 2021, p. 1485).

Local officials are also motivated by deeper understandings and imaginaries "based on self-perception and self-description as an outcome of regional competition" (Hall & Hesse, 2012, p. 9). As Hall and Hesse (2012) observe, "part of the economic base, and thus the competitive position, of cities and regions is interwoven with the import and export of commodities" (p. 8). Indeed, the exchange of commodities "appears to be a major 'asset' of urban places" (Hall & Hesse, 2012, p. 8): in positioning their communities in relation to these networks of commodity flows, some urban regions "seek options for 'becoming a hub' or gateway'" (Hall & Hesse, 2012, p. 8). Similarly, as Barbier et. al (2019) observe, "[s]ome logistics activities and spaces are framed as fulfilling a strategic metropolitan function by supporting international competitiveness" (p. 34). Abbotsford's aspiration to become the region's 'cultural and economic hub' (City of Abbotsford, 2023b) appears indicative of such a competitive dynamic, and calls into question the willingness of some (suburban) places to accept flows compared to others (Hall & Hesse, 2012, p. 7). Therefore, through this case study, I hope to better understand not only "the relationship between places and flows" (Hall & Hesse, 2012, p. 18), but more specifically, the "intersection of freight and logistics activity with spatial processes of suburbanization" (Cidell, 2011, p. 847) and the resulting spatial, political, and economic dynamics.

1.3.2. Logistics as an urban-suburban land-use issue

As Hesse (2008) states, "there is no doubt that the spatio-temporal extension of goods movement has important implications for urban and regional development" (p.5). For this reason, urban planners should be attentive to the merits and limitations of land use allocation related to logistics facilities, given their potential ability to "affect the overall landscape, resource use as well as the future economic and social geography of suburban areas" (Aljohani & Thompson, 2016, p. 256). In addition to such spatial impacts as logistics sprawl, both Urban Studies scholars and urban professionals should also be attentive to the regional impacts of logistics development and potential resulting inequities, in which some communities absorb the majority of this type of development (Giuliano & Kang, 2018; Woudsma et al., 2016). Additionally, as Hesse (2008) observes, "unlike city centres, [the suburban fringe] exemplif[ies] the adaption of space to the requirements of logistics and distribution" (p. 164). Further, with regards to the largely unknown long-term spatial impacts of logistics sprawl, Cidell (2011) notes that "while

historic warehouses are now in high demand in many central cities for housing, live/work space, or restaurants or art galleries, it is hard to imagine creative reuse of a vast, single-storey, concrete box with no windows in the middle of a sea of pavement" (p. 30). For these reasons, understanding the relationship between logistics activity and local land use planning and policies should be of concern to both urban professionals and Urban Studies scholars.

1.3.3. Thesis outline

Chapter 1 outlined the specific and changing demands of the logistics industry, the regional and global context of industrial land, and patterns of warehouse development in Abbotsford. An overview of Abbotsford's unique spatial history in terms of its settlement, changing boundaries, relationship to provincial regulation, and historic land use decisions was presented in order to set the stage for future local government decision-making as it relates to land use and logistics. Statistical and interview data demonstrated Abbotsford's current status as a 'regional hub' and its relationship to logistics employment. Together, this information framed the research question and objective of this study.

Chapter 2 includes my conceptual framework, consisting of three main bodies of literature: *logistics and the transformation of local geographies, suburban spatial imaginaries*, and *the suburban growth machine* – presented in order to understand the demand of the logistics industry, how these demands are met at the local level, and why some municipalities may be inclined to support this type of development.

Chapter 3 includes the methods I used to both gather and analyse data, leaning on previous studies in logistics both with respect to measuring its spatial impacts and analyzing the ways in which it interacts with local planning processes and is understood by local officials.

In Chapter 4, I explore the proceedings leading up to, during, and following the City's ALC application. I reference news media to corroborate themes that emerged from the ALC application documents with regards to the City's motivation to exclude the land.

Chapter 5 delves into the spatial imaginaries of suburban planners. Through interview data, I explore how logistics development is perceived at the local level and the tools used to shape it.

In Chapter 6, I analyze the themes that emerged from Chapter 4 and 5 alongside an updated framework of exploring suburban politics. This chapter helps to further explain why the expansion of industrial land– whether it was for logistics directly or indirectly– was attractive to the City, and how an environment favourable to warehouse growth may have been created.

In Chapter 7, I discuss the findings of this research, its implications for both research and suburban geographies more broadly, and issues for the planning profession with respect to planning for the ‘black box’ of the logistics industry (Barbier et al., 2019, p. 44).

Chapter 2.

Conceptual Framework

2.1. Introduction

My conceptual framework examines three intersecting literatures: logistics and the transformation of local geographies, the spatial imaginaries of suburban actors, and suburban growth machine politics. Together, these three literatures allow me to clarify the City of Abbotsford's approach to land use planning and economic development in the context of an increasingly competitive rural-suburban property market, driven in part by the demands of the global logistics industry. The literature specific to logistics helps to better understand the demands and ensuing spatial impacts of this industry, while literature on spatial imaginaries and suburban growth machine politics is employed to answer the questions of motivation for land use decisions that are central to my research.

2.1.1. Logistics and the transformation of local geographies

Logistical geographies

The first literature in my conceptual framework outlines the specific context in which the logistics industry has evolved and, in turn, how this evolution is transforming regions, and in particular, suburban landscapes. Combining the work of economic, transport, and labour geographers, and mobilities and critical logistics scholars (Coe, 2020), this body of literature explores "the evolving and mutually constitutive relations between logistics and cities" (Coe, 2020, p. 2). Coe (2020) argues that "the ways in which urban and regional spaces are made and remade to facilitate flows of materials are of central importance to the functioning of both city-regions and global production networks" (p. 2). This literature is key, therefore, in understanding relationships between the global logistics industry and suburban geographies. Indeed, Coe (2020) refers to the profound impact logistics has had on landscapes at various scales as 'logistical geographies.' Coe (2020) states that logistical geographies refer "not only to the underlying geographies of the logistics system and the places it interconnects but also, in a more active sense, to how logistics produces new landscapes at a range of spatial

scales" (Coe, 2020, p. 2). In this way, the concept of 'logistical geographies' is significant to my conceptual framework, tying together theories of spatial imaginaries, suburban transformation, and growth machine politics with the common thread of logistics.

The logistics revolution

A brief recounting of the history of the logistics industry is in order to understand the particular demands and impacts of the modern logistics industry on suburban regions, which I touched on in Chapter 1. Following World War II, the logistics industry underwent what Cowen (2014) describes as a "revolution in the calculation and organization of economic space" (p. 23), largely spurred by the innovation of containerized shipping and the subsequent ability of companies to move goods more quickly and at a reduced cost (Cidell, 2011). This transformed perspective on the global circulation of goods, which prioritizes their reliable and constant movement (Cidell, 2010), is now commonly referred to as the 'logistics revolution' (Bonacich & Wilson, 2011; Coe, 2020; Cowen, 2014; Danyluk, 2018).

Intermodalism, ports, and gateways

The logistics revolution, and more specifically, the development of the shipping container and intermodalism, has had a significant economic impact on ports and their surrounding regions in relation to both economic and urban development (Bonacich & Wilson, 2008, p. 56; Hall & Hesse, 2012, p. 1). For the West Coast of North America, increasing trade with Asia has led to massive increases in container volumes, as shippers find the route more economically beneficial than through the Panama Canal (Bonacich & Wilson, 2008, p. 54). However, intermodalism has also led to increased competition between these ports as "marine containers can [now] be hauled anywhere by truck or train for a reasonable price and do not depend on arrival at a particular port" (Bonacich & Wilson, 2008, p. 56). In turn, many of these ports have undertaken major growth and consolidation exercises in order to be able to draw and accommodate liner trade, while contemporaneously witnessing a growing recognition of their national economic significance (Bonacich & Wilson, 2008, p. 57). For example, 'becoming a hub' or 'gateway' are terms now synonymous with the branding or positioning of regional and national freight-supporting projects and geographies, such as Canada's 'Asia Pacific Gateway' (Hall & Hesse, 2012, p. 9) or the ports of Long Beach and Los Angeles as the "premier gateway for trade with Asia" (Bonacich & Wilson, 2008, p. 63). At the same

time, much of the warehouse space and transloading facilities that were once located close to ports has shifted inland toward suburban regions, extending the geographies of logistics work and related economic activity (De Lara, 2018, p. 91). For example, Southern California's Inland Empire, a region hosting more than a billion square feet of inland warehouse space and handling forty percent of the nation's goods (Phillips, 2022), is promoted by the Inland Empire Economic Partnership as the 'center of logistics industry expansion' (Bonacich & Wilson, 2008, p. 134). In this way, and following the work of Hall and Hesse (2012), I argue that, by describing Abbotsford as the 'Hub of the Fraser Valley,' suburban actors are undertaking similar exercises in symbolic placemaking in order to increase the competitive position of their community vis-à-vis the flow of goods (p. 9).

Logistics sprawl: the changing geography of warehouses

In terms of the spatial effects of this revolution, the logistics industry's emphasis on the constant movement of goods, or high through-put, "has led to the demand for vast one-storey buildings outside congested city centers" (Cidell, 2011, p. 835). Indeed, as Dablanc and Ross (2012) note, "[t]he warehousing industry has undergone major restructuring, transforming it into a distribution industry serving major importers and big box retailers" (p. 433). The spatial impacts of the transformation of the warehousing industry have thus led to a unique type of sprawl. As referred to earlier, 'logistics sprawl' is defined as the outward migration of warehouses from cities to suburbs and ex-urban areas (Aljohani and Thompson, 2016, p. 256). Aljohani and Thompson's (2016) analysis of the impacts of logistics sprawl organizes these significant effects into several main themes including a general impact on urban freight geography, increased distance travelled by freight vehicles, negative environmental impacts, and effects on employees' commuting modes and patterns (p. 261). Furthermore, not only is logistics sprawl changing the geographies of suburban regions, but Woudsma et al. (2016) find "that outside of core, or built-up urban areas, growth in facilities is sporadic and possibly polarized in certain areas" (p. 484). Outlining these forces, and their ensuing and uneven economic and spatial effects, is an important first step in my project as it begins to demonstrate the significant changes in land use occurring across suburban landscapes.

Logistics and regional inequities

While logistics is transforming suburban geographies, there is also a recognition across the literature that such development is not "taking place on a level playing field" (Coe et al., 2004). For example, Dablanc and Browne (2020), note that "many local communities lack expertise regarding the planning for freight transportation and logistics buildings, and lack the basic knowledge about how supply chains are organized and how they translate into logistics land uses and so generate local or regional impacts" (p. 1). Less economically successful suburban municipalities are more inclined to welcome logistics developments, viewing them as job generators and as a means for local economic development, whereas those that are already more economically advantaged tend to frame them as environmental nuisances and reject their development (Giuliano and Kang, 2018, p. 254). Spatially, as Woudsma et al. (2016) find in the case of the Greater Toronto Area, the polarization in the growth of logistics facilities suggests that there are "strong 'winners' and 'losers' in terms of the destinations of new warehousing facilities" (p. 484).

Taken together, the literature on logistics and its transformation of local geographies illustrates a dynamic of powerful, global actors enacting significant demands on local land use, primarily in less affluent suburban municipalities. While the increase and expansion of warehouses may be described as an effect of the logistics industry's particular demands, the uneven and fragmented nature of the logistics landscape (Barbier et al., 2019) suggests that there are other forces at play influencing patterns of logistics development. There is a need, then, to consider the role of individual places in the production of logistics facilities (Cidell, 2010, p. 363).

2.1.2. The spatial imaginaries of suburban actors

Defined as "socially held stories [or] ways of representing and talking about places and spaces" (Said 2003 in Watkins, 2015, p. 509), the concept of 'spatial imaginaries' allows me to explore the relationship between the demands of the global logistics industry, the transformation of suburban geographies, and the role of local actors in this transformation.

Defining the suburbs

It should be noted that while Abbotsford is often cited as having characteristics indicative of a suburb in the regional context– cheaper and larger housing, for instance, compared to the Lower Mainland's urban core– it was also frequently noted in interviews that a high percentage of residents lived and worked in the city. For the purpose of this project, however, while Abbotsford may be understood as a city in an economic sense (Phelps, 2012), I categorize it as a suburb in the regional setting of the Lower Mainland – of which Abbotsford is located east of the major urban core – and within the context of the demands of the logistics industry – in which Abbotsford appears attractive given its geography. Indeed, such a classification appears to fit within the definition of a suburb offered by (Harris & Larkham, 1999), although it may be argued that the extensive amount of agricultural land in Abbotsford would classify it as rural-suburban in some respects:

1. Peripheral location in relation to a dominant urban centre.
2. A partly (or wholly) residential character.
3. Low densities, often associated with decentralized patterns of settlement and high levels of owner-occupation.
4. A distinctive culture, or way of life.
5. Separate community identities, often embodied in local governments.

Suburban spatial imaginaries

Cidell (2011) uses spatial imaginaries as a theoretical framework in order "to make the connection between municipal governments, the global logistics industry and suburban landscapes" (p. 838). Cidell (2011) argues that "in a so-called global era of placeless flows, land use and economic development continue to be based largely on a spatial imaginary of bounded and discrete territories, with long-term environmental and economic consequences for the political units in question" (p. 832). According to Cidell, the spatial imaginary is key in understanding how local actors will approach matters such as planning for logistics (Cidell, 2011, p. 833). Cidell (2011) describes the suburban spatial imaginary as based on viewing the world in such discrete terms as "balancing revenues and services…planning and zoning to keep incompatible land uses physically separate, and…the chronological order of different waves of development passing

across the territory" (p. 833). Cidell (2011) argues that, for suburban planners, "intermodal yards and distribution centers [are simply] another type of land use to be regulated and dealt with in municipal terms" (p. 839).

In this way, Cidell's (2011) conceptualization of the 'suburban spatial imaginary' considers logistics development in relation to separating conflicting land uses, providing jobs, and collecting property and sales taxes (p. 845). I argue, however, that suburban actors, at least in the case of Abbotsford, are not only aware of the global logistics industry but also its economic opportunities, as they appear to be taking deliberate steps to accommodate this industry. Therefore, I will attempt to build on Cidell's (2011) conceptualization by investigating how local officials perceive their role in the production of logistics developments and if they are considering these developments in relation to networks of commodity flows and other economic development opportunities (Hall & Hesse 2012; Coe 2020). As Watkins (2015) suggests, "[s]patial imaginaries are also argued to be embodied in material practice–what people do as opposed to only think" (p. 511). In the case of Abbotsford, the increasing presence of warehouses across the fabric of Abbotsford suggests that a '*logistical imaginary'* may be present. In terms of material practice, suburban actors are seeking an increase in industrial land through the transformation of regulatory power from the ALR to local land use regulations.

Suburban spatial transformation imaginaries

Others consider the concept of a 'spatial imaginary' an 'umbrella term' for a variety of different types of imaginaries (Watkins, 2015, p. 512). For example, Watkins (2015) argues that spatial imaginaries may be analytically broken down into three different types concerned with places; idealized spaces, and spatial transformations (p. 512). For Watkins (2015), these three different types of spatial imaginaries each tell "a different spatial story and [are] used by actors in varying ways" (p. 512). Of importance to my thesis is Watkins' (2015) observation that "geographers too often focus only on a single type of spatial imaginary as opposed to the others or their relationality" (p. 512). In this way, Watkins (2015) may be seen to build on Cidell's (2011) observation of a 'suburban spatial imaginary' existing in relation to the global logistics industry: while Cidell (2011) recognizes that a spatial imaginary should not be thought of as "static or immovable" (p. 847), she describes the concept as taking "spatial and historical processes that are already known and understood and apply[ing] them to the unknown

future," (842). In turn, this suggests that a suburban spatial imaginary would understand future patterns of suburban development based on the same way it has taken place in the past (p. 842). Building on this, Watkins (2015) argues that place imaginaries are often emphasized "at the expense of how people imagine places are transforming toward certain kinds of idealized spaces" (p. 512). Indeed, as Watkins (2015) states, "place and idealized space imaginaries often include narratives of how places have, should, or deterministically will evolve through generalized processes of spatial transformation" (p. 512). This further nuanced take on the concept of the spatial imaginary, which takes into account narratives regarding suburban transformation, will help me to discern not only the presence of a *suburban spatial imaginary* and its role in shaping logistics at the local level, but also the potential presence of a *suburban spatial transformation imaginary*, i.e., how local officials are anticipating, expecting, or hoping Abbotsford will evolve. Therefore, in my attempts to uncover components of a *suburban spatial imaginary* among local officials in Abbotsford, I will also be cognizant of instances in which those I speak with describe the *future* Abbotsford: as a suburb, as a complete community, as a logistics hub, and so on.

2.1.3. Suburban growth machine politics

While the literature presented thus far aids in explaining *why* suburban landscapes have become sites for the development of warehousing and logistics developments– due to such factors as their spatial characteristics and their perceived economic development potential– this body of literature, centered on theories of urban power and politics, is employed in order to better understand *how* these developments are eventually produced. Specifically, an analysis of 'suburban growth machine politics' allows for an investigation into how a variety of public and private actors in Abbotsford may have been able to produce an environment seemingly favourable to logistics development, despite its impacts on suburban geographies. I focus first on foundational "urban power theories" (Raimbault, 2021, p. 5), then move to a review of more recent interpretations which consider the unique characteristics and particularities of suburban settlements.

Growth machines, coalitions, and urban regimes

Molotch's (1976) 'growth-machine' thesis argues that "the political and economic essence of virtually any given locality….is growth" (p. 310). The desire for this growth, in turn, "provides the key operative motivation toward consensus for members of politically mobilized local elites, however split they may be on other issues" (Molotch, 1976, p. 310). In order to 'bolster local growth goals', and compete with other areas to attract investment, local elites will form informal coalitions with local governments (Logan and Molotch, 1987, p. 35). Logan and Molotch (1987) refer to these as 'growth coalitions' (GC), highlighting "the central role played by local real estate entrepreneurs in the implementation of pro-growth urban policies" (Raimbault, 2021, p. 5). Echoing this concept of 'growth coalitions' but focusing more on the role of the local state, Urban Regime Theory (URT) puts forward the notion, "that urban policies are produced and implemented by informal, but stable, coalitions of governmental and non-governmental actors" (Raimbault, 2021, p. 5). Stone (1989) defines the urban regime as "the informal arrangements by which public bodies and private interests function together in order to be able to make and carry out governing decisions" (p. 6). In this way, while they may hold different interests, public and private actors are mobilized to "bring their resources into the coalition to build a 'capacity to govern'" (Raimbault, 2021, p. 5), most often concerned with increasing urban growth. Stone (1993) refers to this particular type of urban regime as a 'development regime'. Given the City of Abbotsford's efforts to accommodate the logistics industry through local land use decisions, these theories suggest a potential path forward for investigating how such growth coalitions or development regimes may be playing a role in the production of sites for logistics in Abbotsford.

Indeed, recent literature has identified GC and URT as a "relevant theoretical framework for studying suburban politics" (Phelps & Wood, 2011; Raimbault, 2021). However, at the same time, Phelps and Wood (2011) suggest there is a "need to make urban political theory more attuned to the different settlements that populate [today's] heavily urbanised regions" (p. 2592) given that "contemporary developments highlight a trajectory that is very different from the predictable and linear outward growth of the modern city region" (p. 2594). With respect to the suburbs, they argue that traditional frameworks for examining urban politics are poor at specifying the relationship between urban politics, structural change, and settlement evolution (Phelps and Wood, 2011, p.

2595). In critiquing GC and URT, others argue that less attention has been paid to the "historical and structural factors that predispose local public officials, as well as profit-seeking business interests, to support growth strategies and the interest in coalitions that promise and sustain them" (Harding, 1994, p. 359). In short, Phelps and Wood (2011) propose "linking the analysis of urban politics to a consideration of the different types of urban settlement" (p. 2593). In this way, the authors are calling for a more nuanced understanding of GC and URT in the context of the suburbs, one that takes into account different types of suburbs and their evolution over time. For example, their distinction between the 'caretaker regimes' of status quo, affluent suburbs and the 'development regimes' of new suburbs, which are more focused on providing "for industrial parks, office complexes, major retail (shopping) centres" (p. 2595), illustrates how the particular historic and structural context of suburbs may influence their particular mode of urban politics.

However, Phelps and Wood's (2011) typology of settlement types according to mode of urban politics presents some limitations in the case of logistics development in Abbotsford. Phelps and Wood (2011) classify 'new suburbs' as experiencing a mode of politics most closely associated with the 'pure growth machine', where raw land is converted into low density urban land use, such as from agricultural to industrial, the patterns of land ownership are simple, and the ownership of capital is localized. More mature, 'post-suburbs', on the other hand, experience developmental regimes in which the use of urban land is intensified, land ownership and regulatory regimes are more complex, and the ownership of capital takes place at local, national and international scales. I argue that logistics development, at least in the context of the Lower Mainland, complicates this typology given it is an extensive, low-density use of land, but the ownership of warehouses is more complex, both in terms of their lease patterns and the local, national, and international development and investment firms that may fund, own, lease, or develop them. Therefore, while a useful typology to begin the investigation into Abbotsford's specific mode of urban politics, there is still the need to "take seriously questions of the evolution of individual suburbs over time" (Phelps and Woods, 2011, p. 2594), as well as investigate the role of suburban growth coalitions in producing the capacity to govern, with respect to the expansion of land for logistics.

	Settlement type					
		Mature suburbs				
	New suburbs	*Declining*	*Stable/ affluent*	*Post-suburbs*	*Cities*	*Cities experiencing significant decline*
Mode of urban politics	Suburban (pure growth machine)	Progressive or developmental regime	Caretaker or anti-growth regime	Developmental regime	Regime politics	Growth machine or developmental regime
State intervention	Potential value of land impacted by significant non-local state intervention	Local state is unable to maintain collective consumption expenditure	Local state concerned to preserve *status quo*	Potential land values altered by piecemeal local state intervention	Local state struggles to maintain collective production and consumption expenditures	Local and non-local state intervenes strongly to facilitate private-sector redevelopment
Land use	Extensive: raw land is converted into low density urban land uses	Extensive: stable low-density urban land use	Extensive: stable low-density urban land use	Intensive: use of urban land is intensified	Intensive: use of urban land is intense (near or at 'best use')	Intensive: use of urban land is intense but with large pockets that are devalorised
Patterns of land ownership and use	Land ownership and lease patterns are simple	Land ownership and lease patterns are mixed	Land ownership and lease patterns are mixed	Land ownership and lease patterns become complicated	Land ownership and lease patterns impede radical redevelopment	Land ownership and lease patterns are reconfigured by private sector and the state
Ownership of capital	Local	Local	Local/national	Local/national/ international	Local/national/ international	Local/national/ international
Term over which urban capital is fixed	Short-term	Medium-term	Medium-term	Medium-term	Long-term	Long-term

Figure 2-1. The urbanization of capital and changing modes of urban politics
Source: (Phelps & Wood, 2011)

In this way, Raimbault's (2021) analysis of outer-suburban politics and the financialization of the logistics real estate industry in the Paris region helps to illuminate the specific inner-workings of suburban growth coalitions and development regimes concerned with locally stimulating logistics and property growth (p. 15). While my research project is not concerned directly with the financialization of the logistics real estate industry, or the presence of development regimes, Raimbault's study of outer-suburban coalitions in relation to the logistics industry presents an opportune route for investigating the specific political and economic context in Abbotsford that may have contributed to the City's decision to apply to exclude land from the ALR. As Raimbault (2021) argues, outer-suburbia presents many of the political and economic conditions required for the emergence of logistics growth coalitions and development regimes, including local governments with high levels of autonomy, low levels of administrative capacity, and an increased dependence on logistics development for economic activity (p. 6). This weakness in formal authority "leaves a vacuum that business interests have the ready resources to fill" (Stone, 1993, p. 26). Here, powerful real estate actors with both the interests and resources to fill such vacuums emerge, becoming dominant players in these coalitions (Raimbault, 2021, p. 15). Raimbault's (2021) identification of these powerful real estate actors in the European suburban context calls into question the presence of similar actors in the Canadian context, given variations in local government structure and regulatory power.

Chapter 3.

Research Design and Methodology

In answering my research questions, I take a 'mixed-methods' approach (Babbie, 2021, p. 25) to my research design, using the following methodologies: visual methods; descriptive statistical analysis; document analysis, and semi-structured interviews. These methods are most suitable for my study as my primary research question is concerned with illuminating the motivations behind a decision, and therefore, an exploration of the larger themes that underlie this decision. Descriptive statistical analysis of building permit data, as well as accompanying photos of warehousing and logistics developments in Abbotsford, addresses my first sub-question regarding the impacts of this type of development on the geography of the City, and provides helpful contextual background. To answer my primary research question and other two sub-questions, I relied primarily on document analysis– including City documents, websites, and news media, as well as qualitative interviews with local officials and others.

3.1. Linking data to concepts

In order to provide comprehensive answers to my research questions, each body of literature is linked to a corresponding analysis of data. Where appropriate, I also employ the methodologies of logistics scholars. For example, my first body of literature "Logistics and the Transformation of Local Geographies" and sub-question regarding spatial impacts, is answered by the statistical analysis of building permit, business license, and NAICS data, and supplemented by visual methods including photos of warehouses in Abbotsford. The statistical analysis follows the approaches of Cidell (2010) and Woudsma et al. (2016) in terms of their interpretation of logistics using the NAICS classification system, while measuring the growth in size of warehouses follows the work of Nefs and Daamen (2023). For the body of literature regarding the "Spatial Imaginaries of Suburban Actors", I analyze municipal documents, newspaper articles, and semi-structured interviews for themes relating to how local officials may be seen to describe their spatial imaginaries of Abbotsford, and how these imaginaries may be contributing to geographic changes. Here, I borrow Cidell's (2011) approach to developing a specific Abbotsford 'suburban spatial imaginary' through interviews and

document analysis, while additionally charting Abbotsford's spatial history as it contributes to today's imaginaries, as outlined in Chapter 1. Similarly, for my final body of literature on "Suburban Growth Machine Politics", I analyze municipal documents, newspaper articles, real estate promotional materials, and semi-structured interviews for evidence of growth coalitions and demand from the logistics industry to increase the land available for development. This follows the methodologies used by Raimbault (2021) in identifying suburban growth coalitions in relation to the logistics industry, and the work of Phelps and Wood (2011) in providing an initial framework for understanding suburban growth politics.

3.2. Preliminary research and activities

The first two methods I employed in my research design were observational and visual methods. In November 2022, I began visiting the City of Abbotsford in order to observe and take photos of major warehouses and distribution centres either built in the last 10 years or under construction. This fieldwork enabled me to better understand the location and scale of these developments. Over the course of my research, I visited some of these sites a second time in order to more deeply understand the local context as well as their locational impacts and uses, as many of them were in the process of being constructed or tenanted. Visiting these sites also helped me better understand the local context, for instance, when specific developments or businesses were mentioned in interviews, I was able to recall their location and scale.

Figure 3-1. Warehouse development in Abbotsford
Note: A warehouse development currently under construction, offering 30,000 sqf tenancies and fully leased, demonstrating the demand for such spaces. November 4, 2022. Photo by author.

3.3. Descriptive statistical analysis

To illustrate the spatial impact of warehouses in Abbotsford and to show the rate at which warehouses are being built, I analyzed building permit data using descriptive statistical analysis. This means presenting the analyzed data alongside contextual information. Some of this analysis was presented in Chapter 1. I collected and analyzed this data in direct connection to my first body of literature “Logistics and the Transformation of Local Geographies”. One of my hypotheses was that the average square footage of warehouses has increased over time in Abbotsford, in line with previous research that has found an increase in size and scale of logistics developments in suburban regions (Allen et al., 2012, p. 47). It is also of contextual importance to understand the building permit activity surrounding the period in which the City was making the exclusion application to the ALC.

3.3.1. Building Permits

Building permit data is available on the City of Abbotsford's website, dating back to 2013. Permits are organized by a variety of different types of buildings, and I was able to select the broad category of 'warehouse' as well as select 'only new construction' before downloading the information into an Excel file. Once extracted, I analyzed the data for the following patterns: the number of warehouse building permits issued per year, total square footage per year, and average square footage per building permit per. In turn, this analysis helped to show the spatial impact of warehouses in Abbotsford. This data was available beginning May 2013 to March 2023.

In order to discern whether these warehouses were indeed associated with the logistics industry, I tried to clean the warehouse data to include only "facilities whose primary function it is to enable the movement and storage of goods, as opposed to primarily being a place of manufacture or consumption" (Woudsma et al., 2016, p. 475). Indeed, as Woudsma et al. (2016) suggest, "[t]he complexity of modern supply chain and logistics presents difficulties in defining facilities and sites that house logistics activities" (p. 475). At first, I investigated the addresses of each of the issued warehouse building permits to try and discern what type of warehouse facility was eventually built and whether the businesses located there are operating as a logistics facility, some combination of such, or not at all. This included looking up the address using Google Maps, which would often list several businesses located at each site, using Google Street View to verify features of the warehouse, looking up information on developer and real estate websites that described features of the warehouses, and, in some cases, having an understanding of the facility due to my previous site visit. Later in this process, the City of Abbotsford provided me with a list of their own classification of these buildings (Appendix A), based on their use, which aligned closely with the results of my analysis.

Many of the warehouse facilities were designed as business parks and therefore had a variety of businesses operating at one location; some were specific logistics companies while others were a mix of manufacturing or retail with warehouse storage and distribution functions on-site. Many of the facilities were built in a way that may be defined as "enabl[ing] the movement and storage of goods" (Woudsma et al., 2016, p. 475), given nearly all had features such as dock and grade loading or were primarily a storage facility. Some warehouse facilities were designed for the repair of trucks with

storage of parts on-site. Several of the facilities were functioning as storage for small aircraft, while some were also manufacturing sites for aircraft. Finally, several of the warehouses included in the building permit data were not yet constructed. However, many already had a presence on real estate and developer websites, highlighting their features including dock and grade loading, potential mezzanine space, and proximity to the highway, suggesting that they were capable of being a site for logistics activity. Given these findings, the chart displayed below includes all of the 56 warehouse facilities built between May 2013 and March 2023. A full list of the warehouses is included in Appendix A.

Table 3-1. City of Abbotsford Classification of New Warehouses According to Use (May 2013 – March 2023)

Industrial Use	Total
Airport Hangar	4
Chemical Distribution Facility	1
Commercial Vehicle Sales and Repair Shop	1
Commercial Truck Repair and General Freight Facility	1
Cross-dock Facility and Offices	1
Distribution, Storage and Offices	1
Fabrication Facility	1
Food Processing Plant	2
Industrial Shop and Offices	1
Logistics Warehousing and Distribution Facility	1
Manufacturing & Distribution Facility	6
Multi-Tenant	22
Retail Farm and Pet Sales	1
Single Tenant	1
Storage Facility	7
Transportation & Storage Facility	1
Transportation, Offices and Truck Repair	1
Truck & Trailer Repair Facility	2
Warehouse, Service Shop and Offices	1
Total	56

Source: City of Abbotsford, 2023 (Appendix A)

3.3.2. Building Permits versus NAICS versus Business License Data

While the warehouse identification process suggested a growing spatial footprint of the logistics industry, there was a need to shift from the analysis of buildings to the

analysis of businesses to discern the presence of the logistics industry in Abbotsford. Woudsma et al.'s (2016) investigation into issues with logistics facility identification in Toronto provided a helpful framework from which to classify similar facilities in Abbotsford (Figure 3-2), using the North American Industry Classification System (NAICS) and its code 493 for Warehousing and Storage.

Counts	Type of Firm	Name of Example Firm	Additional Description	Website
22	Mini Storage	Public Storage	Mini Storage	http://publicstoragecanada.com/
3	Farm Warehousing / Storage	Oakley Apple Storage	Grain Elevator / Farm Storage	
3	Cold / Refrigerated storage	Trenton Cold Storage	Trenton Cold Storage is a full service refrigerated warehousing and distribution company that operates one of Canada's largest temperature controlled freight consolidation programs.	
2	Public Warehousing / Contract Warehousing	Cornwall Warehousing	CWL offers public warehousing, contract warehousing and space for lease. Our service area is the northeastern United States and all of Canada. Our 800,000 sq. ft. of heated floor space is complimented by a further 60 acres of outdoor storage.	http://cornwallwarehousing.com/ware.html
2	3PL	Kuehne & Nagel	3PL, mix of warehousing, transportation, brokerage services	http://www.kn-portal.com/
1	Moving and Storage	Cube it Moving and Storage	This type of business offers moving and storage services for households and businesses	www.cubeit.ca
1	Not Related to Warehousing	Extreme Auto Detailing	Not Related	
1	Unidentifiable	Gencon Storage	Could be very small warehouse - unidentified	
1	Specialized Storage	Holt Renfrew Fur storage	Specialized Storage	
1	Outdoor Storage	Peacock's outdoor storage	Fenced lot for Storage	
Total: 37				

Figure 3-2. Logistics facility identification issues
Source: Woudsma et al. (2016)

My attempt to classify the structures in this way, however, proved challenging. First, I expanded my focus to businesses, as the NAICS is used to classify firms. To begin, I used two data sets: the City's building permit data (Appendix A) and Dun & Bradstreet data accessed through SimplyAnalytics, which included NAICS codes (SimplyAnalytics, 2023). I layered these data sets into ARCGIS, which showed only a few instances of overlap in terms of NAICS 493 (Warehousing and Storage) firms operating in newly built warehouses. It should be noted, however, that the Dun & Bradstreet data was only updated to 2021, with one business added in 2022, meaning that firms that may have since located in recently built warehouses were not captured in this analysis. I also layered these data sets on top of the City's I2 zoning (City of

Abbotsford, 2023d, 2022). I2 is the ‘general industrial zone’ that permits warehousing as a use. Of note, some of the NAICS 493 business do not appear to be operating on this land use. Some were on agricultural-zoned land, suggesting the warehouses were used for agricultural purposes, while others were in residential neighbourhoods, suggesting that a home address may have been listed as a business address. There is also the possibility of a difference in definition between the City’s understanding of ‘warehousing’ versus NAICS. Furthermore, many of the warehouses, and so too much of the land zoned ‘Industrial 2’, appear to be suburban within the context of Abbotsford, ie; they are not within the City’s downtown core, as illustrated by Figure 3-3.

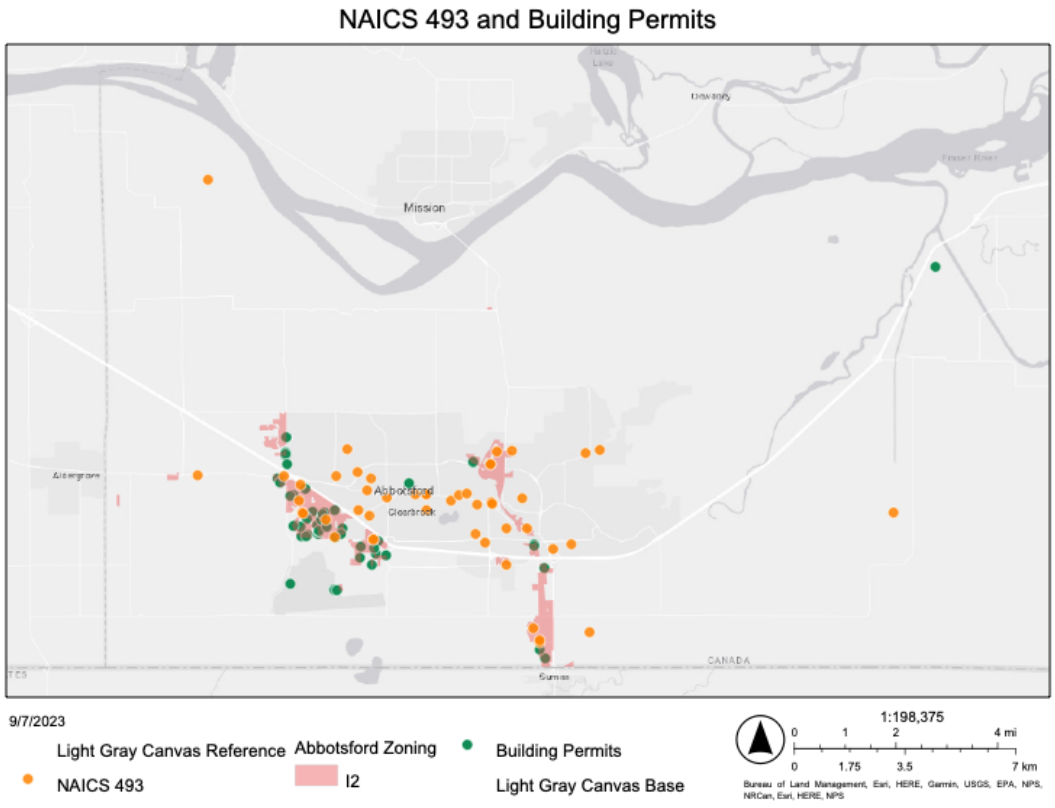

Figure 3-3. NAICS 493 vs. CoA Building Permits – Warehouses
Source: City of Abbotsford 2023, Simply Analytics, 2023. Map by Author.

Once I had the ability to compare this data, I discovered that, unlike in Woudsma et al.’s (2016) analysis, very few of the new warehouses in Abbotsford hosted firms classified as NAICS 493. This meant that I had to expand the scope of my analysis to include other NAICS codes in order to provide a clearer picture of logistics activities in Abbotsford.

Here, I expand the classification system to include all of NAICS 48 and 49 (Transportation and Warehousing), as used by the author Cidell (2010).

Author	Firm Classification	Data Source
(Bowen 2008)	NAICS 493 - Warehousing	US County Business Patterns
(Cidell 2010)	NAICS 48&49 - Transportation and Warehousing	US County Business Patterns
(Dablanc et al. 2013)	NAICS 493 - Warehousing	US County Business Patterns
(Sivitanidou 1996)	Survey of Firms	Survey of Warehousing Firms
(Dablanc & Ross 2012)	NAICS 493 - Warehousing	US County Business Patterns

Figure 3-4. Types of Logistics Firms Previously Studied
Source: (Woudsma et al., 2016)

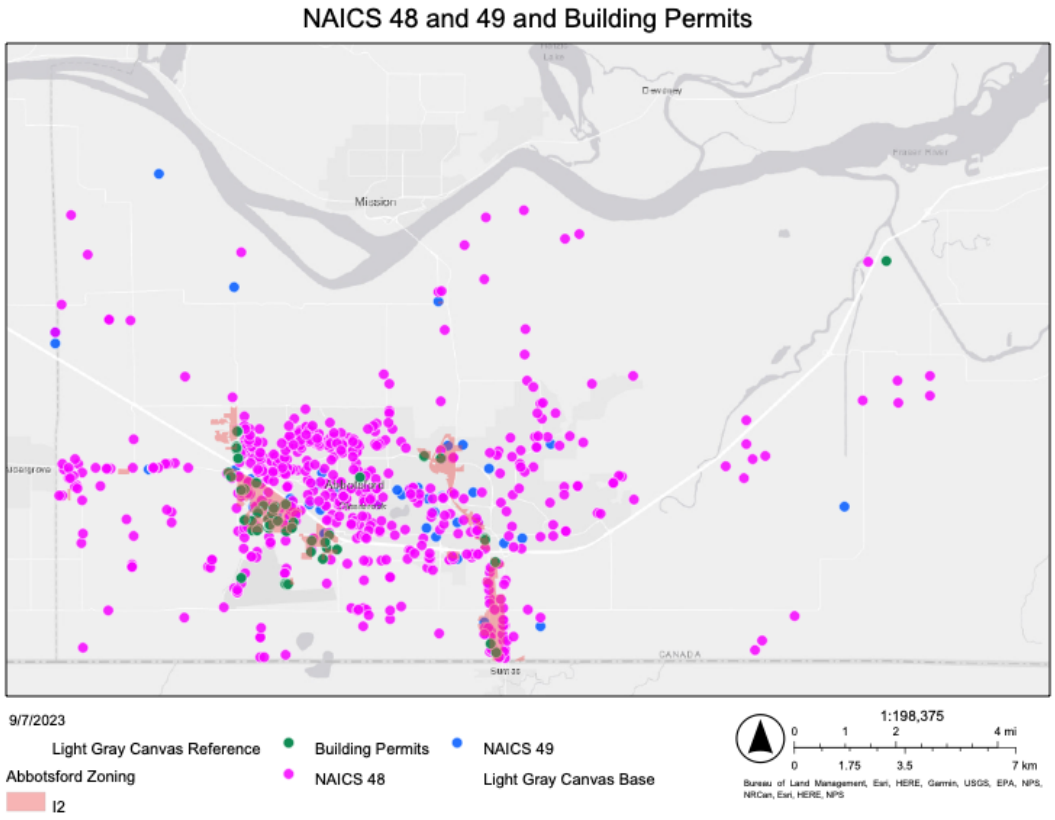

Figure 3-5. NAICS 48-49 vs CoA Building Permits
Source: Simply Analytics, 2023; City of Abbotsford, 2023. Map by Author.

While expanding the scope to include NAICS 48 and 49 meant that more businesses appeared aligned with new warehouse development, the list it produced was still quite small, suggesting that while some of the new warehouse developments had become

home to logistics firms, there may be several different users operating in these sites and thus contributing to the difficulty of classifying logistics as a distinct industry. This situation motivated me to introduce a third data set, that being the City's business license data.

3.3.3. City versus NAICS

I then layered the NAICS 48 (a total of 634 businesses) and 49 data (a total of 48 businesses) into ARC GIS, followed by the City's business license data (City of Abbotsford, 2023a). At first, I included only the City's business license data classified under the 'Industrial' sub-type 'warehousing' (a total of 101 businesses). This produced a map with some overlap, but there were still many NAICS businesses without aligning City businesses. I expanded the City's business license data to include the overall categories of 'Industrial' and 'Business Services' (a total of 727 businesses). In doing so, it was clear there were more instances of overlap. In order to compare these two data sets; the City business license data and the NAICS codes, I moved to Excel, manually searching addresses between the Dun & Bradstreet data and the City business license data, starting with the NAICS 49 businesses and moving back and forth. I was not able to expedite this process using the 'search for duplicates' function as many of the addresses were not entered in the same way – some would include building name, for example, so manually searching was necessary. By the time I reached a sample of 95 businesses, I began to see that the City was classifying warehousing and logistics activity in a variety of different ways compared to the NAICS data. Table 3.2. demonstrates the differences in classification between the NAICS 48-49 and City business license data using this sample. The full list of sorted data is available in Appendix B. Taken together, the location of NAICS 493 warehouses, and the way in which the City classifies warehousing-related businesses, suggests that the logistics industry is not defined at the local level in the same way as done in previous research efforts in this area (Cidell 2010; Woudsma et. al 2016).

Table 3-2. Reconciliation of Dun and Bradstreet, and City of Abbotsford Business License data, by NAICS code

Classification	Number of establishments
NAICS 48 only (various business license classification)	28
Business license (warehousing) and NAICs 48	**4**
Business license (warehousing) only	65
Business license (warehousing) and NAICS 49	**13**
NAICS 49 only (various business license classification)	2
TOTAL	**95**

Note: Data Included in Appendix C.

3.3.4. Construction Activity

In my attempts to find more statistical information on warehouse developments, I discovered planning and development reports on the City's website pertaining to industrial floor space construction. This enabled me to compare the warehouse building permit data I had sourced prior, with the overall number of industrial permits issued during approximately the same period. This helped to demonstrate that new warehouses, as a type of development taking place on industrial land, were increasing in proportion to all industrial construction.

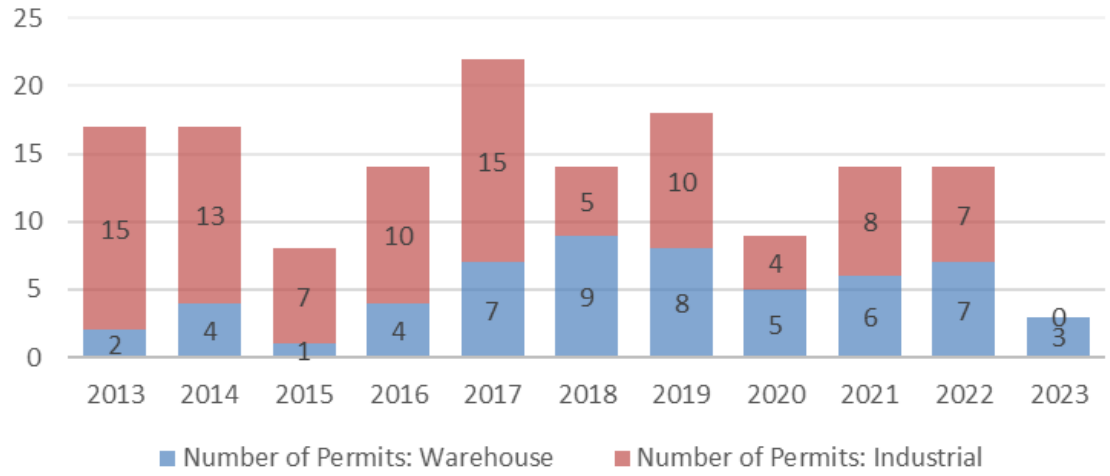

Figure 3-6. Warehouse Permits as a Portion of Overall Industrial Permits.
Source: (City of Abbotsford, 2023c). Chart by author.

3.3.5. Rezoning

Finally, I also attempted to look at the number of rezonings that took place in the same 10-year period with respect to the rezoning of agricultural land to industrial land. This proved challenging as the City's website only listed information going back a period of one year. I also inquired with the Agricultural Land Commission regarding the number of applications made to exclude land from the ALR in Abbotsford in that time period. The ALC advised that a total of 40 applications had been received since 2003. However, this data did not list whether or not the application was successful, the amount of land requested, or, if successful, what the land was rezoned to, as that regulatory power lies with the City. My research timeline did not allow for further inquiry with the ALR, mainly as many files had not yet been digitized and visiting the offices to analyze this data in person was challenging to balance with my full-time job. Finally, some City documents discussing the 2017 process provided further background to the removal of land from the ALR. Between 2005 and 2007, approximately 480 acres were removed: 445 acres for the CICP lands, and 35 acres mainly in West Abbotsford (Seaton, 2017d). Comparing the City's accounting of the amount of land in 2017 to the ALC's data in 2022 suggested that no more land in the ALR has been removed since this process concluded in 2018.

3.4. Document analysis

While I was concluding the preliminary work outlined above, I began the unobtrusive observational method of content analysis (Babbie et al., 2021, p. 242). This included collecting secondary data (Flowerdew & Martin, 2005, p. 57), or, publicly available documents, from several sources. From the City of Abbotsford, I collected such documents as the Abbotsford Industrial Lands Strategy (2017) as well as Council reports and communication associated with the City's application to the ALC for the exclusion of the Special Study Areas. Analyzing these documents helped me to understand how the City of Abbotsford was framing its role in providing space for large industrial users, including the warehousing and logistics industry, and therefore, began to answer my primary research question. For example, I looked for instances in which City documents recognize a 'latent demand from the logistics industry' and justifications for the exclusion of Special Areas A and B. As my intention was to identify themes within the municipal documents, I coded for latent content and conducted a qualitative analysis of the themes that emerged (Babbie et al., 2021, p. 354). A full list of these documents can be found in Appendix B.

I also included newspaper articles and real estate publications as data sources in order to increase the external validity of my research, defined as the possibility that conclusions drawn from my research results may be generalizable to the 'real world' (Babbie et al., 2021, p. 184). Using a process of open coding, I analyzed these sources in order to answer aspects of my research question relating to the City's exclusion application to the ALC, and to further identify narratives regarding growth, as hypothesized in my third body of literature "Suburban Growth Machine Politics." For example, an analysis of newspaper articles helped to uncover potential instances where City officials were justifying the exclusion application, where members of the business community were supporting it, or where other interested parties may have voiced their opposition.

I sourced news articles using both Google News' search function and Canadian Newstream, using search terms including Abbotsford, logistics, ALR, industrial land, and exclusion. I narrowed the search to look for articles published before 2019, which helped to reveal that several parcels of land included in one of the Special Study Areas had previously been put forward to the ALC for exclusion by a private developer and 22

landowners, with that process beginning in 2012. That application process was ultimately unsuccessful, with the ALC recommending that a comprehensive City-led planning process should take place as well as a City-led application. Table 3-3. includes a record of these news articles organized by date, while their titles suggest a framing of the issue largely concentrating on notions of 'industry' and 'growth' versus 'farmland' and Abbotsford's 'farming identity'.

Table 3-3. News Media Regarding the ALC Exclusion Process and History of the Sites

Article Title	Source	Date
Huge ALR move; Daffodil capital could change to $4.5 billion industrial park	Christina Toth, Abbotsford Times	6/5/2012
Industrial park proposal in Bradner ignites concern	Neil Corbett, Aldergrove Star	6/9/2012
Warehouse farm not wanted; Bradner speaks out against trading crops for concrete	Christina Toth, Abbotsford Times	7/19/2012
Agricutural Land Reserve request goes public: Abbotsford city council will begin a consultation process in regards to a proposed industrial development in Bradner	Kevin Mills, Abbotsford News	7/27/2012
Bradner industrial park could generate millions for region	Christina Toth, Abbotsford Times	10/30/2012
Locals 'overjoyed' that ALC denied industrial park proposal: Developer had asked for the removal of 224 acres of land in Bradner from the Agricultural Land Reserve to build industrial park.	Tyler Olsen, Abbotsford News	2/25/2016
City may consider removing land from ALR for parks, industry: Draft OCP suggests studies to consider removing farm land from agricultural reserve for industrial uses, sports fields.	Tyler Olsen, Abbotsford News	4/7/2016
LETTER: Choosing between farmland and city growth	Frank Manderson, Abbotsford News	4/7/2016
Abbotsford running out of industrial land: City to eye removal of farmland from Agricultural Land Reserve for future development	Tyler Olsen, Abbotsford News	3/10/2017
Should Abbotsford ask to use ALR land for industrial parks?	Tyler Olsen, Abbotsford News	5/14/2017
Abbotsford could convert some protected farmland to industrial use: Farmer critical of plan to take even more land out of the Agricultural Land Reserve	Liam Britten, CBC News	5/17/2017
Public hearing set for plan to take farmland out of Agricultural Land Reserve	Tyler Olsen, Abbotsford News	7/8/2017

Article Title	Source	Date
Most at public hearing opposed to exclusion of ALR tracts for industry: City of Abbotsford considering asking for industrial use of 700 acres of protected agricultural land	Tyler Olsen, Abbotsford News	7/17/2017
Abbotsford eyes farmland for industrial growth use	Glenda Luymes, The Province	7/17/2017
Most at public hearing opposed to exclusion of ALR tracts for industry: City of Abbotsford considering asking for industrial use of 700 acres of protected agricultural land	Tyler Olsen, Abbotsford News	7/17/2017
Removal of properties from ALR 'will destroy' Bradner, council told at public hearing: Opposition outweighs support for plan to ask to turn farmland into industrial parcels	Tyler Olsen, Abbotsford News	7/18/2017
Abbotsford council OKs plan to ask for removal of farmland from ALR: Land in Bradner and northwest of YXX identified for future industrial growth	Tyler Olsen, Abbotsford News	7/31/2017
BREAKING: No industrial development on Abbotsford farmland, ALC tells city	Tyler Olsen, Abbotsford News	4/30/2018
ALR decision aftermath: Bradner residents consider election action; mayor disappointed	Tyler Olsen, Abbotsford News	5/2/2018
Industrial land shortage looms as Abbotsford's farmland exclusion request denied	Glenda Luymes, The Vancouver Sun	6/25/2018

As displayed in Table 3-4., a wider analysis of newspaper articles and developer and real estate publications focusing on industrial land in the Lower Mainland provided important situational context, increased the external validity of the analysis, and helped to answer my sub-question regarding how an environment favourable to warehouse development may have been produced. Finally, in certain cases I was unable to speak to some of the people identified in my sample frame, so I relied on newspaper articles, websites ,and other publications to support me in better understanding their role in and perspectives of logistics development in Abbotsford.

Table 3-4. News Media and Industry Publications Regarding Industrial Land and Logistics Development in the Fraser Valley and Suburban Markets

Article Title	Source	Date
Gloucester development regaining 'lost ground' since 2008 recession	Kurt Langmann, The Aldergrove Start	3/28/2013
Businesses scramble to secure industrial land; Tight vacancy rates expected to ease over the next year	Evan Duggan, The Vancouver Sun	8/19/2015
Abbotsford farmland has 'redevelopment' potential, says seller seeking $20M	Tyler Olsen, Abbotsford News	7/8/2018
Compromise or conflict? Addressing industrial land use could take pressure off farmland	Tyler Olsen, Abbotsford News	5/19/2019
Construction set to begin on large industrial park in west Abbotsford: Xchange Business Park on Mt. Lehman Road slated to complete first 2 buildings by early 2024	Vikki Hopes, Abbotsford News	11/17/2022
Major Abbotsford business park starts construction	Remi Network	12/5/2022
‘Megawarehouse’ demand hits record highs in 2022, reports CBRE	Jeff Berman, Logistics Management Magazine	2/8/2023
Red Bull, Hungerford, Denciti Move On Industrial Land Outside Metro Vancouver	Howard Chai, Storeys	2/10/2023

3.5. Ethics and data management

Given my research involves human subjects, it was crucial to have my research proposal approved by SFU’s Office of Research Ethics. In reaching out to my potential interview subjects, I clearly identified myself, the university I am studying at, and the reason why I was contacting them. I also offered my interview subjects the option of confidentiality in answering my interview questions, which several interview subjects preferred. While some interviewees agreed to have their input attributed to them, I decided to keep all interview subjects anonymous to avoid any chance of residual disclosure, which “occurs when confidential data can be estimated by cross-referencing released information with other accessible information” (Statistics Canada, 2023).

In terms of data storage and organization, I used Google docs to store photos, Excel files with different sheets for each of my key data sources (building permit data, municipal documents, newspaper articles), as well as an Excel file with the statistical analysis of building permit data. This helped me to keep my data better organized. To ensure the interview data is stored securely, Zoom video recordings and audio

recordings of the interviews were downloaded to my computer and stored securely on SFU's OneDrive.

3.6. Recruitment and semi-structured interviews

In order to identify the spatial imaginaries of local government officials in Abbotsford, as well as further uncover the presence of growth coalitions, and increase the validity of my findings (Babbie et al., 2021, p. 355), my content analysis was accompanied by subsequent interviews. Using interviews to identify spatial imaginaries, as well as suburban growth coalitions, follows the work of Cidell (2011) and Raimbault (2021), respectively. In terms of sequence, placing the interviews after my initial document analysis allowed me to have a better understanding of the issue: I tailored my questions to the person's understanding of the 2017 process, economic development, or in industrial development in general, and tried to ask questions that would provide information to fill in the gaps in my research thus far. My sampling plan identified, through publicly available sources, a list of potential interview subjects and thus comprised my initial sample frame. The people I actually talked to became my effective sample. In some circumstances, interview subjects recommended I speak to other potential subjects, who I then followed up with using my REB-approved recruitment strategy. I spoke with a total of 10 people, completed 9 interviews (one was a joint interview), and one interview was a follow-up phone call.

Table 3-5. Completed Interviews

Note: In order to avoid the risk of residual disclosure, all interview participants are listed anonymously, excluding their names or current positions. Not all participants were quoted directly or indirectly in this project.

Role	Association
Staff 1	City of Abbotsford
Staff 2	City of Abbotsford
Staff 3	City of Abbotsford
Staff 4	City of Abbotsford
Staff 5	City of Abbotsford
Real Estate	Industrial Real Estate in the Fraser Valley
Farmer	Former Resident / Farmer
Business Community	Local Business Representative for Abbotsford Businesses

Consultant	Local Government Consultant
Airport Staff	Abbotsford Airport

I conducted interviews in order to understand the interview subjects' perceptions and understanding of logistics development in Abbotsford, their concerns or feelings of opportunity regarding this industry, their ideas about the future of economic development in the City, and, if applicable how they see their role in facilitating and/or managing the demands of this industry. These questions were tailored depending on who I spoke with. In this way, these interviews built on the "Spatial Imaginaries of Suburban Actors" body of literature in my conceptual framework. The remainder of the people listed in my sampling plan were from groups I hypothesized to be a part of the 'logistics growth machine' in Abbotsford, given they were quoted in newspaper articles regarding current logistics developments in Abbotsford. Therefore, interviewing some of these people helped to make connections with the "Suburban Growth Machine Politics" body of literature within my conceptual framework. Further, these interviews, coupled with the document analysis results, helped to illustrate the larger context within which the city planners and other officials in Abbotsford are working.

All interview subjects in my sampling plan had emails or contact information listed online. In some cases, I contacted people through their publicly available LinkedIn profiles or through Facebook profiles associated with their businesses, which I included as an option in my ethics application. In cases where I did not receive a response, I sent a follow up email. As I began reaching out to potential interview contacts, I expanded sampling plan to ensure it included subjects with various perspectives in equal measure to allow for representativeness. Finally, my ethics application allowed for instances of snowballing, in which one interviewee would suggest I speak with another close contact. In these cases, an interviewee either offered my contact information to their contact who was then free to follow up with me if they wanted to, or, in another case, I was given contact information and followed up directly. However, in the latter case, I did not disclose who our mutual contact was. In some cases, people agreed to interviews but then decided they did not want to participate or did not respond further. At the same time, I was aware that I could not contact too many additional subjects so that the actual conducting and transcription of the interviews would no longer be feasible given my research timeline. While I did not expect to speak with all subjects, I attempted to speak

with at least one from each area of interest (local government, business community, real estate). Unfortunately, I was unable to interview any of the local politicians involved in the 2017 process. For this reason, I relied mainly on statements captured in newspaper articles or in council meeting minutes to better understand their positions on logistics development.

3.6.1. Approach to Interviews

I took a semi-structured approach to the interviews to allow for a certain level of flexibility, while focusing on "most of the same topics in roughly similar ways" (Babbie et al., 2021, p. 295). My interviews took place in person, over the phone, and over Zoom, allowing me to record the conversations and take notes. I analyzed the interview data through a process of transcription, using the transcription software Otter.ai. I then printed out copies of each interview transcription, read the transcriptions and made notes regarding emerging themes and significant quotes. Where there were errors in transcription, I went back and listened to the recording again to ensure accuracy, and then corrected as needed. I then recorded these notes into a larger table in Excel where I used open coding to further refine each theme. In terms of my research design, the semi-structured interviews constituted my final research method. However, because interview subjects often recommended other documents to review regarding industrial land and logistics in Abbotsford, the need to conduct a second phase of collecting City-related documents emerged.

Table 3-6. Additional City of Abbotsford Documents

Document	Date	Purpose
City in the Country Plan	2004	Intended to address the shortage of industrial and business park lands facing the City at the time, as well as to preserve, protect, and enhance the agricultural industry.
Fraser Valley Alliance	2023	A website featuring economic development opportunities in the Fraser Valley, created by a group of economic development staff from across the Fraser Valley as well as Langley Township and Maple Ridge.
Strategic Plan	2023	The Strategic Plan provides direction for City staff in developing business plans and budgets, and enables the organization to continually monitor progress toward our overall vision of Abbotsford as the cultural and economic Hub of the Fraser Valley. It also includes reference to objectives including 'Explore a Regional Industrial Land and Advocacy Strategy' and 'Update the Truck Parking Study' from 2011.

While some of the codes that emerged from the previous two content analyses aligned with codes that emerged from the interview data, the interviews also uncovered some unique themes. The interview data provided additional and important context in answering aspects of my research questions including why the City chose to pursue the exclusion application, how the City perceives the logistics industry, and how an environment seemingly favourable to warehouse development was created. Further, the interviews were my opportunity to increase the validity of my findings and to "more accurately interpret patterns" (Babbie et al, 2021, p. 262). I also returned to some of the documents after conducting the remainder of my interviews in order to see if my improved understanding of the logistics landscape in Abbotsford gave any further weight to certain documents or themes.

3.6.2. City Clarifications and Follow-Up

At one point during the interview process, I received a response from the City stating that the Special Areas were not being removed specifically to accommodate, or in direct response to, the demand from the logistics industry for large parcels of land. Instead, the City stated that the consultant's report had identified the industry as one with the largest pent-up demand, specifically with respect to large parcels – of which the City was lacking. This answer prompted two actions. First, I had to change my research question to address the City's clarification – moving from a more specific question regarding the removal of ALR land to accommodate logistics, to a broader framing of large industrial users 'including warehousing and logistics users.' Second, I wanted to seek further clarification from the City regarding their response. Was the City hesitant to accommodate logistics specifically? What other large industrial users were they expecting would use this land? In order to do so, I drafted a second set of questions and arranged a follow-up interview with the individual who I had received this response from.

3.7. Concluding analysis

When consistent themes began to emerge from my content analysis as well as my semi-structured interviews, I recognized I was nearing the conclusion of my analysis. To increase the reliability of my content analyses, I revisited a number of documents to ensure consistency (Babbie et al., 2021, p. 250). In some cases, I had a better

understanding of the documents based on the interviews. As mentioned previously, a number of interview subjects recommended additional documents to review, which meant that some document analysis took place after the conclusion of interviews. Further, some interview subjects recommended I speak with other people they knew based on their understanding of economic development in Abbotsford, for example.

In conclusion, I structured my research design in such a way that I was able to link each question to a corresponding type of analysis, while also employing the methodologies of logistics scholars where appropriate. My initial research design was structured in a sequential manner, in order for me to bring background knowledge from both the statistical and document analysis stages to the semi-structured interviews. This provided me with a better understanding of the context of land use planning and economic development in Abbotsford, which I was able to apply to interviews. At the same time, further information emerged from the interviews, and from the ongoing revisions of my statistical analysis, that required revisiting these stages of the research design. In the chapters that follow, I explore the themes that emerged from both my analysis of documents and the semi-structured interviews.

Chapter 4.

The ALC Application Process

In this chapter, I outline the proceedings leading up to, during, and following the City's ALC application. I present a brief overview of several key documents associated with this process, including the City's *Industrial Land Supply Study*, results from the public engagement process, and a number of council reports, including the report regarding the final ALC Application. I present this information alongside additional data collected from media stories published throughout the process. Together, this information, in the context of an increasingly lucrative suburban industrial real estate market as presented in Chapter 1, begins to tell the story of motivation behind the City's application process, and the suburban reach of the global warehousing and logistics industry.

4.1. Pre-Application

As discussed in Chapter 1, the agricultural lands within the City's 2017 application to the ALC, Special Areas A and B, have long been caught up in processes of speculation. In addition to Special Area B's inclusion in the 2004 CICP lands exclusion application, a number of parcels, totalling 224 acres included in the future Special Area A, were submitted as a block exclusion to the ALC in 2015 by 22 private landowners (Olsen, 2016a). At the time, the ALC rejected this exclusion, stating that "a local government's need for industrial land would be more appropriately addressed by the City as part of a broad planning review" (Neill, 2018). In 2016, the City published its Official Community Plan (OCP), identifying Special Areas A and B for future industrial growth "due to their proximity and access to Highway No. 1, Abbotsford International Airport (YCC), rail and other industrial uses" (City of Abbotsford, 2023e). A draft copy of the OCP was provided to the ALC, who in turn, expressed "concerns about the proposed designation of the four study areas which were found to include lands of high agricultural capability" (Neill, 2018). The ALC requested that the City undertake more detailed planning before attempting to remove more ALR lands for industrial use.

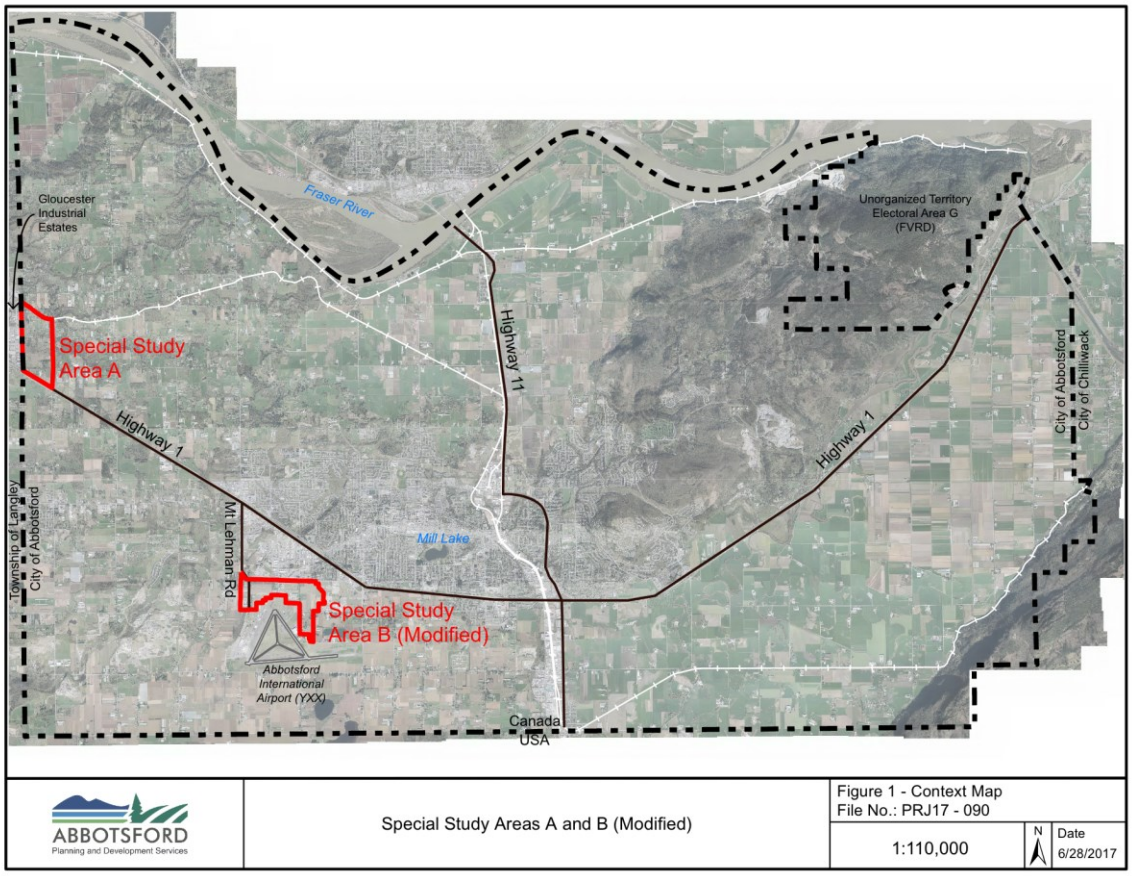

Figure 4-1. Special Study Areas A and B.
Source: (Seaton, 2017d, p. 10)
Note: Abbotsford City Council ultimately chose only one portion of Special Study Area B, the "western portion", as modified above, to apply for exclusion to the ALC.

4.2. Industrial Land Identification Process and ALC Application

In late 2016, shortly after publishing their OCP, the City began what they called a "comprehensive planning process to identify opportunities for future industrial growth in the City" as the City planned for a future population of 200,000 residents (City of Abbotsford, 2023f). This process, which constitutes the case study at the heart of this paper, included background research in which the City worked with a consultant, Urban Systems, to better understand Abbotsford's current and potential capacity for industrial growth. The City also conducted a site analysis with another consultant, PCL, to assess the quality of the soil on the sites, an engagement process with the wider community (including both the business community and local residents) and, eventually, a City-initiated ALR exclusion application. In this chapter, I briefly summarize this information in the same way that the process was delivered through the City; in four distinct stages. I then review the key themes that emerged from this analysis regarding the motivations behind the City's pursuits to exclude this land for future industrial use, seemingly in part due to a recognition of demand from the logistics and warehousing industry.

It should be noted that Stage 4 was originally anticipated to be the stage in which the City amended its OCP so that the Special Study Areas excluded from the ALR would be eligible for future rezoning to industrial uses. However, Stage 4 instead consisted of the City exploring options for the future of industrial land given it was unsuccessful in its application.

4.2.1. Stage 1: Background Research

On February 17, 2017, Abbotsford City Council received a staff report introducing the Industrial Land Supply Study Project and background research on the topic of industrial land and Abbotsford's local industrial land inventory, comprising Stage 1 of the project. The report presents plans for a four-stage process, beginning with background research, followed by a site analysis, an ALR exclusion application and public engagement process, and concluding with an OCP amendment– which, with a successful exclusion, would allow the land to be rezoned in future to another use.

In addition to presenting the project plan, the report also includes background research done by the consulting firm, Urban Systems, who compiled an inventory of industrial land, *the Abbotsford Industrial Land Capacity Analysis*, within the city and determined, based on historic absorption rates and future population growth, that there was a need for more industrial land based on local and regional market demand (Seaton, 2017b). A summary of Urban System's research paints a picture of a considerably low vacancy rate in Abbotsford, at 0.4%, alongside a low regional vacancy rate, at 1.7%. Abbotsford is described as having one of the fastest growing [industrial real estate] markets in the region "with an average annual inventory growth of 6.4%", (Seaton, 2017b, p. 20) and, along with other Fraser Valley municipalities, is framed as playing an increasingly important role in the Lower Mainland's industrial and related employment growth. Urban Systems' summary goes on to review the current supply of industrial land in Abbotsford, noting that the city's availability of 86 hectares of industrial land means there is between "8 and 14 years of remaining supply" (Seaton, 2017b, p. 112).

Here, we begin to see the influence of the warehousing and logistics industry on the demand for industrial land in Abbotsford. Urban Systems qualifies their analysis regarding remaining supply, noting that the existing supply is mainly composed of smaller parcels with fragmented ownership patterns, meaning that "absorption of this remaining capacity will likely be challenging and relegated to mostly small local users" who do not require prime exposure and access to highways (Seaton, 2017b, p. 5). Abbotsford's remaining supply is then described as "generally of no interest to larger, regional-serving users such as warehousing, distribution or logistics which make up the majority of the latent regional demand pipeline (Seaton, 2017b, p. 5). The consulting firm then notes that "the existing capacity cannot satisfy the growing latent regional demand for sites larger than 12 hectares (30 acre) offering proximity to major highways, rail, border crossings, industrial agglomerations and the airport" (Seaton, 2017b, p. 6). Urban Systems concludes the summary of their analysis by stating that Abbotsford is "well-positioned to play a larger role in the regional industrial market in the future if new industrial land is pursued with these site requirements in mind" (Seaton, 2017b, p. 6).

> It is likely that the amount of unfulfilled space requirements will continue to grow, as an estimated 70% of space is being sought by major distribution and logistics facilities. There will be significant regional consequences if there is a steady exodus of major distribution and logistics businesses that

> are unable to find appropriate locations: [l]ost employment opportunities, and associated difficulties in retaining and growing populations; perpetuation of the need for inter-municipal commuting, and significant loss of potential business tax base, with associated need for increased residential property taxes (Seaton, 2017b, p. 13).

4.2.2. Stage 2: Site Analysis

In Stage 2, the City, working with Urban Systems, completed an *Industrial Land Strategy.* The strategy represented the City's efforts to "determine which areas to pursue for exclusion from the Agricultural Land Reserve (ALR) to meet the demand for more industrial land" (Seaton, 2017a, p. 1) and was presented to Council on April 24, 2017. The strategy was informed by a number of 'key aspects' including reviewing previous regional and local plans and policies, regional industrial market trends, analysis of agricultural capability and suitability, and other servicing and transportation considerations. In order to identify the sites with the highest industrial land potential across the city, Urban Systems used a model that took into account "the primary factors driving the locational decision of industrial end-users and developers" (Seaton, 2017a, p. 2). These factors, which appear aligned with the needs of the warehousing and logistics industry, included: proximity to major highway and access points; airport; rail; existing industrial concentrations, and average parcel slope (Seaton, 2017a, p. 2). Using this model, the report states that "a number of potential 'hot spots' were identified" (Seaton, 2017, p. 3), which included both Special Study Areas A and B. Given that many of the other areas identified were already existing industrial areas and had "limited ability to accommodate large industrial users looking for sites greater than 4 hectares" (Seaton, 2017a, p. 3), the analysis found that Special Study Areas A and B "offer[ed] the highest potential to accommodate new industrial growth to meet both local and regional needs" (Seaton, 2017a, p. 3). Further justification regarding the areas for industrial use is reflected in this excerpt of the strategy's executive summary:

> From a market perspective, both areas meet or exceed typical locational criteria demanded by industrial developers and tenants. Both areas have different critical factors which would contribute to their success for capitalizing on regional and local need for industrial land. **Special Study Area A is well suited to accommodate large, region-serving users in logistics, warehousing and distribution sectors which are actively seeking space and make up a disproportionate share of unmet and growing regional demand**. Special Study Area B is ideally suited to

> accommodate a range of local market-serving smaller and medium bay industrial businesses.
>
> With a dwindling supply of industrial land in Metro Vancouver and major industrial parks in the Lower Mainland nearing capacity, **Abbotsford is well positioned to play a larger role in the regional industrial market**. As the City moves towards a population of 200,000 envisioned in its 2016 Official Community Plan, **it will be important to provide employment opportunities for a growing population.** The City needs to plan ahead to ensure that its residents can continue working close to where they live, thereby building a resilient and self-sufficient community with a diversified economic base. ("Executive Summary", Seaton, 2017a, p. 9) Emphasis added by author.

Once the sites above were identified, an *Agricultural Suitability Assessment* followed for each of the Special Study Areas. This assessment "looked at agricultural capability and suitability to identify constraints which may affect the cost and complexity of farming in these two areas" (Seaton, 2017a, p. 3) by considering factors such as soil qualities, existing farming activities, topography, and parcel sizes. Following the assessment, both of the Special Study Areas remained recommended for exclusion from the ALR, although the boundary of the Special Study Area B was modified given the presence of high quality soils for growing a variety of crops (Seaton, 2017a, p. 119) .

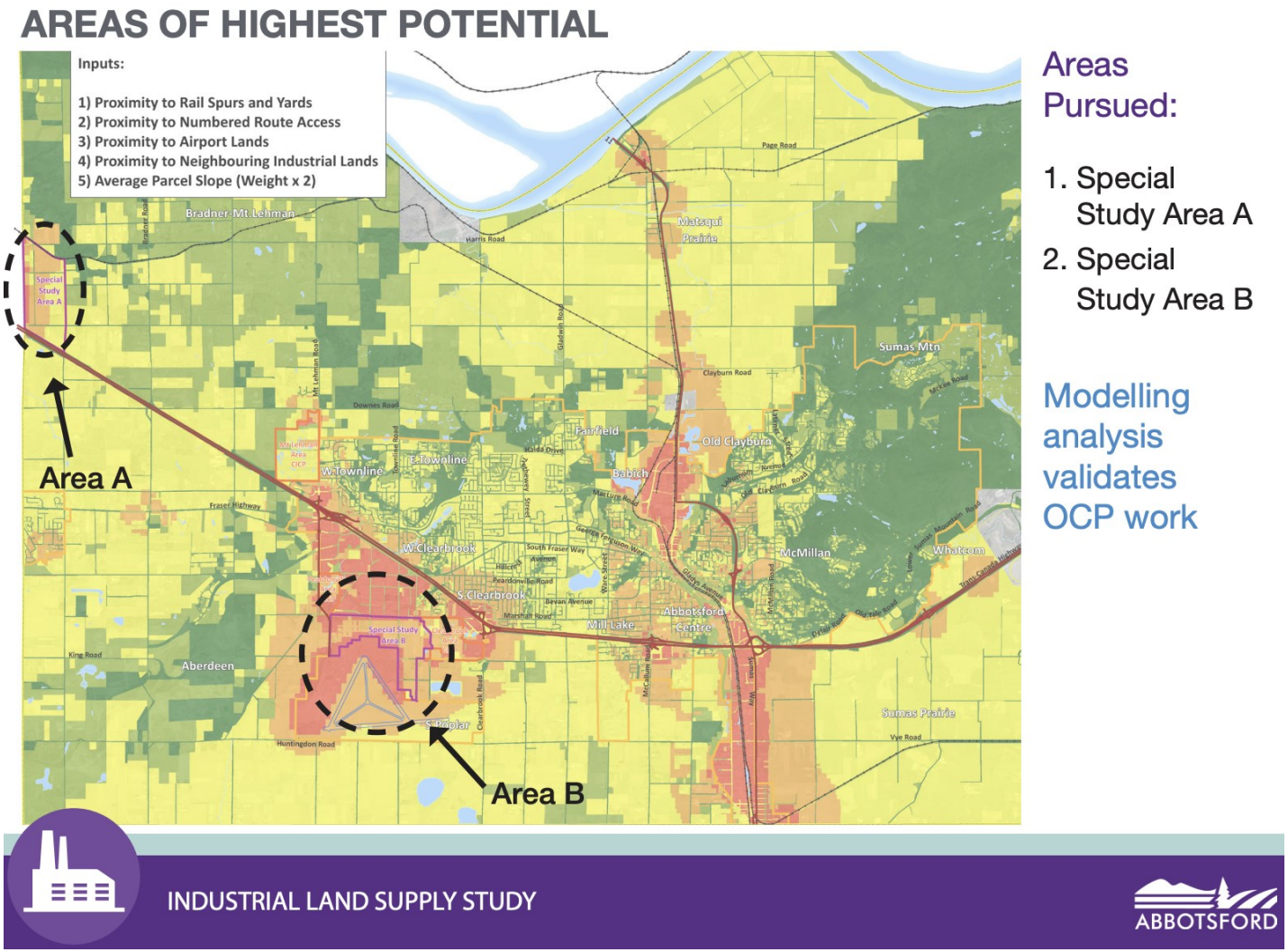

Figure 4-2. Areas of Highest Potential for Large-Scale Industrial Development.
Source: (City of Abbotsford, 2017b, p. 6)

4.2.3. Stage 3: Public Consultation and Preparation and Submission of a City-Initiated ALR Exclusion Application

With authorization from Council, staff proceeded with Stage 3 of the project, which involved, as a first step, public consultation on the two Special Study Areas, followed by the preparation and submission of the City-initiated ALR exclusion application. Staff reported back to Council with an interim report, in June 2017, that summarized the results of their public engagement efforts. Engagement for the process included two public open houses and a number of presentations to City Committees, provincial government agencies, and business groups throughout the month of May, 2017 (Seaton, 2017c, p. 5). The City's report includes the findings of these open houses, noting the levels of support and opposition from the public gathered at the two different events, as displayed in Table 4.1.

Open House 1	"Overall, 40% of attendees agree with the exclusion of Special Study Area A, and 57% disagreed. The responses for Area B did not indicate a strong preference for either choice, with 35% agreeing with an exclusion, 36% disagreeing, 15% neutral, and 14% providing no answer" (Seaton, 2017c)
Open House 2	An overwhelming majority of respondents (85%) agreed with the exclusion of Special Study Area B from the ALR for industrial uses. Approximately one-quarter of the respondents were both in favour and against the exclusion of Area A respectively. Almost 40% of people did not provide an opinion on Area A. (Seaton, 2017c, p. 3)
Combined results	A combined 248 comment sheets were received from the two open houses. The aggregate results indicate a greater preference for the exclusion of Special Study Area B over Area A. The majority of respondents (54%) are in favour of excluding Area B, whereas only 33% are in favour of excluding Area A. (Seaton, 2017c, p. 4).

Table 4-1 Results of 2017 Open Houses on the Proposed ALR Exclusion Application

Source: (Seaton, 2017c) Table adapted by Author.

The City also summarized the feedback by topic area from the two open houses, as noted in the table below, adapted from the City's report. The results of the City's open houses show hesitation from some residents regarding the slow uptake of excluded land in the past, as discussed in Chapter 1, while others appeared to welcome the expansion given potential increases in jobs and taxes.

Table 4-2. Summary of feedback by topic area from the City's Open Houses

Support	Ensuring an adequate supply of jobs for the future
	Expanding the City's tax base
	Growing the economy and attracting new businesses
	Poor soil quality makes farming difficult, especially soil-bound agriculture
	Job creation and reducing travel distances to jobs
	Growing the local economy by attracting new businesses, especially around the airport
	Source of increased property taxes
	Proximity to the freeway, airport and nearby industrial lands
	Opportunities for agri-industrial uses in Area B
	Existing challenges with finding industrial properties due to high land prices
	Existing servicing infrastructure in Area B
	Small parcels sizes impact agricultural yield and opportunities for farming
	Increasing traffic volumes and future road widening on Mt Lehman Road affect farming in the area
	Sand and gravel soils are difficult to farm, requiring management inputs and damaging farm machinery
Opposed	Protection of farmland and ensuring an adequate supply for the future
	Opportunities for non-soil based agriculture
	Traffic volumes, noise and speeding concerns, including east-west traffic volumes, increasing truck traffic, back0ups at major intersections, access to and across Highway 1
	Non-conforming industrial uses already occurring in the area
	Perceived cost burden to taxpayers to provide/upgrade servicing
	Environmental impacts including headwaters of Nathan Creek, protection of the watershed and clearance of existing tree cover
	Reducing reliance on agricultural exports from other countries for food security
	Need for densification of existing industrial land to ensure efficient use
	Class 1 soils cannot be replaced and the ALR boundary should be permanent
	A clear vision and plan for agriculture in Abbotsford is required
	The study has not completed an economic analysis to show why industrial land is more valuable than intensive agriculture
	Past exclusions for industrial land have been used for commercial/retail sprawl
	City in the Country (CICP) Lands are vacant or used for storage of trucks, cars, cranes and lockers
	Agricultural suitability is a subjective argument
	Industry should be required to densify, like residential uses
	Lack of enforcement of non-conforming uses in the ALR
	Area A is too far out of town for employment needs and affects commute times

Source: (Seaton, 2017c, pp. 2–4).

In addition to the public, several other stakeholder groups were engaged by the City as part of the process. These groups included City committees: the Development Advisory Committee and the Agriculture, Dyking, Drainage and Irrigation Committee; government agencies including the Province's Ministry of Transportation; and representatives of the business community including the Chamber of Commerce and the Urban Development Institute of the Fraser Valley. Of note, and suggestive of the presence of a suburban growth machine, the City's record of feedback from the joint session with the Chamber and UDI includes the note that "[a]ttendees were generally of the opinion that the combined areas of the two proposed sites were still insufficient to meet the future demand for industrial land" (Seaton, 2017c)

In a newspaper article following the Council meeting at which the report was considered, both the Mayor and several Council members were quoted, voicing their perspectives on the potential application. The Mayor at the time, Henry Braun, stated that the "lands make sense to consider because they are adjacent to an existing industrial park and the soil quality is questionable, with many parcels not intensively farmed" (Olsen, 2017a). He also noted the City's stated need for employment lands as it anticipated future growth: "If the city is serious about providing employment lands, we have to be honest with ourselves," he said. "I don't know where else to go except these two study areas. They're not perfect options, but they are the best options" (Olsen, 2017a). Appearing to recognize that the low employment density often found with logistics and warehousing developments, two Councillors "both suggested the city work to ensure that if the properties are removed, they are used for industrial uses that create significant jobs" (Olsen, 2017a).

4.2.4. Public Hearing and ALC Application

> "If Council votes this way then the logo should not be City in The Country but Industry in the Country." Speaker at the 2017 Public Hearing. (City of Abbotsford, 2017a, p. 14)

As Council approved the report summarizing public engagement on the potential exclusion of the two Special Study Areas, staff were then able to move forward with preparing an exclusion application to the ALC, which required a public hearing. The public hearing generated significant community interest. The local paper, Abbotsford News, covered the proceedings, largely framing the issue as a decision between

protecting farmland and Abbotsford's rural sense of community, or allowing the development of industrial parks, which could bring with them increased jobs and tax dollars (Olsen, 2017b). Despite its prominence in the earlier stages of the process, acknowledgement of one of the main sources of demand for the large plots of industrial land within the application – the logistics and warehousing industry – was rarely mentioned when it came to describing specific industries that would offer the jobs needed by the City's growing population. Instead, those voicing support for the application mainly framed their argument about the need for more jobs and an increased tax base, in general, as reflected in the minutes from the public hearing:

> [T]he City has used an extensive effort in planning processes; the nature and use of industrial land has changed; both special Study A and B have high correlation for what is required for future industrial growth; **as our population grows** we have to ensure we have work and **that we do not loose these industrial jobs to other parts of the country;** the City needs to **ensure it has a broad tax base**; when the ALR was formed, the City of Abbotsford did not exist as it does today; the agricultural sector needs industrial land; we need to ensure we look at the needs of our entire city - **a complete community is made up of the sum of its parts**; and we need to support the OCP by supporting the needs of the entire community. (Public Comment, City of Abbotsford, 2017, p. 9) *Emphasis added by Author.*

> [C]urrently there is a shortage of industrial lands and that **hurts Abbotsford's competitiveness**; the lands in question are currently surrounded by industrial activities; in their current state they will continue to be under-utilized as agricultural land; as a lifetime resident, I am convinced that **industrial land is the highest and best use of these particular lands and creates a higher level of economic impact for the City of Abbotsford**; increased industrial activity would create **high paying jobs for citizens while allowing them the ability to work and live in Abbotsford;** and these lands will also yield a **much larger tax roll** which could be used to reduce the overall tax burden for the citizens and businesses in Abbotsford which continues to be a goal of this council. (Public Comment, City of Abbotsford, 2017, p. 3) *Emphasis added by Author.*

Feedback at the public hearing reflected many of the same themes from the open houses, as reflected in the table below. A City record of the public hearing notes that over 150 people attended, while 53 people spoke. 15 people spoke in support of the exclusions, while 38 spoke against the proposal (Seaton, 2017d, p. 5)

Table 4-3 Public Hearing Minutes Organized by Position

Source: (City of Abbotsford, 2017a)

Support	Job creation
	Expanded tax base
	Increased city amenities (roads and parks)
	Synergies between the agricultural and industrial sectors
	Low profitability of small agricultural parcels
	Creating a complete community in line with the OCP vision
Opposed	A need to prioritize farmland protection over industrial growth
	Impacts to rural lifestyle
	Burden on taxpayers for infrastructure upgrades
	Environmental and pollution impacts including a fish-bearing stream and wetlands
	Potential for intensification of existing industrial land
	Ensuring long term food security
	Noise and traffic concerns
	Rising land value
	Replacing farming with low-intensity industrial jobs

4.2.5. Council Decision

On July 31, 2017, the City of Abbotsford's Council voted in favour of moving forward with the ALC application – inclusive of 115 properties with a total parcel area of 288 hectares (Olsen, 2017c). One councillor, out of nine, was opposed. The report summarizing the process, and presented to Council on this date, states that the Industrial Land Supply Study project was "undertaken to provide a comprehensive overview of the Lower Mainland's and Abbotsford's existing industrial inventory and to determine anticipated future demand and opportunities as the city grows towards a population of 200,000 people envisioned in the City's 2016 OCP" (Seaton, 2017d, p. 1) The report again highlights that Abbotsford's current stock of industrial land, consisting mainly of parcel sizes less than 1 hectare, "do not appeal to major regional industrial land users such as distribution and logistics sectors" (Seaton, 2017d, p. 3) which make up the majority of the latent regional demand. Indeed, the report goes on to state that given analysis of the existing vacant parcels, with respect to such issues as riparian setbacks and slopes, "there were no parcels available for redevelopment to accommodate industrial uses such as warehousing and logistics" (Seaton, 2017d, p. 6) A newspaper article covering the meeting summarized Council's decision as such:

“[m]ost cited the need to provide a home to new job-creating industries as Abbotsford grows over the coming decades, and said agriculture would be protected through a range of other programs and initiatives, including the AgRefresh process” (Olsen, 2017c).

4.2.6. Stage 4: ALC Response and the City’s Next Steps

On April 27, 2018, the ALC responded to the City’s exclusion application, denying the application based primarily on their conclusion “that the lands are capable of supporting agriculture” (Neill, 2018). Following the ALC’s decision, the Mayor expressed disappointment, stating that while he “certainly values” farmland, there is a need “to ensure there is an adequate supply of industrial land … [and] a broader discussion of the economic impacts when businesses can't relocate” (Olsen, 2018).

In June, 2018, City staff provided an update to Council on the ALC’s decision, recommending that the City initiate “a discussion between the City and the Minister of Agriculture, the new ALC Chair and the ALC's CAO” (Neill, 2018). The meeting was framed as an opportunity “to discuss the City’s future growth plans and importance of removing the land from the ALR for industrial growth” (Neill, 2018). Approximately one year later, in March of 2019, staff provided the final report in the Industrial Land Supply Study project, recommending that given the result of the meetings with the Province’s Minister of Agriculture and ALC Chair, it was not in the City’s interest to pursue a reconsideration or new application to the ALC regarding the Special Study Areas. Instead, the report reminds Council that, at the time of publication, industrial land supply remains limited and “will need to be addressed in the future” (Neill, 2019).

4.3. Discussion of Key Themes

In this chapter, I analyzed the City’s Industrial Land Supply Study project, including the City’s public documents and news media surrounding the process. Against the backdrop of an increasingly lucrative suburban industrial property market, driven in part by the warehousing and logistics industry, I gained insight into the City’s motivations to pursue the exclusion of land from the ALR. Despite the various impacts of the logistics and warehousing industry, as outlined in Chapters 1 and 2, the City appeared motivated to exclude the land for such uses based on two overarching themes: one being the

potential benefits such development would bring to the community, including the provision of more jobs located in the growing community and an increased tax base, and the second being more extrospective in nature, in that providing for such large-scale industrial users would allow Abbotsford to *play a more prominent role regionally,* with respect to economic development and industrial land. In some instances, local politicians raised concerns with regards to the low job-density of the warehousing and logistics sector, suggesting that there was some recognition of the characteristics of this industry. However, concerns raised across both public and stakeholder groups mostly entailed opposition to the removal of farmland, increased speculation on farmland, traffic and noise issues, the loss of the rural lifestyle present in some parts of Abbotsford, and the environmental impact of the construction of warehouses on greenfield sites. In summary, this analysis begins to demonstrate how the global warehousing and logistics industry is understood by municipal actors.

This chapter presented an outline of the City's process to attempt to exclude Special Areas A and B from the ALR in 2017 and key themes regarding motivation that emerged from this analysis. In telling this story, it appears that the City was primarily motivated to pursue the application in order to create land for jobs for a growing population, to support a broad tax base, and to play a larger role in the regional economy. However, several questions remain unanswered. My research question asks why the City was motivated to create land for large scale industrial users, despite the significant impacts related to this development. While the City acknowledged that a significant portion of the pent-up demand for industrial land was coming from the logistics and warehousing industry– and pursued the expansion of land suitable to this industry– it is still unclear how this industry, or its impacts, is understood by local officials in Abbotsford. Were they aware of the significant impacts to land use of the logistics and warehousing industry? Did they see particular benefits or problems with accommodating this industry?

Furthermore, the City was able to move through a process by which reducing the agricultural land in Abbotsford appeared a rational and justifiable action, given the industrial land needs in the City and the region, despite Abbotsford's agricultural history. In order to answer my primary research question, there is a need to understand how support for both the exclusion and large-scale industrial development, justified on the

basis of regional economic development and job creation, was created. I will now attempt to answer these questions in Chapter 5 and 6, respectively.

Chapter 5.

Suburban Spatial Imaginaries in Abbotsford: Shaping the Development of Warehouses at the Local Level

> I think it's probably still true [that Abbotsford is a suburb], and the census figures show this – that, you know, a lot of folks are still commuting from Abbotsford into to other cities in the Lower Mainland. So in that sense, it really still is a suburb. But I think somewhere around 60% of the people who work here…they work in farming…and they live and work in the community…But yes, it's still a suburb in the sense that lot of folks are commuting from here into Vancouver (Staff 1, March 17, 2023).

In this chapter, I explore the spatial imaginaries of local planning and economic development officials in Abbotsford. As the "[u]nderstanding of space by local officials…has significant implications for the form and shape of the built environment and the suburban landscape" (Cidell, 2011, p. 838), the concept of a 'spatial imaginary' allows for an investigation into how the global industry of logistics is understood and ultimately shaped at the local level.

I begin by outlining the four main characteristics of Cidell's (2011) 'suburban spatial imaginary' and its interaction with the global logistics industry in Will Country, Chicago, by comparing and building on each through the findings of my interviews with local planning and economic development officials in Abbotsford. Cidell's (2011) 'suburban spatial imaginary' has two main components. The conceptual component is composed of four main characteristics: balancing development and services, the function of a bounded territory, territory within territory: landowners and parcels, and timing of development (Cidell, 2011, p. 844), whereas the creative component includes the ways in which planners adapt existing tools to manage development, based on these understandings of space. While Cidell's findings regarding the characteristics of a suburban spatial imaginary are somewhat specific to the US context, they provide a helpful starting point from which to investigate characteristics of the 'suburban spatial imaginary' in Abbotsford. At the same time, this section also builds on Cidell's framework, with respect to Watkins' (2015) more complex interpretation of spatial transformation imaginaries, and references Coe et. al's (2004) recognition of the uneven

nature of regional economic development. In summary, this section aims to answer my first sub-question regarding the role of the local level in shaping the supply of land for logistics related development.

5.1. Mapping the spatial imaginaries of local government officials in Abbotsford

To be able to discern characteristics of the "suburban spatial imaginary in Abbotsford", I conducted a series of interviews with planners and economic development officials at the City of Abbotsford. Like Cidell (2011), I recognize that data I collected from interviews with the real estate broker, consultant, and resident may also provide different spatial imaginaries of the city. However, given that the primary focus of my research pertains to the ability of local governments to shape logistics developments through land use regulations, I kept this analysis focused only on the spatial imaginaries of these city officials.

5.1.1. Balancing Development and Services → Balancing land use for a growing population

Similar to Cidell's (2011) findings, the theme of 'balance' was significant across interviews with local officials. In the case of Abbotsford, many described the need to find a balance in land uses for their growing community, in addition to a need to balance development with services. With the City's OCP projecting a future population of 200,000, many talked about the need to have enough of each type of land use – whether residential, commercial, or industrial – in order to house a growing population and ensure that there was land in Abbotsford where these eventual residents could work, in order to reduce the need to drive to other communities for employment.

In the case of warehousing and logistics development, there was a general recognition that this type of development brought with it traffic and environmental concerns, as well as low job density. Environmental concerns primarily related to general construction issues such as noise or dust, or the need for developers to protect sensitive ecosystems in their projects. Traffic concerns mainly related to issues such as parking requirements and the need to upgrade roadways, although several planners discussed the traffic improvements made possible by one major business park development,

suggesting that the City may view some logistics-related developments in a primarily positive light, at the very least in the case of larger-scale developments that bring with them infrastructure improvements, such as upgraded roadways.

> The benefit of this massive project coming forward is that…it spurred the redevelopment of that whole interchange area. So it created a much safer, I wouldn't say it improved traffic flow, per se, but it created a safer traffic flow (Staff 4, Interview, May 11, 2023).

While there was a recognition that warehousing jobs can often be low-paying or have low job density, many mentioned that 'jobs on industrial land tend to pay higher than the regional average' echoing a finding from a neighbouring regional government study (Metro Vancouver, 2020). Such statements appear to suggest that local officials in Abbotsford have begun to develop an internal hierarchy of jobs, and therefore potential uses, that would operate on industrial land, while at the same time being hesitant to appear to be rejecting potential firms from settling in the City.

> And one of the things municipalities are very cognizant of is that the employment that happens on industrial land tends to be of higher value than in other places, you know, welders and millwrights, and electricians, those are family supporting jobs.
>
> You know, there's always a desire to have as many local jobs as possible…[H]igh employment density is something that we do strive to see…So we would have a preference, but we wouldn't preclude, you know, we don't determine the exact businesses that go onto industrial, and, like I said, industrial zoning tries to capture a wide range of possible users. (Staff 2, Interview, April 12, 2023).

Within the city's zoning regulations, logistics was not identified as a specific use, but instead described as being captured under the umbrella of 'warehouse' – one of 33 different types of uses that could occur under the city's broad 'Industrial 2' zone (City of Abbotsford, 2023d). The broadness of the City's industrial zoning was highlighted in the clarification regarding my original research question, suggesting that the City did not want to be seen preferencing one business type over another:

> The term that we use is a more generic 'industrial land,' with the idea that industrial land encapsulates a number of uses, including logistics and warehousing, and transportation. So we're trying to catch a broader spectrum there than just trade or logistics. (Staff 2, Interview, May 16, 2023)

When asked to clarify what other users the City may have been expecting when it attempted to release the land in 2017, under the general zoning category of industrial, answers were generally in nature, referencing airport-related industrial users, large scale manufacturing users such as the Red Bull beverage company that recently had settled in a neighbouring municipality, and developments similar in the style of the newly constructed 140-acre X-Change business park:

> For [Special Area A] it was really like the X-Change [business park model] [that we were looking to attract]….[W]hen they were looking at [Special Area A] I think the X-Change [business park] was probably the business model, where they would be at a large scale, multi-tenanted…whether it's logistics utilizing portion, next to an autobody shop, next to a Subway, next to you know, etc… (Staff 4, Interview, May 11, 2023).

In the case of Abbotsford, there does not seem to be a clear definition of logistics and warehousing as a specific use operating on industrial land:

> I think for the most part, when we say logistics around the office, here, our mind is going to the Amazons, the Challengers, the bigger players of that field…versus [a local window supply business], where it's storage of the window product that then also gets distributed out and installed in a single family house, or a lumber yard, could technically considered logistics perhaps. So it probably just comes down to maybe a disconnect of what individuals are referring to as logistics (Staff 4, Interview, May 11, 2023).

> I think of logistics and transportation being woven so much into all the other industries…manufacturing, food processing, beverage processing (Staff 2, Interview, May 16, 2023).

Finally, due to the increasing value of industrial land and the reliance of municipalities on their tax base, almost all local officials described the benefits that development on industrial lands more generally would bring to the City, including infrastructure upgrades, development cost charges, taxes, public art contributions, and other contributions.

> And yeah, it's tax at the end of the day, tax revenue. The industrial versus agricultural rate (Staff 4, Interview, May 11, 2023).

5.1.2. The function of a bounded territory

Similar to Cidell's findings, officials often talked about Abbotsford in terms of its "relational constructions" (Cidell, 2011, p. 843). The most frequently cited example of this was Abbotsford's relationship with the ALR, first outlined in Chapter 1, which most

seemed to describe as a challenging relationship, while at the same time recognizing its role in preserving agriculture land – one of the key economic drivers in the municipality.

> We're aware that we have less land available than…is demanded for and we're definitely aware of the fact that the ALR plays a part in that. (Staff 1, Interview, March 17, 2023)

More generally, officials also talked about Abbotsford's local economic geography in relation to other municipalities. For example, when asked about why Abbotsford may be an attractive place to the logistics industry, officials mentioned its cheaper land compared to more western locations, and access to the highway and border as 'closer in' than more eastern municipalities such as Chilliwack. Furthermore, when describing the situation several years prior in which the City witnessed slow uptake of large parcels of land it had made available and pre-serviced for industrial development, several pointed to the fact that 'closer in' locations such as Langley Township had similar lots available at the time which meant that those areas would be developed before they reached the more eastern location of Abbotsford.

5.1.3. Territory within territory: landowners and parcels

A number of internal factors were used to explain patterns of industrial development in Abbotsford. The primary factor mentioned by all officials was an overall scarcity of industrial land available in Abbotsford, specifically large parcels of land – which many recognized were in high demand. Existing available land was described as too small, or having physical constraints such as slopes, that were not as attractive for the development requirements most in demand – flat, large parcels with access to highways. As Cidell (2011) notes with respect to Will County of suburban Chicago, "the general trend of logistics-related development locating farther to the west and south within the county has to do with parcel size, a clear example of bounded territory shaping the economic landscape" (p. 843).

> Typically, anything that's over 25 acres, we don't have a spot for that right now……Given the small pockets [of land] it can be difficult. And really what logistics companies are looking for is that stuff that's…right beside a major transportation network. So if you did, you know, identify a piece of industrial land that was…significantly away from that, it can be challenging…I think this is true throughout the Lower Mainland, all the easiest stuff was done first. All the flat square stuff that was right by the freeway, that was all done first. Where we're moving now are to

> things that have topographical challenges, environmental challenges, …So it's more difficult to situate logistics and warehousing on those (Staff 2, Interview, April 12, 2023).

This finding is significant, with respect to future *logistical geographies* in Abbotsford, as it could mean that forthcoming waves of demand for large parcels of land from the logistics industry will not touch down in the city unless they are created through ALR exclusions or other zoning reform– demonstrating how, despite Abbotsford otherwise being an attractive location for the logistics industry, the actual construction of warehouses and distribution centres is largely dependent on whatever land parcels are still available for development (Cidell, 2011). At the same time, however, what is constructed is also dependent on the demands of the industry, as reflected in the following observation of one planner, after the City created more industrial land through the 2005 CICP process:

> …we took out the lands with the intention of these larger industrial parcels being developed…That was the trend [we were aware of], that more logistics might be coming in [and we had] good transportation options to the border, the highway and the airport and that was really pushing that whole application process…But the reality is when those lots came to the market, and developers came to purchase and buy and develop and rezone and formalize that exclusion…we didn't really see a lot of large lots being amalgamated…we actually saw the opposite, where larger lots were being subdivided for smaller industrial type uses…like multi-tenanted leases style buildings…In the last couple of years…we saw an uptake on those larger distribution pieces [of land]…now we're seeing those larger volumes coming back in, to what we originally had intended [those lots to be for] (Staff 4, Interview, May 11, 2023.)

While the City's current lack of available and suitable large parcels of industrial land was acknowledged, other internal characteristics were often cited as a reason why Abbotsford is otherwise attractive to logistics and warehousing users including its proximity to the US border (crossing), access to Highway 1 and rail, and access to the local and growing airport.

5.1.4. Timing of development

In Cidell's analysis of the suburban spatial imaginary existing in Will County, she found a "clear temporal order of development, with each of four stages having its own spatiality across and within municipalities" (2011, p. 844), arising from both market forces and the actions of planners to attract or discourage specific types of development within each stage. Given the more stringent land use controls that exist in B.C., the

specific stages of development in Abbotsford were not so obvious, but a general sense of a 'temporal order of development' still emerged from the interviews. This generally began as describing Abbotsford's history and settlement as a farming community. Next came a recognition of a growing number of residents moving eastward to Abbotsford given increasingly high land prices closer to the metropolitan core. The increasing value of industrial land was also mentioned. Of particular significance, there was a general recognition that agricultural land in areas bordering or surrounded by industrial land, due to previous zoning changes, was bound to become industrial land eventually.

> There's also, I guess, leftover farm houses and farm properties [within or nearby current industrial parks] that may still be zoned for agriculture. But they know full well that this is future industrial land (Staff 5, Interview, May 11, 2023).

Such a quote, therefore, suggests that the planner recognizes that the way "suburban development has happened in the past is the same way it is likely to happen in the future" (Cidell, 2011, p. 842). Similarly, in one instance, an official described their experience witnessing previous farmers holding onto their recently rezoned-to-industrial farmland until they were able to sell it for a significant gain.

> I remember a lot of like old farmers, or families that bought properties to farm that were now conditionally excluded from the ALR and allowed to rezone. I found a few of those property owners rezoning just their portions of their properties. Because you know…they weren't developers, they were just property owners that were lucky enough to have their lands re-designated. And so there were at least a few…applications that I had, where the property owners themselves would just rezone the property and sell it, and you know, retire and make a windfall off of that (Staff 5, Interview, May 11, 2023).

As described earlier, the outward demand for industrial lands was also acknowledged in a temporal sense. For example, given the slow uptake of large parcels of land that the City had applied to the ALR to make available for industrial use in 2005, the City pre-serviced the lands in 2012 order to entice large scale industrial development. Today, this situation is much different, described by two officials, below:

> [In] the last couple of years, we've got a couple of the bigger distributors coming into Abbotsford looking for those larger lots…We've got maybe a handful of properties that are still out there. But it's very, very limited. And I think because we have a very limited supply of lots, the enticement that we had to do back in 2005 [to pre-service the lots] to entice development [we definitely don't need to do that now] (Staff 4, Interview, May 11, 2023).

> There's still a willingness for the City to work with the applicants…some of these bigger distributors or industrial users will have quite a list of works and services that are required to facilitate their development. And we do see the City coming forward to work with those outfits to come to a conclusion regarding those requirements…to ensure that the project can move forward…What I do see is the City stepping forward and trying to give solutions that allow that project to move forward (Staff 4, Interview, May 11, 2023).

Very rarely were any long-term consequences of large-scale industrial development mentioned. In one interview, a planner mentioned how the City was beginning to explore options with what to do with its large downtown shopping mall, given the decline of shopping malls in relation to the rise of online shopping and e-commerce. At the same time, there was a recognition that any new industrial land would likely come from existing agricultural land and that "you can turn agricultural into industrial, but you can't really turn it back" (Staff 1, Interview, March 17, 2023). In terms of regulating the use of land and keeping conflicting uses separate, many regarded expanding the industrial land base as a way to remove pressure on the ALR. Several officials referenced that due to the lack of industrial land, agricultural land was often being mis-used, as a site for truck parking or other industrial-related activities.

> So we're bound by the ALR…when we're not able to accommodate industrial growth, it does have an impact on that agricultural land. So from the City's perspective, going forward with exclusions, generally then would help alleviate the pressure that we're seeing on the…ALR lands…users that are setting up shop without permits, without business licenses. [If we are able to make exclusions], when we're going in with bylaw enforcement [to address the issue of industrial uses operating on ALR], we can say look, we do have vacant industrial lands for you to relocate to...Right now, because we have such limited industrial land…[we get] pushback: "where do I go? I don't have anywhere to go" (Staff 4, Interview, May 11, 2023).

In terms of regulating the day-to-day activity taking place on the ALR in Abbotsford, this planner's experience suggests the potential under-enforcement of existing land use regulations. Indeed, "the issuance of regulations does not require that they be enforced" (Harrison, 1996, p. 102). For example, Harrison (1996) finds that the "federal and provincial governments' anticipated disinclination to pursue environmental protection lie in public inattention to environmental issues and the resulting influence exercised by business interests relative to environmental groups" (p. 17). For the City of Abbotsford, there appears to be a recognition of the inability of industrial business and activity to relocate to appropriate land uses due to the lack of available industrial land.

Combined with a lack of enforcement capacity, in terms of bylaw officers and other local resources, this has resulted in what could be seen as a certain degree of disinclination to pursue the enforcement of provincial legislation at the local level. With a growing Transportation and Warehousing sector as outlined in Chapter1, and a stagnant supply of industrial land, the issues of mis-use of ALR land and resulting under-enforcement may continue to grow.

5.1.5. A suburban transformation imaginary

One difference that emerged with respect to Cidell's (2011) *suburban spatial imaginary* was in the way local officials described the Abbotsford in relation not only to neighbouring municipalities, but also vis-à-vis the regional scale in terms of the City's *future* economic development potential. These staff were very aware of the region's lack of industrial land, and were considering their municipality, its Official Community Plan, and the Industrial Land Supply Project, in relation to the region and this issue:

> [The Industrial Land Supply Project, as part of the OCP implementation] was trying to look at both meeting the City's future needs as it was growing to that 200,000 population target. But then also, how do we meet the broader regional need as well, kind of knowing that there…was a lot these emerging trends in the need for large industrial parcels that couldn't really be accommodated and put in more urban areas.
>
> We [identified that there was] a need for industrial land both from a local needs perspective, but also from the regional perspective…We layered in [a] regional perspective, because we knew that as the largest municipality in BC in terms of area, and there was a bunch of land, agricultural land that wasn't being used for farming. Some of it being like really close to the airport and… close to the existing industrial park in Langley…. So we [by excluding the land] could meet our future demands, but also, regionally, we wanted to study that and see…how we could…capitalize on meeting our own needs (Staff 3, Interview, May 3, 2023).

Therefore, while local officials in Abbotsford appear to be making decisions about land use based on a spatial imaginary that is "hardly fluid or borderless" (Cidell, 2011, p. 838), they appear to be positioning Abbotsford in relation to a larger, regional narrative regarding industrial land and future economic development. This is not to say that these officials have developed a specific '*logistics spatial imaginary*' – as this industry is not yet well defined or understood at the local scale – but there appears to be a *spatial transformation imaginary* that sees a specific future for Abbotsford as an 'economic hub'

at the regional scale, if it were able to increase its supply of industrial land to large, regional-serving users. Indeed, the demands of the warehousing and logistics industry in Abbotsford appear to be caught up in larger narratives regarding the increasing value and importance of industrial land to regional and national supply chains and, therefore, economic development. In turn, Abbotsford's attempts to competitively position itself as a 'regional hub' are shaping the City's land use decisions now and into the future.

Table 5-1. Suburban Spatial Imaginaries in Abbotsford

Source: Cidell (2011); Adapted by Author.

Suburban spatial imaginary in Abbotsford	Balancing **land use** for a growing region Timing of development Land ownership and parcels The function of a bounded territory
Suburban spatial transformation imaginary in Abbotsford	**A future regional hub for industrial land**

5.2. Municipal tools

Similar to Cidell, I found that local officials in Abbotsford were using a number of tools – as Cidell refers to them – the 'creative aspect of the spatial imaginary' – "to take advantage of some of the unique characteristics of logistics-related development" (Cidell, 2011, p. 845), however they did not consider themselves as specializing the unique needs of a logistics development, let alone industrial development.

> But from a planner's perspective, we're not specialists in that sense…And that's across the board with all the planners. There isn't like one or two planners that just work in the industrial area, or a residential setting…they really can get a variety of applications across their desk (Staff 4, Interview, May 11, 2023).

Like Will County, officials in Abbotsford were not passive to the demands of the industry but were managing these demands in municipal terms, the primary example of such efforts being the City's Industrial Land Supply Study project and the accompanying attempt to release more land suitable for development by large-scale industrial users. While taking action to encourage growth on industrial land, officials were seemingly reluctant to state that they were attempting to attract a particular industry, even though the focus of the project was to increase the availability of large lots, specifically:

> The consultants said this [the logistics and warehousing industry] is the low hanging fruit. These are the guys that are looking for the big pieces of land. And I think that…sort of flavoured the report. It's not something that we're specifically going after. But it's not something we're turning away either (Staff 2, Interview, April 12, 2023).

In some instances, officials described their municipal tools, in this case, Abbotsford's development requirements, in relation to more savvy, urban locations:

> There's always competition between cities. In some cities [in the urban core] it kind of feels like they can make developers do whatever they want. And other municipalities are like we need to offer incentives for developers to come and build out. So the developers [working in the urban core]…they're more willing to do whatever the city asks for them, because there is prestige...there is some sort of advantage to being in [the urban core] sometimes, right?
>
> Whereas in the [Fraser] Valley…say you want the business, you want the tax base, and you want the industrial users to come [to you] versus Langley, or wherever…So if it's harder to attract them to come your way, you might make it a little bit less stringent in terms of regulations and bureaucracy that they need to jump through to come to that municipality. And we might make the requirements less onerous and potentially don't [make them] pay community amenity contributions if they're rezoning (Staff 3, Interview, May 3, 2023).

Such a finding aligns with Cidell's (2011) observation that "the tools which planners have to work with and which they use to shape economic development and land uses are based on the notion of discrete territories" (p. 842). However, within this notion of discrete territories appears to be a recognition of both location and scale, in terms of Abbotsford's status on the metropolitan periphery. It is also significant with respect to the 'uneven playing field' (Coe et al., 2004) of regional economic development, as it suggests that outer-suburban municipalities may make concessions in terms of regulations and requirements in order to attract growth.

In terms of the development process, local officials mentioned rarely being involved or concerned with the eventual use of the building, outside of ensuring parking requirements and traffic studies were conducted. However, in one instance, a planner spoke about their experience dealing with logistics developers requesting a variance to the height of a distribution centre to accommodate cranes, using permitting to accommodate the unique demands of the industry:

> We got into, you know, what is the rationale for this variance that you want? They got into the specifics…looking at the distribution centre,

> which are now more automated. They have these cranes that are attached to the roof to go around and pick up stuff. And so they need taller buildings to accommodate that. We do sometimes get into a bit more of the details of what the use is, if there's if there's also a variance being requested, and the use has some kind of connection to why the variance is being requested. That's an example of where we come into contact with the actual uses that are being utilized for the development (Planner 5, Interview, May 11, 2023).

Bylaws were also updated to allow for more office or mezzanine space in warehouses, given the increasing requests for this built form. A general zoning category of 'Industrial 2' was created, of which warehousing was a sub-category, given the City's desire to not preference one use over another, but at the same time, to not discourage the attraction of specific firms either. The City's design guidelines had also been recently updated in order to simplify requirements. In terms of managing any negative impacts related to warehouse development, planners discussed requiring parking and traffic analyses to be conducted as part of the development process, while major industrial park projects also brought with them the opportunity to upgrade local roadways. Impacts to neighbouring properties seemed of relatively little concern, given the planners' efforts to ensure that conflicting land uses were not adjacent to one another:

> There are very few areas in Abbotsford where we have the conflicting interests between residential and industrial areas. There's a small section of Mount Lehman [Road], where we might have some residential across the street, but again, Mount Lehman is a four lane road with…a meridian down the middle (Staff 4, Interview, May 11, 2023).

In summary, it appears that the way in which local officials in Abbotsford are managing the demands of the logistics industry is still "contingent on using…existing tools and territories" (Cidell 2011, p. 842). Logistics and warehousing is primarily understood as just another type of activity that takes place on industrial land, although there is recognition that it has some unique requirements, such as larger lots and taller building heights for the use of cranes. At the same time, the planner's creative use of municipal tools to attract large-scale industrial development, including the warehousing and logistics industry, suggests an awareness of the City's peripheral status vis-à-vis more urban locations. In this way, differences in the built environment between suburban and urban landscapes may not only be explained by such characteristics as the parcels of land available, but also the spatial imaginaries of local planners who are regulating what gets built. At the same time, while Cidell (2011) argues that "the suburban spatial imaginary *as expressed by municipal planners* fits [a] discrete, bounded description" (p.

839), the demand for large-scale industrial development has appeared to increase local planners' awareness of the municipality's relation to regional scales of economic development, thus forming a particular *suburban spatial transformation imaginary*. Not only is the logistics industry understood as land use matter to be dealt with in discrete, bounded terms, but also a potential opportunity for future urbanization processes wherein Abbotsford may be able to play a larger role in the regional economy.

Chapter 6.

The Suburban Growth Machine: Creating an Environment Favourable to Warehouse Development

In this chapter, I begin by presenting the development context in Abbotsford alongside an updated framework of urban politics, which considers both settlement type and the urbanisation of capital (Phelps and Wood, 2011). With this deeper understanding of suburban politics in hand, I then discuss the ways in which logistics spaces are produced in Abbotsford and, in doing so, how local governments and private firms work together to symbolically "position their urban regions in relation to networks of commodity…flows" (Hall and Hesse, 2012, p. 9). In turn, this chapter aims to conclude answering the question of motivation central to my primary research question by demonstrating how an environment favourable to warehouse development was produced in Abbotsford. However, it became apparent that to fully answer my research question as to why the City was motivated to pursue an ALR exclusion application for large-scale industrial development, despite its various impacts, I would need to better understand the City's development process and not just the initial exclusion attempt. This would allow me to understand what types of large-scale industrial development the City may have been anticipating for Special Areas A and B, as well as any related benefits. Therefore, this chapter includes references not only to the ALR exclusion application but also to the City's interactions with a warehouse development project and the industrial real estate industry in a more general sense. In addition to further illuminating some of the City's motivations to pursue such development, tracing the process of the production of the sites also helps to uncover some of the potential impacts and implications of logistics urbanisation in Abbotsford.

Following similar explorations into suburban politics and the production of logistics spaces, see: Phelps and Wood (2011); Dablanc and Ross (2012); Barbier (2019); and Raimbault (2021), I interviewed both public and private sector officials involved in the production or regulation of spaces for logistics and analyzed public documents and media articles regarding logistics-related developments in Abbotsford to identify "interactions and coalitions between investment and property industries and local authorities" (Raimbault 2022, p. 1485). At the same time, I do not attempt to fully

investigate the inner workings of suburban growth coalitions and development regimes – as that process would entail a much larger analysis of regional, and potentially national and international actors and narratives, and falls outside the scope of this project. Instead, I focus on the involvement of the private sector in the production of logistics space as one input that is shaping the ways in which local governments understand, consider, and thus regulate land use associated with this industry.

6.1. Modes of suburban politics in Abbotsford

As discussed in Chapter 2, both growth coalitions (Logan and Molotch, 1979) and urban regime theory (Stone 1989; 1993), are appropriate concepts by which to investigate the propensity of local officials in Abbotsford to appear not only accepting of logistics-related industrial growth, but also, in competing with other locales, make efforts to attract it through such interventions as pre-servicing and creating available land to entice development. However, as Phelps (2012) argues, these "dominant concepts in urban politics [need] to be linked more explicitly to a consideration of structural changes in capital accumulation to better understand urban politics in different settlements and in the same settlement over time" (p. 672). Therefore, while I employ these theories to better understand the political context in which local officials in Abbotsford are operating, I do so alongside Phelps and Wood's (2011) updated framework which considers the municipality's historic and structural context (Phelps and Wood, 2011, p. 2595), as described in Chapter 1. In turn, understanding the political and economic context in Abbotsford also helps in understanding why it may appear more willing to accept logistics-growth than other communities.

Table 6-1. The City of Abbotsford and the suburbanization of logistics capital

Source: Author's data, framework adapted from Phelps and Woods (2011)

	Logistics growth in Abbotsford	**Settlement Type**	**Example**
Mode of urban politics	Suburban (pure growth machine)	New suburb	Focus on expanding City's tax base with rezoning of agricultural land to industrial land
State intervention	Potential value of land impacted by significant non-local state intervention	New suburb	Provincial investment in Highway 1 and other transportation improvements

Land use	Extensive: raw land is converted to low density urban land uses	New suburb	Development of Xchange Business Park; single story 140 acre logistics and warehousing hub
Patterns of land ownership and use	Land ownership and lease patterns become complicated	Post-suburb (developmental regime)	Farmers rezone and sell parcels, some are consolidated to accommodate larger developments Provincial government regulates ALR
Ownership of capital	Local/national/international	Post-suburb	Xchange Business Park partially owned by an international firm
Term over which urban capital is fixed	Medium-term	Post-suburb	Leases for some built-to-suit facilities are in the range of 20 years (Broker interview, 2023)

6.1.1. Post-suburban Abbotsford

Figure 6-1. Billboards advertising higher density developments in downtown Abbotsford, indicative of a post-suburban landscape.
Source: Photo by Author, November 2022.

At first glance, Abbotsford displays many of the qualities of post-suburbia, wherein "local politics is likely to centre on the long-term use value of land and even its amenity for businesses as well as residents" (Phelps and Wood, 2011, p. 2599). In interviews, both planners and members of the business community talked about Abbotsford in a manner that suggested economic and development maturity. Indicative of a post-suburban developmental regime, development objectives included increasing density with respect to residential development and the impending redevelopment of the city's downtown shopping mall to a mix of residential and retail. Indeed, as discussed

earlier, the City's most recent OCP aims to concentrate 75% of the City's growth into existing residential areas, encouraging higher density developments and discouraging residential sprawl.

> We have a mall in downtown Abbotsford, we have Seven Oaks Mall. And we talk about it all the time, you know, what do we think it's going to redevelop to and when do we think it's going to redevelop? Right now the land use designation and zoning we have given that site assumes that it's going to build up, and then we're going to add residential density to it, that that will have to be the model going forward. And that these single storey malls just really are not going to be the thing of the future.
>
> I think it has been a large, small town for a long time. And it's really starting to grow up, if you will (Staff 1, Interview, March 17, 2023).
>
> We're no longer the city in the country, we're going to have to recognize that we're going to be seeing taller buildings here, we're going to be seeing more density and…construction and that's what the city is really grappling with at this point in time (Business Representative, Interview, April 2, 2023).

Further, many talked about the need to find a 'balance' between the City's various land uses and provide an even mix between employment and residential uses as the City planned for anticipated growth. The balancing of economic, residential and other functions is understood as another 'signature of post-suburbia' (Phelps and Wood, 2011, p. 2594):

> We're no longer solely an agricultural-based community, we're now recognizing the fact that we're growing to the size that we're taking on the aspects of what a balanced community needs to have (Business Representative, Interview, April 2, 2023).

Such objectives appear to suggest a post-suburban development regime in which the use of land is intensified:

> Just in this morning's Abbotsford paper, they talked about the fact of the city just approved, I think it's 12 new residential buildings…[they're going to be] primarily apartments and rental accommodation. So we're starting to see that growth. If you drive around Abbotsford, you'll see there's a lot of construction taking place. So that's starting to catch up now. So a lot of the work that was done in the OCP is now starting to take effect because the guidelines, the identification of what areas the City was going to permit growth in is now facilitating developers to be able to go in there and say, okay, now we know what the rules are and what we can do (Business Representative, Interview, April 2, 2023).

6.1.2. The suburban growth machine

Figure 6-2. City of Abbotsford sign notifying the public of a rezoning application
Source: Photo by Author, November 2022

The suburbanization of logistics, and its ensuing transformation of agricultural land to industrial land in Abbotsford, however, appears to complicate this framework. According to Phelps and Wood's typology, the historic and attempted conversion of agricultural land to industrial land in Abbotsford is more indicative of a 'pure growth machine' mode of new suburban politics, wherein a focus on the exchange values of land is associated with the conversion of raw land into low density developments (Phelps and Wood, 2011, p. 2599).

> The City needs to be able to generate revenue, other than just always relying on the residential tax base, to be able to do that to…be…building and growing a healthy town. [The] industrial and commercial tax base is important (Business Representative, Interview, April 2, 2023).

At the same time, in the case of logistics development, the complex ownership of capital, lease patterns, and regulatory structure under which land in Abbotsford is governed, is much more closely aligned with a post-suburban developmental regime. This complexity is due in part to the specialized logistics real estate industry and the increasing role of banks and investment trusts in the production of logistics parks (Hesse, 2008, p. 61). Such a situation is exemplified by the involvement of the "private equity real estate investment firm" (Properties, 2023) Hungerford Properties, and QuadReal Property Group, "a global real estate investment, operating and development company" (*Xchange Business Park at Mount Lehman*, 2023) in the development of the 140 acre Xchange business park. These firms partnered to deliver a "master plan industrial business park…ideal for logistics and warehouse users" (*For Lease*, 2023) in a suburban area within Abbotsford. Finally, local and non-local state intervention in Abbotsford's development landscape ranged from piecemeal; for example, when the City pre-serviced land parcels excluded from the ALR in order to entice industrial growth; to significant – wherein the provincial government provided significant funding to widen Highway 1 through the City and improve the Mount Lehman Interchange, in order to facilitate "efficient goods movement through the corridor" (Infrastructure, 2023), among other project objectives.

Phelps' (2012) framework recognizes not only "transitions in the nature of urban politics in any one settlement over time" (p. 675), but also that the mode of urban politics may oscillate in periods of decline, spurring growth machine and developmental regimes that "drive processes of gentrification and comprehensive redevelopment" (Phelps and Wood, 2011, p. 2599). In the case of industrial and logistics-related development in Abbotsford, specifically, it appears as though a mix of modes is taking place contemporaneously in difference spaces in the city. This follows the observation of Raimbault (2021), who states that "logistics urbanisation occurs in the specific configuration of outer-suburban politics, possibly according to dynamics other than residential suburbs or retail and office development of post-suburbia" (p. 4). Indeed, undeveloped agricultural – or, raw land – is essentially bypassed by the 'first phase' of suburban development which often takes place through local channels, and is instead immediately caught up in national and international real estate markets. Understanding these dynamics, it becomes clear that logistics suburbanisation is taking place in a

particular context in Abbotsford, wherein a focus on the exchange value of land in rural and agricultural areas may in turn be promoting logistics sprawl.

6.2. Suburban politics and the production of space for logistics

Figure 6-3. Construction of Xchange Business Park in Abbotsford
Note: Built on former agricultural land, the 140-acre future business park located near Mt. Lehman Road in Abbotsford is described by its developers as "solidify[ing] Abbotsford's role as a logistics and warehousing hub for the province" (Hopes, 2022). November 4, 2022. Photo by author.

With this nuanced understanding of urban politics according to Abbotsford's unique settlement type, I now turn to a brief discussion regarding the production of space for logistics in Abbotsford. Here, I build on the explorations of Raimbault et al. (2018) and Barbier et al. (2019) into the political mechanisms that can help to explain local governments' receptiveness to modes of logistics development. I then briefly discuss the resulting implications.

6.2.1. Local policies and private logistics parks

At first glance, the City's attempt to remove Special Areas A and B from the ALR for large-scale industrial development appears to suggest a proactive, local government-led approach to the creation of sites for future industrial growth and economic development in Abbotsford. However, outside of the City's power to regulate zoning and built form, and require traffic and other environmental considerations, interviews with those involved in the production of such expansive developments suggests a large role played by the private sector in most other aspects of the process. Such involvement ranged from instances in which a local real estate developer provided a presentation to planning and economic development staff on industrial land demands and challenges, to relying on an urban land economics consultant to engage directly with the logistics and warehousing industry in the development of City policy, to a longer-term development process pertaining to the development of the Xchange Business Park.

> I don't talk to the end users directly. It was [the consulting firm]. Like [with] the Stage One Background Report, [the consultant] went and interviewed a whole bunch of different…industrial real estate brokers. …So that comment…came from their findings, that there was that demand for large parcels.
>
> So that's where we got all of the information, because they [did] that research for us… We didn't have capacity, because [there was just] one planner [working on the project] (Staff 3, Interview, May 3, 2023).

Similar to Raimbault et al. (2018)'s exploration into the production of logistics sites in the suburbs of Paris, France and Atlanta, Georgia, the production of the Xchange Business Park appears to follow a mode of governance in which real estate development and investment fund firms develop private logistics zones containing several large warehouses for rent or lease, based largely on the demand from logistics firms for flexible real estate solutions (p. 15). Of particular significance to local land use planning policies and economic development is the scale of these sites and the way in which they are managed. First, these firms focus on purchasing large plots of land in outer-suburbia, which have the capacity to host major logistics parks and very large warehouses and distribution centres (Raimbault et. al, 2018, p. 16). Previous to the rise of this specialized real estate industry, warehouses tended to be built individually and scattered amongst existing industrial and business zones (Raimbault et. al, 2018, p. 16). Second, as these real estate and investment firms are the sole developer and owner of

the sites, these ‘logistics parks’ become highly privatized spaces, which in turn leads not only to the privatization of the public realm within the sites, but the ability of these firms to decide local economic development outcomes (Raimbault et. al, 2018, p. 16).

In the case of the Xchange Business Park, the development of the site appeared to rely heavily on the ability of a major developer to purchase and assemble several parcels, previously removed from the ALR through an application by the City in 2005 – the CICP lands discussed in Chapter 1. Engaging directly with the owners, the developer was able to assemble the lots to a size suitable for development of a 140-acre business park, while also addressing the City’s environmental and traffic concerns– a success City staff credited to the size of the broker/developer. The developer’s ability to consolidate the parcels thus influenced the type of development that was eventually produced, in turn allowing for a large-scale warehousing site that will be managed privately. Of course, such a process is not unique to urban development. Land assemblies often see the consolidation of several lots to build higher density residential developments (Bolleter et al., 2021). What appears unique about logistics development, therefore, is the resulting low density and location of the warehouses.

> Whereas the Mount Lehman, the Xchange project, that was the company or broker coming in, and doing a land assembly, getting agreement from everyone to sell their properties, and then having this huge corporation come in, and develop the whole site as one (Staff 4, Interview, May 11, 2023).

> One application that we have is kind of the last chunk of the CICP Lands, which are along Mount Lehman Road, north of the highway. This was a collection of…six or seven or more properties that were traditional farm properties like very long and skinny. We had a lot of people interested in developing these properties, but a lot of the inquiries were for developing single properties because these were sort of small-time developers looking to just buy one property and develop that. And for this particular area, the City wanted to see a comprehensive account of how the environmental constraints were going to be addressed, and transportation issues, and all that kind of stuff. And so a lot of people having to look at the profitable number of properties as a whole, got cold feet and backed out. It wasn't until we had a larger developer step in and consolidate all the properties and kind of give us that area-wide perspective of how they were going to treat the environment, how they were going to treat transportation, that we actually got some movement on this last piece of CICP Lands (Staff 5, Interview, May 11, 2023)

Second, as the site is built out, 11 warehouses – totalling 1.3 million square feet – will be available for lease (QuadReal Property Group, 2023). Decisions and

negotiations with businesses that eventually settle in the park do not appear to involve the City, suggesting that it is the real estate companies or developers who "decide on local economic development issues insofar as they select the companies that settle in the municipality" (Raimbault, 2021, p. 1492). Indeed, the process for selecting the firms is entirely confidential, as alluded to in the following quote from one local official:

> They give us very, very little information about who they got. I guess it's part of their strategy to keep it hush hush. So we don't often get a lot of that information and people who do, maybe like [my colleague who works on that file] …[they] will give them that information on the condition that they don't say anything (Planner 5, Interview, May 11, 2023).

Such a situation is further illustrated in a news release from QuadReal Property Group and Hungerford Properties, the developers and owners of Xchange Business Park. In describing the successful leasing of a 35,905 sqf warehouse to Cintas Corporation, a U.S.-based Fortune 500 facilities-servicing and apparel company, the real estate and investment firms highlight their role in both adding nearly 100 jobs to the municipality and supporting "Abbotsford's rising prominence as a logistics and warehousing hub for the province" (QuadReal Property Group, 2023). While the City's current and future economic specialisation is affected by such private decisions, the firm's ability to not only deliver jobs, but also a means by which the City can further promote its position as a 'regional hub' implies a level of support from the municipality for such processes (Raimbault, 2021, p. 1492). Finally, given the City's efforts to attract such development by rezoning agricultural land in the City's rural areas, the production of these developments appears to promote 'logistics sprawl,' thus challenging regional planning policies (Raimbault et al., 2018, p. 16) which aim to concentrate growth within the Regional Growth Boundary and promote the development of "more compact, complete communities" (*Regional Growth Strategy: Fraser Valley Future 2050*, 2023). Despite the City's efforts to discourage residential sprawl and promote higher density residential development through its OCP, it appears that the development of industrial land into major business parks on the City's rural fringe is not met with the same concern.

6.2.2. The capacity to govern the development of large-scale logistics parks

The development of Xchange Business Park, as well as the attempted exclusions of Special Areas A and B, suggests that the City is not only welcoming of logistics-related development, but making efforts to entice it through its power over local land use regulations. However, when parcels are eventually excluded, such as the CICP lands in 2005, the resulting developments appear to be low density, located in former rural areas where transit access is challenging[1], and do not allow for the City to determine the type of industry or employment type that will eventually settle in its community. As my primary research question asks, why then, despite these impacts, is the City welcoming to these developments? By exploring aspects of the development process, and the news media surrounding it, it becomes clear that, in addition to the perceived economic and financial benefits discussed in Chapters 4 and 5, the City was also welcoming of a large firm that could bring the necessary resources to develop vacant former agricultural land to a logistics and warehousing park and address outstanding environmental and transportation issues– something the City did not have the capacity to do on its own. In turn, the project would not only bring jobs to the City, but also support the City in its efforts to be seen as a regional economic hub, as articulated by Abbotsford's current Mayor, Ross Siemens in a media release about the project. Furthermore, quoted in the same media release, a senior official with QuadReal Property Group describes the project as "filling a very definite need in the supply chain" (Chai, 2022) as demand for land is driven largely by e-commerce and logistics requirements. Alongside the spatial transformation imaginary of Abbotsford as a regional hub for industrial activity presented in Chapter 5, it appears that local officials view such projects as key in competitively positioning Abbotsford in relation to networks and supply chains, and therefore, supporting the City's transformation into what they perceive to be a more mature and complete community.

In Abbotsford, the production of space for logistics and warehousing takes place in a rural-suburban context, through "processes primarily governed by a powerful

[1] Several planners mentioned that industrial sites are often challenged with access to public transit. The Xchange Business Park was one development that did have better transit access, mainly due to the fact that it was developed across the street from an established residential area – potentially leading to other challenges.

logistics real estate industry in negotiation with local governments" (Barbier et al 2019, p. 33). Such findings align with previous investigations into the development dynamics of logistics parks, including Dablanc and Ross (2012); Raimbault et al. (2018); Barbier (2019); Raimbault (2021). In the case of Abbotsford, the local government appeared to have less administrative capacity compared to a more urban, inner-city location, and a desire for growth that could support symbolic placemaking efforts to become a regional hub. In turn, this allowed a major real estate and development firm to "bring the capacity to develop [a] huge [business park] in the outer suburbs" (Raimbault, 2021). Both the exclusion of Special Areas A and B and the development of the business park were presented as ways to bring the City 'much-needed' jobs. Underlying both projects was a narrative that increasing Abbotsford's industrial land capacity would allow it to play a larger role regionally – not only supporting the *City's* economic development goals and competitive position, but also in supporting efforts to strengthen the *region's* role as a gateway for the flow of people and goods.

Chapter 7.

Conclusions, Research Significance, and Future Research Opportunities

In this chapter, I summarize the findings corresponding to my research question and each of my sub-questions, outlining where possible their implications for both theory and practice. I conclude by discussing the limitations of my research and opportunities for further investigations into logistics, a field that has become of "critical importance to contemporary society" (Coe, 2020, p. 1).

7.1. Research Findings: Logistics Suburbanization and the City of Abbotsford

7.1.1. Spatial Impacts and Classification Challenges

Before I embarked on attempting to answer my primary research question, I wanted to situate my research within the wider context of the logistics and warehousing industry in Abbotsford in order to better understand the landscape in which local officials were making land use decisions. Therefore, I began this research project by asking: *what is the spatial impact of the logistics industry, specifically, the construction of warehouses, in Abbotsford?* Using building permit data retrieved from the City of Abbotsford, I was able to measure the spatial impact of new warehouses in Abbotsford. My analysis demonstrated an average increase in the size of these facilities over a ten-year period, while a large proportion of the warehouses appeared to be multi-tenanted. Both findings reflected global trends with respect to the increasing size of logistics facilities and the proliferation of flexible logistics sites (Nefs & Daamen, 2023).

In an effort to both discern the location of these facilities, and their role in "enabl[ing] the movement and storage of goods" (Woudsma et al., 2016, p. 475), I expanded my data selection to include an investigation into the classification of firms using City of Abbotsford and Dun & Bradstreet data. Using ARC GIS, I first overlayed the various classifications of firms on City of Abbotsford 'Industrial 2' Zoning. This geographic analysis demonstrated that most of the firms were in suburban areas, at least within the context of Abbotsford, following a globally recognized trend of the

suburbanization of logistics facilities (Cidell 2010; Aljohani & Thompson 2016; Nefs and Daamen 2023). I then compared how the City classified logistics and warehousing businesses to previous academic research that used the North American Industry Classification System (NAICS). I found that the City's classification of logistics-related businesses did not align with previous academic efforts to define this industry (Cidell 2010; Dablanc & Ross 2012; Woudsma 2016).

Taken together, my findings suggest that while the logistics and warehousing industry is indeed impacting the built environment in Abbotsford, defining the industry's presence at the local level remains a challenging endeavour, which in turn may make it harder to plan for and thus regulate. Furthermore, the City's desire to not dissuade any kind of industrial user by using a broad 'Industrial 2' zoning definition may further contribute to challenges in identifying the logistics industry at the local level, at least in suburban regions. As such, these findings align Woudsma et al.'s (2016) assessment of methodological issues in classifying logistics and warehousing firms, as well as Heitz's (2021) observation of a general level of "complexity involved in the planning and regulation of logistics facilities" (p. 7) at the local level.

7.1.2. Regional Economic Development and Networks of Commodity Flows

With this background in hand, I moved on to a review of the City's Industrial Land Supply Study Proje*ct* with the intention of answering my primary research question: "*given the transformative nature of logistics sprawl on the geography of suburban regions, why did the City of Abbotsford pursue the exclusion of Special Study Areas A and B from the Agricultural Land Reserve in order to increase the amount of land available to large industrial users, including warehousing and logistics industry uses?".* I relied on public data retrieved from the City regarding the project and process including Council meeting minutes, reports, and websites. I also reviewed news media surrounding the process.

My analysis of this data suggested that the City was primarily motivated to pursue the application in order to create land for jobs for a growing population, to support a broad tax base, and to play a larger role in the regional economy. In this case, the rationale for excluding the special study areas rested not only on assumptions that

the resulting developments would bring additional jobs and taxes to the community, but also, in a competitive sense, that the City could play a larger role in regional economic development if it were able to release more industrial land.

Increased taxes and jobs are often mentioned in the literature regarding the rationale for the development of logistics at the local level (Dablanc & Ross, 2012, p. 40). However, it was the City's observation that accomodating large-scale industrial users would allow it to play a more regionally-significant role that first began to suggest it was positioning itself in a competive sense to networks of commodity flows (Hall & Hesse, 2012). This initial finding was later further supported by data retrieved from semi-structured interviews, economic development publications, and the analysis of materials surrounding the development of the major warehousing and logistics development, Xchange Business Park. Indeed, local officials spoke about large-scale industrial development not only in terms of its potential to supply jobs and increased taxes, but also in reference to the role their suburban community could play in supplying the land that large regional-serving industrial users were demanding. Similarly, when discussing the development of Xchange Business Park, local officials were seen to describe the project in relation to its ability to support Abbotsford in its aspirations to become a regional and economic hub. Thus, my findings suggested that Abbotsford's decision to pursue the ALC exclusion application was based on perceptions, both real or perceived, that such large-scale industrial development would not only support the community through increases in jobs and taxes, but also 'solidify' the City's position as a regional hub. In turn, through such symbolic placemaking efforts, Abbotsford appeared to be closely interweaving its economic future "with the import and export of commodities" (Hesse and Hall, 2012, p. 8).

However, given the complexity I had faced earlier in identifying the presence and impact of the logistics industry in Abbotsford, it was not yet clear to what degree local officials in Abbotsford were aware of the industry, outside of its role in driving a significant amount of the demand for industrial land. Therefore, my next sub-question asked: "*how are local governments shaping the supply of land for the logistics industry, given their understanding of it and the tools at their disposal?"* Primarily through the use of semi-structured interviews, I found that local planners did not consider themselves as specializing in logistics-related development, or industrial development more generally, for that matter. This finding largely related to their observation of having less capacity

than inner-city municipalities, therefore requiring them to manage a range of different planning files and be reliant on the work of a consultant to lead the background research supporting the Industrial Land Supply Study project. At the same time, these officials had made efforts to attract and accommodate large-scale industrial users, recognizing that Abbotsford's geography was not only suitable to the requirements of these users, but also that in doing so, Abbotsford could play a larger role in the regional economy. In turn, this finding revealed the presence of a particular *suburban spatial transformation imaginary*, suggesting that the demand for industrial land in the Lower Mainland has not only influenced the City's economic development efforts, but is shaping land use decisions and regulations through the ways in which local planners perceive the City growing vis-à-vis regional development.

Together, these findings are significant with regards to "the future economic and social geography of suburban areas" (Aljohani & Thompson, 2016, p. 256), and their relation to cities and urban regions more generally. While the role of freight in suburban development is not a new phenomenon, my findings support Hesse's (2008) observation of suburbia "becoming a major hub in terms of logistics and freight distribution" (p. 16), at least in an aspirational sense, for the City of Abbotsford. Indeed, the *Industrial Land Study Supply Project* framed large-scale industrial development, including warehousing and logistics, as a way for Abbotsford to provide jobs to a growing community while also fulfilling a regional need related to trade and distribution. Despite the various impacts of logistics sprawl, Abbotsford appears to have seized upon the economic opportunity provided by an increasingly lucrative suburban industrial real estate market by positioning its geography in relation to regional and national narratives regarding industrial land and supply chains, supporting previous academic observations of "cities and city regions pursuing logistics development as an economic development strategy" (Coe, 2020, p. 3).

7.1.3. The Politicization and Governance of Logistics Development

With respect to the governance and politicization of logistics-related development, my analysis of the Industrial Land Supply Study project process also suggested that due to the specific regulatory regime governing agricultural land in BC, and the scarcity of available industrial land within the Lower Mainland, efforts to make available land for large-scale industrial users, including warehousing and logistics, are

likely to become highly politicized and public events. As demonstrated by the media coverage and public hearing minutes, concerns raised by those opposed to the removal of Special Areas A and B concentrated on issues such as traffic and noise, environmental and food security issues, as well as general changes to the 'farming character' of the local area. Labour was largely absent from these debates, aside from a recognition of the low job density associated with warehousing.

Such a finding is thus similar to Barbier et. al's (2019) observation of the politicization of the production of new logistics zones in France and Germany. In France and Germany, the lack of existing land, and the subsequent need to produce new spaces for logistics zones "contributes to politicising the process within the framework of local development policies" (Barbier et al., 2019, p. 43). In turn, environmentalists and local residents become able to influence these policies. In Abbotsford, while opposition was voiced from residents, farmers, and environmental organizations, the decision to not approve the exclusion was made solely by the ALC, a provincial body, on the basis of whether the land was suitable for future agriculture production. This finding suggests that, at least in BC's regulatory context, the 'production' of *new* land for logistics and warehousing – often sought from existing agricultural land– will remain highly politicized, with the debate placing agricultural production and environmental concerns in opposition to local and regional economic development efforts. At the same time, while such debate allows for increased discussion regarding logistics activities, it still "fails to address the working and living conditions of warehouse workers" (Barbier et al., 2019, p. 44) who would eventually be located at these sites.

Furthermore, despite the ALC exclusion process garnering significant public attention, I found that the actual development of warehousing and industrial parks, and decisions about their tenants, appeared to largely take place behind closed doors (Barbier et al., 2019, p. 44), as demonstrated by the City's limited involvement in decisions relating to Xchange Business Park. However, regardless of such limited opportunities for involvement, the City still appeared welcoming of the large-scale warehousing and logistics development. I found that several factors lead to such a situation, thus answering my final sub-question: *"how are environments favourable to warehouse development created?".* First, the previous and smaller-scale owners and developers of the parcels eventually consolidated for Xchange Business Park were not able or interested in addressing the site's environmental and transportation concerns.

The financial and administrative capacity of a major developer, and the prospect of a large-scale development, meant that the site issues could be addressed. This ultimately satisfied the City's requirements, and the land that was excluded from the ALR in 2005 for industrial growth was able to be developed. Second, and further supporting the City's symbolic placemaking efforts, both the developer and the City described the project as contributing to Abbotsford's role as a regional hub; providing jobs for the growing community but also alleviating supply chain issues and supporting provincial exports. In turn, these factors enabled the development of a major warehousing and logistics business park in the City's suburbs.

In terms of practice, such a situation demonstrates the challenges involved for local and regional officials in balancing regional planning goals with local economic development aspirations and, likewise, the "inherent tension between the goal of regional sustainability and the activities of individual municipalities" (Hall & Stern, 2014, p. 592). Within the context of logistics suburbanization, my findings align with Raimbault's (2021) observation of the challenge for regional planning policies in relation to logistics development, given the power imbalance between suburban municipalities and global real estate and development firms, as well as the "competitive dynamics between…[suburban] municipalities" (Hesse, 2004, p. 171) that perpetuate logistics sprawl. Eager to attract jobs, Abbotsford's efforts to expand its industrial land base for its growing community appeared to challenge regional planning efforts focused on containing sprawl. Furthermore, in the Lower Mainland, the scarcity of industrial land means that the few remaining parcels, even those in the suburbs, often have a number of site and adjacency issues (Metro Vancouver, 2020, p. 25). Therefore, it is only the larger, more savvy real estate and logistics developers who are able to address such issues, thus perpetuating a dynamic of "subordination/competition" (Albecker and Fol, 2014, p. 79), seemingly inherent in suburban development. In turn, parcels of land are consolidated, and major warehousing and logistics hubs are constructed, often built-to-suit for larger firms.

Similar to Raimbault's (2021) analysis of logistics development in the outer-suburbs of Paris, France, my findings suggest that both Abbotsford's landscape as well as its economic specialization is thus being influenced in part by the logistics industry. Such an observation supports the argument of Hall and Hesse (2012) that "the physical movement of goods continues to exert a particularly powerful influence on the physical

organization of space in the city" (p. 6). Indeed, the ability of logistics to "produce new geographical landscapes at a range of spatial scales" (Coe, 2020, p. 2) as demonstrated by Abbotsford's efforts to accommodate large-scale industrial users and position itself as a regional hub, further reinforces Hesse's (2004) call to integrate logistics requirements into long-term planning objectives and establish an awareness of this industry at the local level.

7.2. Limitations and Future Research Opportunities

This thesis focused specifically on dynamics between local land use planning and the logistics industry. However, several areas for future research emerged that may provide further insight to the impact of the logistics industry in suburban spaces. First, I was not able to gather adequate data to accurately map the loss of agricultural land to the logistics industry over time. Indeed, at least within the Metro Vancouver region, "there is no concrete understanding of how much land…has been taken out of the ALR or excluded over the years due to urban development" (Wilson, 2023). Following the work of (Kumhálová et al., 2019) regarding the loss of greenfield sites for logistics development in the suburban regions of Prague, Czech Republic, a similar investigation could be done in the context of the Lower Mainland to better understand this impact. Second, while my thesis discussed the City's desire to increase the number of jobs in its community, in part so that its residents would not have to commute to other communities, I did not explore the demographics of these workers and if these jobs would indeed result in 'local employment'. Future research into the labour outcomes of logistics developments, especially those in suburban areas, could explore these claims and investigate the occurrence of "job sprawl and job-resident spatial mismatch" (Leigh & Hoelzel, 2012, p. 96) driven by logistics sprawl. Finally, while some local government officials spoke of efforts to advocate at the regional level for changes to the ways in which agricultural land is regulated in order to support local economic development, I did not fully investigate the role of the regional scale in coordinating planning for industrial land, trade, and logistics.

References

About Us. (n.d.). Heritage Abbotsford. Retrieved September 7, 2023, from https://heritageabbotsford.ca/about-us/

About Us. (2022). Heritage Abbotsford. https://heritageabbotsford.ca/about-us/

Aljohani, K., & Thompson, R. G. (2016). Impacts of logistics sprawl on the urban environment and logistics: Taxonomy and review of literature. Journal of Transport Geography, 57, 255–263. https://doi.org/10.1016/j.jtrangeo.2016.08.009

Allen, J., Browne, M., & Cherrett, T. (2012). Investigating relationships between road freight transport, facility location, logistics management and urban form. Journal of Transport Geography, 24, 45–57. https://doi.org/10.1016/j.jtrangeo.2012.06.010

ALR History—Provincial Agricultural Land Commission. (2022, March 9). https://www.alc.gov.bc.ca/role-of-the-alc/alr-history/

Babbie, E. (2021). Fundamentals of Social Research (5th ed.). Scarborough: Thomson/Nelso.

Barbier, C., Cuny, C., & Raimbault, N. (2019). The production of logistics places in France and Germany: A comparison between Paris, Frankfurt-am-Main and Kassel. Work Organisation, Labour & Globalisation, 13(1). https://doi.org/10.13169/workorgalaboglob.13.1.0030

Bolleter, J., Myers, Z., & Hooper, P. (2021). Delivering medium-density infill development through promoting the benefits and limiting background infill. Journal of Urban Design, 26(4), 441–466. https://doi.org/10.1080/13574809.2020.1854610

Bonacich, E., & Wilson, J. B. (2008). Getting the goods: Ports, labor, and the logistics revolution. Cornell University Press.

Bonacich, E., & Wilson, J. B. (2011). Getting the Goods: Ports, Labor, and the Logistics Revolution. Cornell University Press. http://ebookcentral.proquest.com/lib/sfu-ebooks/detail.action?docID=3137976

Braun, D. (2014). Zoning Bylaw Update—Urban Systems Conceptual Directions Report. https://abbotsford.civicweb.net/document/40386/

Bureau of Economic Analysis. (2023). What are location quotients (LQs)? | U.S. Bureau of Economic Analysis (BEA). https://www.bea.gov/help/faq/478

Chai, H. (2022, November 23). 140-Acre, 11-Building Xchange Business Park in BC Begins Construction. https://storeys.com/xchange-business-park-mt-lehman-road-abbotsford-bc-construction/

Cidell, J. (2010). Concentration and decentralization: The new geography of freight distribution in US metropolitan areas. Journal of Transport Geography, 18(3), 363–371. https://doi.org/10.1016/j.jtrangeo.2009.06.017

Cidell, J. (2011). Distribution Centers among the Rooftops: The Global Logistics Network Meets the Suburban Spatial Imaginary: Distribution centers in suburban Chicago. International Journal of Urban and Regional Research, 35(4), 832–851. https://doi.org/10.1111/j.1468-2427.2010.00973.x

Cidell, J. (2015). Distribution centers as distributed places: Mobility, infrastructure and truck traffic. In Cargomobilities: Moving materials in a global age. New York : Routledge, Taylor & Francis Group.

City of Abbotsford. (2004). City in the Country Plan. https://www.abbotsford.ca/sites/default/files/2021-02/2004%20City%20in%20the%20Country%20Plan_0.pdf

City of Abbotsford. (2017a). Minutes of the Regular Meeting of the Council of the City of Abbotsford held July 17, 2017 at 7:01 PM in the Matsqui Centennial Auditorium. https://abbotsford.civicweb.net/document/52614/

City of Abbotsford. (2017b). Presentation to Council Stage 3 Engagement Summary.pdf. https://abbotsford.ca/sites/default/files/2021-02/Presentation%20to%20Council%20Stage%203%20Engagement%20Summary.pdf

City of Abbotsford. (2023a). Business Licence Reports | City of Abbotsford [dataset]. https://www.abbotsford.ca/business-development/business-licences/reports

City of Abbotsford. (2023b). City of Abbotsford 2022-2026 Strategic Plan. https://www.abbotsford.ca/sites/default/files/2023-01/Strategic%20Plan%20Nov%202022%208%20panel.pdf

City of Abbotsford. (2023c). City of Abbotsford—Issued Building Permits [dataset]. https://services.abbotsford.ca/OnlineReporting/IssuedBuildingPermits.aspx

City of Abbotsford. (2023d). Industrial Zoning | City of Abbotsford [dataset]. https://opendata-abbotsford.hub.arcgis.com/datasets/Abbotsford::zoning/explore?location=49.087723%2C-122.268050%2C12.24

City of Abbotsford. (2022). General Industrial Zone (I2). https://laws.abbotsford.ca/civix/document/id/coa/coabylaws/2014b2400620

City of Abbotsford. (2023e). Industrial Land Supply Study | City of Abbotsford. https://www.abbotsford.ca/business-development/community-planning/plan-200k/industrial-land-review

City of Abbotsford. (2023f). Industrial Land Supply Study | City of Abbotsford. https://www.abbotsford.ca/business-development/community-planning/plan-200k/industrial-land-review

Coe, N. M. (2020). Logistical geographies. Geography Compass, 14(10). https://doi.org/10.1111/gec3.12506

Coe, N. M., Hess, M., Yeung, H. W., Dicken, P., & Henderson, J. (2004). “Globalizing” regional development: A global production networks perspective. Transactions of

the Institute of British Geographers, 29(4), 468–484. https://doi.org/10.1111/j.0020-2754.2004.00142.x

Community Planning | City of Abbotsford. (2023). https://www.abbotsford.ca/business-development/community-planning

Cowen, D. (2014). The deadly life of logistics: Mapping violence in global trade. University of Minnesota Press.

Dablanc, L., & Browne, M. (2020). Introduction to special section on logistics sprawl. Journal of Transport Geography, 88, 102390. https://doi.org/10.1016/j.jtrangeo.2019.01.010

Dablanc, L., & Ross, C. (2012). Atlanta: A mega logistics center in the Piedmont Atlantic Megaregion (PAM). Journal of Transport Geography, 24, 432–442. https://doi.org/10.1016/j.jtrangeo.2012.05.001

Danyluk, M. (2018). Capital’s logistical fix: Accumulation, globalization, and the survival of capitalism. Environment and Planning D: Society and Space, 36(4), 630–647. https://doi.org/10.1177/0263775817703663

De Lara, J. D. (2018). Inland Shift (1st ed.). University of California Press; JSTOR. http://www.jstor.org/stable/10.1525/j.ctt2204pkm

District of North Vancouver. (2016). Municipal Mergers in BC. https://www.dnv.org/sites/default/files/edocs/abbotsford-matsqui-final-report.pdf

Diversity | City of Abbotsford. (n.d.). Retrieved October 21, 2023, from https://www.abbotsford.ca/community-events/social-development/diversity

Flowerdew, R., & Martin, D. M. (2005). Methods in Human Geography: A Guide for Students Doing a Research Project. Taylor & Francis Group. http://ebookcentral.proquest.com/lib/sfu-ebooks/detail.action?docID=1461044

For Lease. (2023). Hungerford Xchange. https://xchangebusinesspark.com/for-lease

Giuliano, G., & Kang, S. (2018). Spatial dynamics of the logistics industry: Evidence from California. Journal of Transport Geography, 66, 248–258. https://doi.org/10.1016/j.jtrangeo.2017.11.013

Gold, K. (2017, December 6). How Vancouver's industrial land crunch is pushing businesses out of town. BCBusiness. https://www.bcbusiness.ca/How-Vancouvers-industrial-land-crunch-is-pushing-businesses-out-of-town

Hall, P. V., & Hesse, M. (2012). Cities, regions and flows. Routledge.

Hall, P. V., & Stern, P. R. (2014). Implicating waterfronts in regional sustainability. Local Environment, 19(6), 591–604. https://doi.org/10.1080/13549839.2013.832182

Harris, P., & Larkham, R. (Eds.). (1999). Changing Suburbs: Foundation, Form and Function. Routledge. https://doi.org/10.4324/9780203222997

Heitz, A. (2021). The logistics dualization in question: Evidence from the Paris metropolitan area. Cities, 119, 103407. https://doi.org/10.1016/j.cities.2021.103407

Hesse, M. (2004). *LAND FOR LOGISTICS: LOCATIONAL DYNAMICS, REAL ESTATE MARKETS AND POLITICAL REGULATION OF REGIONAL DISTRIBUTION COMPLEXES*. *Tijdschrift Voor Economische En Sociale Geografie*, *95*(2), 162–173. https://doi.org/10.1111/j.0040-747X.2004.t01-1-00298.x

Hesse, M. (2008). *The City as a Terminal: The Urban Context of Logistics and Freight Transport*. Routledge. https://doi.org/10.4324/9781315614748

Home—Provincial Agricultural Land Commission. (2022, March 3). https://www.alc.gov.bc.ca/

Hopes, V. (2022, November 18). *Construction set to begin on large industrial park in west Abbotsford*. The Abbotsford News. https://www.abbynews.com/news/construction-set-to-begin-on-large-industrial-park-in-west-abbotsford-1830340

Informed Decisions. (2023). What is a "Location Quotient" and how do I calculate it? *..Id Blog*. https://blog.id.com.au/2014/how-to/what-is-a-location-quotient-and-how-do-i-calculate-it/

Infrastructure, M. of T. and. (2023, August 21). *Highway 1 – 264th Street to Highway 11—Province of British Columbia*. Province of British Columbia. https://www2.gov.bc.ca/gov/content/transportation-projects/fraser-valley-highway1/264tohighway11

InterVistas Consulting Ltd., & Urban Systems. (2023). *Economic Impact Study of the Critical Shortage of Industrial Land in Metro Vancouver*. https://www.boardoftrade.com/files/news/2023/EIS%20of%20the%20Critical%20Shortage%20of%20Industrial%20Land%20in%20Metro%20Vancouver%20Sept%2012.pdf

Kumhálová, J., Růžička, M., Lopéz, E. C., & Chyba, M. (2019). *LOGISTICS SPRAWL IN PRAGUE'S SUBURB FROM SATELLITE IMAGES*.

Lanthier, N. (2021, October 12). Vancouver's near zero vacancy forces out industrial business. *The Globe and Mail*. https://www.theglobeandmail.com/business/industry-news/property-report/article-vancouvers-near-zero-vacancy-forces-out-industrial-business/

Lee, J. (2016). *Abbotsford rethinks its future*. Vancouversun. https://vancouversun.com/news/local-news/abbotsford-rethinks-its-future

Leigh, N. G., & Hoelzel, N. Z. (2012). Smart Growth's Blind Side: Sustainable Cities Need Productive Urban Industrial Land. *Journal of the American Planning Association*, *78*(1), 87–103. https://doi.org/10.1080/01944363.2011.645274

Logan, J. R., & Molotch, H. (1987). *Urban fortunes: The political economy of place*. University of California Press. https://hdl.handle.net/2027/heb31519.0001.001

McElroy, J. (2021, October 9). Surrey's pitch for industrial park in protected rural area moves one step closer | CBC News. *CBC*. https://www.cbc.ca/news/canada/british-columbia/campbell-heights-surrey-metro-vancouver-1.6206142

Metro Vancouver. (2020). *Metro Vancouver Regional Industrial Lands Strategy*. https://metrovancouver.org/services/regional-planning/Documents/regional-industrial-lands-strategy-report.pdf

Molotch, H. (1976). The City as a Growth Machine: Toward a Political Economy of Place. *American Journal of Sociology*, *82*(2), 309–332. https://doi.org/10.1086/226311

Nefs, M., & Daamen, T. (2023). Behind the Big Box: Understanding the planning-development dialectic of large distribution centres in Europe. *European Planning Studies*, *31*(5), 1007–1028. https://doi.org/10.1080/09654313.2022.2057792

Neill, M. (2018). *PDS 069-2018, ALC Decision Regarding the City_s ALR Exclusion Application.pdf*. City of Abbotsford. https://abbotsford.civicweb.net/filepro/document/54705/PDS%20069-2018,%20ALC%20Decision%20Regarding%20the%20City_s%20ALR%20Exclusion%20Application.pdf

Neill, M. (2019). *Agricultural Land Reserve Exclusion Application and Potential Next Steps*.

O'Brien, F. (2022, December 23). Industrial appetite swallowing land as far east as Chilliwack. *Western Investor*. https://www.westerninvestor.com/british-columbia/industrial-appetite-swallowing-land-as-far-east-as-chilliwack-6292065

Olsen, T. (2016a, April 7). *City may consider removing land from ALR for parks, industry*. The Abbotsford News. https://www.abbynews.com/news/city-may-consider-removing-land-from-alr-for-parks-industry-1754326

Olsen, T. (2016b, November 25). *ALR has won over critics, but challenges remain*. The Abbotsford News. https://www.abbynews.com/news/alr-has-won-over-critics-but-challenges-remain-1753218

Olsen, T. (2017a, July 8). Public hearing set for plan to take farmland out of Agricultural Land Reserve—Today In BC. *Abbotsford News*. https://www.todayinbc.com/news/public-hearing-set-for-plan-to-take-farmland-out-of-agricultural-land-reserve/

Olsen, T. (2017b, July 18). Most at public hearing opposed to exclusion of ALR tracts for industry. *The Abbotsford News*. https://www.abbynews.com/news/most-at-public-hearing-opposed-to-exclusion-of-alr-tracts-for-industry-1765802

Olsen, T. (2017c, August 1). Abbotsford council OKs plan to ask for removal of farmland from ALR. *The Abbotsford News*. https://www.abbynews.com/news/abbotsford-council-oks-plan-to-ask-for-removal-of-farmland-from-alc-1766094

Olsen, T. (2018, May 2). ALR decision aftermath: Bradner residents consider election action; mayor disappointed. *The News*. https://www.proquest.com/docview/2033861224/citation/4983E218D0CC4000PQ/1

Olsen, T. (2023, February 28). *One last sprawl: Why the McKee Peak plan exists*. Fraser Valley Current. https://fvcurrent.com/p/mckee-plan-sprawl

Phelps, N. A. (2012). The Growth Machine Stops? Urban Politics and the Making and Remaking of an Edge City. *Urban Affairs Review*, *48*(5), 670–700. https://doi.org/10.1177/1078087412440275

Phelps, N. A., & Wood, A. M. (2011). The New Post-suburban Politics? *Urban Studies*, *48*(12), 2591–2610. https://doi.org/10.1177/0042098011411944

Phillips, S. A. (2022, May 1). *Op-Ed: We mapped the warehouse takeover of the Inland Empire. The results are overwhelming*. Los Angeles Times. https://www.latimes.com/opinion/story/2022-05-01/inland-empire-warehouse-growth-map-environment

Properties, H. (2023, September 10). *What We Do* (https://hungerfordproperties.com/) [Text/html]. Hungerford Properties; Hungerford Properties. https://hungerfordproperties.com/about-us/what-we-do/

QuadReal Property Group. (2023, April 18). *First Building in Xchange Business Park fully leased and ready for occupancy in Q4 2024*. Hungerford Xchange. https://xchangebusinesspark.com/news/first-building-in-xchange-business-park-fully-leased-and-ready-for-occupancy-in-q4-2024

Raimbault, N. (2021). Outer-suburban politics and the financialisation of the logistics real estate industry: The emergence of financialised coalitions in the Paris region. *Urban Studies*, *59*(7), 1481–1498. https://doi.org/10.1177/00420980211014452

Raimbault, N., Heitz, A., & Dablanc, L. (2018). Urban planning policies for logistics facilities: A comparison between US metropolitan areas and the Paris region. In Browne, M., Behrends, S., Woxenius, J., Giuliano, G., Holguin-Veras, & J. (Eds.), *Urban logistics. Management, policy and innovation in a rapidly changing environment* (p. pp 82-108). https://hal.science/hal-02086893

Regional Growth Strategy: Fraser Valley Future 2050. (2023). https://www.fvrd.ca/assets/About~the~FVRD/Documents/RGS/RGS%20Fraser%20Valley%20Future%202050.pdf

Role of the Agricultural Land Commission—Provincial Agricultural Land Commission. (2022, February 8). https://www.alc.gov.bc.ca/role-of-the-alc/

Seaton, M. (2017a). *Industrial Land Supply Study Stage 2—Industrial Land Strategy* (Council Report PDS 048-2017). City of Abbotsford. https://abbotsford.civicweb.net/document/51711/

Seaton, M. (2017b). *PDS 014-2017, Industrial Land Supply Study Project Introduction and Background Research.pdf*. City of Abbotsford. https://abbotsford.civicweb.net/document/51140/PDS%20014-2017,%20Industrial%20Land%20Supply%20Study%20Project%20Introduction%20and%20Background%20Research.pdf

Seaton, M. (2017c). *PDS 100-2017, Industrial Land Supply Study Stage 3 Interim Report Public and Stakeholder Engagement Summary.pdf*. City of Abbotsford. https://abbotsford.civicweb.net/filepro/document/52336/PDS%20100-2017,%20Industrial%20Land%20Supply%20Study%20Stage%203%20Interim%20Report%20Public%20and%20Stakeholder%20Engagement%20Summary.pdf

Seaton, M. (2017d). *PDS 124-2017, Industrial Land Supply Study ALR Exclusion Application.pdf*. City of Abbotsford. https://abbotsford.civicweb.net/filepro/document/52547/PDS%20124-2017,%20Industrial%20Land%20Supply%20Study%20ALR%20Exclusion%20Application.pdf

SimplyAnalytics. (2023). *NAICS starts with 48 and 49 in Abbotsford, BC. Dun & Bradstreet.* [dataset]. https://app-simplyanalytics-com.proxy.lib.sfu.ca/index.html

Statistics Canada. (2013, May 8). *2011 National Household Survey Profile*. https://www12.statcan.gc.ca/nhs-enm/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=PR&Code1=01&Data=Count&SearchText=canada&SearchType=Begins&SearchPR=01&A1=All&B1=All&Custom=&TABID=1

Statistics Canada. (2017, February 8). *Census Profile, 2016 Census*. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CD&Code1=5915&Geo2=PR&Code2=59&SearchText=greater%20vancouver&SearchType=Begins&SearchPR=01&B1=All&TABID=1&type=0

Statistics Canada. (2022, February 9). *Profile table, Census Profile, 2021 Census of Population*. https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/index.cfm?Lang=E

Statistics Canada. (2023). *Disclosure control*. https://www150.statcan.gc.ca/n1/pub/12-539-x/2009001/control-controle-eng.htm

Stone, C. N. (1989). *Regime politics: Governing Atlanta, 1946-1988*. University Press of Kansas.

Stone, C. N. (1993). Urban Regimes and the Capacity to Govern: A Political Economy Approach. *Journal of Urban Affairs*, *15*(1), 1–28. https://doi.org/10.1111/j.1467-9906.1993.tb00300.x

The Restructuring of Declining Suburbs in the Paris Region. (2014). In *Shrinking cities: International perspectives and policy implications* (1. publ). Routledge.

Urban Regimes and Growth Machines toward a Cross-National Research Agenda. (n.d.). https://doi.org/10.1177/107808749402900302

Vancouver Fraser Port Authority. (2020). *Port of Vancouver Land Use Plan*. https://www.portvancouver.com/wp-content/uploads/2019/11/500_POV-Land-Use-Plan_FINAL-2.pdf

Wakefield, J. (2016, November 23). *Industrial land crunch could have sustainability upshot*. Sustain.Ubc.Ca. https://sustain.ubc.ca/news/industrial-land-crunch-could-have-sustainability-upshot

Watkins, J. (2015). Spatial Imaginaries Research in Geography: Synergies, Tensions, and New Directions: Spatial Imaginaries. *Geography Compass*, *9*(9), 508–522. https://doi.org/10.1111/gec3.12228

Why Fraser Valley? (2023). *Fraser Valley Alliance*. https://investfraservalley.ca/why-fraser-valley/

Wilson, C. (2023, March 20). *Development demands place pressure on ALR land; AGRICULTURE | Provincial housing targets not significantly displacing protected agricultural land*. https://app.meltwater.com/newsletters/analytics/view/5aea09826b03adbb7289c516/distribution/64189126422edc00160ec143/document/BluAEBCn8OEyaids4qPpAflsDVY

Woudsma, C., Jakubicek, P., & Dablanc, L. (2016). Logistics Sprawl in North America: Methodological Issues and a Case Study in Toronto. *Transportation Research Procedia*, *12*, 474–488. https://doi.org/10.1016/j.trpro.2016.02.081

Xchange Business Park at Mount Lehman. (2023, May 25). https://xchangebusinesspark.com/assets/general/20230525_XChange-brochure.pdf

Appendix A.

City Classification of Building Permits (New Warehouses)

New Warehouses as Classified by City of Abbotsford 2013-2023 (March)
Commercial Truck Repair and General Freight Facility
Truck & Trailer Repair Facility
Transportation, Offices and Truck Repair
Food Processing Plant
Storage Facility
Multi-Tenant
Distribution, Storage and Offices
Multi-Tenant
Manufacturing, Retail, and Vehicle Repair
Retail Farm and Pet Sales
Commercial Vehicle Sales and Repair Shop
Manufacturing Facility
Fabrication Facility
Industrial Shop and Offices
Multi-Tenant
Warehouse, Service Shop and Offices
Food Processing Plant
Storage Facility
Logistics Warehousing and Distribution Facility
Multi-Tenant
Storage Facility
Storage Facility
Multi-Tenant
Multi-Tenant
Manufacturing & Storage Facility
Truck & Trailer Repair Facility
Multi-Tenant
Multi-Tenant
Multi-Tenant
Multi-Tenant
Manufacturing & Distribution Facility
Manufacturing & Distribution Facility
Storage for Manufacturing Facility
Multi-Tenant

Airport Hangar	
Transportation & Storage Facility	
Multi-Tenant	
Chemical Distribution Facility	
Multi-Tenant	
Airport Hangar	
Multi-Tenant	
Multi-Tenant	
Manufacturing Facility	
Multi-Tenant	
Multi-Tenant	
Storage Facility	
Multi-Tenant	
Airport Hangar	
Storage Facility and Offices	
Multi-Tenant	
Airport Hangar	
Multi-Tenant	
Multi-Tenant	
Single Tenant	
Multi-Tenant	
Cross-dock Facility and Offices	
Total	**56**

Appendix B.

Public Documents Relating to Abbotsford's ALR Exclusion Application

Document Title	Document Type	Date
2016 Official Community Plan	Official Community Plan	2016
Industrial Land Supply Study Project Introduction and Background Research	Council Report	February 6, 2017
Abbotsford Industrial Land Capacity Analysis	Consultant Report	February 6, 2017
Presentation to Council: Project Introduction and Background Research	Presentation	February 20, 2017
Industrial Land Strategy	Consultant Report	April 2017
Agricultural Suitability Assessment	Consultant Report	April 2017
Industrial Land Supply Study Stage 2 - Industrial Land Strategy	Council Report	April 12, 2017
Presentation to Council: Industrial Land Supply Study - Stage 2 Site Analysis	Presentation	April 24, 2017
Open House Boards	Public Display Boards for Open House	May 17, 2017
Open House Boards	Public Display Boards for Open House	May 17, 2017
Industrial Land Supply Study - Stage 3 Interim Report - Public and Stakeholder Engagement Summary	Report to Council	June 22, 2017
Stage 3: Engagement Summary	Presentation	June 26, 2017
Opportunity for Public Input: Proposed ALR Exclusion	Newspaper Ad	July 17, 2017
Public Hearing - Exclusion Application Presentation	Presentation to Council	July 17, 2017
Minutes of the Regular Meeting of the Council of the City of Abbotsford held July 17, 2017	Council Meeting Minutes	July 17, 2017
Industrial Land Supply Study - Agricultural Land Reserve (ALR) Exclusion Application	Report to Council	July 31, 2017
Stage 3: Exclusion Application	Presentation to Council	July 31, 2017
Final Areas for ALR Exclusion Application	Map	July 31, 2017
Agricultural Land Commission Decision regarding the City's Agricultural Land Reserve Exclusion Application and Potential Next Steps	Council Report	June 11, 2018

Agricultural Land Commission Decision regarding the City's Agricultural Land Reserve Exclusion Application and Potential Next Steps	Council report	March 22, 2019

Appendix C.

Reconciling of NAICS with City Business License Data

BUSINESS NAME	NAICS	SUBTYPE	BUSINESS LICENSE
FEDERAL EXPRESS CANADA LTD	48	SCHEDULED AIR TRANSPORTATION	Warehousing
LOW BUDGET MOVING & STORAGE	48	TRUCKING OPERATOR-NONLOCAL	Warehousing
ALERT MOVING & STORAGE LTD	48	LOCAL TRUCKING-WITH STORAGE	Warehousing
CENTRAL VALLEY TRANSLOAD & SALES LTD	48	FREIGHT TRANSPORTATION ARRANGEMENT	Warehousing
MINTU'S AUTO TOWING LTD	48	AUTOMOTIVE SERVICES	Towing Service
AGGRESSIVE AUTO TOWING	48	AUTOMOTIVE SERVICES	Towing service
HORIZON DIESEL TRUCK TRAILER SERVICES	48	LOCAL TRUCKING OPERATOR	Heavy Equipment/Truck Services
BIG BLOCK DIESEL TRUCK AND REPAIR LTD	48	TRUCKING OPERATOR - NONLOCAL	Heavy Equipment/Truck Services
ARA TRUCK & TRAILER REPAIR	48	TRUCKING OPERATOR - NONLOCAL	Heavy Equipment/Truck Services
HIGHWAY LINE TRUCKING LTD	48	TRUCKING OPERATOR - NONLOCAL	Heavy Equipment/Truck Services
AGE TRANSPORT	48	TRUCKING OPERATOR - NONLOCAL	Heavy Equipment/Truck Services
XTRACTOR LOGISTICS LTD	48	TRUCKING OPERATOR-NONLOCAL	Heavy Equipment/Truck Services
BACKWOODS RV TRANSPORT INC	48	TRUCKING OPERATOR - NONLOCAL	Heavy Equipment/Truck Services
PANNU BROS. TRUCKING LTD	48	TRUCKING OPERATOR - NONLOCAL	Heavy Equipment/Truck Sales
AGRI-TRANS	48	FREIGHT TRANSPORTATION ARRANGEMENT	Heavy Equipment/Truck Sales
DOLPHIN DELIVERY LTD	48	LOCAL TRUCKING OPERATOR	Heavy Equipment/Truck Sales
ALLCAN HOLDINGS LTD	48	TRUCKING OPERATOR - NONLOCAL	Business Services Business and Personal Services
CHALLENGER MOTOR FREIGHT INC	48	TRUCKING OPERATOR - NONLOCAL	Business services
RED LEAF LOGISTICS	48	TRUCKING OPERATOR - NONLOCAL	Business services

D BRENNER TRUCKING LTD	48	LOCAL TRUCKING OPERATOR	Business services
FLYING HORSE LOGISTICS INC	48		Business services
VERRAULT LOWBED SERVICE LTD	48	TRUCKING OPERATOR-NONLOCAL	Business services
S& & K TRUCKING	48	LOCAL TRUCKING OPERATOR	Business services
MALHI CARRIERS INC	48	TRUCKING OPERATOR-NONLOCAL	Business services
GILLSON TRUCKING MISSION (BC) LTD	48	TRUCKING OPERATOR - NONLOCAL	Business services
ROCKET TRANSPORT INC	48	TRUCKING OPERATOR - NONLOCAL	Business services
CANADAWAY TRANSPORT LTD	48	LOCAL TRUCKING OPERATOR	Business services
R & J HOLDINGS LTD	48	TRUCKING OPERATOR-NONLOCAL	Business services
SRT LOGISTICS INC	48	FREIGHT TRANSPORTATION ARRANGEMENT	Business services
NORTHSIDE TRANSPORT LTD	48	TRUCKING OPERATOR - NONLOCAL	Business services
PEERLESS LOGISTICS AND HAULAGE INC	48	TRUCKING OPERATOR - NONLOCAL	Business services
SRT DIESEL TRUCK TRAILER REPAIRS LTD	48	LOCAL TRUCKING OPERATOR	Auto services
ABBOTSFORD TRUCK & TRAILER REPAIR	49	LOCAL TRUCKING OPERATOR	Auto services
SUPER SELF STORAGE LTD	49	GENERAL WAREHOUSE/STORAGE	Warehousing
BE POWER EQUIPMENT INC	49	GENERAL WAREHOUSE/STORAGE	Warehousing
POCKIT SELF STORAGE	49	GENERAL WAREHOUSE/STORAGE	Warehousing
COAST MACHINERY GROUP	49		Warehousing
U-HAUL CO. (CANADA) LTD	49		Warehousing
SUPER SELF STORAGE	49	GENERAL WAREHOUSE/STORAGE	Warehousing
VERSACOLD GROUP SERVICES ULC	49	REFRIGERATION WAREHOUSE/STORAGE	Warehousing
VERSACOLD GROUP LIMITED PARTNERSHIP	49		Warehousing
COAST MACHINERY GROUP INC	49	REFRIGERATION WAREHOUSE/STORAGE	Warehousing
EXTRA STORAGE NOW CORP.	49	GENERAL WAREHOUSE/STORAGE	Warehousing

PACIFIC MINI STORAGE & WAREHOUSING	49	SPECIAL WAREHOUSE/STORAGE	Warehousing
PACIFIC COAST COLD STORAGE LTD	49	REFRIGERATION WAREHOUSE/STORAGE	Warehousing
RCCM CONSTRUCTION & MANAGEMENT SERVICES	49		Construction Consultant/Contractor
U-HAUL CO. (CANADA) LTD			Warehousing
LOEWEN'S CONSTRUCTION (2002) LTD	236115	SINGLE-FAMILY HOUSE CONSTRUCTION	Warehousing
LOEWENS CONSTRUCTION (2002) LTD	236115	SINGLE-FAMILY HOUSE CONSTRUCTION	Warehousing
DYMIN STEEL (WESTERN) INC.	238190	STRUCTURAL STEEL ERECTION	Warehousing
EMCO CORPORATION	238220	PLUMBING/HEATING COND CONTRACTOR	Warehousing
INFINITE ROAD MARKING LTD	238320	PAINTING/PAPER HANGING CONTRACTOR	Warehousing
PACIFIC COAST FRUIT PRODUCTS LTD.	311411	MFG FROZEN FRUITS/VEGETABLES	Warehousing
OLD DUTCH FOODS LTD	311919	MFG POTATO CHIPS/SNACKS	Warehousing
ALLIANCE DOOR PRODUCTS CANADA INC	321911	MFG Millwork	Warehousing
ALLIANCE PRODUCTS CANADA INC	321911	MFG MILLWORK	Warehousing
CANADIAN NATIONAL PHARMA GROUP	325412	MFG PHARMACEUTICAL PREPARATIONS	Warehousing
ABBOTSFORD COMMERCIAL PAINTS	325510	MFG PAINTS/ALLIED PRODUCTS	Warehousing
WESTVIEW SALES LTD	331529	NONFERROUS METAL FOUNDRY	Warehousing
CEDAR GROVE ROOFING SUPPLY	332322	MFG SHEET METALWORK	Warehousing
IPEX MANAGEMENT INC	332996	MFG FABRICATED PIPE/FITTINGS	Warehousing
ROCKY MOUNTAIN PHOENIX	423110	WHOL AUTOS/MOTOR VEHICLES	Warehousing
SOURCE OFFICE FURNITURE AND SYSTEMS LTD	423210	FURNITURE, NSK	Warehousing
DIRECT CEDAR SUPPLIES LTD	423310	WHOLE LUMBER/PLYWOOD	Warehousing
STEWART MEDICAL INC	423450	WHOL MEDICAL/HOSPITAL EQUIPMENT	Warehousing
CITY ELECTRIC SUPPLY CORPORATION	423610	WHOL ELECTRICAL EQUIPMENT	Warehousing

GESCAN DIVISION OF SONEPAR CANADA INC	423610	WHOL ELECTRICAL EQUIPMENT	Warehousing
WESCO DISTRIBUTION	423610	WHOL ELECTRICAL EQUIPMENT	Warehousing
CONCORDE DISTRIBUTING INC	423720	WHOL PLUMBING EQUIPMENT/SUPPLIES	Warehousing
WESTERN SUPPLIES DIV OF EMCO LTD	423720	WHOL PLUMBING EQUIPMENT/SUPPLIES	Warehousing
WOLSELEY CANADA INC.	423720	WHOL PLUMBING EQUIPMENT/SUPPLIES	Warehousing
HYDRAMACH OVERHEAD CRANE INC	423830	WHOL INDUSTRIAL EQUIPMENT	Warehousing
HIGH COUNTRY STAINLESS LTD	423830	WHOL INDUSTRIAL EQUIPMENT	Warehousing
MYSTICAL DISTRIBUTING COMPANY	423920	WHOL TOYS/HOBBY GOODS	Warehousing
GORITSAS BROS AGENCIES	424410	WHOL GENERAL GROCERIES	Warehousing
HOUSE OF SHER	424410	WHOL GENERAL GROCERIES	Warehousing
ONE DEGREE ORGANIC FOODS INC	424490	WHOLE GROCERIES	Warehousing
PACIFIC VETERINARY SALES LTD	424490	WHOL GROCERIES	Warehousing
EVERGRO DIVISION	424910	WHOL FARM SUPPLIES	Warehousing
CAN-NETH IMPORTS LTD	424910	WHOL FARM SUPPLIES	Warehousing
ADVENTURER MFG LIMITED PARTNERSHIP	441210	RET RECREATIONAL VEHICLES	Warehousing
EXPERTEC	441330	RET AUTO/HOME SUPPLIES	Warehousing
BIG RIG PARTZ BIG RIG TIRES	441340	RET AUTO/HOME SUPPLIES	Warehousing
CURTIS TIRE	441340	RET AUTO/HOME SUPPLIES	Warehousing
NORTHWEST STOVES LTD	449129	RET MISC HOMEFURNISHINGS	Warehousing
PHARM-X SERVICES INC	456110	RET DRUGS/SUNDRIES	Warehousing
ALTER EGO BIKES	459110	RET SPORTING GOODS/BICYCLES	Warehousing
OCEAN STATIONERY & OFFICE SUPPLIES INC	459410	RET STATIONERY	Warehousing
B A ROBINSON CO LTD	459999	RET MISC MERCHANDISE	Warehousing
PROTEC STORAGE	532120	UTILITY TRAILER RENTAL	Warehousing
MORROW'S MOVING & STORAGE (1976) LTD.	532412	HEAVY CONSTRUCTION EQUIPMENT RENTAL	Warehousing
NORTHWEST LANDSCAPE SUPPLY LTD	541320	LANDSCAPE SERVICES	Warehousing
BLUEBERRY MEADOWS INTERIORS LTD	541922	COMMERCIAL PHOTOGRAPHY	Warehousing

FINN'S AUCTION HOUSE	561990	BUSINESS SERVICES	Warehousing
OCCIDENTAL INTERNATIONAL TRADING CORP	621210	DENTIST'S OFFICE	Warehousing

Appendix D.

Timeline regarding industrial land activity and ALC applications in Abbotsford (2004-2023)

Year	Event
2004	The City publishes the "City and the Country Plan", with the purpose of addressing "the shortage of industrial and business park lands presently facing the City, as well as to preserve, protect, and enhance our most important industry - agriculture" (CICP, 2004). The plan is driven by the City's findings that the "City of Abbotsford's economic and employment base will not keep pace with population growth unless further land is identified to accommodate jobs and economic growth" (CICP, 2004).
2004	City applies to ALC for a block exclusion of 372 ha from the ALR for industrial and business park development; a portion of Special Study Area B was included in this application. The ALC conditional approved the exclusion of 180.1 ha but deferred the areas included in Special Study Area B due to its high agricultural capability and active agricultural production. This application was referred to as the City in the Country Plan (CICP) ALR exclusion application.
2005	A portion of the lands are granted conditional exclusion from the ALR for industrial uses (the CICP lands).
2005-2014	*Interviews conducted with staff and officials acknowledge that not all of the CICP lands excluded for industrial development were well suited for industrial development, and that some areas had slow uptake in development caused by increased speculation and availability of industrial lands in other municipalities to the west. In 2010, the City introduces a parcel tax and pre-serviced the lands in 2012 to try to encourage uptake. These factors, combined with a tightening of the industrial market led to an increase in activity. Overall, a significant lag is observed, and confirmed by multiple interviews.*
2014	A council report details that 19.5 ha of the land that was granted conditional exclusion from the ALR in 2005 are not appropriate for industrial uses because of environmental conditions. Instead, the City suggests reapplying to the ALC to exclude these lands for auto-related uses.
2015	An ALC exclusion application is submitted by 22 landowners, with parcels in Special Study Area A. The ALC rejects the application and states that "a local government's need for industrial land would be more appropriately addressed by the City as part of a broad planning review" (ALC, 2018).
2016	As part of the City's OCP process, Special Areas A and B are identified for future industrial growth "due to their proximity and access to Highway No. 1, Abbotsford International Airport (YCC), rail and other industrial uses" (Industrial Land Supply Study, 2023). A draft copy of the OCP is provided to the ALC. The ALC "expressed concerns about the proposed designation of the four study areas which were found to include lands of high agricultural capability" (ALC, 2018) among other concerns. The ALC requests the City to undertake more detailed planning before requesting further ALR lands for industrial use.

2016-2017	The City begins a comprehensive planning process to identify opportunities for future industrial growth in the City, beginning with the Industrial Land Supply Study to provide a clear understanding of Abbotsford's current and potential capacity for industrial growth. The process includes background research in which the City works with a consultant, a site analysis of the soils in which the City works with another consultant, an engagement process with the wider community, and, eventually, a city-initiated ALR exclusion application.
2017	On July 31, 2017, Abbotsford City Council passes a motion to forward the ALR exclusion application to the ALC, although it modifies the size of Special Study Area B from 79 parcels to 43 parcels (67.35 ha). Once councillor is opposed (ALC, 2018).
2018	On April 2018, the ALC issues a letter to the City, denying the application and stating that the lands are capable of supporting agriculture. In June, the City decides to initiate discussions with the Minister of Agriculture and the ALC regarding the issue (Industrial Land Supply Study, 2023).
2019	Council directs "staff to continue to monitor industrial growth in the city and explore opportunities for a new application at a future date" (Industrial Land Supply Study, 2023).
	Interview data suggests that at this time, industrial land prices in Abbotsford were well below the regional average, approximately $1.6 million an acre. Richmond, for example, was approximately $3.75 million an acre at the same time.
2022	Construction begins on Xchange Business Park; a 140-acre industrial park in West Abbotsford. In interviews, this development is recognized as "one of the largest industrial developments in recent years and consume the last large chunk of developable industrial land in west Abbotsford, north of Highway 1." (Olsen, 2020). Xchange Business Park is built on land removed from the ALR in 2005. These are a number of lots that the developer bought and assembled from several different owners.
2022	Abbotsford's Strategic Plan includes the priority action of exploring a regional industrial land and advocacy strategy.
2023	*Interview data suggests that industrial land prices in Abbotsford are now $4.6 million an acre, on average, higher than municipalities such as Langley. In a four-year period, industrial land prices in Abbotsford have increased 180%, which outpaces the regional average by two times. The only market with higher growth was Burnaby.*